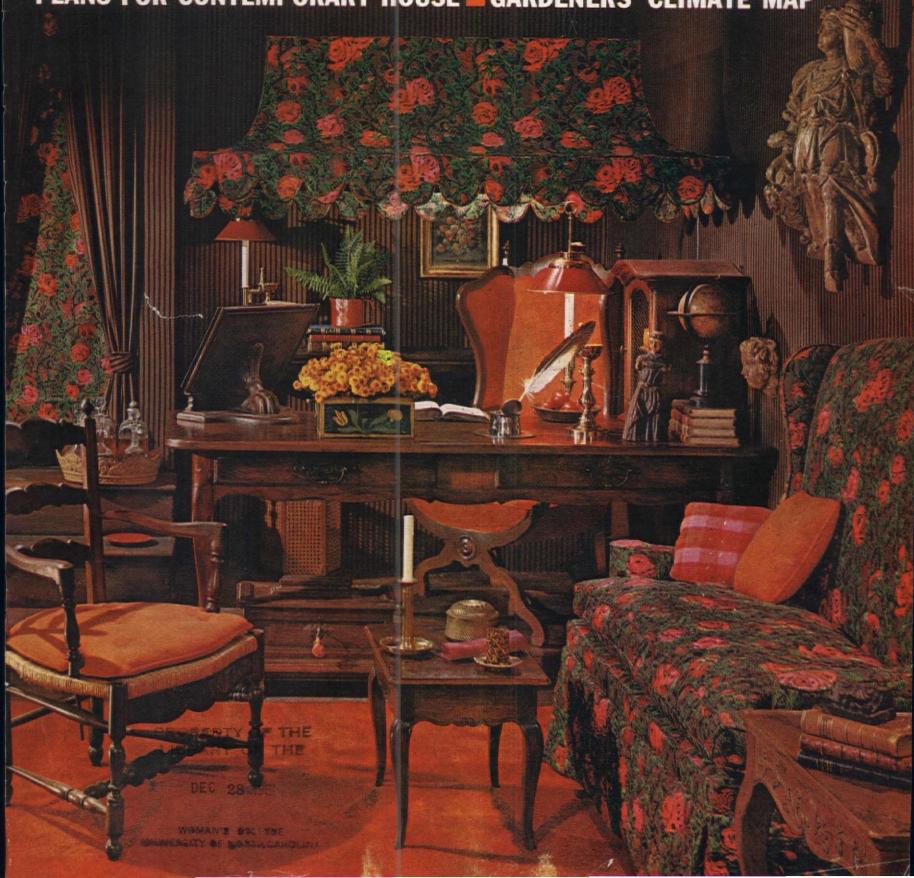
THE AMERICAN January 35¢

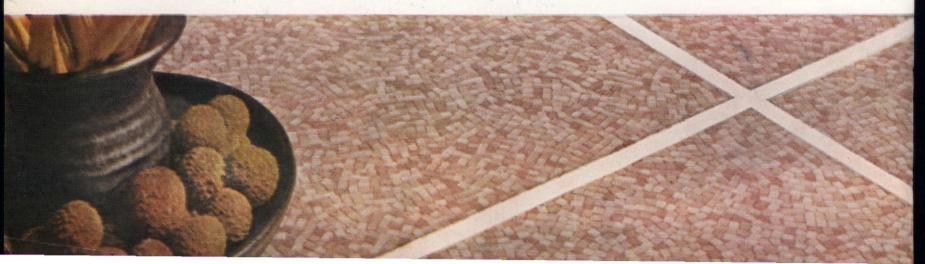
SHOW-STEALING DESIGNER ROOMS COLORFUL LIVING KITCHEN BIG NEWS IN HOME BUILDING BUDGET MEAL IN 60 MINUTES PLANS FOR CONTEMPORARY HOUSE GARDENERS' CLIMATE MAP





So at ease with any furnishings, a floor of Tessera Vinyl Corlon. Yet what life it gives a room. Tessera Corlon is one of the famous Armstrong VINYL FLOORS

For free sample, write Armstrong, 6201 Pine St., Lancaster, Pa. In Canada, Dept. 12-B, Box 919, Montreal, P.O.





Keep fuel grime out of your home with economical, flameless electric house heating

Only electric house heating is flameless.

This is important because it means there's positively no fuel grime to coat walls, dull windows or mirrors. Your home is clean when you heat with flameless electricity.

And flameless electric house heating is economical because it does away with waste. Needing no chimney, this truly modern method of home heating wastes no warmth. You pay only for the heat you use. No money goes up in smoke.

Those who now have electric house heating report a new kind of comfort, free of chilly drafts

and hot blasts. And they're enjoying an evenness of temperature they never before thought possible.

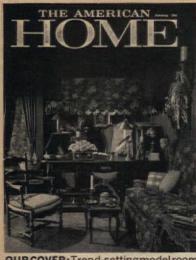
And the low maintenance costs that go with heating electrically are another attraction. Having electric house heating also enhances the value of your home today and helps it hold this value over the years to come.

Find out for yourself how economical it can be to install and operate modern flameless electric house heating in your own home. For an accurate estimate without obligation talk with your local electric utility company soon.



ELECTRICALLY

Edison Electric Institute 750 Third Avenue, New York 17



OURCOVER: Trend-setting model room designed by Barbara D'Arcy of Bloomingdale's for the 1962 Decoration & Design show. More designer rooms on page 31. Photographer: Ernest Silva.

JANUARY 1962/VOL. LXV. NO. 1

THE AMERICAN HOME

A Curtis Publication

HUBBARD H. COBB

MARION M. MAYER **Editorial Director**

WILLIAM M. LANYON **Executive Editor**

WILLIAM R. BOWMAN Art Director

LESLIE R. FORESTER Copy Director

ROBERT W. HOUSEMAN Home Furnishings

and Decorating Editor JUNE M. TOWNE

Food Editor JOHN H. INGERSOLL

Building Editor VIRGINIA T. HABEEB

Home Equipment Editor THEODORE A. WESTON

> Garden Editor JIM LISTON

Midwest Editor DOROTHY L. BRIGHTBILL

Home Projects Editor

HELEN DE MOTTE

and New Products Editor GRETCHEN HARSHBARGER

Midwest Garden Editor

ALVIN GROSSMAN Art Editor

ROBERT LOFGREN Photography Editor

ROBERT J. MAHN **Production Manager**

ASSOCIATES

Priscilla Clapp Barbara Colvin Ferdinand D'Esposito June R. Vollman Alan C. Borg

ASSISTANTS

JoAnn R. Barwick Frances M. Crawford Jane O'Keefe JeAnne Ingersol Rochelle Narotsky Helen C. Schwartz Julia Savarese Joseph Taveroni Walter Skibitsky Lietta Dwork

HOMES AND MAINTENANCE

- 8 Let's Use Common Sense in Our Fallout Shelter Program
- 20 The FHA Answers Your Questions
- 26 Revolution in Home Building Inspires Rise in Housing Value
- 37 This Low, Livable Contemporary Can Save You Money
- Blueprint Order Form

DECORATING

- 16 Flower Arranging Over the Years
- 31 Decorating 1962

FOODS, KITCHENS, & MANAGEMENT

- 22 The Romantic Renaissance in Kitchen Design
- 42 60-Minute Budget Meal With Glazed Supper Loaf
- 44 A Special Smörgåsbord
- 49 Take a Can of Peas
- 56 Buyers' Guide to Automatic Dryers

GARDENING

- 16 Flower Arranging Over the Years
- 63 Plant Hardiness Zone Map

HOME PROJECTS

- 60 Build Your Own Workshop Storage Cabinets
- 75 Workshop Order Form

GENERAL FEATURES

- 5 Readers' Ideas That Pay Off
- 62 Helpful Booklets You Can Send For
- 76 Market Place
- 81 Shopping Information
- 82 Current Outlook

E. KENT MITCHEL, Vice President and Publisher • JOHN L. COLLINS, Advertising Director W. H. EATON, Consultant • STANDISH K. BACHMAN, General Sales Manager JAMES A. SHELLENBERGER, Promotion Director • FRANK C. NIEMAN, JAMES A. SHELLENBERGER, Promotion Director • FRANK C. NIEMAN,
Western Sales Manager • NEW YORK, 300 Park Ave., J. Wesley Silk • CHICAGO, Prudential Bldg.,
Richard M. Carver, Robert G. Meeks, Assoc. Mgr. • CLEVELAND, National City Bank Bldg., James L. Bidwell
BOSTON, Statler Office Bldg., Joseph J. Arcisz • PHILADELPHIA, Independence Square (5), Walter J. Ingram
DETROIT, Fisher Bldg., James A. Cummins • MINNEAPOLIS, Baker Bldg., Alan R. Ecklund
SAN FRANCISCO, 235 Montgomery St., G. William Stuart • LOS ANGELES, 3540 Wilshire Blvd., Peter J. Moore.



Make it in a jiffy, page 42



Build it from plans, page 37



Study it for ideas, page 31



Build a workshop, page 60

in advance. Send new and old address and, Subscriptions GUARANTY: Barringer, unconditional department at least 30 days Curtis Department; \$1 per Mary C ×.X F Sr. CURTIS CHANGE \$3;

to

ee, upon 1 k. Sr. Vice

Park Ave.,

Who ever thought we could afford a record collection like this!



950 — 950-A. The actual con-cert recorded livel









MARIO 7



LOCKLIN

I'M FALLING

Puccini

PLEASE



TEBAL OL

BJOERLING

TOZZI

FOR RELAXATION

(Regular L.P. only)

TURANOOT













TCHAIKOVSKY CONCERTO NO. 1
VAN CLIBURN



This 3-disc set counts as 3 selections... Enter each number separately on coupon.

If you prefer, you may choose this special 5-record collector's album instead of five others

An RCA VICTOR Exclusive!

New Release of the Original Edition Glenn Miller Vol. 1

NO HIS ORCHESTRA









High Fidelity.









Reader's Digest invites you to take

RCA Victor Records

Prices charged by many dealers total up to \$29.90

stereo or regular L.P. for only

if you join the new RCA Victor Record Club now and agree to purchase only 5 records during the year ahead

TODAY, on a modest budget, you can build a superb record collection easily, quickly, economically. Now that Reader's Digest Music has taken over operation of the new RCA Victor Record Club, you can choose from the best-selling popular music of our time...the best-loved classical music of all time...for far less than you would normally expect to pay. Take any five of the great RCA Victor records shown here for only \$1.87 plus a small charge for handling and postage. Then, after accepting only five additional records - and you may do so anytime during the year ahead-for every two you buy, you may choose one record FREE! But this is only one of seven specific benefits never before equalled by any other record club-that you may now enjoy through the new RCA Victor Record Club.

You also receive a fascinating new magazine, Reader's Digest Music Guide, FREE each month. You get the widest possible choice in selections, several hundred each year from the world-famous RCA catalog. Records are selected by the editors of the Music Guide, then pre-tested with panels of Club members to assure they are ones Club members most want to own.

You have a tremendous range of music from which to choose your dividends - one record FREE for each two you buy after fulfilling your introductory agreement. You can also acquire special records made for Club members only-records you cannot buy elsewhere at any price.

You'll like this convenient, error-free "armchair" shopping plan that lets you pay for your records after receiving them and while enjoying them. And if you are ever dissatisfied with any selection, you may return it within 10 days for full credit or exchange.

How The Club Brings You The World's Best Music

Each month you will be offered a Featured Selection for the Division you join-either Popular or Classical. If you want this record, you need do nothing. It will come to you automatically. Or, you may choose any other record you wish from either Division, or take none that particular month.

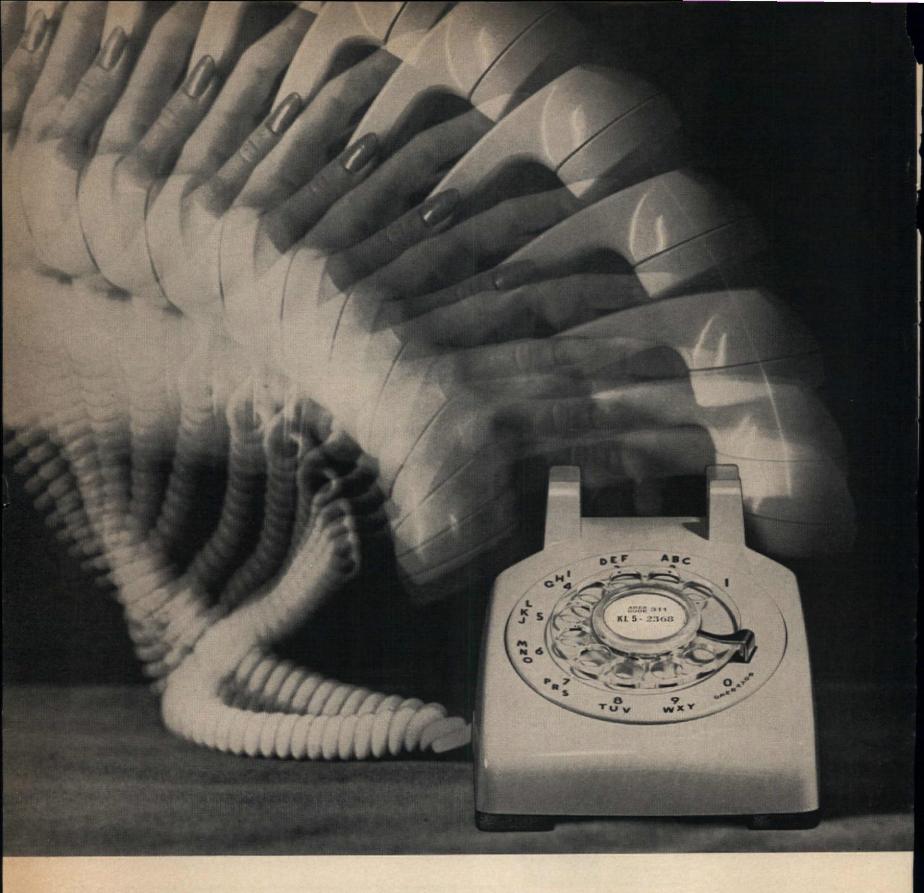
Shown on this page are records typical of the high quality and unusual variety available through the new RCA Victor Record Club. Select the five you want most. To begin enjoying the many benefits of membership, fill in the coupon today.

P. O. Box 5, Village Station, Send me the 5 RCA Victor rec \$1.87. I agree to purchase, duri Nationally Advertised Prices (u tional \$1.00). I understand a sn applicable, will be added to ea	B, c/o Reader's Digest Music, Inc. New York 14, New York cords whose numbers I have filled in below, billing me only ing the year shead, 5 additional records at the Manufacturer's susually \$3.98 for Popular, \$4.98 for Classical; stereo an additional handling and postage charge, plus sales/use taxes where ich shipment. Thereafter, for every two additional records I and record of my choice, FREE.
SEND ME THESE 5 RECORDS (Fill in numbers here) (25)	Name
OR 5 RECORD GLENN 36	CityZoneState
Enroll me in the following Division of the Club: CLASSICAL POPULAR (Check only one) Check here if you have stereo equipment and wish these and future selections in stereo.	If you wish membership credited to an authorized RCA Victor Dealer, please fill in below. Dealer. Send no money. A bill will be sent. Records can be shipped only to residents of the U.S., its territories and Canada. Records for Canadian members are made in Canada and shipped duty free from Ontario.

69 Glenn Miller

Masterpieces

Includes deluxe illustrated album
The Original Miller band—his biggest
disc hits and specially selected broadcasts. Little Brown Jug, String of Pearls,
Chattanooga Choo Choo, American Patrol,
Blueberry Hill, Perfidia, Rhapsody in
Blue, 62 more.



Does anything else you use so often give you such trouble-free service?

We build a long life into your telephone because it's no good unless it works all the time.

If something does go wrong under normal usage, we fix it promptly, at no extra charge to you. Day in and day out, your telephone is a constant and faithful companion, giving you low-cost service that's useful, and pleasant, and necessary.

Service so good you can take it for granted.



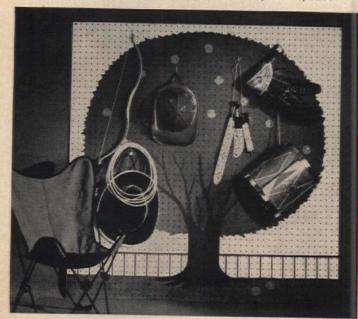
BELL TELEPHONE SYSTEM

READERS' IDEAS





Telephone table is an unfinished cabinet. Top is a board covered with pink laminated plastic. Cabinet is painted pink on front, white on sides .- Mrs. Maurice Artstein, Ladue, Mo.



A toy tree is a splendid way to persuade your youngster to keep his toys off the floor. Paint it directly on the wall or use pegboard as shown .- Mrs. R. J. Quevreaux, St. Louis, Mo.



How we retired in 15 years with \$300 a month

"We'd never be out here in California today, financially independent and happy, if it hadn't been for what happened back in Scarsdale the night of my fortieth birthday, in 1946. Nell had gotten tickets for 'Oklahoma!' While she dressed that night, I was idly leafing through a magazine.

"I suppose any man feels serious when he hits forty. Someday Nell and I wanted to move out where it's summer all year and really enjoy life. But how could we? Half my working years had gone. I had a good salary. But we found it hard to bank anything.

"As I turned the pages, an ad caught my eye. It said a man could retire on an income without a big bank account through the Phoenix Mutual Retirement Income Plan. I could get a guaranteed income of \$300 a month when I reached fifty-five-not just for myself alone, but as long as either Nell or I lived. It sounded just like the answer to my problem.

"I clipped the coupon in the ad, and mailed it on our way to the

"Well, a while back my fiftyfifth birthday arrived. I was all set to retire, and it wasn't long before my first Phoenix Mutual check for \$300 came. So we sold the Scarsdale house and headed west. We're in a beautiful spot here, just right for us. And every month we get another check. Security? Why, we have more than lots of rich people. Our income is guaranteed for life!"

Send for free booklet

This story is typical. Assuming you start at a young enough age, you can plan to have an income of from \$50 to \$300 a month or more—beginning at age 55, 60, 65 or older. Send the coupon and receive, by mail and without charge, a booklet which tells about Phoenix Mutual Plans. Similar plans are available for women and for Employee Pension Programs. Send for your copy now.

PHOENIX MUTUAL

Retirement Income Plan

GUARANTEES YOUR FUTURE

OVER 100 YEARS

IFE INSURANCE PROTECTION

FOR FAMILIES AND BUSINESS

Phoenix Mutual Life Insurance Co. 403 Elm Street, Hartford 15, Conn

Home Address_

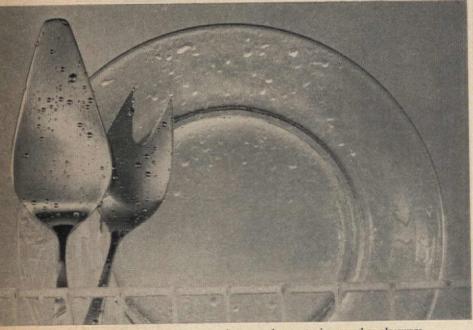
Please mail me, without obligation, your free 16-page booklet showing new retirement

Plan	for	Men	Plan	for	Women	_

Date of Birth_

Why do more dishwasher owners use Cascade than any other product?

Because Cascade eliminates drops that dry into spots!



WATER DROPS See what happens when even clean water is sprayed on glassware, silver. This test shows how drops form. These dry into ugly spots.



CASCADE But see with Cascade no drops form! Just as in your dishwasher, water slides off in clear-rinsing "sheets." Dishes, silver dry spotless, sparkling.

You've never seen your dishes cleaner, your silver brighter! Cascade is absolutely unsurpassed at stopping spots (your toughest problem in automatic dishwashing). That's because Cascade contains Chlorosheen . . . an exclusive formula that eliminates the drops that cause spots. No drops left to hold grease and food particles or dry into cloudy streaks or messy spots. For best results, give *your* dishwasher the best—Cascade.

No other dishwasher detergent cleans so well yet is so safe for fine

china patterns! Only Cascade is rated safe for today's loveliest china patterns by the American Fine China Guild, whose members make Castleton, Flintridge, Franciscan, Lenox and Syracuse china. Their exclusive recommendation was given Cascade after thoroughly testing every leading dishwasher detergent. Look for their seal of approval on every

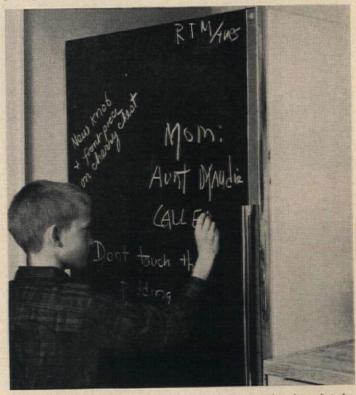
Cascade package.

PROCTER & GAMBLE'S CASCADE IS ENDORSED
BY EVERY LEADING DISHWASHER MAKER





See-everything-at-a-glance pantry, easily built in a new house, also can be built into an existing closet or a corner of your present kitchen.—Mrs. P. M. Knoll, Pasadena, Calif.



This family notice board, which nobody can miss, is painted on the door of the refrigerator. Use a small can of special "chalkboard" paint. It's a fine way to disguise a chipped door, too.

SEND US YOUR IDEAS

We are seeking original ideas from our readers on all kinds of homemaking projects. For each idea used, we will pay \$15. Please include black and white snapshot. No ideas or pictures can be returned. Send material to: Susan Brown, The American Home Magazine, 300 Park Avenue, New York 22, N.Y.

Choose from the 51 Big Hit Albums and Great Recording Stars shown here...

12" LONG PLAY HI-FI for shipping services



321. JACKIE GLEASON. MU. 316. JACKIE GLEASON. SIC, MARTINIS AND MEM. LAZY, LIVELY LOVE. Be-ORIES in the lust Gleason couse Of You, On The manner: Once In A White. Street Where You Live, I Remember You, I Con't Speck Low. If Hod To Be Ger Storled, 9 more.



79. RED NICHOLS. "Red"



227. HARRY JAMES blows, 241. TEX RITTER. BLOOD and the Music Makers fol- ON THE SADDLE. Bury Me low in big band style. Not On The Lone Prairie, Blues For Safe, You're My Billy The Kid, Steets of Thill, Just For Fun, Will.

HAPPY CHA CHA CHA.











CAROUSEL



169. SAM BUTERA. THE BIG HORN. His sax and The Witnesses meet old favorites head on in Hey There, La Vie En Rose,



John Philip Sousa.

LOMBARDO. The 217. THE SONG IS JUNE. 105. TENNESSEE ERNII of melody plays June Christy sings ten of sings inspiring hymns with invariets in three- her greatest hits includ- beauty and reverence time: Beautiful in gift Song is You, The Now the Day is Over ice Blue Gown, One I Love Belangs to Jesus, Savior, Pilot Mewaltzes. Somebody Else, others, ten other favoriets.





your di





199. KINGSTON TRID. HERE WE GO AGAIN. Guitars, banjas and bangas gaing like crazy. Haul Away, Molly Dee, Goaber Peas, A Warried Man, 9 more.



188. KAY STARR. Kay swings through a dozen great songs: Night Train, Lazy River, Sentimental Journey, Slow Boat to

The Joy of Living



F THE CHARTS

DINAH, YES INDEED

135. NELSON RIDDLE, Zest

Me Feel So Young, 10 others.

345. THE LES BROWN 127. JDE "FINGERS" CARR STORY in songs from 1939 AND HIS SWINGIN' STRING to today — leapfrag, fa. BAND. A cheerful nosegay of tunes: Marbor Lights, Vanessa, 10 more.







its from her Stan Kenton: The Moon, n Or Come

108. FRANK SINATRA. 195. SWIGIN' DECABE. 103. JONAH JONES, JUMP-ONLY THE LONELY. Ebb. Glen Gray, his Casa IN' WITH JONAH in a Tide. Spring Is Here, Lomons recreate the swingin' new set of thuest. Goodbye, Whot's New, swingin' sounds of Tammy Just A Gigolo, A Kiss to Darsey, Benny Goodman, Build a Dream On, ten 11 others.





Record Club and agree to buy as few as six future record selections during the next 12 months

when you become a Trial Member of the Capitol

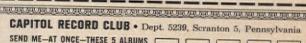






KING





SEND ME—AT ONCE—THESE 5 ALBUMS Bill me only 97¢ plus a small charge for shipping services.

Please accept my application for trial membership in the Capitol Record Club. As a member I agree to buy six additional records during the next twelve months, from over 200 to be offered! For the records I buy. I'll pay the Club price of \$3.98 or \$4.98 (occasionally \$5.98) depending on record purchased, plus a small charge for shipping services 7 days after I receive each album.

You'll send me FREE each month the illustrated Capitol Record Club Review which pictures and describes the monthly selections and alternate selections. I will enroll in one of the three Divisions of the Club listed be-

write numbers in boxes low, and whenever I want the monthly selection of my division I need do nothing; it will be sent to me automatically. But if I wish any of the other selections—or wish no record at all that month—I'll notify the Club on the form always provided. I'll purchase at least one record every two months.

BONUS ALBUMS will be given to me at the rate of one 12-inch album for each two that I buy, after my agreed-upon six future selections. I'll select my oun BONUSES from an up-to-date list of current Capitol best sellers.

I may cancel membership any time after buying six additional records.

CHECK THE DIVISION IN WHICH YOU WISH TO BE ENROLLED
Best Seller Hit Albums (Dancing, Listening, Mood and Show Albums from Theatre, Screen and TV)

3. Hi-Fi Jaxx

NO-RISK GUARANTEE: If not delighted, I will return these 5 ALBUMS within 7 days and my membership will be cancelled without further obligation.

record player and agree to buy your six future selections in STEREO which the Club sells for \$1.00 more than mon- aural. Then the five records you have	STEREO with a bill for \$1.00 more (\$1.97). Bonus Albums and future selec- tions will also be in STEREO. NOTE: Stereo records can be played only on stereo equipment.
ADDRESS	
ADDRESS	
PRINT	
NAME	
CITY	ZONE STATE
Please send no money. We will send you a b	oill. (Only one membership per household.)
scriptions, write his name and address in Capitol Record Club of Canada, 1184 Castl	

f you lived in Norwalk, Connecticut, you and your family could be the fortunate beneficiaries of one of the best proposals yet made to provide low-cost, all-embracing fallout shelter protection. The Norwalk proposal is to build an underground shelter at each of 25 school sites around town so that no family would be more than a 15-minute walk from a shelter. Each shelter would hold 3000 people, and the total cost for all would be an estimated \$8,850,000, or about \$125 per person for 70,000 people. The plan was proposed by Norman L. Heap, Business Manager of the Norwalk Board of Education, who told *The American Home*, "It would provide for apartment dwellers as well as home owners, and anybody else who otherwise would have no place to go."

Every shelter would have a cubicle for each family, its own power plant, well water and sanitation system, medical area, emergency rations, doctors, and police. A special tax or bond issue would pay the over-all bill. A plan like this points up the fact that the large community or group shelter is a far better solution for most people than the much publicized but highly vulnerable family fallout shelter.

Much dangerous misinformation and ignorance exists about the individual family shelter, and this is largely because of the bewildering barrage of conflicting news reports and talk in recent months.

What are the facts about a family shelter versus a group or community shelter? To clear the air and obtain answers to the questions everyone has, *The American Home* presents this summary report based on a comprehensive sorting of the facts plus interviews with top government officials and nuclear experts.

THE CASE FOR THE COMMUNITY SHELTER

This could be a neighborhood shelter for a group of families as well as a shelter for thousands of people. Its main advantage over the family shelter is basically

safety, giving the best chance for survival. A large shelter, designed by an architect or engineer, offers more protection against fallout than will many family shelters subject to design or construction errors made by well-meaning amateurs. In addition are the unbelievably serious flaws in shelters sold by many slick, gyp operators who are rapidly moving into the shelter business.

A Chicago home owner, for example, found his newly installed underground shelter full of water after the first heavy rain because the contractor had forgotten to waterproof the structure. A New Hampshire man, testing his \$2000 outdoor shelter, nearly suffocated because of inadequate air provisions; he just managed to call for aid over an intercom system before collapsing. These are just two examples of potential pitfalls in unsupervised family-shelter construction. They could be avoided more easily in large shelters designed and built by experts.

Community shelters are lower in cost than individual shelters

which are financially out of the question for many families—the mean national income being only \$5600 per family. We have been led to believe that nearly everybody can have his own shelter for a few hundred dollars. New York State Governor Nelson Rockefeller at one time naïvely advocated a compulsory shelter for every home. In reality this would have cost many home owners from \$1500 to \$4000.

Family shelters cost from \$400 to \$750 per person (excluding the lower price, but questionable, basement shelter). By sharp contrast, community shelters cost from \$100 to \$150 per person, sometimes less. The Norwalk case is a good example.

The cost might be sharply lower for shelters with dual-purpose use, such as a three-level private garage recently built in Hollywood. For a reported 10 per cent greater cost than its basic garage price—less than \$13 a person—it was designed to double as a fully equipped, 4000-person fallout shelter. The owners say that the garaged cars could even be used for sleeping. Other dual-purpose structures could be community halls, year-round swimming pools, schools, hospitals, libraries, or office buildings. Then, of course, community shelters could be economically built into existing structures, such as garages or public buildings.

The community shelter is a far more secure and comforting place. It insures against panic or plain fright, compared with a cramped hole where an isolated family would be huddled for two weeks or more. This would be particularly important in a case where a mother and children would be alone day after day because the father would be unable to reach his home.

Studies in Sweden show that the larger the shelter and the more occupants, the greater each individual's capacity for endurance. (A few years ago Sweden began building large H-bomb shelters in the center of every town having over 50,000 population.)

Special mention should be made of the need for protection against terrifying firestorms that might sweep through built-up areas following a nuclear bomb hit. A 20 megaton bomb exploded at least three miles above the ground could start firestorms igniting houses 25 to 35 miles away. Such fires not only threaten house collapse over a shelter, but they draw off all oxygen around, exposing people in shelters to asphyxiation. This hazard is strongest in dense housing tracts and in heavily built-up row-house sections of cities like Philadelphia, Baltimore, and Chicago. The fire threat was a major reason behind the Norwalk plan. Oxygen loss can be prevented only by a good airtight shelter design preferably coupled with an oxygen supply. This is obviously more feasible in expertdesigned community shelters than in family shelters.

All of the advantages we have mentioned give the communitytype shelter a clear and decided edge over the individual shelter for most of the nation's families.

A.M. WATKINS

LET'S USE
COMMON SENSE
IN OUR
FALLOUT SHELTER
PROGRAM

Some progressive cities

have assumed responsibility for protecting their citizens against fallout—community shelters seem to be the answer. The American Home tells you about community shelter programs and also gives you vital information on how to obtain the best protection in a family shelter.



If you should decide on a neighborhood shelter here are some points for you to consider: Hire a lawyer and form a non-profit corporation as southern California families are doing. This simplifies ownership and liability problems, and permits people to buy in or out of the group on a convenient share basis.

Like the larger community shelter, the group project should be designed by an architect or engineer. Basic standards are set forth in the OCD booklet, "Fallout Shelter Surveys: Guide for Architects and Engineers," obtainable from your nearest OCD office.

Before starting construction, you should submit the plans to OCD engineers for review. This applies to any of the large prefabricated group shelters sold by manufacturers, as well as to custom-made structures. Call your local building department to determine if you need a building permit for a shelter. Some communities require them, others do not. Some require special construction, as Los Angeles, which has ruled that all shelters, including the standard OCD designs, meet stiff earthquake resistance requirements.

To pave the way for community shelters the government has launched a \$93 million national survey to pinpoint and mark those structures most suitable for shelter use in every community. The survey is being carried out by the Army Corps of Engineers. Local officials planning community shelters should check with the nearest Corps of Engineers' office, as well as consult local and state civil defense officials.

THE FAMILY FALLOUT SHELTER

Although a community or group shelter is clearly the best solution for most people, a family shelter may be your only choice. You may live in the country too far from a community shelter or for other reasons desire your own family shelter. Despite the cloud of uncertainty over the adequacy of family shelters, Charles Fremd, the Director of Civil Defense for Westchester County, New York, succinctly adds that "Some kind of shelter is preferable to none at all." Even the primitive foxhole shelter proposed by the government at a cost of no more than \$150 can protect many lives from radiation injury or death, and should not be overlooked if it is your only practical solution.

How can you be sure that you are getting a truly safe and adequate shelter for your family? This question has assumed major importance because of the fly-by-night operators, long a major problem in the home-improvement field, who have invaded the shelter business en masse. Warnings have been sounded by leading Congressmen, FHA, and civil defense officials.

Before you buy any kind of shelter, check the contractor's credentials thoroughly. Ask for references—a bank, for example, and other buyers he has sold to. Contact your nearest Better Business Bureau and the Chamber of Commerce, even if you obtain a list of shelter makers from your OCD office. Although the OCD lists manufacturers whose shelters conform to OCD rules for fallout protection, for all you know the manufacturer's local dealer may be new and untrained, or a slick operator who has hoodwinked the manufacturer into giving him a franchise.

Your contract should say that the shelter will conform fully with all OCD requirements. Don't be pressured into buying. And before you make the final payment have your completed shelter inspected by an expert or by your local building inspector. It should also be pointed out that there is no such thing as a government-approved shelter despite misleading advertising and fraudulent claims to the contrary. Any dealer who claims OCD approval is stretching the truth. The OCD will neither approve nor endorse any commercial shelter or equipment.

(continued)

THE PROBLEMS OF FAMILY SHELTERS

HUMAN WASTE DISPOSAL has alarming overtones, as shown by a 1959 Princeton University study. A family of five lived in a simulated fallout shelter for two weeks, using a chemical toilet. The refuse and waste underwent chemical action, forming gases. The two adults in the shelter suffered disabling dizzy spells which "may have been caused by the . . . gas." This study was performed nearly three years ago, yet Civil Defense authorities still have not followed up on its findings.

by a 1960 National Bureau of Standards test of an OCD underground shelter with simulated human occupancy. So much water vapor built up inside that "it was literally raining from the ceiling," said a Bureau scientist. Such excessive humidity is caused by body moisture evaporated into the confined air, and condensing on the cold ceiling.

OXYGEN LOSS, particularly in firestorm areas, can pose serious problems. Incredibly searing heat can cause fires to ignite far from the explosion area. Such fires would draw off all the oxygen around, threatening people in shelters with asphyxiation. Family shelters are particularly vulnerable in dense housing tracts or in built-up row-housing sections of cities. The standard OCD family shelter designs have no provision for preventing oxygen loss.

THE OCD'S FOUR BASIC FAMILY SHELTERS

have never been thoroughly and scientifically checked (evaluation of an actual shelter by a two-week occupancy test with people). Nor have necessary tests been made of the recommended equipment for shelters. This same disturbing lack of initial research and development extends to every commercial, factory-made shelter on the market today as far as *The American Home* could determine; not one has ever been given a genuine scientific occupancy test (though most of us have read about occupancy tests which in reality have all been "stunts").

It should be emphasized that the chief purpose of a fallout shelter is survival. No reasonable person asks anything more than minimal living conditions. But there can be a sharp difference between a family roughing it and suffering conditions that would make the waiting-out period severely uncomfortable, if not downright hazardous. Hazards like inadequate refuse disposal or humidity emphasize that there can be more to the problem of providing an adequate shelter than the matter of radiation protection.

OCD officials will review the plans and specifications and at most say that it "meets our requirements for fallout radiation protection." These are key words to remember. They mean that the OCD requirements do not pertain to such other design features as protection against blast, fireproof and water-tight construction, and, for that matter, other major occupancy requirements which we will get to in a moment. Determining such characteristics, unfortunately, is up to you until long overdue national standards and safeguards covering complete shelter design are established.

The Basement Fallout Shelter

A basement fallout shelter is the cheapest and easiest to build, if you have an adequate basement. (More than half of the nation's houses lack basements and since 1940 close to 60 per cent of new houses were built without them.) A basement shelter can provide "substantial" fallout protection, government experts say. You simply wall in a corner of your cellar.

Cost for the basic structural materials alone may run as little as \$200 for the minimum 7'4"x8'4", six-person shelter. Contractors' prices run about \$400 to \$500. On top of this, add the cost of supplies and furnishings. These are rock-bottom costs. If your basement requires special work, or if you desire a larger room or extra features, costs can run as high as \$1000 to \$1500. This is a more realistic range, based on the prices paid by families who desired something more than minimum space and design.

A basement shelter might not be wise if you live near a vital defense center or a metropolitan area likely to be a target. If a nuclear warhead strikes within 20 to 25 miles, the house might catch fire, or cave in as a result of the blast. Reinforced ceiling construction could provide protection from a house collapse. An escape hatch directly to outdoors is important in case blast or fire damage makes the basement area impassable.

Outdoor Shelters

There are two kinds: the above ground and underground. Properly built, both will provide "almost absolute" radiation shielding. Rocky land, or watery ground, as in Florida or New Orleans, may dictate an above-ground structure. Bottom cost for a double-wall, above-ground shelter that meets minimum OCD requirements for six people is about \$700, the cost of the basic structural materials. You would have to excavate, pour the concrete floor, and handle everything else yourself. Farming all or most of the work out to a contractor would raise the cost to \$1250 up to over \$2000. One Florida contractor offers a standard above-ground shelter that meets

minimum OCD specifications and includes bunks, shelves, a blower, and chemical toilet, for \$2195.

An underground shelter costs more money because of greater excavation and waterproofing costs, but it would give some protection against blast damage. The excavation alone might cost \$500 to \$600-more if the contractor strikes rock or water. Dig the excavation and do everything else yourself and the cost could be as little as \$700, or so say OCD officials. This is basic structural materials cost. A more realistic price range for most people would be from \$1500 to \$4000, depending on size, type, and special requirements. Here too, remember furnishings, basic supplies, and equipment will mean additional expensefrom \$125 to \$200 or more for a typical family.

Plans and specifications for the four standard basement and outdoor family shelters designed by the OCD are available in government booklets such as "The Family Fallout Shelter." Another good booklet to obtain is "Individual and Family Preparedness." These, plus other literature being prepared as this article went to press, should be available from your nearest OCD office, or the Department of Defense, Office of Civil Defense, Battle Creek, Michigan. This literature also lists essential supplies and food for stockpiling a shelter.

Factory-Made Prefabricated Shelters

The main advantages of prefabricated shelters are quick and easy installation. But the cost is generally higher than for an OCD-designed concrete block shelter. Prefabricated basement shelter prices start at around \$500, range up to \$750 or higher. Prefabricated outdoor shelters generally cost from \$1500 to \$4000. They vary greatly in design and construction. Being sure to get one with adequate structural strength is important, but unfortunately there is no surefire method by which a buyer can determine this.

The dealer should show you a letter from OCD that specifically says his shelters conform to OCD design requirements. If he cannot produce such a letter, do not buy from him. Another tip about factory-made shelters: Look at one of the same size and type as you are considering before you buy.

The list price of a factory-made shelter may or may not include essential parts—air blower, filters, bunks, shelves, and supplies. Even the door sometimes costs extra. Make a list of everything you get for the price, and what you will need that costs extra. Compare this with various makes. You generally can save money by buying some interior parts and supplies yourself. This is true when you contract for a custom-made concrete block shelter, as well as when you buy a factory-made unit.

ELEVEN DESIGN FACTORS OF SHELTERS

This summary of 11 crucial design requirements applies to group and community shelters as well as family shelters.

1. ADEQUATE RADIATION SHIELDING.

Nuclear scientists emphasize that the paramount requirement is density. Enough density is required to reduce radiation transmission inside to at least 1/1000 the amount outdoors. This calls for at least 2.6-inch thick lead or the equivalent: 7-inch thick iron or steel, 24-inch solid concrete, 32 inches of packed earth, gravel fill, or sand, or 7-foot thick solid wood (fir). These are the minimum thicknesses required.

The interior walls and ceiling of a basement shelter, however, need be only 10inch thick solid concrete or the equivalent, since they are exposed to reduced radiation. Experts figure that the interior of a house, including the basement, will be subject to fallout radiation only one-tenth that of the outdoor level. The usual exterior basement foundation wall is no more than 12" thick which is adequate only if the entire wall is banked with two to three feet of earth on the outside. If part of the shelter is above ground, additional earth must be banked against the exterior basement wall or solid concrete blocks laid outside up to the shelter ceiling. If your basement wall is exposed, a second wall will be needed inside to give the equivalent of 24 inches of solid concrete shielding. If your existing basement walls are of hollow concrete or cinder blocks, additional thickness is required to make up for the cavities.

2. VENTILATION. A self-contained outdoor shelter requires intake and outlet vents, at least three inches in diameter, plus a hand-operated blower capable of drawing in at least five cubic feet of air per minute (cfm) per person; three cfm per person for community shelters. The blower is hooked up to the intake vent. A special vent cap and screen goes on top of the vent openings outside to keep out radioactive dust. Filters may be used but are not mandatory, says the OCD. Don't worry about fallout radiation being brought in, since air itself cannot be made radioactive. Fallout dust is the big danger and this is filtered out with proper vent design.

The usual basement shelter is ventilated by means of open vents low in the interior shelter wall. Air from the rest of the basement circulates through these vents and the shelter doorway.

3. PROTECTION AGAINST OXYGEN LOSS FROM A FIRESTORM. If you live in a heavily built-up area, the shelter should be built so that it can be made air tight. Vents and air openings should be fitted with shut-off valves. The door needs an airtight seal. Installing a small oxygen tank is also a good idea. (continued on page 75)

AN AMERICAN HOME KIT

YOU CAN MAKE THIS HEIRLOOM SAMPLER CLOCK

This wonderful new easy-do clock is as handsome as the day is long . . . and accurate, too. Think how many times a day you'll enjoy your handiwork, as you tell time by the big readable numerals and antiqued black hands. Stand it on the mantel or hang it on a wall—it's an heirloom-in-themaking that you'll treasure for years. Colorful fruit and numerals are embroidered on fine linen with cross-stitch. Wood frame is ready to assemble and stain or paint—all parts are presanded, and grooves and holes for screws are already in place. It's easy to install the fine electric clock movement. Over-all size is $13\frac{1}{2}x17\frac{1}{2}x3\frac{1}{4}$ ". Glass is not included. Kit #PSC-23, price \$12.98, postpaid, Federal excise tax included.



Complete kit contains stamped 100 per cent Belgian linen with embroidery thread, U.L. Approved Telechron electric clock movement, assembled front-frame, easy-to-assemble box frame, instructions. Kit assembly takes less than ½ hour after face has been embroidered.



HEIRLOOM SAMPLER CLOCK ORDER FORM

Heirloom Sampler Clock has been designed expressly for The American Home. Fill out coupon, enclosing personal check or money order (no stamps, please). Sorry, we are unable to handle foreign orders.

Please allow three weeks for handling and mailing.

THE AMERICAN HOME MAGAZINE

American Home Building, Dept. CLK, Forest Hills 75, New York

Please send me — Heirloom Sampler Clock Kit(s) at \$12.98 each. Federal excise tax included.

(New York City residents please add 3 per cent sales tax.)

Print Name

Print Address

City

Zone

State

JUST FILL IN, detach and mail the handy postage-free card provided here — and you will promptly receive, absolutely free, Jackson & Perkins brand-new Spring 1962 Rose Catalog. Yes, yours free — the one catalog that will enable you to plan, plant and grow the most beautiful rose garden you've ever had!

Within its 50 full-color pages you'll see many new 1962 roses – like the exotic new SOUTH SEAS (shown on the opposite page) and the four new roses described here – plus many, many more! You'll also see all the established J&P favorites...glorious Hybrid Teas that

bloom up to 7½" across... Floribunda Roses that produce hundreds of blooms on every bush... breathtaking Climbers that provide curtains of color to drape over fences, porches, trellis, etc.. not to mention the magnificent Tree Roses that produce blooms at eye level!

In addition, you'll find a wide selection of hardy J&P Perennials – plus planting hints and money-saving offers. All plants are guaranteed to live and bloom in your 1962 garden. Since the supply of Catalogs is limited – and the demand is always so great – we sincerely urge you to mail the postage-free card today!

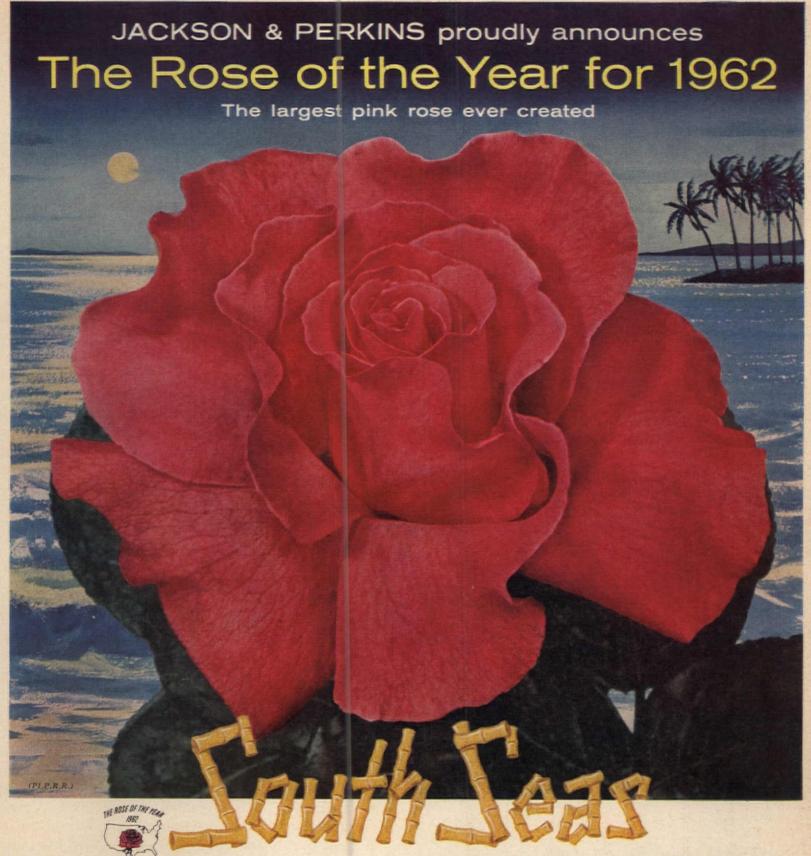






NOTICE TO WESTERN GARDENERS

IF YOU LIVE IN ARIZONA, CALIFORNIA, IDAHO, MONTANA, NEVADA, NEW MEXICO, OREGON, UTAH, WASHINGTON OR WYOMING — YOU WILL RECEIVE A SPECIAL WESTERN EDITION OF THE J&P CATALOG



SELECTED BY A TEST PANEL OF 10,000 HOME GARDENERS

"Such gorgeous color! Perfect Buds!" Mrs. L. H., Fayetteville, Tenn.

"... the most beautiful Hybrid Tea in my collec-Mrs. R. D., Bloomfield Hills, Mich.

"The most beautiful rose I have seen in years." Mrs. E. F. L., Quarryville, Pa.

"...a joy to own. Its color is gorgeous!"

Mrs. H. J. F., Auburndale, Mass.

"... its ethereal beauty seems unsurpassed." Mrs. G. G. W., Darien, Conn.

"Magnificent...has everything! Equal to the Peace rose." Mrs. R. H., Poughkeepsie, N. Y.

"Excels all other pink roses."
Miss E. N., Chester, III.



TAHITIAN PINK

Here it is - The Rose of the Year for 1962 . . . a glorious Hybrid Tea that captures the color, romance and exotic beauty of the South Sea Isles. A truly unusual new color . . . a deep shell pink in the bud, which slowly changes into a glowing, luminescent coral-pink as the flower opens ... and finally, like a Tahitian sunset, deeper red overtones set in as the flower ages. Equally as unusual as its new Tahitian-Pink color is its size - a bloom that opens as large as 7 full inches across - easily the biggest pink rose ever created! And what magnificent blooms . . . with ruffled, orchid-like petals. Yet despite its delicate appearance, South Seas is one of the hardiest roses ever developed. See it – plus scores of other prized roses – in the new Spring 1962 J&P Catalog. Just mail the postage-free card above for your FREE copy.

A floral flash-back in pictures reveals decoration and the period influences

FLOWER ARRANGING



Williamsburg. A true bouquet of Magnolia grandiflora, Dutch bulbous iris, tulips, daffodils, hyacinths, stock all familiar to 18th century gardens.

New England. An informal group of brilliant red anemones, tulips, and pussy willow with native mountain laurel foliage. A pine background, pewter, and cotton fabric suggest the simple surroundings of the New England colonists.



JACK ROCHE. FLOWER ARRANCEMENTS BY THE AUTHOR.

Late Georgian. Elegance belonging to a formal interior is suggested here through the use of silk damask and a classic urn. Our flowers were governed by those in the wallpaper.

■ From time immemorial flowers have been brought indoors to be enjoyed for their appealing color and fragrance. Bouquets have been influenced over the centuries by the diversity of the garden's bounty, the way of life and dominant taste of the people of the time.

Our New England ancestors, for instance, who faced the rigors and hardships of pioneer life lacked the luxuries of fine vases and a profusion of beautiful garden flowers. What flowers they had in their dooryard gardens were merely incidental to the useful herbs grow-

ing there. These early settlers brought with them slips, seeds, and roots of the many plants which furnished necessary medicines, household remedies, and food. They gathered other plant materials in and about their countryside to further the supply. It is natural to suppose that a walk through the fields would provide a branch of white-flowered shadbush in the spring or some red-berried sumac or goldenrod in

the fall to place in some handy article of utilitarian use and thereby brighten the family room. The container to hold the flowers might have been a pitcher of stoneware or pewter or even a tumbler-shaped flip glass.

Knowledge of what plants the early New Englanders were familiar with comes from several sources. The herbals of the old country would have reminded them to bring roses, for rose petals and honey made a gargle for sore throats, and rose water was, of course, an important beauty aid. The hollyhock provided the means of voiding kidney stones and the "pot marigold" or calendula as a hot vinegar infusion reduced fevers. Other plants were counted on to ease women's labor pains, cure toothache and earache, serve as poultices, and repel moths and other vermin. Plants also added flavor and color to the stew pot and were used for dyes.

After voyaging to America in 1638, an Englishman named John Josselyn published an account of his journey with the purpose of aiding would-be settlers by listing all the native plant materials and animals which they might find. One cannot handle this very precious small book without the realization that people's lives

the everlasting joy of flowers in home and tastes of those who arranged them

OVER THE YEARS

JULIA S. BERRAL

actually depended on its information. From source material such as this, one can conjure up a likely floral bouquet for an early colonial home.

And what would the surroundings of such a home have been? The small compact homes built to withstand the harsh winters had fairly dark rooms because of their small windows. Heavy beamed ceilings, wood-sheathed or paneled walls, wide-planked floors, vast fireplaces and, at first, oak furniture completed the scene. Window curtains were of homespun, vegetable dyed, or embroidered in crewelwork. Cotton fabrics also were used, and calico and chintz designs inspired the first American wallpapers. It was not until mid-18th century that New Englanders brought wealth through their shipbuilding

and fishing industries into the colonies; and in the great seaport cities the fine mahogany furniture of England was imported and copied by American cabinetmakers.

The Pilgrims and Puritans and their followers came to these shores as religious dissenters cutting themselves off from the mother country. Not so the Virginia colonists and many of their neighbors; they remained affiliated with the Church of England. Sea lanes were constantly open and a balance of trade brought the finest furniture, fabrics, and ceramics from abroad, while rice, indigo, tobacco, and cotton were exported.

Today we have but to visit colonial Williamsburg to learn how life was lived in the 18th century. Most Southern planters had their agents in London from whom they ordered Queen Anne and Chippendale furniture, Chinese wallpapers, French silk dam-

asks, and the fine porcelains of all three countries. Interest in gardening and horticulture was quite general and plants traveled in both directions across the ocean. We learn most of them by name in reading over that vastly interesting correspondence between John Bartram, a dedicated naturalist, and Peter Collinson of London, an enthusiastic plant hobbyist. William Byrd, George Washington, John Custis, and Thomas Jefferson all wrote of their gardens, and probably all of them owned the most important gardening book of its day, Philip Miller's "Garden Dictionary."

It can never be too difficult to re-create a Williamsburg bouquet, knowing as we do its garden flowers. Victorian. A full bouquet suggesting the colorful profusion of a back-yard garden. Intense white and strong colors hold their own when seen against the red flocked wallpaper. The green glass vase with gold decoration is European in origin and typically 19th century. Victorian love of multicolor was expressed in flower arranging, and the feather-edge bouquet was quite popular.



Modern. In a modern arrangement, drama is further achieved with sculpture. Here a striking wood sculpture, "Adam and Eve" by E. Frontera attains greater importance through the addition of the exotic foliage of wild anthurium and croton. All color values and textures combine to express dramatic simplicity.

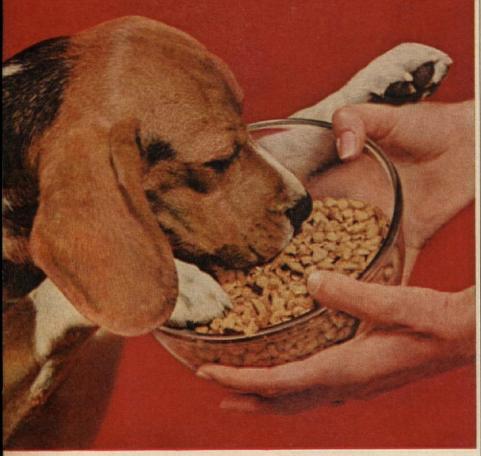


Contemporary. Now we leave the "bouquet" for a studied arrangement emphasizing linear design. Easter lilies contrast with umbrella pine, and leaves of the yellow calla lily introduce form and texture.



Shopping Information, page 81





Just add water and you unleash twice the power of lean beef-steak! Ken-L Biskit, the Oven-Roasted dog food, provides twice the calories (energy-power) of the best lean beef, plus all the proteins, vitamins, and minerals dogs are known to need. It's concentrated—you can feed less because your dog gets more out of every bite. Give him Ken-L Biskit, official food at more American Kennel Club shows than all other dog foods combined.





Diet of Champions

That Virginia housewives arranged flowers in their homes we know for sure, as Peter Kalm, a Swedish traveler in America, described how the ladies gathered both garden and field flowers and put them into pots and "placed them as ornaments in the rooms."

And these rooms were handsome, whether their walls were covered with panels of silk, or wallpaper, or left just whitewashed above painted wainscot. They gleamed with the warmth of polished furniture, shining silver and glass. Fabrics and flowers gave color.

During the last quarter of the 18th century and the late Georgian period there were marked changes in interior decorating, perhaps the most noteworthy being the introduction of white painted woodwork. Introduced by Robert Adam in England soon after the classic influence was felt because of the rediscovery of Pompeii and Herculaneum, it did much to add scope and light to the interior. Just previous to this a process for printing wallpaper in rolls instead of by the ream had been developed in Philadelphia, and so in America rooms took on a new look with patterned walls and light painted trim. Repeat block patterns were popular as well as large rambling floral designs and those with Chinese influence called chinoiserie. Mahogany was now almost universal. Chippendale, Sheraton, and Hepplewhite were all copied in America. Fabrics included cotton in the form of chintz, muslin, and toile de Jouy and fine silks-damask, satin, and brocade. The art of the potter was so far advanced in Europe that now true vases just for flowers were being exported to America.

And all through these years the garden flourished. Native plant materials were constantly being cultivated and old-time favorites improved. One of the best sources of information concerning the common garden flowers of the period is in a book published in 1793 called "The Practical Farmer." In it the author, John Spurrier, wrote of over 70 flowering plants. Newspaper advertisements also give us clues to garden content. Some announced the arrival of "rootes" and bulbs from Holland and there is evidence that anemones, hyacinths, tulips, fritillarias, and colchicums were all imported. Our arrangement for this period in the alabaster vase, on page 16, shows multicolor stocks, carnations in white and pink and tiny ones in candy stripe, tulips, and anemones (the true "lilies of the field" in Bible reference).

With many lovely flowers and with vases at hand, we are sure our ancestors fashioned many a beautiful bouquet to grace their homes. That any busy housewife of the 18th century created what we would now call a studied arrangement does not seem probable, but surely many a lady must have had a "way with flowers" just as some do today.

The Victorian Age of the 19th century brought great changes to the world of gardening because it was a period of vast world exploration. Clipper ships brought home a wealth of new plant material from foreign shores. From China came forsythia, bleeding heart, camellias, azaleas, rhododendrons, and tree peonies. From Mexico and South America the dahlia, fuchsia, gloxinia, and scarlet sage were brought. From South Africa came the canna gladiolus, and freesia.

An avid interest in hybridization was in the air. Chrysanthemums, snapdragon, stock, and the gladiolus were all developed into larger forms with greater variety of color. Godey's "Lady's Book" describes Dreer's development of the pansy from old-fashioned Johnny-jump-up or heartsease. From Europe came new and better roses and lilacs.

Seed catalogues, garden books and magazines tried to keep up with the demand for information about both growing and arranging flowers. One author suggested the addition at all times of one touch of yellow, no matter what the other colors, to make the bouquet "flash out and become more brilliant." The Victorian love of color and profusion was indeed expressed in both flower arranging and in the "bedding out" of formal gardens.

Vases and holders were innumerable. America now had its Parian ware from Bennington and there were colored glass vases from Sandwich as well as milk glass ones. Still from across the seas came more Oriental porcelains, elaborately decorated French vases of Haviland and Limoges china, more pieces from the English ceramic factories, metal ewers supposedly copied from Benevenuto Cellini pieces, and many further kinds of glassware from Austria, and Bristol, England. The elaborate alabasters, so beloved by flower-show exhibitors today, were probably just meant for mantel ornaments, as they did not hold water well. (Now we coat them heavily inside with paraffin.)

In the Victorian era we find a decline in taste over the previous century, for two things had occurred which had a detrimental effect on the applied arts. The many new machines which the industrial revolution had produced caused a real deterioration of artistic development and people lost some appreciation of the work of handicraftsmen. The innovation of chemical dyes derived from coal tar produced a wider range of color but they were neither as mellow nor as sunfast as vegetable dyes.

Thus we seldom think of the Victorian interior as one of great beauty. Black walnut and rosewood furniture were dark, and never seemed to take on the glossy warm patina of polished mahogany. Marble furniture tops seemed cold. Yet, with all, a definite homey atmosphere pervaded the scene because of comfortable armchairs, the center table with its reading lamp around which a family could gather, window draperies of rich fabrics such as damask, moiré, or plush, lace curtains, and plenty of bric-a-brac. Massed flowers in multicolors were used in bouquets-such as the one pictured on page 17. This is in a tall china vase, one of a pairfor pairs were now in style.

Our 20th century has been a period of such change and development that there have been many differing styles of home decorating. By and large, a great percentage of homeowners live in what are called "contemporary" rooms where there is a pleasant bringing together of favored possessions both old and new. Rooms are made colorfully inviting through the use of floral fabrics, wide expanses of carpeting, and often some fine paintings. Flowers are their natural accompaniment.

The vastly popular art of flower arranging has truly come into its own during the past 30 years. With the beginning of women's garden clubs, and their attendant flower shows, rules for arrangement were sought out. Already formulated, and time tested, were those of the Japanese who have practiced the art for centuries. Now we strive to create a design showing perfect balance, good proportion, harmonious color, and interesting texture, and to hold the attention by means of a focal area. The floral artist can create many patterns of design, either linear, such as the crescent or the s curve, or geometric, such as the oval or the triangle. Today this artist designates her arrangements as "mass," "line-mass," or "line" and often combines unusual branch formations with just a few flowers for unusual effects. The true oldfashioned bouquet is not as popular as it once was. In the contemporary home any one of these arrangements is appropriate, the only rules being those of common sense and artistic perception. It is wise to let all flower arrangements play a color part in any decorating scheme. Scale is important too. If a large room makes use of a big pattern in its drapery materials, flowers will only hold their own if they too are large in size. Don't smother a coffee table with peonies or place violets on a grand piano.

The word "modern" to describe home surroundings connotes upto-the-minute newness in furniture design, current color trend, emphasis on simple wall treatments, and interesting texture throughout. There is never any confusing detail in the modern décor, and the whole scene can express dramatic simplicity. In these surroundings the studied flower arrangement must of itself express drama. Against an elegantly simple wall often of beautiful wood, a work of art can be stunningly displayed. This the flower arrangement becomes if it uses an economy of material in good scale and is displayed in a handsome container. Now, too, many an arrangement is made in a solid-wall pinholder and placed on a stand or burl without benefit of vase.

A modern flower arrangement becomes a work of art if it makes use of unusual plant forms and textures. Such flowers as calla lilies, anthuriums, birds-of-paradise, and ginger are usually thought of as being appropriate, but so too are dahlias, other lilies, even gladiolus if used sparingly and combined with striking foliage material. The garden can supply funkia, saxifrage, aucuba, and magnolia; the florist, ti, dracena, and wild anthurium, to mention just a few. It is fun to seek out others.

A modern flower arrangement can become a work of art also if it creates arresting silhouette effects. A classic Japanese "Ikenobo" arrangement with its exquisite balance of asymmetrical design can do just this. In modern flower arranging the adage "what is omitted is often the test of a good designer" certainly holds true.

And now, what flower arrangement style will suit *your* home? An old-fashioned bouquet or a contemporary line arrangement? Accepting the premise that the style should suit its surroundings you will never tire of seeking out suitable vases or of growing the appropriate flowers.

THE END

Now you can easily make these LUXURIOUS HOOKED RUGS!





SEND TODAY FOR NEW FULL-COLOR 24-PAGE BOOK. SHOWS YOU 65 DESIGNS AND HOW TO MAKE THEM. PLUS ACTUAL 100% WOOL SAMPLES

"Ring of Roses" - No. 79

- See 65 exquisite "Shillcraft" designs, including contemporary. Choose from oval, rectangular, circular, and semi-circular shapes (available in 146 different sizes).
- Learn how to create a perfect heirloom-quality rug your very first try.
 No frames. No yarn-winding or cutting thanks to "Readicut" Rug Yarn. Do it at a table, even while watching TV.
- See how to order by mail at direct-from-importer savings. Not available in stores.



Get everything you need by mail...direct from importer

"READICUT" MOTH-PROOFED 100% WOOL 6-PLY RUG YARN IMPORTED
FROM ENGLAND. Only Shillcraft offers rug yarn cut to size. No winding or cutting. Guarantees evenly rich, extra thick, deep and luxurious rug pile.

- STURDY ENGLISH CANVAS PATTERN STENCILLED IN COLOR. Match "Readicut" rug yarn to colors on the canvas. You can't make an error.
- SHILLCRAFT PATENTED LATCHET-HOOK. Ties wool to canvas easily, quickly and so tightly it cannot pull out, even in vacuuming. Full instructions in 24-page book.

MAKE A COMPLETE RUG FOR AS LITTLE AS \$11. Use our pay-as-you-go plan, if you wish. As little as \$5 gets you started. (See Rug Book for details.)

SHILLCRAFT RUG KITS BACKED BY UNCONDITIONAL MONEY-BACK GUARANTEE. To get book, send 25c in coin to:

Shillcraft, Dept. A-12, 106 Hopkins Place, Balto. 1, Md.



ATTENTION CANADIANS: Now, Shillcraft Rug Kits are shipped direct to Canada from England, and stocked in our Montreal office for immediate delivery. Send 25c in coin today to "Shillcraft," Dept. A-12, 2485 St. Patrick St., Montreal 22, P.Q. and get brand new 24-page full-color Rug Book with complete information.

MAIL COUPON NOW . . . get new 24-page book in full color plus wool color card immediately.

"SHILLCRAFT" Dept. A-12, 106 Hopkins Place, Baltimore 1, Md.

I'd like to know more about making a rug. Please send me your new 24-page Shillcraft Readicut Rug Book, showing 65 distinctive rugs in full color, plus actual samples of 100% Wool Rug Yarn in every color and complete information. I enclose 25c in coin to cover handling cost, but otherwise there is no cost or obligation.

N	A	n.	t	E				
W	M		۲		k	×	×	

PLEASE PRINT

ADDRESS.

ZONE. STATE.



Will they grow up in a free world? Would you want them to grow up in any other kind? The answer to that question is why millions of Americans regularly visit the Savings Bond window at their bank.

What 63¢ a day can mean to their future

... and Uncle Sam's

Investing 63¢ a day at 3¾% interest can bring some pretty nice things into your future. In six years—\$1,500 down on a new home. In twelve years—nearly \$3,500 for college costs.

But things being the way they are, it's pretty hard to consider your own future without giving some thought to your country's future, too. Millions of Americans have done this and are putting their savings into United States Savings Bonds.

The money you invest in Savings Bonds is one of the best ways you can help Uncle Sam today. It helps keep our economy strong and provides one of the most dependable means the Government has to manage the costs of national defense.

Buy a Bond today. You can lend your country a real hand now by saving this way for the future.

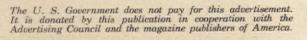
Five ways U.S. Savings Bonds benefit you personally

- 1. You get 3¾% interest to maturity.
- 2. Your Bonds are replaced free if lost.
- 3. You get your money whenever you need it.
- 4. You can save automatically where you work.
- 5. Your investment is guaranteed by the U.S. Government.



Savings Bonds are fireproof. Theft-proof, too. Every Savings Bond you buy is registered in Washington and will be replaced free. Keep freedom in your future with

U.S. SAVINGS BONDS





THE ANSWERS YOUR OUESTIONS

Neal J. Hardy, FHA Commissioner

My husband and I have an FHA mortgage on our home. Up to this time we have been able to make the payments promptly. Now he has been called into military service and his income will be cut almost in half. We have three small children, and I can't leave them in order to take a job. Does FHA have any provisions for such an emergency?

Your mortgage is a private contract between you and the lender, so whatever arrangement you make to postpone all or part of your regular payments during your husband's military service must be made with the lender. The policy of FHA is to protect the interest of home owners in military service to the full extent of its authority.

When an insured mortgage goes into default, the lender normally has a year in which to start foreclosure proceedings. But if the home owner is in military service, FHA regulations allow the lender to exclude the time of military service in computing this one-year period.

FHA regulations also provide that the lender may agree to postponement, during military service, of the part of the monthly payment credited to the loan principal. This would reduce the monthly payment and might make it possible for you to prevent your mortgage from being considered in default while your husband is in service.

After the expiration of his military service, if you and your husband were still unable to make the payments necessary to bring your mortgage up to date, you could apply to the lender for further postponement under FHA regulations.

All deferred payments, however, must be made later so that the mortgage will be paid in full by the date originally specified.

FHA regulations provide that any arrangements made under the provisions of the Soldiers' and Sailors' Civil Relief Act of 1940 will not impair the rights of the lender under its contract of insurance with FHA.

under its contract of insurance with FHA.

(Editor's note: The Soldiers' and Sailors' Civil Relief Act is intended to protect a home owner against loss of his home through foreclosure while he is in military service, whether or not his mortgage is insured by FHA. For further information you should consult an attorney if you cannot make satisfactory arrangements with your lender.)

Six years ago I bought a home and financed it with a 20-year, \$11,850 FHA mortgage at 4½ per cent interest. The monthly payment, including taxes and insurance, is \$92. I expect to retire four years from now. Is there any way the payment can be lowered at that time to suit my reduced income?

It is possible, with the consent of the lender and FHA approval, to reduce the monthly payment by lengthening the term of the mortgage up to the maximum term

permitted by the FHA regulations at the time the mortgage was insured. In 1955, when your mortgage was in-

sured, the maximum term was 30 years.

At the end of the first ten years your outstanding loan balance will be about \$7200. If the lender would agree to spread the payments on this amount over 20 years instead of the 10 remaining on the term originally specified, your monthly payments to principal, interest, and mortgage insurance premium would be reduced to \$48.54. Your monthly payment for taxes and insurance, of course, would not be affected by the extension.

Several months ago I read in your column that FHA was now insuring home improvement loans for as much as \$10,000 that could be repaid over 20-year terms at 6 per cent interest. When I went to my bank to borrow \$3000 on these terms, I was offered instead a Title I loan for five years at a higher rate of interest. I thought the new loans were to take the place of Title I.

The new home improvement loans supplement, not replace, Title I. They are intended chiefly for more extensive improvements than a Title I loan would cover.

Both types of loans are made by lenders from their own resources. They are not government loans. For this reason, a lender is entirely free to use its own judgment in accepting or rejecting an application.

Lenders will also establish their own policies about the terms for which loans in specific amounts will be insured, and about the minimum loan they will make.

From your own point of view, you might consider these facts. On a \$3000 loan made for 20 years at 6 per cent interest, your monthly payment to principal, interest, and FHA mortgage insurance premium would be \$22.74. Over the 20-year term your total payments would amount to \$5457.60, not including a \$20 application fee and some closing costs. On the other hand, for a \$3000 Title I loan made for five years at a \$5 discount your monthly payment would be \$61.93. But at the end of the five years your total payments would amount to only \$3715.80.

Send questions to Neal J. Hardy, FHA Commissioner, The American Home, 300 Park Avenue, New York 22, N.Y.

NEED REMODELING HELP?

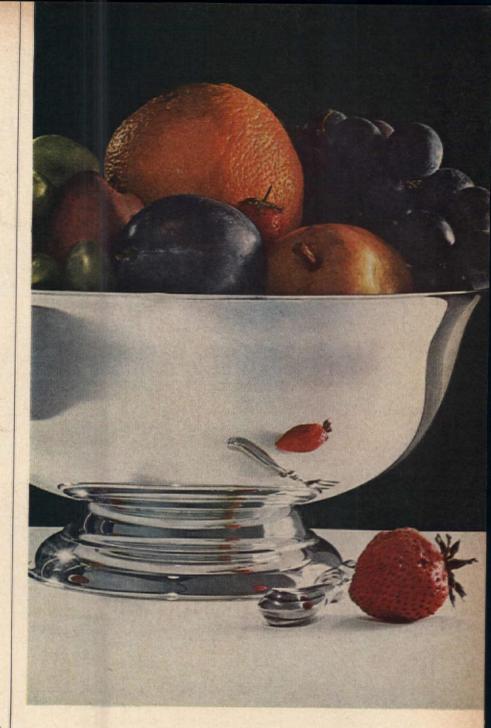
If you're one of the thousands of families who plan to do some major remodeling work on your home this year, you will need expert one-stop advice on planning, building, and buying materials. THE AMERICAN HOME has a list of over 900 lumber and building supply dealers and builders—our AMERICAN HOME QUALIFIED HOME IMPROVEMENT CENTERS—which offer this one-stop service to home owners. Just fill out the coupon below and we'll send you the name of your nearest Home Improvement Center.

(Please allow three weeks for reply)

THE AMERICAN HOME MAGAZINE Dept. QHIC 300 Park Avenue New York 22, N.Y.

Please send me the name of	f my nearest AMERICAN	HOME	QUALIFIED
HOME IMPROVEMENT			

	Name	
	Address	
City	Zone	State



New Twinkle Cream for Silver

SMOOTHS TARNISH AWAY IN SECONDS!

Twinkle* Cream for Silver works on a revolutionary new principle. Dissolves tarnish by special chemical action... not by elbow grease! Twinkle is *gentle to silver* because it's made of finer-than-face-powder particles. *Gentle to hands* because the handy sponge applicator takes the mess out of

silver cleaning. No more blackening of hands and nails. Twinkle leaves an invisible shield on silver that slows tarnish to a crawl. When the GLOW Starts to GO, new Twinkle Cream for Silver smooths tarnish away in seconds!

SILVER OFFER! 8-inch Paul Revere Bowl by Oneida Ltd. Silversmiths for only \$6.00 including tax. (Value \$11.00) Heavy silverplate. Send name, address and front panel from Twinkle Cream for Silver box with check or money order to Box 1560-B, Clinton, Iowa. (Offer good in U.S.A. only while supply lasts.)



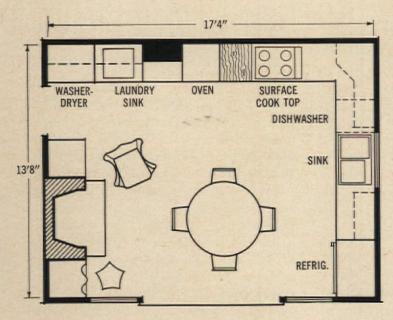
The Drackett Company, makers of Twinkle Copper Cleaner. Available in Canada.

VIRGINIA T. HABEEB

ROMANTIC RENAISSANCE IN KITCHEN DESIGN

> Midst all the marvelous mechanical and engineering ingenuity there is an important spark of traditional feeling to be found in this kitchen for 1962!

> > DESIGNER: ROBERT W. HOUSEMAN PHOTOGRAPHER: KRANZTEN STUDIOS



You may see this kitchen on display after December 22, 1961, at the National Design Center, 415 East 53rd Street, New York City, and a vignette of it in the Merchandise Mart, Chicago, Illinois.

Shopping Information, page 81

To create our kitchen, we dipped gently, but firmly, into the 18th century for homeliness, warmth, security, andromance, ingredients somewhat lost in the 20th-century planning of efficient, automatic kitchens. The joy in decorating today is being able to weave a bit of the nostalgic past with the mechanization of today's accelerated pace. The feeling of traditional dignity and prideful heritage in the kitchen we have designed almost belies the existence of automatic appliances arranged in a convenient work pattern.

From the warm bustling kitchens of the 18th century stems the inspiration for our 1962 kitchen. You'll see a bit of Queen Anne in the furniture and fine cabinets, a touch of Vermeer and the Dutch influence in the delft tile laminated-plastic wall covering and the floor tiles. But there's more than just traditional influence; every detail was carefully planned to provide the utmost convenience, efficiency, comfort, and charm. All of a kitchen's pleasant functions were considered and planned in the most appealing arrangement possible. There is an area for cooking, laundry, dining, and sitting by the fire. It's a place to meet all sorts of demands during a busy day. But there's a basic difference between yesterday's kitchen and this one.

In the 18th century, the kitchen was just as warm and friendly, but oh, so inconvenient! Makeshift cabinets and cupboards were used to store day-to-day necessities. Walls, instead of boasting handsome cabinets, were handy places to hang pots, pans, and dried herbs and roots. All were practical solutions in days past; today we copy these very ideas, but as decorative accessories.

Never before have cabinets for kitchens rivaled the style and finish of fine furniture. This new design, called American Patina, was created by The American Home. The finish is dark and smoky, with a patina of old satin. The beveled paneling of the doors and drawers is deeply recessed and antiqued in delicate shadings of the dark stain. The hardware boasts a pewterlike finish. You'll find the most up-to-date, easy-upkeep materials for walls, floor, and counter tops. The delft-blue laminated-plastic wall covering over the cooking area is a practical reproduction of antique Dutch tiles. Slate-blue laminated plastic was used for the generous counter surfaces for a traditional 18th-century feeling. The white plasterlike walls and ceiling are actually washable fabric-backed vinyl. (continued)



The black and white vinyl tiles on the floor are modern, but also are typical of Early American homes. Desiring to imitate the elegant marble floors of the era, many colonists painted their wood floors in checkerboard design. We include a "big old table," a roomy fireside chair, and an open

cupboard to display family treasures. All the furnishings, fabrics, and accessories we used are faithful 18th-century reproductions, from the pewter tea caddy, above the inviting fireplace, to the china, flatware, and glassware on the Queen Annestyle table. Important 18th-century touches are the



wing chair upholstered in a museum fabric, the collection of decorative but practical utensils over the cooking top. Important 20th-century touches are gas-operated washer-dryer combination, wall oven, surface cooking top, refrigerator, stainless steel sinks, dishwasher, and disposer. (continued on page 58)

Practical L-shaped floor plan of this contemporary colonial kitchen provides a super-efficient working area, with a cozy living-and-dining area that is close enough for convenience. The color palette, borrowed from the colonists—barn reds, blues, and plaster white—adds immeasurably to the authenticity in design.

CABINETS BY MUTSCHLER



MONDAY, JANUARY 1, 1962 REVOLUTION IN HOME BUILDING

YOUR NEW HOME CAN REALLY BE VAPOR TIGHT

Around 1954, polyethylene vapor barriers began to be used in building new homes. As a result, some rather remarkable changes took place in living comfort—particularly in homes and room additions built on slab foundations. In the few homes then fortunate enough to have polyethylene film under the foundation, the "cold floor" feeling families had been complaining about was eliminated. Today, it's a rare builder who doesn't use it. and the moisture that creates a chill on the floor is kept out. (Chills on the floor are also created by lack of foundation insulation, discussed elsewhere.)

This plastic film, now produced by several manufacturers, is more versatile than you might expect. It's been used in sidewalls, under floors, in ceilings, as flashing around windows and doors, and in crawl spaces. It costs more than saturated felts (an earlier type of vapor barrier still used to some extent), but it has advantages that make it a better value. One, especially, is that it can be produced in up to 40' widths and 100' lengths. This means one continuous sheet over your foundation. No seams. No cracks. Compare it to the blanket that covers you at night. Would you rather have strips of blanket or one continuous cover of wool? Kept from ultra-violet rays of the sun (as it would be under the house foundation), polyethylene film should last until your house crumbles from age.

Epoxy Mortars Speed Concrete Block Installations



Ribbon of epoxy mortar is applied along block edges.

With new epoxy resin mortars, erecting a concrete block wall may become easier and faster. Available in a putty-like form, and applied with a calking gun, these mixes have rather remarkable holding power. In tests, the

concrete blocks cracked before joints gave.

In new homes, either cinder or concrete-block foundations are finished faster using the new material. For the do-it-yourselfer, a 6' decorative concrete block fence along 10' of patio could be erected with one gallon of epoxy resin mortar for about \$10.70.

At this writing, the material has not been thoroughly proven as a better mortar for exterior concrete-block walls in homes. With conventional Portland cement mortar, the block's irregularity is evened with a little extra mortar. Since there is little thickness to the epoxy resin mortars, a mason has nothing with which to make adjustments. So, if the masonry blocks are uneven, the wall will be irregular.

Hollow Beams Serve Well-May Cut Costs in Future



Cutaway of plywood "skin" shows 2x4" frame, stiffener.

"Box beams" are the latest addition to a framing contractor's vocabulary. Though not proven as a cost-cutter in homes as yet, these lightweight, but heavy-duty beams, have proven themselves in commercial applications as ridge and floor beams, lintels, and rafters. Consisting of plywood "skins" glued or nail-glued to the outside of 2x4" frames, they resemble standard wood timbers of comparable size.

But they are stronger than standard timbers on a pound-for-pound basis.

In homes they have been used for special applications: foundation beams (see photo), ridge beams, lintels over garage doors.

Glue will hold the beams together. The principal ingredient, a phrenolic resin, makes a bond that is stronger than the wood itself, and has proven to last indefinitely when applied under proper conditions.

INSPIRES RISE IN HOUSING VALUE

PIPING BATTLE CONTINUES

The battle of new products versus old appears to be more lively in the field of underground waste piping than anywhere else. The established materials, cast iron and vitrified clay, are vying with bituminous fiber, asbestos cement, and the newest additions, copper, and rubbermodified styrene.

It's fair to say that building inspectors will be most favorably inclined to accept east iron or clay pipe, will sometimes reject bituminous fiber and asbestos cement sewerage pipe, and will be least likely to accept copper or the plastic pipe. These decisions often stem from lack of technical knowledge—a situation that is fortunately changing for the better. You can save money with some of the new materials, so it's worth checking to see if you can use them.

YOU WON'T GET COLD FEET

Slab foundations that make cold floors are a thing of the past when polyethylene vapor barriers (noted elsewhere) and rigid insulation are used to protect the foundation.

If your home is being built on a slab, and you manage to see the job before the concrete is poured, you'll notice a lightweight, rigid, cellular material attached to the inside of the foundation wall. It is also laid around the inside perimeter of your house—for about 18" from the foundation wall—on the tamped fill that will receive the concrete. This is what stops house heat from escaping through the slab. It is produced of foamed polystyrene, foamed urethane, cellular glass, or fibrous glass

Here's a case where a new material is not used to replace an old material. It was developed to solve the insulation problem for the slab foundation—a system that is not much more than 15 years old.

If you take a close look at the box beam photograph at the left, you will see a black liner against the foundation. It's rigid insulation.

Spurred by Research, Builders Increase Production, Sharpen Construction Techniques, and Deliver Homes With More Value for Your Dollar

In just another 35 hours of working time, the house below would be finished and ready for you to move in. Each of the three sections lifted in place by the crane has been factory finished, and requires only minor painting and sealing.

The photo shows that home building has entered the machine age with a bang. The carpenter-contractor who starts your home in April and turns it over to you in October is being replaced by thousands of businessmen-builders who begin your new home in April and hand you the keys in May.

It's probably true that the most important reason is the builder's metamorphosis from foreman to business executive. For example, before 1946, a builder could lose four or five



days of working time because a plumber didn't
show up. The job had to
stop until piping was installed, and every day cost
the builder—and you—
more money. Quite often
the builder contracted for
no more than three houses
a year—if that. He oper-

ated his business from a drawer in his kitchen, and construction co-ordination was a haphazardly planned thing. Often there was no plan at all.

Today, the average merchant builder erects more than 25 houses a year. He generally operates from an office, has clerical help, keeps a sensible accounting system, and maintains a planned production schedule. His plumbers show up on time because the schedule was set up well in advance. If they don't, the next contract goes to another plumber.

The builder didn't create this renaissance in home construction by himself. The ingredient that helped him was, and still is, research. Before 1940, research in home building was about as evident as the atomic-powered monorail is today. Compared to fields like medicine, machinery, biology, and chemistry, it's an infant.

But, research in home building is growing fast. And, it is you who benefits most. The new house you buy today gives you more value for your dollar.

Then too, homes today are fun to live in. The remarkable flood of new products—from structural members to gadgets—has changed the 1946 home far more than you suspect.

Nearly all these products and techniques are equally at home in remodeling. So, whether you plan to buy or build a new home or remodel your present one, the parade of products and techniques on these pages shows what you can get now.

Trusses Do More Than Substitute for Rafters, Beams

Three men worked five hours recently in assembling 16 roof trusses, trucking them to the building site, putting them up, nailing down sheathing and building paper, and shingling the entire roof. This

One building expert has said that by using roof trusses it's possible to save up to \$100, depending upon the size of the house you build.

Inside your new home (or your room addition), trusses make it possible to have any floor plan you want, since interior walls need not be load-bearing. (Partitions can be placed anywhere in the house.)



One of several designs, "W" truss cuts costs many ways.

was not a one-time demonstration, but a run-ofthe-mill construction job. In it lies the big advantage of using roof trusses instead of rafters and joistsa saving in time.

Also, when the roof can be closed in in only twothirds of a day, the rest of the construction job can move along more quicklyin any kind of weather.

Trusses are most often manufactured locally by building material dealers. but your builder can fabricate them on the site or in his own shop. If properly designed, they need be on only 24" centers, instead of the conventional 16". They are assembled with nails, nails and glue, glue alone, or with metal gusset plates at the joints.

FLOORS GO DOWN FAST WITH BIG PANELS

Building Floors No Longer a Time-Consuming Job Two New Systems Developed by Group Speed Floor Assembly Without Cutting Strength

If you watched your home being constructed, you probably had a look at the floor skeleton-made of joists and beams topped with a subfloor of "one-by" planking laid out diagonally. There isn't a flaw in this floor's performance; it just takes too long to assemble. And, as always, construction time costs you money.

Today, there are at least two new, faster methods that have saved from \$25 to \$100 per house. The first is a floor panel that looks very much like a pallet or rough platform. It's made of a 4x8' sheet of plywood nailed to six 2x4s, spaced 16" on center. These panels drop onto beams built into the foundation on 4' centers. The beams may be standard wood timbers, or box beams, described on the previous page.

The second system is even simpler. It employs 118" thick sheets of plywood fitted together on the long sides with tongue and groove. These, too, are produced in a standard 4x8' size, and fit directly over foundation beams on 4' centers. One advantage of this system is the attractive beamed-ceiling effect on the underside of the floor-ideal for a future recreation room. Both systems have been thoroughly field tested for strength, and both were developed by the Douglas Fir Plywood Association. A word of caution: you may find it difficult to buy this plywood locally. If so, write to us for the source.

Wall Panels Have Sturdy Present, Exciting Future

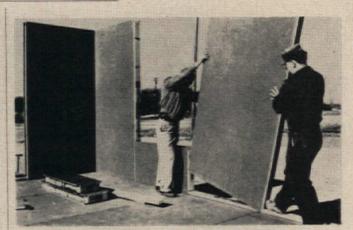
Experts agree one of the symbols of a new era in residential construction is the wall panel. More than almost anything else it has cut construction time and lowered costs for both big builder and small. It has finally given status to the much maligned prefabricated home manufacturers.

In simplest form, the panel is no more than a conventional stud-wall assembled off the site in modular sizes-usually 4x8'. One of the latest additions to the field is a stressed-skin panel with a foamed polystyrene core. Sometimes called a sandwich panel, because of its layered construction, it

combines in one unit: exterior siding (often primed, occasionally finished), insulation, vapor barrier, and interior surface (generally unfinished). It usually is load-bearing.

There is also a wide range of partition panels now on the market. They, too, begin with a standard stud-framed wall, and run through panels with polystyrene foam, wood swirl, balsa wood honeycomb. and many other cores, with an equally wide variety of "skins," such as gypsum board, hardboard, plywood, and aluminum.

Nor are panels limited to walls and partitions. They are presently in use



Typical wall panel is positioned by two men in about two minutes. All four walls are up in less than half a day.

on roofs, and elsewhere we describe a modified panel that serves as a floor.

There are very few people in the industry who do

panels, in one form or another, will be a continuing and practical answer to getting a better house for less money, principally by not now believe that wall reducing on-site labor costs.

HEAT PUMPS BETTER BUILT BETTER LOOKING

When the housing boom began in 1946, almost no one knew what a heat pump was. Today, it's a good bet you and your neighbors



Here is typical indoor unit.

know heat pumps are combined heating and cooling units operating on a longestablished principle of transferring heat to or from the air outside your house.

They are operated elec-

trically, although it's likely that gas will get into the residential field in a few years. When heat pumps first went on the market in 1954, they looked like mastodons compared to the units produced today (see sketch). Now, they are available as through-thewall room units as well as for central cooling and heating systems.

During the period 1954 to 1962, the average unit price of heat pumps has been cut in half. During the same period, of course, the general price level on all products has gone up.

The units handle a cooling cycle easily, and have been immensely popular throughout the Southern states. One drawback in the North, however, is the need for supplemental heat in winter. Essentially, this happens anywhere winter temperatures frequently drop below 35 degrees, although it's been estimated that supplemental heat (generally from an electric coil in the unit) is needed only ten per cent of the heating season.

INTERIOR DOORS SURFACE-HUNG

Surface-mounted doors that are either standard or ceiling height can shave from \$30 to \$50 and possibly more from your house cost. As their name implies, the doors fit over the surface of the door openings rather than in them. This eliminates the need for most all door trim, and the ceiling-height types make the door header framing unnecessary. Hardware is also mounted on the wall surface, and the doors can be latched or locked shut. The ceiling-high units provide better air circulation, particularly with a warm air heating system.

Insulating Glass Improved

If (1) you want big expanses of glass, and (2) you don't want to lose winter heat or summer cooling, insulating glass is your answer. Big news for you: the glass is now available in sliding glass doors and movable windows. Cost is higher than a single plate of glass, but lowered heating costs make it worth while.

Wonderful World of Wood Uses the Whole Tree and More

Research and Field Tests by Leading U.S. Timber Mills Give Wood New, Fascinating Qualities

The day is fast approaching when wood will do almost anything we wish in construction. Without destroying the good qualities of wood, we may be able to eliminate termites and fungus damage, or reduce expansion and contraction to almost nothing (no more warping), or make wood resistant to fire, or produce it in any size we want, no matter what the size of the original tree. All of this has been done in the laboratory. Much of it is commercially available, although at prices that are sometimes uneconomical.

Here are some of the things that can be used in your house now:

- Pressure-treated lumber. Specially treated in the mill with chemicals under controlled pressure and temperature, this wood is ideal for the underpinnings of your house because it resists "dry rot" (brought on by fungi living on the right mixture of moisture and air), makes the wood distasteful to termites and carpenter ants. It costs more than untreated lumber, but if you want to be free of these pests, it's worth every penny.
- Finger-jointed wood. Here's wood practically any size you want, made from what was once scraps and waste. Scraps are planed smooth and straight, edge-glued, and fitted together at the ends with a joint that resembles the fingers of your hands locked together. With this system, panels can be made as long as 24', as wide as 54", and as thick as 4". At present this wood is used in homes for kitchen cabinets, shelving, and fascia or rake boards at the eaves. One of the most frequent uses of this jointed wood is for interior trim. Its cost is slightly higher than comparable materials, but as production increases, this cost will come down.
- Pre-primed wood. Wood siding that arrives on the job with a prime coat or sealer coat already applied has some advantages. According to one company, it saves up to 40 per cent in finishing costs. These costs build up on a conventional painting job because of bad weather—more than for any other reason. Every day your builder waits for good weather is costing him, and you, money. The material cost, as you might expect, is slightly higher than unfinished wood siding.
- Pre-finished siding. This is the next step, and one that has already been taken experimentally. It would eliminate all outside staining or painting on the job.
- Glue-laminate beams. Today these beams are seldom used in residential construction, since their application is

specialized and their cost for a single home would be high. In the meantime, you may see them as clear-span arches or straight beams in churches, super markets, and meeting halls. These beams are made of smaller pieces of wood, glued flat side to flat side.

on next page

HERE'S WHAT'S NEW OVER YOUR HEAD

New house or old house, the materials now available fit all conditions. Here are a few:

- Paint that doesn't drip. Latex paints mentioned elsewhere on these pages can be applied to your old (or new) ceiling with a brush or roller, and you could paint in your best clothes. It won't drip or spatter.
- Acoustical tile. Sound deadening qualities are good, but don't be sold one type over another because of better sound reduction. The differences are minimal and not evident to the human ear. Choose the tile for style, color, fire resistance, and moisture resistance. Four basic types are cellulose-fiber (now available with a low flame spread rating), mineral, glass-fiber, and asbestos. Big news for you is the wide range of decorative effects possible now, particularly with the cellulose-fiber types. Newest addition to the residential market: perforated metal tile, long a staple in commercial installations.
- Acoustical plank. Same idea as acoustical tile, but installation time is cut, because planks come in 16" widths up to 12' long. Less installation time means less cost for you. Ideal for vaulted or cathedral-type ceilings.
- Acoustical ceiling system. Suspended ceilings are no news to commercial contractors, but now a simplified type has been developed for you or your builder to install on your ceilings. It employs fiberglass planks dropped into simple aluminum channels suspended in a grid system from your present ceiling—or from your joists in a new home. An advantage: clear fiberglass panels can be substituted for the planks when you want a luminous ceiling—in part or in whole.

SPECTRUM OF HEATING VASTLY WIDENED SINCE WORLD WAR II

In 1946, experimentation aimed at developing better and less costly ways to heat homes was beginning to get under way. Today you can practically name it, and the industry can provide it.

To cite a few: central warm air heating from units in your basement, crawl space, attic, or closet, powered by gas, oil, and most recently, electricity; greatly improved gas or electric space heaters; hot water baseboard heating (a big improvement over radiators); radiant heat from electric resistance or hot water coils, and the heat pump, mentioned elsewhere.

You can even heat your patio in cold weather with outdoor radiant units, gas or electric, and you can melt the snow in your driveway with electric or hot water coils laid beneath the driveway surface.

Although a great deal depends on installation, it's fair to say that generally, operating a warm air heating system costs the least; hot water heating falls somewhere in the middle; and electric baseboard heating or electric radiant panel heating is slightly more expensive. If properly installed, all systems will provide comfort in winter. In reverse to the order above, however, a bad installation will show up least readily in an electric system, moderately in hot water heating, and show up most readily in warm air systems.

ALUMINUM IS LATEST ADDITION FOR YOUR ROOF

The latest addition to the family of roofing materials is aluminum. Most roofers still shy away from using it in shingle form, because "the manufacturers haven't worked the bugs out." There's some truth to that, although National Homes introduced a prefabricated home with aluminum shingles three years ago, and their experience to date has been favorable. The old faithfuls-asphalt, asbestos-cement, slate, clay and cement tile, wood, terne, and copperhave been updated to give you longer lasting roofs, often at the same or slightly less cost. Biggest potential money saver on the horizon: sprayed roofings that go on fast, last just as long or longer than most shingles. The hold-up: it's still in the experimental stage and cost is out of reason, compared with shingling.

LATEX PAINTS GOOD FOR EXTERIOR WOOD

Weather is tough on all parts of a home, but often proves toughest on painted wood siding. The new latex paints, though not the final answer, may prove to be the best answer to date for resistance to the elements. Offered extensively for the first time in 1959 as an exterior finish for wood, these paints have proved themselves.

Probably the most outstanding advantage: they can be applied over damp surfaces, provided the temperature is not below 45° F. This means you can paint your house in spring, summer, or fall, and you can begin early in the morning before the dew dries. Two coats are needed over unpainted wood, and as you might expect, the paints can be water thinned and the brushes water cleaned. One drawback: when painting over an old oil coat, you must apply one coat of a special primer and two coats of latex paint for it to be effective—a process that costs more than cleaning and repainting with an oil.

Some more advantages: the new exterior latex paints are more resistant to blistering than oils or alkyds. Color retention and resistance to yellowing are good. It is claimed, but not as yet substantially proven, that the latex paints are considerably longer lasting than oils. Their retail price is only slightly higher than oils of the same grade—generally no more than 50c per gallon. And, the acrylic system latex paints are, for the most part, superior to the vinyl system types.

RANGE OF SIDINGS GREAT; SOME ELIMINATE SHEATHING

A short 15 years ago, you had little choice in siding your home. You used wood or masonry. Today the range of materials is wide and colorful. They include aluminum, asbestos-cement, plywood, hardboard, insulating board, 1" thick brick veneer, molded stone, and still very much in the running-wood. Figuring on installed cost, your most expensive siding will be brick veneer and molded stone, often running over \$200 a square (100 sq. ft.). Wood shingles sometimes figure out to less than \$30 a square, and the other materials fall between \$30 and \$70 a square, with aluminum siding near the top of that range. New finishes have made all the materials longer lasting and more resistant to fading.

One of the most encouraging advances is the development of sidings that eliminate the need for sheathing, and sometimes diagonal bracing (needed in conventional framing to deter racking stresses). This can save \$100 to \$150 in your new home.

CONCRETE BLOCK WALL INSULATION SIMPLIFIED

Insulating a concrete block wall was once a time-consuming and relatively expensive job. First, 1" or 2" furring strips had to be attached to the inside of the wall with batt or blanket insulation placed between the strips. Next, a conventional interior wall was applied to the outside of the furring strips.

Now, several products have been developed that cut labor costs. Rigid insulation can be applied directly to the inside face of the blocks with a mastic. These rigid panels can be made of foamed polystyrene, foamed urethane, or cellular glass. Some experimental work has been done with liquid urethane that is spray-foamed in place, but it won't be ready for your new house this year. Installed cost in the New York City area runs around 35c a square foot of wall. One big advantage of the foamed materials—plaster can be applied directly over them.

Also, about two years ago, a water-repellent vermiculite granule was developed. As a granular fill, it can be poured directly into concrete block cavities by the most unskilled laborer—or by you, if it's a weekend project. Estimates of cost run from 12c to 15c a square foot. The fill will deliver just a shade less insulation value than 1" of foamed polystyrene, for example, but it's not enough to make more than a few dollars' difference in your yearly heating bill.

PLUMBING MAY COST YOU LESS

For years, skeptics in the building industry said plumbing would never advance. Manufacturers have proven them wrong. (continued on page 61)

ROBERT W. HOUSEMAN

ward-looking in decorating this year? Look at these name-designer rooms and see. They're some of the rooms that stole the show at the 1962 Decoration and Design Show in New York City by members of the American Institute of Interior Designers. They're filled with the shape and color and texture of things to come. They shimmer with stylish ideas for your own home.

Look sharp, as we take you on a guided tour. Do you notice the trend toward architectural designs—col-

What's fresh and fashionable and for- | Look at the beautiful new breed of provincial. Look at the new excitement in rugs and flooring.

The lively art of decorating was never livelier! There's more versatility in design and style than we've seen in a long time-more color, more comfort, more livability. You'll soon be seeing these trends in model rooms everywhere. Be inspired by them. Borrow from them freely—a color here, a fabric there, a seating arrangement. But remember—this is the year to be bold, positive, individual. Extremes in theme are the order of umns, arches, beams? Do you notice the day. Be very Early American or the new deeper wall tones, and the very French provincial. The sky's the use of pattern, pattern everywhere? limit as long as you please yourself.

Architectural Motifs make news in this strikingly simple living-dining room designed by Braswell-Cook for Kentile. Fireplace arch is repeated at windows. Handsome vinyl flooring and walls provide elegant neutral background for unusual contemporary furnishings.

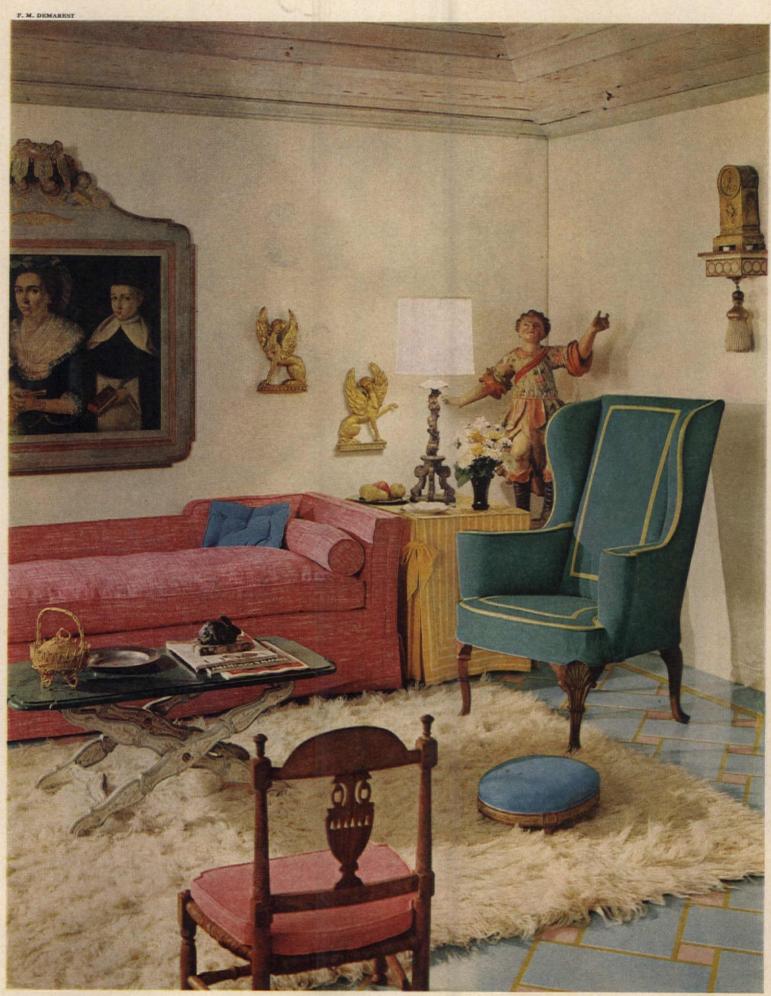




Two-Season Bedroom

designed by Paul Krauss, A.I.D.,
for Avisco, sparkles with
this year's decorating dash.
Dressed for the winter, the
room is a rich emerald-green
oasis. Come summer, the
ingenious fabric-covered wall
panels can be reversed in minutes
to their summer-fresh side of
beige-and-white stripes.
With a change of bedspreads and
slip covers, and airy Roman
shades instead of draperies,
you'd never know it was
the same room!





Sunny Spanish Colors of yellow, green, and rose light up this very 1962 living room designed by Macy's Decorating Department. The unusual color scheme was inspired by a fragment of a 17th century Spanish building. Under a blue ceiling framed

with pecky cypress, mellow Spanish reproductions combine with vivid upholstered pieces for a striking effect. The floor, too, gets its share of color—it's bright patterned vinyl with a lush white rug to dramatize the long rose tweed sofa and pull-up chairs.



Here's What Six Top Interior Designers Say About Home Fashions

ETHYLG.ALPER, A.I.D., who has great sense-of-color, says, "There is a return to rich, jewellike colors—ruby red, sapphire blue, strong greens, molten golds. Furniture has a solid look, an aura of Renaissance scaled to our smaller homes."



JAMES AMSTER, A.I.D., known for his grasp of individual decorating problems, says, "Your home is right for you when it expresses your personality. There's a growing trend in knowledgeable use of art to personalize decorating."



JOHN & EARLINE BRICE, A.I.D., who design many types of home furnishings for manufacture, say that, "1962 will show a desire to be individual, the reawakening of interest in period styles, and a more positive use of color."





Gountry French family room designed by John Bachstein, A.I.D., is chock-full of decorating wit and wisdom. Typical of the trend toward prettier, more livable family rooms, this provincial-flavored retreat houses a world of comfort in a relaxing blue, brown, and white color scheme. Everything a meant-to-be-lived-in room should have is here—comfortable seating area with day bed for guests, homework area, game or snack table, barbecue corner, utility counter with sink and refrigerator, television, and well-planned storage. Here's proof how much good fashion and functionalism you can fit into a small area. And notice how effectively modern paintings and fabrics blend with period furnishings.



Shopping Information, page 81

BARBARA BARONDESS MacLEAN, A.I.D., a woman with great dramatic decorating

flair, says, "The neutral look is out. A conglomeration of furniture—the 'everything goes' look will become a thing of the past. Periods and styles, contemporary or traditional, will be better defined in 1962."



ELLEN LEHMAN McCLUSKEY, president of the New York Chapter, A.I.D., noted for

her ingenious use of architectural features, says, "The lived-in look is an important trend in both traditional and contemporary homes. Clever storage and architectural details will improve boxlike rooms."



WILLIAM PAHLMANN, F.A.I.D., internationally famed for his harmonious blend-

ing of traditional and contemporary interiors, foresees the development of a new style, "The American Look." "I look forward to a new sophistication, with increasing knowledge, and interest in good design."



You can buy plans for this Blueprint House No. 78

If you've been undecided whether your next home should be contemporary or traditional, this low rambling home of Mr. and Mrs. William Ghent presents a strong case for contemporary. The Ghents with their two small sons had their share of cramped apartments. That's why they were convinced that living and sleeping areas should be separated—an essential element in the two-zone plan of their house. They also wanted a home tailored to their needs now and one that would function just as happily when the children reach the age of entertaining. The master bedroom with a

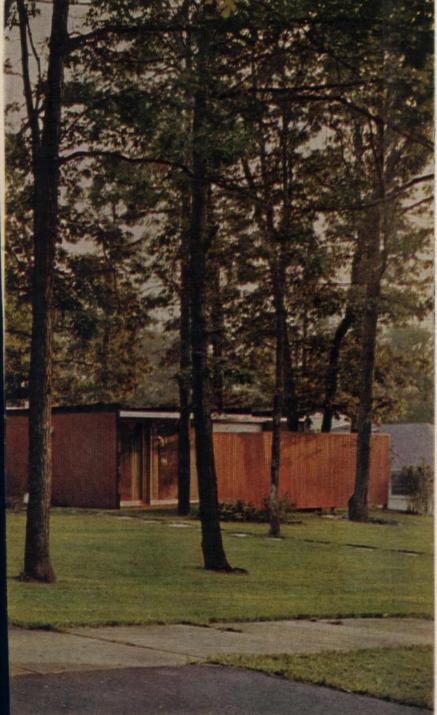


Long, angular lines of the house make the most of the beautiful wooded site. Entry is recessed between the two zones.

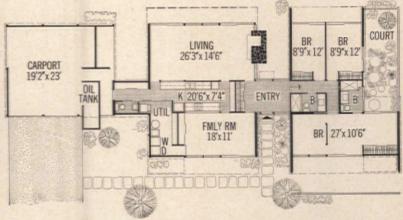
THIS LOW, LIVABLE CONTEMPORARY CAN SAVE YOU MONEY

sitting room is the keynote to this flexibility. It will become a wonderful parents' retreat when the larger living areas become the scene of high-school parties.

Architect Gerald Siegwart makes this point for the Ghents' choice of contemporary. He estimates that a traditional house with the same materials and amount of space would have cost at least \$5000 more—savings here coming from advanced building techniques and lower labor costs. For example: simplified construction—beams 9' on center, roof deck that serves as ceiling and insulation, minimum use of window framing.



ARCHITECT: GERALD A. SIEGWART LANDSCAPE ARCHITECT; THEODORE BRICKMAN INFORMATION: JESSIE WALKE



Well-designed house is divided into two zones. Master bedroom has its own sitting room, private garden. Below, bent plywood on iron frame provides front-door protection.

PHOTOGRAPHER: KRANZTEN STUDIO



WE DECORATE THE INSIDE WITH LIVELY COLORS

The Ghents showed great courage in using exciting ideas and modern materials for both the exterior and interior of their contemporary home, but when it came to furnishings, they were hesitant. "We're tired of beige and gray and brown," said Bill Ghent. "We're ready for color—but we're not sure how much." That's when *The American Home* Decorating Department stepped in. We approved of their instinctive yearning for color. We felt that the outgoing, friendly architecture of the house itself called for an extravagant decorating palette. So, we proceeded to bring the great outdoors indoors. We selected modified modern furniture with a pleasing price tag and a handsome finish to complement the paneled walls. We chose the sofa in light bright blue and a pair of high-backed chairs in brilliant turquoise. For accent and emphasis, we added a chair of pure purple. Daring? "Yes—but," says Donna Ghent happily, "now our house looks alive!" (continued)

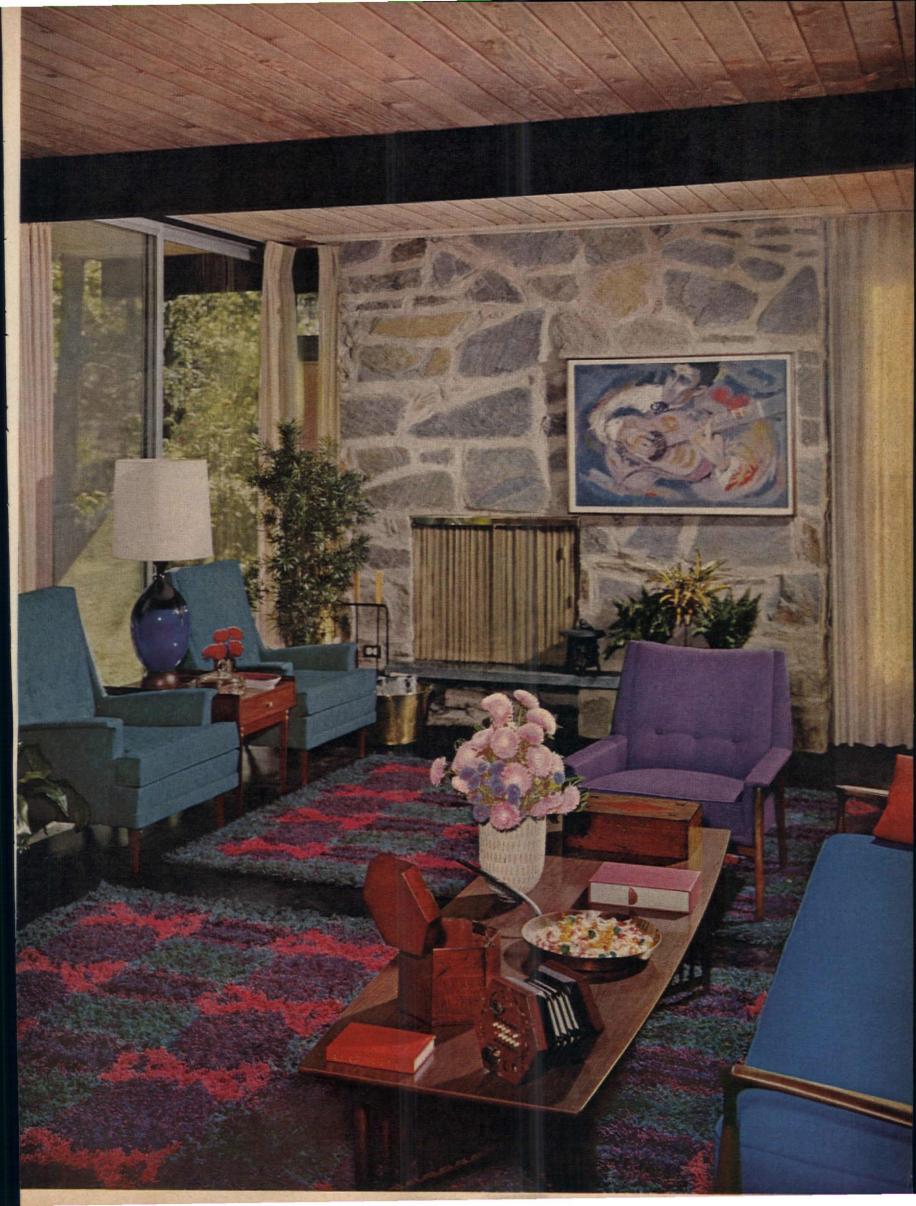


An interior color scheme with bright and bold accents makes a dramatic contrast to the exterior of this contemporary home. Light-scaled furniture with textured fabrics and deep pile rugs add to the effect.



Is blue, turquoise, purple, and red the only color scheme for the Ghents' living room? No, we didn't think so, and have supplied another choice. In this second scheme, we chose a yellow, orange, and green palette with the autumnal outdoor colors available in this same furniture.

Ed. Note: If you get cold feet, as the Ghents did, when it comes to picking decorator colors, experiment a little. You can enlist the aid of a professional decorator—many furniture and department stores offer this service. Look at colors in stores and magazines. Collect samples of paints, paper, fabrics. You'll soon see which colors are best for you—then make the most of them!







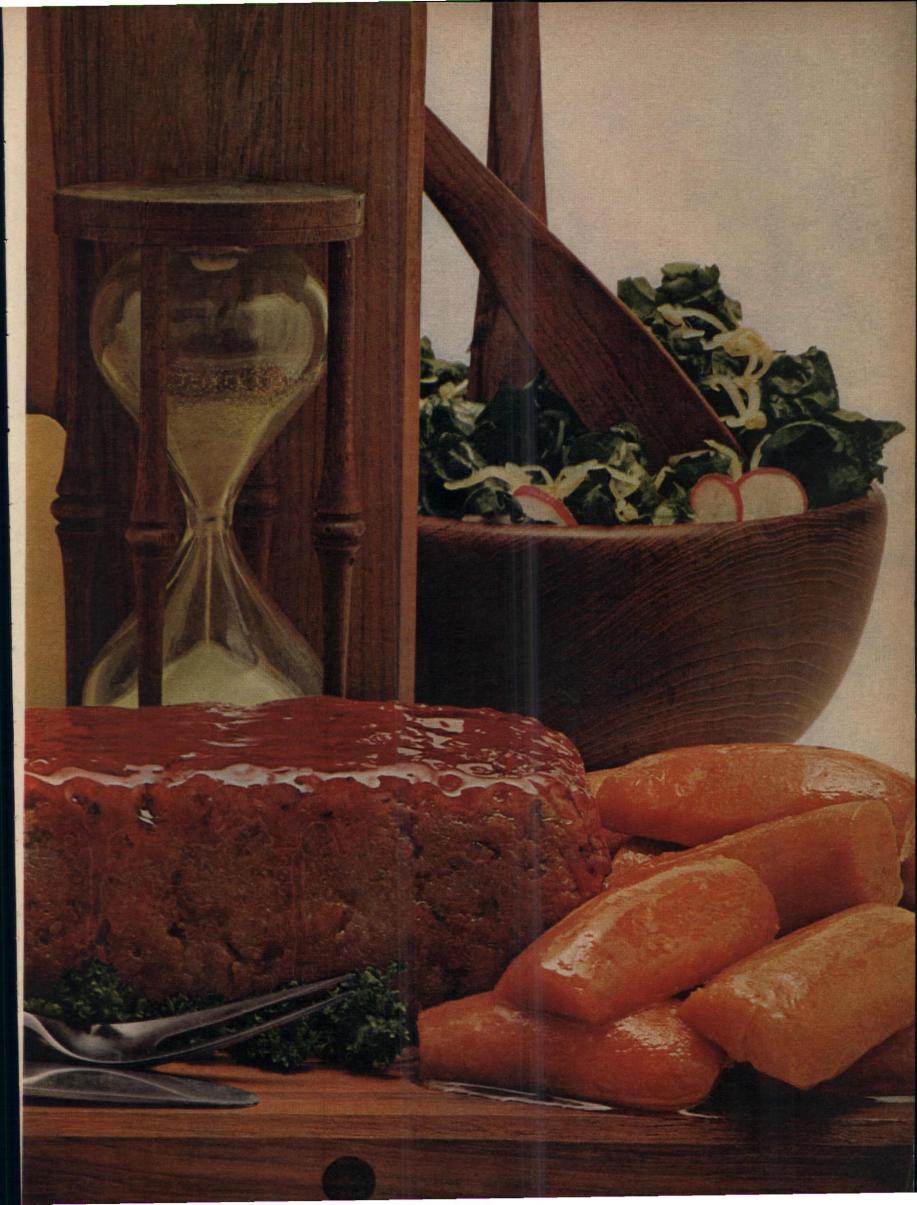


The living area of the Ghents' bedroom looks out on the private garden beyond. Decorating here is simple with blue carpeting, purple chair, desk, and chest of drawers. Sleeping area is separate.

Having settled on blues and purples for our dominant scheme, we took a bold color sidetrack when we came to the family room. We drenched this informal room in primary colors of red, blue, and yellow, even painting the ventilator hood. Burlap draperies in bright mustard were the starting point here. The mustard-and-orange cotton rug gives the room pattern and texture. The table, with plastic laminated top, extending out from the kitchen counter was Mrs. Ghent's idea, and a good one. We decided to use simple, inexpensive chairs around this with seats of orange. The horizontal "yarn" picture over the sofa picks up the yellows and reds.

Family room-kitchen is the most lived-in room in the Ghents' house. Work counter with four-burner cooking top is convenient to dining table. Family room faces the street side of the house.





SPECIAL smörgåsbord

The smörgåsbord was originally a country feast to which each lady brought the specialty of her own shining kitchen. It has now become one of America's most popular and elegant entertaining institutions.

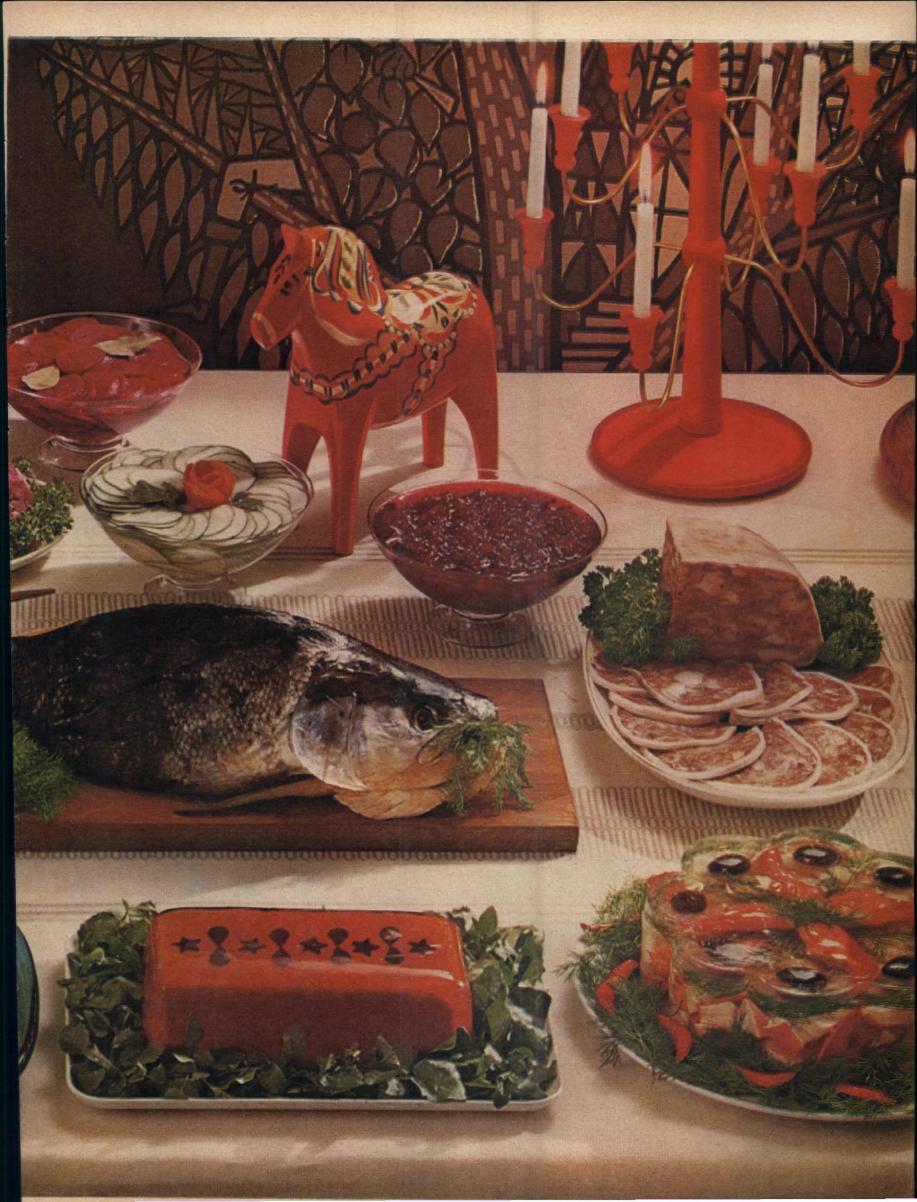
Does the long, glittering table with its array of colorful, mouth-watering concoctions seem bewildering? On these pages, we show you how to prepare, arrange, and *enjoy* a special-occasion smörgåsbord.

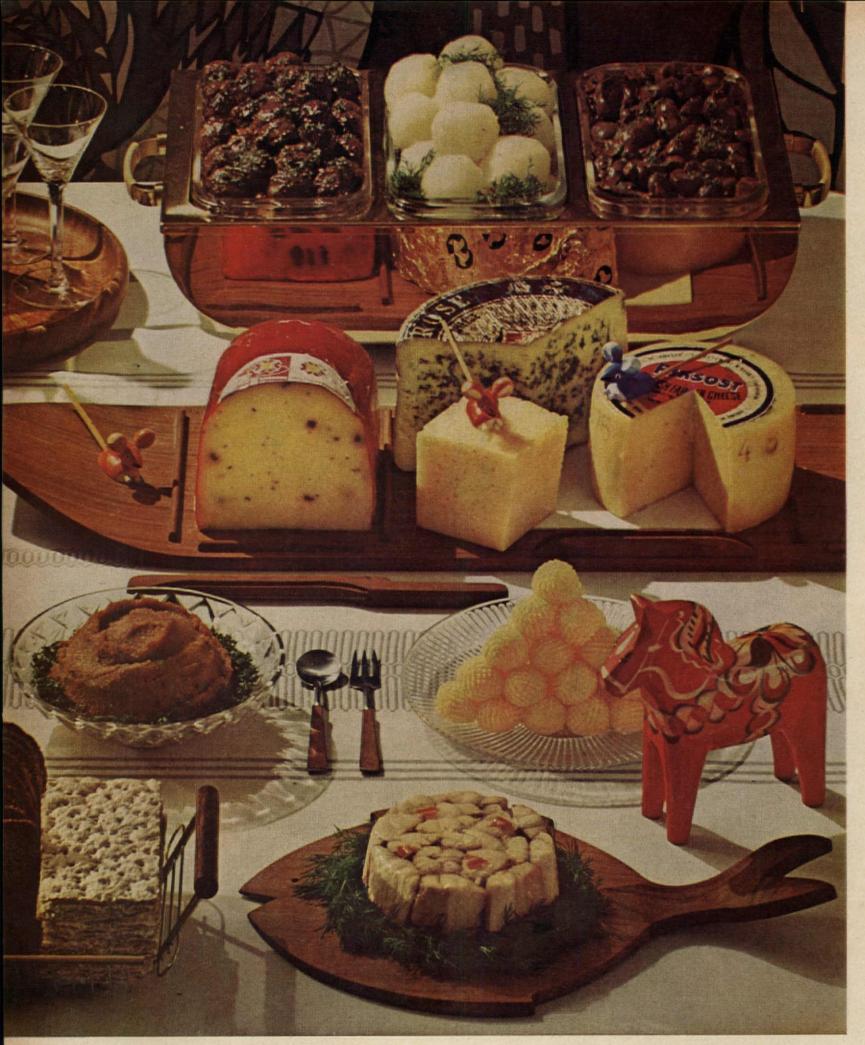
Whatever the number of dishes, smörgåsbord should be eaten in courses. Begin with one of the palate-teasing herring or anchovy dishes. Take a clean plate and meander through the fish combinations, such as Lobster Mold, then on to the cold cuts and rich Liver Pâté. The hot dishes come next-tiny Swedish Meat Balls bubbling in gravy, potatoes, succulent Kidney Sauté with mushrooms. Linger awhile over a light salad—then over to the cheese board! (continued)

Top to bottom, left to right: Danish Ham with Asparagus and Tomatoes, Herring Salad,* Pickled Beets, Pickled Cucumber, Lingonberries, Smoked Salmon, Pressed Headcheese,* Smoked Eel, Anchovies Swedish, Pickled Herring, Liver Pâté,* Lobster Mold.*

*Recipes on page 53







The secret of successful smörgåsbord-ing is restraint. Resist the temptation to load your plate. Make several visits to the table. Choose small delectable portions of foods that blend. You should feel pleasantly stuffed—with just a smidgen of room left for dessert (very delicate) and coffee (very strong).

*Recipes on page 53

Top to bottom, left to right: Swedish Meat Balls,* Boiled Polatoes with Dill, Kidney Sauté,* Nokkelost, Danish Bleu, Vasterbottens Gradd Ost, Riksost, Swedish Caviar, Butter Balls, and Jellied Pickled Eel.



GREEN GIANT
 PEAS CHAMBOURD

Preparation time: 5 minutes Cooking time: 20 minutes



1 can (17-oz.) Green Giant Brand peas with onions, drained ½ cup catsup ½ teaspoon salt Dash pepper ⅓ cup grated Parmesan cheese

 \bullet In a greased 1 quart casserole, combine Green Giant Brand peas with onions, catsup, salt and pepper. Sprinkle with grated cheese. Bake in 350° F. oven 20 minutes. Makes 4 servings



• GREEN GIANT PEAS-BEEF ORLÉANS

Preparation time: 15 minutes Cooking time: 5 minutes



1 pound ground beef

1/4 cup flour

- 2 cans (101/2-oz. each) beef consommé
- 2 tablespoons minced parsley
- 2 teaspoons prepared mustard
- 1 teaspoon Worcestershire sauce
- 1 can (17-oz.) Green Giant Brand peas with onions, drained
- 3 cups hot cooked rice

In a large skillet, break up and brown ground beef. Drain off all but 3-4 table-spoons of fat and stir in flour. Add a little consommé, stirring until smooth. Stir in remaining consommé, parsley, mustard and Worcestershire sauce. Cook, stirring occasionally, until slightly thickened. Add Green Giant Brand peas with onions. Heat and serve over rice.



The

Jolly Green Giant

An elegant new taste. Very young and rather small peas mixed with imported baby onions. A touch of gourmet seasoning brings out the best in both. Green Giant Brand early peas with tiny imported onions. Give your family the pleasure soon.

GREEN GIANT

Good things from the garden

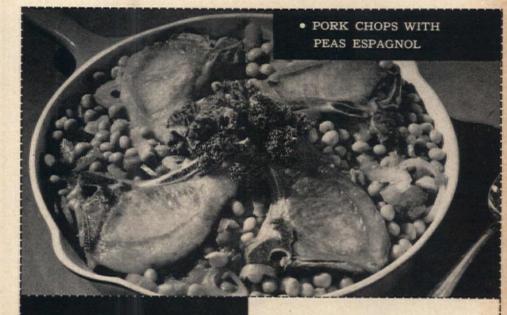
Makes 4 servings



TAKE A CAN OF PEAS

Nobody will deny that tender, delicious green peas are one of America's favorite vegetables. But it's time you surrounded the queen pea with a little fuss and fanfare. Take advantage of your family's fondness for peas to create a whole winter dinner around them. In Green Peas With Shrimp Curry, pretty green peas and rosy pink shrimp are laid on a bed of delicate noodles and encircled with crunchy French fried onion rings. For a hearty, nutritious main dish with a gourmet air, this one's hard to beat. Equally attractive and appetizing is Green Pea Supper Soufflé. It's a nourishing combination of peas, eggs, and Cheddar cheese that's easy to prepare and requires no watching over while it bakes in your oven. Be sure to serve it at its glorious peak of soufflé perfection! Tender green peas and meaty loin pork chops are combined in Pork Chops With Peas Espagnol for a zesty cold-weather casserole, along with juicy red tomatoes, grated Parmesan cheese, and piquant seasonings. On this and the next page are these main-dish recipes, and suggestions for other ways to use a can of peas-in side dishes, salads, casseroles, and lunch-

(continued)



• GREEN PEA SUPPER SOUFFLÉ

¼ c. butter or margarine ¼ c. flour 1 tsp. salt I tsp. dry mustard 1 tbs. Worcestershire sauce Preparation time: 20 min. Baking time: 1 hr.

2 c. shredded Cheddar cheese 4 eggs

l can (about 1 lb.) green peas, drained

• Melt butter or margarine in saucepan; blend in flour, salt, mustard, and Worcestershire. Add milk slowly; cook over medium heat, stirring constantly, until smooth and thickened. Add cheese, turn heat low; stir until cheese is melted. Set oven at slow (325° F.). Separate eggs; beat yolks slightly; stir in cheese mixture; add peas. Beat whites until stiff, but not dry; fold into cheese mixture. Pour into ungreased 2½-quart casserole. Bake 1 hour or until done. Serve at once.

Makes 6 servings

415 cal. per serving

Source of Vitamins A, B, C

Tested in The American Home Kitchens



eon dishes.

PORK CHOPS WITH PEAS ESPAGNOL

4 loin pork chops 2 tbs. pure vegetable oil 1 medium-sized onion, sliced ½ c. diced celery ½ diced green pepper 1 tsp. salt 1/2 tsp. basil or oregano

Preparation time: 25 min. Baking time: 50-60 min.

1/4 tsp. seasoned pepper 2 tbs. grated Parmesan cheese 1 can (1 lb.) tomatoes 1 can (about 1 lb.) green peas, drained; or 1 can (about 1 lb.) green peas with onions, drained

 Brown chops in 1 tablespoon hot oil in skillet; remove; keep warm. Sauté onion, celery, and green pepper in remaining oil until soft. Stir in salt, basil or oregano, pepper, cheese, and tomatoes; add peas; stir gently to blend. Place chops on top; cover. Bake in moderate oven (350° F.) 50 minutes, or until chops are tender.

Makes 4 servings

385 cal. per serving

Source of Vitamins A, B, C

Tested in The American Home Kitchens



• GREEN PEAS WITH SHRIMP CURRY

3 c. butter or margarine 3 tbs. flour 1 tsp. seasoned salt 1 tsp. curry powder ¼ tsp. pepper 1½ cups milk

1 can (about 1 lb.) green peas, drained;

1 pkg. (8 oz.) noodles, cooked and drained

• Melt butter or margarine in saucepan; blend in flour, salt, curry, and pepper; add milk slowly. Cook over medium heat, stirring constantly, until smooth and thickened. Set oven at moderate (350° F.). Spoon noodles into bottom of 2-quart casserole. Add peas, shrimp, and parsley to sauce; spoon mixture over noodles. Bake 10 minutes; spoon onions around edge; bake an additional 5 minutes.

Makes 6 servings

333 cal. per serving

Source of Vitamins A, B, C

Tested in THE AMERICAN HOME KITCHENS

Preparation time: 15 min.

1 ths. chopped parsley

rings

or 1 can (about 1 lb.) green

peas with onions, drained

frozen shrimp, cooked; or 2

cans (4½-5 oz. each) shrimp

1 pkg. (10 oz.) shelled, de-veined

1 can (3½ oz.) French-fried onion

Baking time: 15 min.

MORE WAYS TO SERVE PEAS

- Winter Salad Bowl with a colorful center of seasoned peas is a pretty dish of vitamins to set before the family. Drain 1 can of peas (about 1 pound); toss with 1 tablespoon diced pimiento, 1 tablespoon chopped parsley, 1 tablespoon minced onion, 1 tablespoon capers, and 4 cup bottled French dressing; chill I hour. Arrange washed and dried greens in salad bowl; spoon peas into center. Ring peas with hardcooked egg slices. Arrange other vegetables and julienne strips of meat and cheese in mounds on greens. Just before serving, toss with additional French dressing.
- Peas With Onions Au Gratin is a bubbling treat for a blustery night. Drain 1 can (about 1 pound) peas and onions and place in a shallow baking dish; sprinkle with salt and pepper. Add 6 tablespoons evaporated milk or light cream; sprinkle with ½ cup grated Cheddar cheese. Broil until cheese melts and top is delicately brown.
- Peas and Onions. Drain a can of the new peas with small white onions and add to a can of cream of chicken soup for a quick and easy dish. Or serve peas Holland style: Pour 1/4 cup liquid from can into saucepan; add 2 tablespoons butter or margarine, 2 teaspoons brown sugar, 2 teaspoons vinegar, and the drained peas and onions. Mix lightly, heat through; season to taste with salt and pepper.
- Creamed Peas are extra delicious with grated cheese, sautéed mushrooms, sliced water chestnuts, chopped salted peanuts or canned French fried onions.
- More Tips: Try cooking peas in 1/4 cup light cream instead of the can liquid. Try adding sour cream and chopped chives to drained peas; heat gently until warm. Try seasoning drained peas with tiny bread cubes sautéed in garlic-seasoned oil.

60-Minute Meal With Glazed Supper Loaf

Here are the recipes, shopping list, and time schedule. Clip along dotted lines, but do not separate the recipes. Fold on straight lines into one 3x5" unit with the menu card on top, and slip into transparent envelope for filing in your Menu Maker.



Preparation time: 10 min. Chilling time: 30 min.

LEMON APPLE WHIP

½ c. sugar I jar (8 oz.) applesauce Raspberry jelly

pkg. lemon-flavored chiffon pie

filling mix

¿ c. cold water

· Combine pie filling mix

and 1/2 cup boiling water; mix thoroughly. Add 1/2 cup cold water; beat vigorously with rotary beater or at highest speed on electric mixer until mixture is very foamy. Add ¼ cup sugar; beat vigorously about 3 minutes, or until

Source of vitamins A,

Do not overbeat. Fold in applesauce; layer into serving dishes

with jelly. Chill. Lettover whip may be stored, covered,

mixture stands in peaks.

Makes 4 to 6 servings

in the refrigerator.

Tested in THE AMERICAN HOME KITCHENS 243-162 cal. per serving

breads, cookies, and cakes cannot be a rule of thumb. The liquid and leavening agents will need to be considered. Try it as a glaze for baked ham, using equal parts of unsulphured molasses and prepared mustard. Or add 2 tablespoons molasses and 2 tablespoons vinegar and a few cloves to the syrup of canned fruit, such as cling peaches, for a special fruit sauce. For a quick barbecue sauce, blend together 1/4 cup molasses and 1/4 cup prepared mustard. Then add 3 tablespoons vinegar and 1 tablespoon Worcestershire sauce. Blend together equal

> for pan-glazed fruits. OUTDOOR CHEFS have moved inside, but still possess that longing for the "wood-fire" flavor of the great outdoors. If you will keep a bottle of liquid smoke on hand, you can carry that "outdoor" flavor inside too. Just a dash of liquid hickory smoke on your hamburgers, chicken, hot dogs, fish, or chops does it.

> parts of butter and molasses in a

skillet, and use a top-of-range glaze

Food Tidbits

TRICKS WITH MOLASSES. Try us-

ingit in ways where its golden brown

color, sweetness, and flavor can

substitute easily and most deliciously for brown sugar. But remember molasses is a liquid, that

the substitution in recipes for

PERFECT RICE. Measure 1 cup regular white rice, 2 cups water or bouillon, and 1 teaspoon salt into a saucepan. Bring to a boil. Stir. Cover tightly; cook over low heat 14 minutes or until liquid is absorbed and rice is tender.

For brown or parboiled rice, use 21/2 cups liquid. Cook brown rice 45 minutes; parboiled rice 20 minutes. Leftover rice, covered, may be refrigerated for one week.

WHAT'S A "COTTAGE ROLL"? It's a smoked pork shoulder butt, a handy cut that usually makes two meals for an average-sized family. FRAGRANT SCENT. Here's a tip

from Spain: When frying with olive oil add a few petals of dried rosemary to create a delightful scent. The Spanish also often add a generous amount of minced parsley to olive oil which not only adds to the flavor of fried foods but helps to prevent spattering.

READY-MIXED SAUCES are a special note for today's time-conscious homemaker. They add flavor and seasoning to a wide variety of dishes. They are carefully compounded of many ingredients, each measured and pretested to produce perfect

cans (12 oz. each) luncheon meat

can (1 lb. 10 oz.) syrup packed yams can (1 lb.) bean sprouts

package dry bread crumbs package (10 oz.) washed spinach

ingredients for home made)

Sottled French dressing (or

Spinach and Bean Sprout Salad Apple Glazed Supper Loaf Lemon Apple Whip French Dressing Ginger Cookies with Yams

hand: dry mustard, seasoned salt, sugar, butter or margarine.

Check your staples shelf to be sure these are on

jar applesauce package lemon-flavored chiffon

jar raspberry jelly

jar pickle relish jar apple jelly

pie filling mix

See other side of card for time schedule.



60-Minute Meal With Glazed Supper Loaf

Here are the recipes, shopping list, and time schedule. Clip along dotted lines, but do not separate the recipes. Fold on straight lines into one 3x5" unit with the menu card on top, and slip into transparent envelope for filing in your Menu Maker.

results. Available in dry-mix form, they include such varieties as:

Brown gravy, for meat dishes and casseroles.

White sauce, for vegetables, casseroles, and croquettes.

Cheese sauce, for soufflés, vegetables, and sea food.

Meat-loaf sauce, good not only on meat loaf, but for any similar dish calling for a rich sauce.

Light gravy, for poultry, veal, or tuna dishes.

Curry sauce, for sea food, fowl, lamb, or any dish calling for an exotic

Sour cream sauce, for dips, baked potatoes, salads.

Spaghetti sauce, for Italian dishes. Chili sauce, for Chili Con Carne and Mexican dishes.

NUTRITION STATUS of the nation is again the subject of weighty discussion. And one of our greatest problems is how to improve nutrition. There has been a growing tendency to think in terms of specific vitamins, or specific nutrients, thus giving rise to certain diet deficiencies. This type of thinking is archaic. It is time that we again remind ourselves to move to the broader approach—that no nutrient by itself can carry out the complete job of good health. We require adequate supplies of all nutrients in a daily diet.

All of us in the United States like to think of ourselves as being the best fed, most generally healthconscious nation in the world. Compared to many countries, we are, and chances are that most of us can list the staples of a sound daily diet. The trouble is we ignore the rules-we fall into poor eating habits which deprive us of the nutrition we need every day of our lives.

As a reminder, the four basic groups that should be included in your daily diet are:

- 1. Milk group. Doctors recommend three to four glasses daily for children; four or more for teenagers; two or more for adults. Cheese, ice cream, and other milkmade foods can supply part of your requirements.
- 2. Meat group. Eat two or more servings daily of beef, veal, lamb, pork, poultry, eggs, or fish-with dry beans, peas, nuts as alternates.
- 3. Vegetable and fruit group. You should have four or more servings of yellow or green vegetables, citrus fruits or tomatoes.
- 4. Bread and cereal group. Four or more servings daily of enriched or whole grain bread or cereal.



Source of vitamins A, C

125 cal. per serving

Makes 4 servings

Tested in THE AMERICAN HOME KITCHENS

over spinach; break into small pieces in salad bowl. Add bean sprouts; before serving, sprinkle with seasoned salt. Add dressing; toss gently

refrigerate. Just before serving, sprinkle with until ingredients are well coated.

Rinse and pick refrigerate. Just b

1 tsp. seasoned salt 4 c. French dressing

½ of 10 oz. pkg. washed spinach I can (1 lb.) bean sprouts, drained

seasoned salt

Preparation time: 10 min.

BEANSPROUT SALAD

SPINACH AND

APPLE GLAZED SUPPER LOAF WITH YAMS

> TIME SCHEDULE SHOPPING LIST

> > of the menu on reverse side for Apple Supper Loaf with Yams, Spinach and

ration of the Glazed Supp Beansprout

This is your working time schedule for the prepa

Salad, and Lemon Apple Whip.

Preparation time: 10 min. Baking time: 40 min.

2 cans (12 oz. each) luncheon meat ½ c. packaged dry bread crumbs ½ c. milk ¼ c. pickle relish egg

pieces in salad bowl. Add drained

bean sprouts to spinach; refrigerate. Make your own salad dressing. Glaze meat loaf, as recipe directs;

38

Prepare meat loaf; put in baking dish.
Add yams to baking dish. Brush loaf
and potatoes with melted butter or mar-

Turn on oven.

2021

Minutes

garine. Put in oven.

18

continue baking.

55 55 60

1 tsp, dry mustard 1 can (1 lb, 10 oz.) syrup-packed yams ½ c. melted butter or margarine ½ c. apple jelly

Set oven at moderate (350°F.). Chop luncheon meat very fine; add bread crumbs, egg, milk, pickle relish, and mustard; mix well. Press mixture firmly into greased 9x5x3-inch

loaf pan; turn out into baking pan. Drain yams, place in baking pan around meat loaf. Brush loaf and potatoes with melted butter or margarine; bake 30 minutes. Beat apple jelly with a fork; spoon over loaf; bake loaf 10 minutes longer until nicely glazed. elly with a fork; spoon over loaf; bake loaf Make coffee. Set table.
Add salt and dressing to salad; toss.
Remove loaf and potatoes from oven.
Now you're ready to serve.

B

Source of vitamins A,

preserves. Refrigerate. Wash, clean, and drain spinach; break Prepare Lemon Apple Whip; spoon into glasses with layer of jelly or

28

See other side of card for menu and shopping list

AMERICAN HOME RECIPES

Smörgåsbord

(pictured in color on pages 44, 45, and 46)

envelope plain gelatin

Fruffles or ripe olives

can consommé i c. cold water

Baking time: 1 hr. 50 min

13 c. heavy cream

7 slices bacon

medium-sized onion, chopped (1/2 c.)

1/2 lbs. ealves' liver

can anchovy fillets in oil

tbs. salt

Chilling time: overnight

Preparation time: 30 min

LIVER PÂTÉ

• LOBSTER MOLD

Soaking time: 6-8 hrs.

How to measure butter or margarine:

4 sticks (1 lb.)=2 c. 1 stick (1/4 lb.)=1/2 c. $\frac{1}{2}$ stick ($\frac{1}{8}$ lb.)= $\frac{1}{4}$ c. or 4 tbs.

envelope plain gelatin

tsp. ground cloves

10 whole allspice 10 whole white peppercorns

l bay leaf

3 lbs. breast of veal 2 lbs. lean pork 11/2 qts. water

l ths. salt

chilled pâté from pan; discard bacon slices; wash and dry pan. Soften gelatin in cold water; second thin layer of gelatin mixture; chill until set. Place pâte in loaf pan; carefully spoon anchovy fillets and oil through food chopper, using fine knife; grind 4 or 5 times more or transfer to blender and mix until smooth. Mix in salt, ginger, cloves, cayenne, and flour; blend in cream; beat well. Line loaf pan, 9x5x3 inches, with bacon slices; pour liver mixture carefully into pan; set pan in pan of hot water. Bake in slow oven (275° F.) I hour, 50 minutes, or until firm in center. Chill several hours or overnight. Remove thoroughly dissolve over hot water; combine with consommé. Spoon 14-inch layer of gelatin mixture into loaf pan; chill until set; arrange cut pieces of truffles or ripe olives on top; cover with remaining gelatin mixture around sides; chill until set. When ready to serve, unmold onto Dash of cayenne 2, c. flour Water cress
Soak liver in cold water to cover 6 to 8 hours or overnight; wipe dry. Put liver, onion, t sp. ground cloves

platter; garnish with water cress,

Tested in THE AMERICAN HOME KITCHENS

SWEDISH MEAT BALLS

Preparation time: 30 min Chilling time: overnigh Cooking time: 21/2 hrs.

PRESSED HEADCHEESE

2 slices onion 2 tsp. salt

i tsp. ground white pepper tsp. ground allspice lb. salt pork

cloth; arrange thin slices salt pork fat over cheesecloth to cover bowl. Remove cooked meat from kettle; skin, bone, and cube meat. Mix 2 teaspoons salt, ground pepper, ground sprinkling each layer with mixed spices. Bring cheesecloth together over top of meat; tie securely with string; lift from bowl; place in liquid in kettle. Boil slowly 25 to 30 minutes, turning once; remove from liquid; return to bowl; strain liquid. Soften gelatin in 14 Rinse pork and veal in cold water; place in kettle with 1½ quarts water; bring to boiling skim carefully, Add 1 tablespoon salt, whole allspice, peppercorns, bay leaf, carrot, and onion; reduce heat; simmer 2 hours. Line 11/2-quart bowl with large piece of damp cheese. allspice, and ground cloves. Place alternate layers of pork and veal in prepared bowl. c. cold water carrot

Tested in THE AMERICAN HOME KITCHENS

cup cold water; stir into hot strained liquid. Pour over meat in bowl; chill

Remove cheesecloth; cut into slices.

Tested in THE AMERICAN HOME KITCHENS

KIDNEY SAUTÉ

HERRING SALAD

Preparation time: 30 min. Chilling time: several hrs. Soaking time: 6-8 hrs.

> 2 c. diced cooked beets I small onion, chopped (4 c.) 2 c. chopped dill pickles c. boiled, diced potatoes

Hard-cooked egg

Parsley

3 tbs. vinegar 2 ths. water 2 tbs. sugar

I ths. salt

bone; chop. Mix chopped herring, potatoes, beets, onion, and pickles. Blend carefully with salt, vinegar, water, and sugar. Rinse 1½-quart mold with cold water; pack herring mixture into mold. Chill several hours; unmold onto serving plate; garnish with hard-cooked egg Clean herring; remove head; soak in cold water 6 to 8 hours, or overnight. Drain; skin; and parsley.

Smörgåsbord

(pictured in color on pages 44, 45 and 46)

For a pretty potato salad: Slice the whites of hard-cooked eggs and add them to salad. Press the yolks through a fine strainer over salad.



• Remove fat and heavy vein from kidneys; cut in cubes. Heat butter or margarine in large skillet; add cubed kidneys; brown evenly on all sides. Add mushrooms; cook 5 minutes. Sprinkle with flour; stir until blended. Add consommé, wine, and cream slowly, stirring constantly. Cook over low heat 10 to 15 minutes; season to taste with salt and pepper; sprinkle with chopped parsley. Serve hot.

Tested in THE AMERICAN HOME KITCHENS

SWEDISH MEAT BALLS

Preparation time: 40 min. Cooking time: 15-20 min.

> % c. pkg. bread crumbs 4 tsp. grated onion 2 tsp. salt 2 lbs. ground beef can consommé

• Combine ground beef, bread crumbs, consommé, onion, salt, and pepper in large bowl. Mix with spoon or hands until mixture is a smooth spongy mass; let stand at least ½ hour. Shape into small balls; fry in hot fat in skillet until evenly browned. Shake pan during frying to keep balls round. Blend in flour; stir in cream; bring to boiling; simmer about 5 minutes. Just before serving, sprinkle with parsley.

2 tbs. chopped parsley

c. heavy cream

4 tsp. pepper Fat for frying I ths. flour

Makes about 8 doz.

Tested in THE AMERICAN HOME KITCHENS

· LIVER PATÉ

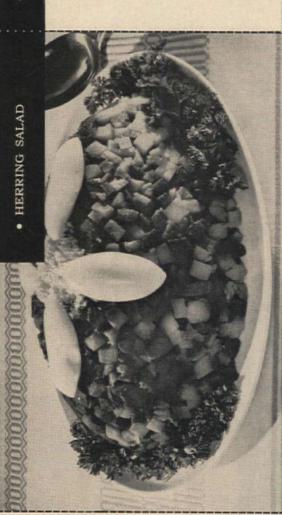
Pitted ripe olives, halved Preparation time: 30 min. Chilling time: several hrs. 3 c. white wine 4 c. vinegar l tsp. salt Fresh dill 3 live lobsters (2 lbs. each), boiled or: 6 cans (6½ oz. each) lobster 4 envelopes plain gelatin

2 c. cold water

LOBSTER MOLD

Save meat from 4 claws for decoration; save legs for garnish; cut remaining meat into large pieces. Soften gelatin in 1 cup cold water; dissolve over hot water. Combine remaining 1 cup water, wine, vinegar, salt, and dissolved gelatin in large bowl. Cover bottom of oiled Remove lobster meat from claws and tail of cooked live lobsters, or drain canned lobster. 2-quart mold with 15-inch-thick layer of gelatin; chill until set. Arrange reserved claw meat, some sprigs of fresh dill, and halved olives in design on set gelatin; cover with layer of gelatin; chill until set. Chill remaining gelatin mixture in bowl until slightly thickened; fold in cut-up lobster meat; turn into mold; chill until set. When ready to serve, unmold onto serving plate; garnish with fresh dill and reserved lobster legs. Serve with DILL. MAYONNAISE: Combine 1 cup mayonnaise or salad dressing, 1 tablespoon vinegar, 12

Tested in THE AMERICAN HOME KITCHENS teaspoon sugar, and 2 tablespoons chopped fresh dill. Chill until serving time.



KIDNEY SAUTÉ

Preparation time: 20 min. Cooking time: 30 min.

l c. heavy cream

4 c. sherry

2 veal kidneys (about 1 lb. each) ths. butter or margarine

lb. mushrooms, sliced

can consommé

2 ths. flour

Chopped parsley

White pepper



ORDER OUR FAMOUS MENU MAKER

SPECIAL COMBINATION OFFER

\$4.98 complete... save over *1.40

It's as handy as it is handsome! You'll find it such a convenience to put the best ideas from all your cookbooks and recipes into this one 6x11 file! And it now comes with 360 of your favorite American Home recipes! There's room, too, for approximately 1000 additional recipes you can clip each month from American Home.

The Menu Maker lets you take a single recipe (or as many as you want for a complete dinner.) No need to mark your place. No thumbing through pages of cross references. You can rearrange your recipes or add and subtract from your file as much as you like.

Made of beautiful, durable super styrene, the Menu Maker is available in striking decorator colors to complement or match your kitchen decor. 35 preprinted index cards are included for easy filing. Transparent envelopes keep your recipes clean. Send for more as you need them.

ì	MENU MAKER ORDER FORM
i	The American Home Magazine, Dept. MM, Forest Hills 75, N. Y.
i	Enclosed find \$ Please send me the following items:
i	American Home Menu Maker
8	SPECIAL COMBINATION OFFER
1	American Home Menu Maker, 360 Recipes and
1	300 Transparent envelopes \$4.98
	Please indicate color desired
1	☐ Copper ☐ Yellow ☐ Pink ☐ Turquoise ☐ Black and white
	Send personal check or money order (no stamps, please). New York City residents add 3% sales tax. Sorry, no shipments to Canada or foreign countries.
i	Print Name
i	
i	Print Address
	CityZoneState
3	

s any woman who uses a dryer will agree, this is one appliance that will really save you time and energy. With a dryer helping you on washday, you can have a load of clothes ready to wear or iron in practically the same time it would take to carry them out to the line and hang them up. You say you like the effects of line drying? An automatic dryer matches every one of themcrispness, freshness, speed—and not just on clear, breezy days, either! You might say a dryer is like a clear, breezy day without the disadvantages of unpredictable weather, smoke or soot, sun bleaching, or wind whipping. It dries your wash to perfection whenever you wish and actually improves the appearance and extends the life of some fabrics.

HOW TO CHOOSE ONE

Let's start shopping. What you want is a dryer that will properly dry the things you wash, with as many of the extra convenience features as you can afford. This, essentially, is your yardstick for choosing the right dryer from the many brands and models available. You can get a dependable dryer for around \$140, you can buy one with all the extras for \$350 or more, or you can spend any amount in between. The number and variety of special features increase as the price goes up, and each one in some way adds to the pleasure and ease of using a dryer. So if you can financially manage a top-of-the-line model, you'll be ready to cope more easily with the great diversity of fabrics in your laundry basket. What you must do is weigh all these extras against your family's needs, the present and future contents of your laundry basket-and then decide which model is right for you.

For the limited budget we'd suggest buying a low-end or middle-of-the-line dryer without hesitation. You'll get good drying results for your immediate needs. And, much as you might enjoy some of the special extras, such as ozone lamps or sprays that add outdoor aroma, or illuminated control panels, these are secondary features that don't really add to a dryer's ability to dry clothes. Quality and dependability are seldom a question of price these days. In any given line the basic mechanism, the heating and air circulating systems, the safety features, and even the warranty are likely to be the same in all models, regardless of how much they cost.

Shopping Information, page 81

A more de luxe or top-of-the-line model will, of course, give you more convenience features and provide extra flexibility for future changes in your family and the growing variety of fabrics.

FEATURES TO NOTE

You'll find these in the \$140-\$250 price range:

A timer you set according to the size of the load. Some provide up to two hours or more for very heavy items. All turn off the dryer automatically when selected time is up.

Limited temperature selection, often a single heat level to dry practically any fabric safely. Many budget models have, in addition to a single heat level, an "air only" setting for fluffing pillows or dusting draperies without heat; some have two or three temperature settings for delicate fabrics, regular, and wash-and-wear loads. Even on a single-heat dryer you may find an end-of-cycle cooling period that helps keep heat-set wrinkles out of wash-and-wear fabrics.

A safety thermostat that cuts off heat before temperature gets too high.

A safety door switch that stops heat and tumbling when the door is opened, then resumes automatically when closed. Some have a separate starting switch for added safety.

An automatic pilot (on gas dryers) to ignite the burner without lighting it manually each time.

A lint filter or screen designed and located for easy removal, cleaning, and replacement. (Fabrics naturally shed lint as they dry. On the line it blows away, but in a dryer it is collected on a screen and must be cleaned off regularly.)

A push-button door latch for easy opening when your arms are full.

Perhaps a sound signal to announce that it's time to remove dried clothes (essential for keeping wash-and-wear smooth, handy for any load if your dryer is in the basement).

In some, a choice of direction for venting to permit flush-to-wall installation in any room arrangement.

Durable cabinet finishes, of baked enamel or acrylic paint, some with porcelain tops. All-porcelain finish may be available at extra cost.

Additional features in higher-priced dryers:

Automatic timing to put an end to the problem of overdrying, or removing so much moisture that fabrics feel harsh. These new controls decide when clothes are dry enough, by means of special



thermostatic devices that measure temperature changes, or electronic sensors that actually feel moisture in fabrics, and stop drying automatically.

Wider range of temperature settings, usually labeled according to type of fabric to make selection easy.

Built-in sprinklers, mainly to dampen clothes for ironing, but also a handy way to smooth out rumpled wash-and-wear between launderings.

More special cycles, including washand-wear cycles that end with tumbling in cool air to minimize wrinkling and damp-dry cycles for articles to be ironed immediately.

Interior lights to help you find every last sock in the cylinder.

Illuminated control panels, nice in a dim laundry room or a poorly lighted basement.

Windows in doors to show drying progress at a glance (as steam disappears and clothes appear to "float," you know they're nearly dry).

Foot pedals to open doors.

Horizontal doors that form a chute for loading and a shelf for folding dried clothes on the spot.

No-tumble settings for drying wool knits without shrinkage or matting.

More elegance in styling, higher control panels, and a choice of colors in some lines.

Greater installation flexibility—and even no-vent electric models for locations that can't be vented to the outdoors.

Hair dryer hood available as a separate accessory.

Big-family capacity—as much as 12 pounds (dry weight) in some.

OTHER THINGS TO CONSIDER

Controls. These days you can have your choice of push buttons, keys, or knobs. In some lines, you'll find fewer controls on top models than on mediumpriced dryers. That's because increased automatism, with preset timing and temperature, means fewer decisions for you to make. With completely automatic timing, you merely set one control, according to type of load, and the dryer turns itself off at the proper time. Other timers may be set manually for up to two hours.

Gas or electricity? From a performance standpoint there's little difference. Your choice may depend on your present wiring or gas connections, on local fuel rates, or simply personal preference. A gas dryer can be adapted to natural, manufactured, or LP-gas. For an electric dryer you'll need a separate 220–240 volt circuit, though some can operate, more slowly, on 110–120 volts. A few electric dryers are now made specifically for lower voltage operation.

What about venting? Any dryer should, if possible, be vented outdoors. Otherwise, unless there is excellent air circulation in the room, heat and mois-

ture create humidity problems. If outside venting isn't possible, look into the electric dryers that dispose of moisture by means of a special condenser or filter. Some of these require a cold-water line and drain connection.

Installation costs. Will you need new wiring or plumbing? Will venting require extensive ductwork? Some dryers can be vented from more than one direction—either side, back, or bottom. If your floor is very uneven, it may take more than adjustment of the leveling legs built into most dryers today. And, if space is limited, remember that dryers vary a few inches in width.

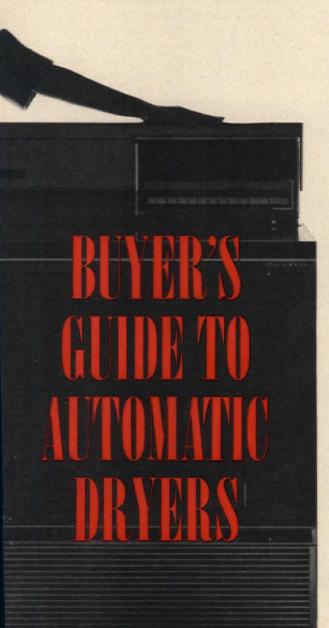
What about service? You should know that manufacturers of laundry appliances are working to improve their products, eliminate weaknesses, and simplify service. And they have made great strides in this direction. Electronic devices now guide service men to the source of trouble; easier access to mechanisms makes shorter work of repairs; warranties provide more coverage for longer periods. Improved automatic timing puts an end to over-drying, once a common reason for unnecessary service calls.

You should also know that many service problems would never occur if every dryer user would read and follow the explicit instruction booklets that manufacturers' home economists prepare. Use and care instructions are as much a part of any appliance as the switch that turns it on, and failure to follow their advice on such simple matters as not overloading, cleaning lint screens, or checking for blown fuses is the most common cause of trouble.

Of course, there may come a time when your dryer will require service. It's a machine, after all. When this happens, you'll want to know who to call and when to expect attention. Get this information before you buy a dryer—or any appliance—and jot the number in your instruction booklet, along with model, serial numbers, and any other pertinent information you may need to give over the telephone.

Once you own a dryer—and we hope these pages will have helped you to decide in favor of buying one—we predict that you'll soon learn to depend on it every washday. An automatic dryer is no longer a luxury. We believe it's a necessity!

The Home Equipment Staff





HANDSOMELY COLORED

BIRDPRINTS

\$295 per set

Arthur Singer, foremost wildlife artist, painted the originals especially for American Home Magazine. Reproduced in magnificent full color on 9¾ x 12½" heavy paper, these birdprints add a lovely, lively touch to any room in your home. A truly fine value . . . at a fraction of what they'd cost anywhere else. Compatible with masculine interests, they also lend a charming note of elegance to suit a lady's taste. Try using them as door panels, or as smart room dividers suspended on brass rods. Sets come in gift portfolios ready for framing.

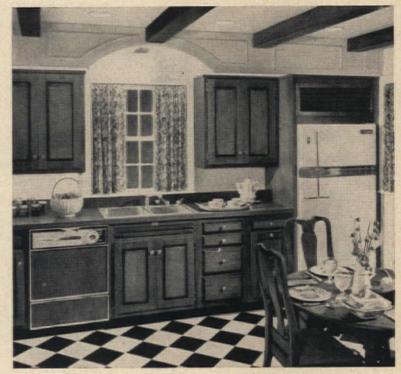
By special arrangement with the artist and printer, American Home can offer you these birdprints at a far greater value than you are likely to find anywhere else. Complete sets come in beautifully designed portfolios. Sent postpaid anywhere in the U.S. Mail coupon today.

Please send me:	
	of 8 full-color birdprints at \$2.95 each rints as checked below for 50c each
#1 cardinal #4 mockingbird #7 meadowlark	#2 bluebird # 3 grouse, pheasant, quall #5 robin #6 goldfinch #8 oriole and chickadee
Name	
Street Address	
City	ZoneState
	ress clearly. Send personal check or money order Allow 3 weeks for handling and mailing. New York 1% Sales Tax.
THE AMERICA	N HOME, Dept. AS, American Home Bldg.

Forest Hills 75, N. Y.

BIRDPRINT ORDER FORM

1962 Kitchen (continued from page 25)



Dark stained wooden beams repeat the rich wood tones of the cabinets and dining furniture. Note how the free-standing gas refrigerator is framed to look built in. The traditional dining table is well placed in relation to cooking and serving center. Stainless steel double sink and laminated plastic counter tops keep their good looks.



The laundry area in its own quiet corner of the kitchen boasts a combination washer-dryer with push-button and manually operated controls. Like all the appliances, with the exception of dishwasher and garbage disposer, it operates on natural, manufactured, or LP gas. The stainless steel sink is a practical "must" for any laundry.



For the wall you make your center of interest—New Charter® Pecan.

A tawny, gold-and-brown kind of wood, rich in burls and figures, and prefinished by Weldwood[®] like fine furniture, Charter Pecan infuses even the most commonplace room with an exciting new atmosphere of luxury. See it, and 70 other real wood panelings, at your nearby Weldwood dealer's. As little as \$59 for a 12' x 8' wall.

WELDWOOD
REAL WOOD PANELING

Room designed by Jeremiah Goodman, A I.D

United States Plywood Box 61, New York 46, N. Y. AH 1-62

Please send me the 28-page decorating booklet, "Ideas For More Beautiful Homes With Weldwood Real Wood Paneling," showing many interesting idea rooms paneled in rich, beautiful woods. I enclose 25¢.

Name..

Address.

City..... State.....

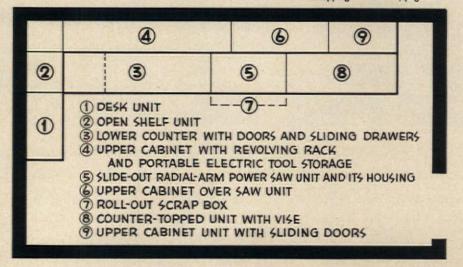
BUILD YOUR OWN WORKSHOP STORAGE CABINETS



Workshop units are 7 to 8' high, can be rearranged to fit almost any area. They could easily be adapted to make a family-room storage wall.

lways wanted a workshop all your own? Well, A here it is—nine separate units that you can build at one energetic clip or take in your own easy stride. Look what you get in the sketch at the right—a big roomy desk, a slide-out unit for your power saw, a revolving cabinet for your tools, a bin for your scrap lumber. All this and plenty of counter and storage space to boot. We warn you, though-your wife will have her eyes on this unit for a family-room storage wall with a spot for TV, hi-fi, and record storage. Better go build it-and don't tell her what you're up to. The construction pattern shows complete line drawings of each unit, materials list, and easy-to-follow assembly instructions. Pattern is **ORDER FORM ON PAGE 75** CP-9, 75¢.

Shopping Information, page 81



Revolution in Home Building

(continued from page 30)

First, the toilet has come off the floor. Residential wall-hung toilets are now available from every major manufacturer in white or color. Biggest advantage for you: cleaning your bathroom floor is greatly simplified. Prices are higher than floor-standing models, but there's promise competition will change that-to your benefit.

Although you won't notice much of a change on the outside, new bathtubs in slab-foundation homes may be the raised-bottom type. This permits drain lines to run above the slab, rather than in it. When used with the wall-hung toilet, savings in piping installation have been \$150 per house.

Fiber glass imbedded in a plastic resin has been molded to form a shower stall or vanitory, complete in each case. Unit cost is now comparable to equivalent materials, but installation is achieved in record time.

The faucet has progressed from a separate spout for hot and cold water to one spout with a single control. Not much saving in cost, but there is a marked increase in convenience.

In the future: a completely prefabricated bathroom that dropsas a unit-into your new house.

ELECTRICAL INDUSTRY ADVANCES

Wiring for the home of the future may be completely surface mounted. Such systems are available today, but at prices that generally limit them to more expensive homes.

Meanwhile, there are several advances in the electrical industry you should know about. They include:

- Circuit-breaker panels. Included more each year as standard equipment in new houses, circuit breakers eliminate the need for changing fuses. An overload on your circuit will automatically cut off the electricity. A flick of a switch will put your lights back in action. Costs for fuse boxes and circuit-breaker panels are about equal now.
- Lighting. Luminescent ceilings created by banks of fluorescent or incandescent lights above frosted glass or fiber-glass panels, valance lighting, and recessed ceiling lights are some of the new items now available. Soon your new home may be lit with "cold light" panels-plastic panels that are impregnated with a chemical that is activated in the presence of an electrical field. You'll see their use

in a minor way already-as touch plates that "glow in the dark."

• Plastic-coated wire. Easier to install, plastic-coated wire is less expensive than either metalsheathed or rigid conduit wiring, and is equally safe.

PANELS ON YOUR WALLS

Paneled walls today are a far cry from the needlessly expensive paneled walls of vesterday. Prefinished panels of plywood, hardboard, and plastic are in abundance at building-material dealers. and in a range of wood tones grandfather never dreamed of. Some panels have been developed to fit an installation system requiring but a weekend of your work. These panels cost less than solid wood paneling, more than painting, about the same as some wallpapers, and the decorative effect is warm.

NEW PRODUCTS FOR YOUR FLOORS

A new world of color and pattern in resilient flooring has been opened up for you. Handsome blocks of rigid and flexible wood tile are available today. Ceramic floor tile installs faster and cheaper with adhesives and recently developed techniques. Vinyl flooring and vinyl-asbestos tile are household words today (and new methods permit installation on a slab foundation or in basements). A competitor for asphalt tile, which is neither asphalt nor vinyl, has appeared on the market.

Don't expect to save much money, but do expect to make your house more beautiful. Big savings will come when installation time can be cut drastically-a project that is constantly being researched by flooring firms.

FIREPLACE CONSTRUCTION SPEEDED

Conventional fireplace construction, assembled brick by brick, is slow and costly-often priced as high as \$1200. Three advances have altered this picture. They are: prefabricated fireplaces, fireplace forms, and the pre-engineered fireplace system. The prefab units go in fastest and could cost you as little as \$175 plus the chimney.

The forms are used as a framework for a conventional fireplace and achieve two things: a reducin installation time and a trouble-free fireplace. All vital parts are precision made in the factory (damper, downdraft shelf, throat, etc.). With this type, a contractor can still make an error in flue size or chimney height.

With the third advance-a preengineered fireplace system-errors should be eliminated, since the chimney, chimney housing,

and fireplace are accurately sized at the factory.

REDUCTION IN AIR CONDITIONING COSTS

Prices for central air conditioning installed are at least \$1000 less than 1950 charges, and there's some rough-and-tumble competition in the field today which should bring prices down even more. Considering the fact that the industrial price level has soared 23.3 per cent in the same time, this price cut is a remarkable achievement. due almost entirely to intense research by the industry.

The units today are quieter, are nearly all air cooled (requiring less equipment and less maintenance), and are more compact.

Chilled water or "hydronic" cooling, developed to fit hot-water systems, has not yet been competitively priced for residential use, but may be soon.

CLEAR FINISH FOR WOOD

The handsome look of wood on your home can't be denied. Yet, those of you who have siding of clear cedar, redwood, or cypress are well aware of the problems of maintaining the finish. From the plastics industry comes a new finish of clear urethane. After considerable field testing, it appears that it will last about three times as long as conventional finishes. Price is in the neighborhood of \$8.50 a

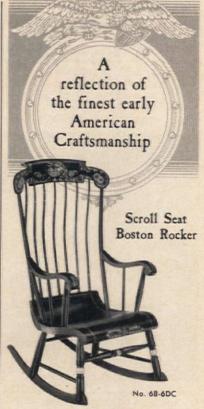
HOW TO PUT THESE MATERIALS AND TECHNIQUES TO WORK

Don't be discouraged if you discover that your local building material dealer does not have one of the materials discussed here, or that your building inspector refuses to permit its use.

To solve the first problem, write to Building Products Editor, American Home, 300 Park Ave., New York 22, N.Y., for the name of the manufacturer. Then write the manufacturer and he will direct you to your nearest supplier.

To solve the second problem, remember that every modern building code has an appeal provision. If the inspector refuses the first time around, appeal it. You'll have good grounds, since every technique and product mentioned has been proven in the field except for those we've noted otherwise.

ACKNOWLEDGEMENT: We thank Ralph Johnson, Director of the Research Institute of the National Association of Home Builders, for his guidance in preparing this article. Without the aid of the Research Institute a good number of the products and techniques mentioned here would not have been developed.



Regarded as a collector's item itself, this museum-piece reproduction of a rare Scroll Seat Rocker, is a chair of such craftsmanship and distinction, such com-fort and charm, you will feel fortunate, indeed, to own one. It is a truly deluxe rocker..."the best of its kind."



Graceful Fan Back chairs that are at once sturdy and refined, simple and attractive . . and eminently suited for dining-room, dinette, den, or as occasional chairs that blend beautifully with other periods



Gov. Winthrop Arm Chair No. 1940-5

A distinguished chair named for a distinguished man...with the dignity, simplicity and graciousness that enable it to live happily either with a Gov. Winthrop desk, or a TV set.

These reproductions and others at better furniture and department stores



Send for Booklet!

'How To Choose The Right Colonial Chair," with helpfu deas, interesting illustrations, and instorical information



NICHOLS & STONE CO.

Box 13, Gardner, Mass.

Please send me your 32-page booklet
"How To Choose The Right Colonial Chair"
Enclosed is 25c in coin

Name -	
Street -	
-	THE RESERVE OF THE PARTY OF THE PARTY.

Zone___ State

News for

CITY & ZONE

Let us tell you about the most "civilized" improvement in windows since "Window glass. It is self-storing screens and storms. And, if you like small, Shoppers' square or diamond panes, Pella offers glass dividers that snap in and out for

easier cleaning. Send for color pictures of actual homes with PELLA WOOD WINDOWS. Available in Canada, too.



FOLDING DOORS AND PARTITIONS, ROLSCREENS AND WOOD SLIDING GLASS DOORS



Who makes it this easy to shop for a new appliance?

Brand Name appliance manufacturers! Each year, these reliable firms use many types of media (magazine advertising is just one example) to keep you informed of the latest improvements.

Why? Because Brand Name appliance manufacturers have a basic conviction about their products.

Count on Brand Name companies. They're leaders -in new products-new ideas-and quality (of course). They're the authorities on style and fashion. Be sure to look closely at the ads in this magazine. You'll see what we mean.

LOOK FOR BRAND, NAMES

HELPFIIL **BOOKLETS** YOU CAN SEND FOR

101 Rust Stopping Tips. There are 36 fact-packed pages of helpful, money-saving ideas on controlling rust on the outside and inside of your house, garage, car. Try it on the children's toys. Free from Rust-Oleum Corp., Dept. AH, 2990 Oakton Street, Evanston, Ill.

Modern Home Laundry Planning Guide. This booklet will be helpful to those planning a new home laundry or remodeling an existing one. It offers detailed floor plans and colorful illustrations showing laundry centers in different parts of the house. Send 25c to Hamilton Manufacturing Company, Dept. 317AH, Two Rivers, Wis.

Sound Conditioning . . . New Comfort for Your Home. Explains how acoustical ceiling materials help eliminate the noise problem. Also describes types of acoustical materials available, where they should be used, and how they are installed. Single copies are free. Write to Armstrong Cork Company, Dept. AH, Lancaster, Pa.

Decor-Kev Kit. This kit contains a booklet of decorating suggestions for window treatments, furniture arrangement, lighting, accessories, color. There is a color brochure of floor coverings with suggestions for co-ordinating them with other areas of a room. Free from Congoleum-Nairn, Inc., Dept. AH, 195 Belgrove Drive, Kearny, N.J.

Check-ups: Safeguarding Your Health. Discusses the importance of the periodic medical check-up both as an aid in improving normal health and in the early detection of disease. Includes advice on selecting a physician, and time and cost factors. Send 25c to Public Affairs Committee, 22 East 38th Street, New York 16, N.Y.

Tips for the Tidy. This booklet describes the use and care of the finished surfaces in the home. Includes an easy reference chart on cleaning different types of floor surfaces; information on caring for woodwork, appliances, walls, and mirrors; tips on organizing your work. Free from Betty Woods, Dept. AH, O-Cedar Home Service Institute, O-Cedar Corp., 2246 West 49th Street, Chicago 9 Ill.

Glorious Eating for Weight Watchers. This 100-page booklet is designed to help you control your weight without giving up delicious foods. It contains over 200 caloriecounted recipes from Italian spaghetti to peach upside-down cake. It also contains 12 complete daily menus, each presented on three separate calorie levels. Free from Wesson, Dept. AH, Box 777, Hinsdale, Ill.

Kirsch Guide to Window Beauty. There are 237 room scenes showing decorating treatments for a variety of window styles in almost every type of home. This guide also contains advice on color, fabrics, measuring and mounting drapery hardware, and making curtains and slipcovers. Send 25c to Kirsch Company, Dept. AH, 453 Prospect Street, Sturgis, Mich.

Today's Soaps and Detergents. A helpful booklet explaining the difference between soaps and detergents, how to use them, and when to use them. It considers such factors as your water supply, the fabric to be washed, and the type of washer used. Send 15c for Bulletin PNW 36 to Bulletin Clerk, Dept. AH, Extension Service, Oregon State University, Corvallis, Oreg.

Phones and Families. Reviews the wide variety of telephone services now available for the home. Free from Customer Relations Service, Bell Telephone System, Room 540, Dept. AH, 195 Broadway, New York 7, N.Y.

Accents on You . . . Questions and answers on growing up for teenage girls. Free of charge from Dept. 1, Tampax Incorporated, 161 East 42nd Street, New York 17, N.Y.





You probably know that not all garden plants can be grown in all parts of the country. So whenever you like the picture or description of a plant in a garden book, catalogue, or advertisement, you'd probably like to know if the plant can be grown in your own garden.

Up to now it might have taken you considerable time and effort to find out. But with the Plant Hardiness Zone Map, which you'll find on the next page, and with the keyed plant lists beginning on page 66, it should be no trouble at all.

You first consult the map to learn in which hardiness zone you're located. (The zones shown are numbered 2 to 10.) Then you look up the plant to see if it's suitable for growing in your zone. That's all there is to it!

On the map you'll find guide cities located in various parts of each state. Since you'll know where you live in relation to several of the guide cities, you'll easily see in which zone you're located. If you wish to measure distances, an inch on the map represents about 165 miles.

When you turn to the plant lists, you'll find the different kinds of plants grouped under these convenient and easily recognizable headings: Coniferous Trees and Shrubs [Needled Evergreens] (page 66), Broadleaf Trees (66), Broadleaf Shrubs (67), Vines (70), Groundcovers (70), Garden Flowers—General (71), Garden Flowers—Bulbs and Tuberous Roots (73).

With each plant you'll find the zone range (e.g., Zones 5-8) in which it can be grown. In some cases the zone numbers are lettered a

and **b**. The **a** refers to the colder parts of each zone (more-northerly, at higher elevation, more distant from water, etc.). The **b** refers to the warmer parts (more southerly, at lower elevation, closer to water, etc.). Where you find **a**'s or **b**'s with the zone numbers you'll probably have no difficulty deciding whether you're located in the colder or warmer part of your zone.

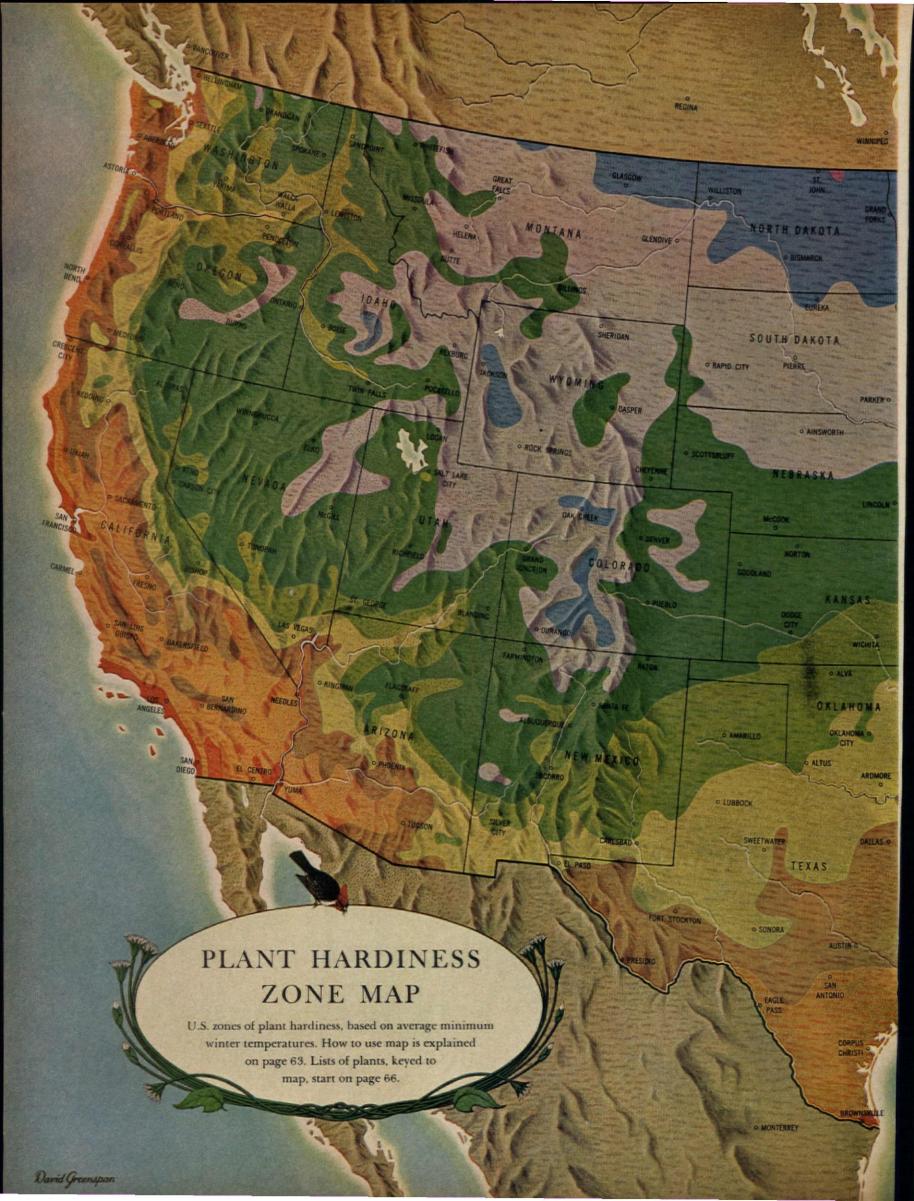
The winter hardiness of any plant, as you probably know, is mostly dependent on how low a temperature that plant can stand. But various other factors are important, too. Some coniferous evergreens and most broadleaf evergreens are especially sensitive to high wind when accompanied by severe cold. The suddenness, duration, and time of occurrence of low temperatures affect the hardiness of almost all plants. Soil moisture, humidity, snow, and winter sunshine have a lot to do with some plants' survival. So do the way they're planted, and the size, age, and health of the plants themselves.

Therefore, when you find that our lists indicate that a certain plant can be grown in your hardiness zone, you should bear in mind that this means it will grow satisfactorily provided most other conditions, besides temperature, also are favorable.

Our zone ratings are intended to indicate zones of satisfactory adaptability of the plants listed. Many plants may survive in colder or warmer zones than those indicated. But in such cases mere survival may not represent satisfactory performance, and so unless you wish to

(continued on page 74)

Now you can choose plants with the help of the On the next page we present a map PLANT that will help you select which of the PLANT popular trees, HARDINESS shrubs, and herba- HARDINESS ceous perennials will ZONE MAP grow in your climate





Plant Hardiness Ratings

Tiunt II	urum	1000 Hatingo		(Aleurites moluccana)
CONFEDENCE TREES & SUBIL	pe		Zones	CAPE CHESTNUT (Calodendru
(NEEDLED EVERGREENS)	ВЗ	Himalayan (P.griffithi)	6-9	capensis) CAROB or ST. JOHN'S BREAD
	Zones	Italian Stone (P.pinea)	8-10	(Ceratonia siliqua)
ARAUCARIA	Zones	Japanese Black (P.thunbergi)	5b-9.	CASSIA or SHOWER
Bunya-Bunya Tree (A.bidwilli)	9-10	Japanese Red (P.densiflora)	5-8 8-10	Candle Shower (Cassia alata)
Monkey-Puzzle Tree (A.araucana)	7b-10 10-10	Jelecote (P.patula) Limber (P.flexilis)	3b-9	Golden Shower (C.fistula)
110110111111111111111111111111111111111	10-10	Monterey (P.radiata)	7b-9	Java Shower (C.javanica)
ARBORVITAE American (Thuja occidentalis),		Mugho (P.mugo mughus) Norfolk Island—see Araucaria	3-8	CATALPA or INDIAN BEAN Common or Southern (C.
including 'Globe,' 'Pyramidal,'		Norway or Red (P.resinosa)	3-8	bignonioides)
'Wareana'	3-8	Scotch (P.sylvestris)	3-8a	Western or Northern (C.spec
'Nigra,' 'Woodward' Oriental (T.orientalis), including	4-8	Swiss Stone (P.cembra) White, Eastern (P. strobus)	3-8 3b-9a	CHASTE TREE (Vitex agnus-cas
'Baker.' 'Bonita.' 'Golden,'		Yew—see Podocarpus	30-9a	CHERRY, ORNAMENTAL
'Pyramidal,' 'Texas Blue'	6-10a	PLUM-YEW		Brush or Surinam—see Euge
AUSTRALIAN PINE or BEEFWOOD		Japanese (Cephalotaxus drupac	ea) 6-8	Cornelian—see Dogwood Oriental or Japanese Floweri
Australian Pine (Casuarina	9b-10	Chinese (C.fortunei)	7-9a	(Prunus species and hybrid
cunninghamiana) Coast Beefwood (C.stricta)	9-10	PODOCARPUS	0.10	Most named varieties
Horsetail Beefwood (C.equi-		Fern Pine (P.elongatus) Yew Pine (P.macrophyllus)	9-10 8b-10	Hardiest, including P.sargen and P.yedoensis
setifolia)	9-10	REDWOOD (Sequoia sempervirens		CHINABERRY or TEXAS UMBE
Atlas (Codrus atlantica)	7-9	REDWOOD, DAWN (Metasequoia	, , , , , ,	(Melia azedarach)
Atlas (Cedrus atlantica) Cedar of Lebanon (C.libani)	6-9	glyptostroboides)	5b-9	CHITTAMWOOD or WOLLY BU
Deodar (C.deodara)	7-9	RETINOSPORA—see False-Cypres	5	BUMELIA (Bumelia lanugir
Incense—see Incense Cedar Nootka—see False-Cypress		SEQUOIA, GIANT (Sequoiadendro	n	CHRISTMAS TREE—see Iron T
Port Orford—see False-Cypress		giganteum)	7-8	CORK OAK, AMUR (Phelloden
Red-see Juniper		SPRUCE		amurense)
Silver—see Juniper		Black Hills (Picea glauca	3-8	COTTONWOOD—see Poplar
CHAMAECYPARIS—see False-Cypre		densata) Colorado (P.pungens)	3-8a	CRABAPPLE, ORNAMENTAL
CRYPTOMERIA, JAPANESE (C.japon	nica) 6b-9a	Norway (P.abies, P.excelsa)	3-8a	(Malus species and hybrid Most named varieties
CYPRESS		Serbian (P.omorika) White (P.glauca)	4b-8 3-8	Hardiest, including 'Bechtel'
Arizona (Cupressus arizonica)	6b-9			ioensis plena) and 'Siberia
Bald (Taxodium distichum) Dawn—see Redwood	5-10	YEW Canada (Taxus canadensis)	3-9a	(M.baccata)
False—see False-Cypress		English (T.baccata), most forms	7-9a	CRAPEMYRTLE (Lagerstroemia
Forbes or Tecate (C.forbesi)	7-9	'Spreading' Intermediate (T.media), includir	5b-8	CUCUMBER TREE—see Magne
Italian (C.sempervirens), includ- ing 'Blue,' 'Columnar,'		'Brown,' 'Hatfield,' 'Hicks'	6b-9a	DESERT WILLOW (Chilopsis
'Spreading'	7b-9	Japanese (T.cuspidata), most fo	rms 5-8	linearis)
Monterey (C.macrocarpa)	7b-9b 8-10	Plum—see Plum-Yew		DEVILWOOD (Osmanthus ame
Montezuma (T.mucronatum) Nootka—see False-Cypress	8-10			Cornelian Cherry (Cornus m
FALSE-CYPRESS or RETINOSPORA		BROADLEAF TREES		Evergreen (C.capitata)
Hinoki (Chamaecyparis obtusa)	5-8	ACACIA, ROSE—see Locust		Flowering (C.florida)
Lawson or Port Orford Cedar		ACACIA, WATTLE, or MIMOSA—		Japanese (C.kousa) Pacific or Western (C.nuttall
(C.lawsoniana), including		see also Shrub List		
'Birdsnest,' 'Blue,' 'Golden,' 'Ellwood,' 'Dwarf,' 'Silver'	6b-9a	Most kinds, including Coota-		DOVETREE (Davidia involucrat
Nootka, Alaska or Yellow		mundra (A.baileyana) and Silver (A.decurrens dealbata)	9-10	American (Ulmus americana
(C.nootkatensis) Sawara (C.pisifera), including	5b-9a	Pearl (A.podalyriaefolia)	10-10	Chinese (U.parvifolia)
'Plume,' 'Moss,' 'Golden,'		AILANTHUS—see Tree of Heaven		Evergreen (U.parvifolia sem
'Thread'	5-9	ALBIZZIA—see Silk Tree		virens) Scotch (U.glabra)
FIR		ALDER		Siberian (U.pumila)
Balsam (Abies balsamea) Cork (A.lasiocarpa arizonica)	3-7 5-7	Italian (Alnus cordata)	5b-9	Smoothleaf (U.carpinifolia)
Douglas (Pseudotsuga taxifolia)	3b-9	Black or European (A.glutinosa)		'Christine Buisman' Winged or Wahoo (U.alata)
White or Silver (A.concolor)	4-8	White (A.rhombifolia)	6-9	EMPRESS TREE (Paulownia to
HEMLOCK		ASH Blue (Fraxinus quadrangulata)	4-9a	mentosa)
Canada (Tsuga canadensis)	3-9a 5-8a	Flowering (F.ornus)	6-9	EUCALYPTUS or GUM
Carolina (T.caroliniana)	J-0a	Green (F.pennsylvanica lanceola	ata) 3-9a	Most kinds
(Libocedrus decurrens)	6-9	Mountain—see Mountain Ash Velvet (F.velutina), including		Cider (E.gunni) and Snow (E
IUNIPER		'Modesto' and 'Montebello'	6-9	perriniana) Snowland (E.niphophila)
Chinese (Juniperus chinensis), in	-	White (F.americana)	4-8	EUGENIA
cluding 'Armstrong,' 'Hetz,'		AZARA, LANCELEAF (A.lanceolata	9-10	Brush Cherry (E.paniculata)
'Japanese,' 'Keteleer,' 'Pfitzer, 'Pyramidal,' 'Sargent,' 'Twisted		BANYAN—see Ficus		Surinam Cherry (E.uniflora)
'Weaver'	4-10	BASSWOOD—see Linden		FICUS or FIG
Common (J.communis), including	3	BAY		Banyan (Ficus benghalensis Fiddleleaf Fig (F.lyrata)
'Prostrate,' 'Swedish,'	3-9 5b-10	Loblolly—see Gordonia	-	Moreton Bay Fig (F.macropi
Creeping (J.horizontalis), includir		Red or Bull (Persea borbonia) Sweet—see Laurel and Magnoli	7b-10	Rubber Plant (F.elastica)
'Andorra,' 'Bar Harbor,'				FIREWHEEL TREE (Stenocarp
'Glauca,' 'Waukegan'	3-9	BEECH American (Fagus grandifolia)	4b-8	sinuatus)
Japgarden (J.procumbens) Meyer (J.squamata meyeri)	5-9	European (F.sylvatica), includin	g	FLAME TREE—see Bottle Tree
Red Cedar, Eastern (J.virginiana)	3-10	'Weeping' and 'Purpleleaf'	5-8	and Poinciana
Red Cedar, Southern (J.silicicola)	8-10	BELL FLAMBEAU or AFRICAN TUI		FRANKLINIA (F.alatamaha)
Red Cedar, Western, or Rocky Mountain Juniper (J.scopu-		(Spathodea campanulata)	10-10	GINKGO or MAIDENHAIR TRI
lorum), including 'Silver Glow,'		BIRCH Canoe or Paper (Betula papyrif	era) 2.9	(G.biloba)
'Silver Beauty,' 'Springtime,' 'Colo-Green,' 'Admiral,'		Chinese Paper (Balbo-sinensis		GOLDEN CHAIN TREE—see
'Colo-Green, 'Admiral,' 'Platinum'	3-10	European White (B.pendula)	3-8	
Savin (J.sabina)	3-9	Gray or Clump (B.populifolia)	4b-8a	GOLDEN RAIN TREE Koelreuteria paniculata
Tamarix (J.s.tamaricifolia)	5-10 5b-10	BIRD-OF-PARADISE BUSH—see F		K.formosanum
Shore (J.conferta) Spiny Greek (J.excelsa stricta)	6b-9	BLACKHAW (Viburnum prunifoliu	im) 4-8	GOLD TREE—see Trumpet Tr
LARCH	777	BOTTLE TREE or FLAME TREE		GORDONIA or LOBLOLLY BA
Eastern (Larix laricina)	2-8	Flame Tree (Brachychiton acer	9-10	G.lasianthus
European (L.decidua)	3-9	folium) Kurrajong (B.populneum)	9-10 9b-10	GUAVA, STRAWBERRY (Psidi
Western (L.occidentalis)	5-9	BOX, BRISBANE (Tristania confe		cattleianum)
METASEQUOIA—see Redwood	* 12		9b-10	GUM
MONKEY-PUZZLE TREE—see Arau	ıcaria	BOX ELDER—see Maple		Sour—see Sourgum
PINE	0.10	BUCKEYE—see Horse Chestnut		Sweet—see Sweetgum
Aleppo (Pinus halepensis) Australian—see Australian Pine	8-10	CAJEPUT or PUNK TREE		GUM TREE—see Eucalyptus
Austrian (P.nigra)	4-8	(Melaleuca leucadendron)	9b-10	HACKBERRY
Canary (P.canariensis)	8-10	CAMPHOR TREE (Cinnamomum camphora)	8b-10	Common (Celtis occidentali Sugar (C.laevigata)
Fern—see Podocarpus		campilora	00-10	ougui (olinevigata)

	Zones		Zones
(Aleurites moluccana)	9b-10	HAW, BLACK—see Blackhaw HAWTHORN (Crataegus)	
CAPE CHESTNUT (Calodendrum		Most species	5-9a
capensis)	9-10	HICKORY (Carya)	
(Ceratonia siliqua)	9-10	Most species	5-8
CASSIA or SHOWER		HOLLY—see also Shrub List American (Ilex opaca)	6-10
Candle Shower (Cassia alata) Golden Shower (C.fistula)	9-10	English (I.aquifolium)	7-9a
Java Shower (C.javanica)	10-10	thos), including 'Moraine,'	
CATALPA or INDIAN BEAN		'Sunburst,' 'Shademaster,' etc.	4b-9
Common or Southern (C. bignonioides)	5-9	HORSE CHESTNUT or BUCKEYE	
Western or Northern (C.speciosa)		(Aesculus hippocastanum)	3b-9a
CHASTE TREE (Vitex agnus-castus)	5b-9	Ohio Buckeye (A.glabra)	4-8
CHERRY, ORNAMENTAL Brush or Surinam—see Eugenia		Red or Ruby Horse Chestnut (A.carnea brioti)	4-9a
Cornelian—see Dogwood		IRON TREE or CHRISTMAS TREE	
Oriental or Japanese Flowering (Prunus species and hybrids)		(Metrosideros tomentosa)	9-10
Most named varieties Hardiest, including P.sargenti	6b-9a	JACARANDA, SHARPLEAF (J.acutifolia)	9b-10
and P.yedoensis	6-8	JERUSALEM THORN (Parkinsonia	
CHINABERRY or TEXAS UMBRELL	A TREE 7b-10a		b-10a
(Melia azedarach) CHITTAMWOOD or WOLLY BUCKE		JUDAS TREE—see Redbud	
BUMELIA (Bumelia lanuginosa)		Costo DE (Elizipinas Jajana)	b-10a
CHRISTMAS TREE—see Iron Tree		KAFIR PLUM (Harpephyllum caffrum)	9b-10
cork oak, amur (Phellodendron amurense)	3b-9a	KAPOK or SILK COTTON TREE	
COTTONWOOD—see Poplar	55-54	(Ceiba pentandra)	10-10
CRABAPPLE, ORNAMENTAL FLOW	ERING	KATSURA TREE (Cercidiphyllum japonicum)	4b-9a
(Malus species and hybrids) Most named varieties	4-9a	KENTUCKY COFFEE TREE	
Hardiest, including 'Bechtel' (M.	4-34	(Gymnocladus dioicus)	5-8
ioensis plena) and 'Siberian' (M.baccata)	3-8	L. anagyroides	EE 6-8
CRAPEMYRTLE (Lagerstroemia indi		L.watereri (L.vossi)	5b-8
CUCUMBER TREE—see Magnolia		LAUREL or SWEET BAY (Laurus	8-10a
DESERT WILLOW (Chilopsis		nobilis) LILAC—see also Shrub List	0-10a
linearis)	6b-10	Japanese Tree (Syringa	
DEVILWOOD (Osmanthus american	us) 7-9	amurensis japonica)	5-8
Cornelian Cherry (Cornus mas)	5-8	(Clethra arborea)	9b-10
Evergreen (C.capitata)	8-9a	LINDEN or BASSWOOD	
Flowering (C.florida) Japanese (C.kousa)	5-9 5b-9a	American Linden (Tilia americana European Linden (T.europaea)	4b-9a
Pacific or Western (C.nuttalli)	7-9a	Littleleaf Linden (T.cordata)	4b-9a
DOVETREE (Davidia involucrata)	6b-9a	Silver Linden (T.tomentosa)	4-9
American (Ulmus americana)	2-8	Black (Robinia pseudocacacia)	4b-9a
Chinese (U.parvifolia)	6-9	Honey—see Honey Locust	10 00
Evergreen (U.parvifolia semper- virens)	8-10	MADRONE, PACIFIC (Arbutus	
Scotch (U.glabra) Siberian (U.pumila)	5-9a 3b-10	menziesi)	8-9a
Smoothleaf (U.carpinifolia)		MAGNOLIA Bigleaf (M.macrophylla)	7-9
'Christine Buisman' Winged or Wahoo (U.alata)	5-9 5b-9a	Merrill (M. x 'Merrill') Saucer (M.soulangeana)	5-9a 5b-9
EMPRESS TREE (Paulownia to-		Southern (M.grandiflora)	7b-10
mentosa)	6-9	Star (M.stellata) Sweet Bay (M.virginiana)	5b-9 5b-10a
Most kinds	9-10	MAHOGANY (Swietenia mahogani)	
Cider (E.gunni) and Snow (E.		MAIDENHAIR TREE—see Ginkgo	
perriniana) Snowland (E.niphophila)	8-10 7b-10	MAPLE	
EUGENIA		Amur (Acer ginnala) Bigleaf (A.macrophyllum)	3-8 7-10a
Brush Cherry (E.paniculata) Surinam Cherry (E.uniflora)	9-10 9b-10	Black (A.nigrum)	4-8a
FICUS or FIG	30-10	Box Elder (A.negundo) Japanese (A. palmatum)	3-10a 6-9
Banyan (Ficus benghalensis)	9b-10	Norway (A.platanoides), including	3
Fiddleleaf Fig (F.lyrata) Moreton Bay Fig (F.macrophylla)	9b-10 9b-10	'Crimson King,' 'Harlequin,' 'Schwedler'	4-8
Rubber Plant (F.elastica)	10-10	Red or Swamp (A.rubrum) Soft or Silver (A.saccharinum)	3-9 4b-9
FIREWHEEL TREE (Stenocarpus sinuatus)	9-10	Sugar or Rock (A.saccharum)	4-8
FLAME TREE—see Bottle Tree	3-10	Sycamore (A.pseudoplatanus)	5-8a
and Poinciana		MAY DAY TREE (Prunus padus commutata)	3b-8
FRANKLINIA (F.alatamaha)	6b-9a	MIMOSA—see Acacia and Silk Tree	
GINKGO or MAIDENHAIR TREE (G.biloba)	5-9	MOUNTAIN ASH	
GOLDEN CHAIN TREE—see		American (Sorbus americana)	4b-8a
Laburnum		European (S.aucuparia) Korean (S.alnifolia)	3-9a 4-9a
GOLDEN RAIN TREE Koelreuteria paniculata	6-8	White Beam (S.aria)	6-8
K.formosanum	9b-10	MULBERRY Paper (Broussonetia papyrifera)	5b-10
GOLD TREE—see Trumpet Tree		White or Russian (Morus alba),	
GORDONIA or LOBLOLLY BAY	7h 10-	including 'Fruitless'	5-9
G.lasianthus GUAVA, STRAWBERRY (Psidium	7b-10a	OAK Black (Quercus velutina)	4b-9
cattleianum)	8b-10	California Black (Q.kelloggi)	8-10a 8-9
GUM		Cork (Q.suber) Holly (Q.ilex)	8-9
Sour—see Sourgum Sweet—see Sweetgum		Laurel (Q.laurifolia) Live (Q.virginiana)	8-10 8b-10
GUM TREE—see Eucalyptus		Pin (Q.palustris)	5-9
HACKBERRY		Red, Northern (Q.borealis) Scarlet (Q.coccinea)	4b-8 4b-9
Common (Celtis occidentalis) Sugar (C.laevigata)	4b-9a 6-9	Silk—see Silk Oak Texas or Spanish (Q.shumardi)	5-98
and (original Butta)		(-

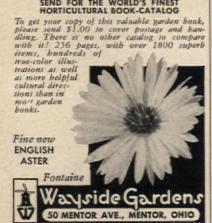
Water (O piere)	Zones	SH VERREIT (Halasia assetina)	Zones	Zones	Zones
Water (Q.nigra) White (Q.alba)	6b-10a 4-9a	SILVERBELL (Halesia carolina) Mountain (H.monticola)	5-9a 5b-8	ANISE, FLORIDA (Illicium floridum) 7b-9 ARALIA	Pink Powder Puff (C.inaequil- atera) 9b-10
Willow (Q.phellos)	6-9	Two-Wing (H.diptera) SNOWBELL	6b-9	Chinese Angelica Tree (Aralia	CALLICARPA or BEAUTYBERRY
OLIVE, RUSSIAN—see Russian Ol ORANGE, HARDY—see Poncirus	ive	Fragrant (Styrax obassia)	6b-9a	chinensis) 6–10 Fivefinger (Acanthopanax siebold-	Beautyberry (C.dichotoma) 6-9a Violet Jewel Berry (C.bondinieri) 6-9a
ORCHID TREE (Bauhinia variegata	a) 9b-10	Japanese (S.japonica) SOPHORA	6-9a	ianus or A.pentaphylla) 5b-8a Japonica or Sieboldi—see Fatsia	CAMELLIA
PAGODA TREE—see Sophora		Japanese Pagoda Tree (Sophora		Papyrifera—see Rice Paper Plant	Common (C.japonica), including varieties 7–10a
PALM Coconut (Cocos nucifera)	10-10	japonica) Mescal Bean Sophora (S.	5b-9	ARDISIA Coral (A.crispa) 8b-10a	Sasanqua (C.sasanqua), in- cluding varieties 7b-10a
Date: Canary Island (Phoenix		secundiflora) SORREL or SOURWOOD (Oxy-	7-9	Japanese (A.japonica) 7b-9	CANARYBIRD BUSH (Crotolaria
canariensis) Pigmy (P.roebeleni)	9-10 9b-10	dendrum arboreum)	5-8	AUCUBA, JAPANESE (Aucuba japonica), including varieties 7b-10a	agatifolia) 9b-10
Senegal (P.reclinata) Fan: California or Native (Wash-	9b-10	SOUR GUM or TUPELO (Nyssa sylvatica)	5-9a	AZALEA (Rhododendron)	CAPE JASMINE—see Gardenia CARDINAL SHRUB—see Weigela
ingtoniana filifera) European or Mediterranean	9a-10	STEWARTIA—see also Shrub List	3-9a	Species: Flame (R.calendulaceum) 5b-8 Hiryu (R.obtusum), including	CARISSA
(Chamaerops humilis) Guadalupe (Erythea edulis)	9-10	Japanese (S.pseudo-camellia)	6-9a	'Hinodegiri' and 'Hino- Crimson' 6b-9	Natal Plum (C.grandiflora), in- cluding 'Boxwood Beauty,'
Mexican (Washingtoniana ro-	96-10	STRAWBERRY TREE (Arbutus unedo)	8-10	Korean (R.mucronulatum) 5b-8 Pinkshell (R.vaseyi) 5-9	'Natal Creeper,' etc. 9b-10
busta) Household (Chamaedorea	9a-10	SUGAR PLUM TREE—see Primros	е	Pinxterbloom (R.nudiflorum) 4b-9 Roseshell (R.roseum) 4-8	CASSIA or SENNA Feathery or Wormwood
elegans) King (Archontophoenix cun-	9b-10	Tree SWEET BAY—see Magnolia		Rhodora (R.canadense) 3-7	(C.artemisioides) 9-10a
ninghamiana) Palmetto: Cabbage (Sabal	10-10	SWEET GUM		Royal (R.schlippenbachi) 5b-9 Snow (R.mucronatum) 6-9	Golden Wonder (C.splendida) 9-10a CEANOTHUS or WILD LILAC
palmetto)	9-10	Liquidambar styraciflua L.formosa	6-10a 7-10	Swamp (R.viscosum) 4–8 Sweet (R.arborescens) 5–9	Blue-Blossom (C.thyrsiflorus) 8-10
Saw (Serenoa repens) Pindo (Butia capitata)	9-10 8b-10	SWEETLEAF, ASIATIC (Symplocus		Hybrids: Exbury 5-7b Ghent 5-8	Holly-Leaf (C.purpureus) 7b-10
Queen (Arecastrum romanzoffianum)	9b-10	paniculata) SYCAMORE—see Plane	5b-8	Glenn Dale 7–9 Indian, Southern 8–10a	New Jersey Tea (C.americanus) 4-9 Point Reyes (C.gloriosus) 8-10
Royal, Cuban (Roystonea regia) Sago (Cycas revoluta)	10-10 9-10	TALLOW TREE, CHINESE		Indian, Belgian 9-10	San Diego (C.cyaneus), in- cluding 'Sierra Blue,' 'Mountain
Sargent Cherry (Pseudophoenix sargenti)		(Sapium sebiferum)	8b-9	Kaempferi (Torch) 5b-9a Kurume 7-10a	Haze, etc. 8-9
Windmill (Trachycarpus fortune		(Leptospermum laevigatum)	9-10	Macrantha 7–10a Mollis 5–7b	Santa Barbara (C.impressus) 8–10 CHASTE TREE (Vitex agnus-castus) 7–9
PAULOWNIA—see Empress Tree		THORN—see Hawthorn		Rutherford 9–10	'Latifolia' or 'Macrophylla' 5b-9
PAWPAW (Asimina triloba)	5b-8	TIPU TREE (Tipuana tipu) TREE-OF-HEAVEN (Ailanthus	9-10	BANANA, ABYSSINIAN (Musa ensete) 10-10	CHERRY Australian Bush—see Eugenia
PEACH, FLOWERING (Prunus persica)	6-8	altissima)	5-9	BANANA SHRUB (Michelia fuscata) 8-10	Barbados—see Malpighia Most shrub kinds—see Prunus
PEAR, EVERGREEN or FLOWERING (Pyrus kawakami)	G 8b-10	TRUMPET TREE or SILVER or GOLD TREE (Tabebuia argentia) 9b-10	BARBERRY Coral (Berberis stenophylla) 7-9a	CHINESE HAT PLANT (Holm-
PECAN (Carya pecan)	9P-10	TULIP TREE (Liriodendron	, 35-10	Darwin (B.darwini) 8-9a Japanese (B.thunbergi), including	skioldia sanguinea) 9b-10
Most kinds Hardiest	7-10a 6-9	tulipifera)	5-9	'Red' or 'Purple Leaf' ('Atro-	CHOKEBERRY Black (Aronia melanocarpa) 4-8
PEPPER TREE	0-3	TULIP TREE, AFRICAN—see Bell Flambeau		purpurea') and 'Crimson Pigmy' 3-10a	Red (A.arbutifolia) 4–9a CHRISTMAS BERRY or TOYON
Brazil (Schinus terebinthifolius) California (S. molle)	9b-10 9-10	TUNG-OIL TREE (Aleurites fordi)	9-10	Mentor or Greenleaf (B.mentor- ensis) 3b-9	(Heteromeles arbutifolia) 8b-10
PERSIMMON		TUPELO—see Sour Gum		Threespine (B.tricanthophora) 6–9 Warty (B.verruculosa) 3b–9	CLERODENDRUM or GLORY BOWER Harlequin Glory Bower
Common (Diospyros virginiana) Japanese or Kaki (D.kaki)	5b-9 7b-10a	VARNISH TREE—see Chinaberry VARNISH TREE—see Candlenut		Wintergreen (B.julianae) 5b-10a	(C.trichotomum) 6b-10
PISTACH, CHINESE (Pistacia		WALNUT		BAUHINIA, RED (B.galpini) 9b-10 BAYBERRY (Myrica pennsylvanica) 4b-8	Kashmir Bouquet (C.bungei) 8b-10 CLEYERA—see Eurya
chinensis) PLANE or SYCAMORE	6b-9	Eastern Black (Juglans nigra) English or Persian (J.regia)	5-8	BEAUTYBERRY—see Callicarpa	COPPERLEAF (Acalypha
American (Platanus occidentalis		Most varieties Hardiest varieties	7-10a 5b-9	BEAUTYBUSH (Kolkwitzia amabilis) 5-9	wilkesiana) and varieties 9b-10 CORALBERRY or INDIAN CURRANT
California (P.racemosa) London (P.acerifolia)	7-10 5b-9	WATTLE—see Acacia	35-3	BIRD-OF-PARADISE BUSH—see	Symphoricarpos orbiculatus 3b-9
Oriental (P.orientalis)	7-9	WILLOW		Poinciana BITTERSWEET, EVERGREEN—see	S.chenaulti 5b-9 'Hancock' 5-9
PLUM Blireiana (Prunus blireiana), in-		Black (Salix nigra) Corkscrew or Hankow Contorted	4-8.	Euonymus	CORAL TREE, COCKSPUR
cluding 'Newport' and 'Ruby Tree'	4-10a	(S. matsundana tortuosa) Desert—see Desert Willow	5-8	BLEEDINGHEART—see Clerodendrum	(Erythrina crista-galli) 8–10a COTONEASTER
Kafir—see Kafir Plum Pissard (P.cerasifera atro-		Laurel (S.pentandra) Pussy (S.discolor)	3-8 3-9	(Caryopteris incana), including	Cherry Bush (C.zabeli) 6-9
purpurea)	5-10a	Weeping: Babylon (S.babylonica) including 'Ram's Horn' and		'Blue Mist' and 'Heavenly Blue' 5-10a BOTANICAL WONDER—see	Creeping (C.adpressa) 5b-9
POINCIANA Bird-of-Paradise Bush		'Niobe'	5-9	Fatshedera	Franchet (C.francheti) 7–10a Necklace (C.conspicua decora) 7–10a
(Poinciana gilliesi) Royal or Flame Tree (Delonix	8-10	Thurlow (S.elegantissima) Wisconsin (S.blanda)	5-9 4-9	BOTTLE BRUSH (Callistemon and Melaleuca species) 8b-10	Peking (C.acutifolia) 3-9 Red Clusterberry (C.parneyi) 7b-10a
regia)	10-10	Yellowstem (S.alba vitellina)	3-8	BOUVARDIA (B.humboldti) 9b-10	Rockspray (C.horizontalis) 6–10a Silverleaf (C.pannosa) 7b–10a
Carolina Poplar (Populus		YELLOW-WOOD (Cladastris lutea) ZELKOVIA, JAPANESE (Zelkovia	5b-8	BOX or BOXWOOD	Small-Leaf (C.microphylla) 7-10a
canadensis) Lanceleaf Poplar (P.acuminata)	4b-8 3b-7	serrata)	5b-8	African (Myrsine africana) 8b-10 Common or English (Buxus	Spreading (C.divaricata) 5b-9 Sungari (C.racemiflora soon-
Lombardy Poplar (P.nigra italica	4b-8		No. of Concession, Name of Street, or other party of the last of t	sempervirens) 6-9a 'Edging,' 'Golden,' 'Variegated' 7-8	gorica) 4b-9 White-Leaved or Bright-Bead
Western Cottonwood (P.sargenti White Poplar (P.alba), including		BROADLEAF SHRUBS		Harland (B.harlandi) 7–9a Littleleaf (B.microphylla) 6–9	(C.glaucophylla) 7b-10 Willowleaf (C.salicifolia) 6b-9
'Bolleana' PRIMROSE or SUGAR PLUM TREE	4-9	ABELIA Glossy (A.grandiflora)	6b-10a	'Japanese' 6-10a	CRANBERRY BUSH—see Viburnum
(Lagunaria patersoni)	9-10		6b-10a	'Korean' 5-8 Victorian—see Pittosporum	CRAPEMYRTLE (Lagerstroemia indica) 7–10a
PUNK TREE—see Cajeput		(Abeliophyllum distichum)	5b-8a	BOX-ORANGE, CHINESE, or BOXTHORN (Severina buxifolia) 9-10	crotalaria—see Canarybird Bush
QUEENSLAND NUT (Macadamia ternifolia)	9b-10	ACACIA or WATTLE—see also Tree List		BREATH-OF-HEAVEN, PINK	CROTON (Codiaeum variegatum
REDBUD or JUDAS TREE Chinese (Cercis chinensis)	6b-10a	Blue-Leaf (A.cyanophylla)	9-10	(Coleanema pulchrum) 9–10	and varieties) 9b-10 CURRANT
Eastern (C.canadensis)	5b-9	Broadleaf or Bush (A.latifolia) Cassie, Popinac, or Huisache	9-10	BRIDALWREATH—see Spirea BROOM	Alpine (Ribes alpinum) 2-7
Western (C.occidentalis) ROSE ACACIA—see Locust	7b-9	(A.farnesiana) ACALYPHA—see Copperleaf	8b-10	Provence (Cytisus purgans) 7–8 Scotch (C.scoparius) 6–8	Clove or Flowering (R.odoratum) 3–8a CYDONIA—see Quince
RUBBER PLANT—see Ficus		ACOKANTHERA		Spanish (C.junceum) 6-9a	DAHOON—see Holly
RUSSIAN OLIVE (Elaeagnus		Bushman's Poison (A.venenata) Wintersweet (A.spectabilis)	9b-10 9-10	Warminster (C.praecox) 6–8 Hybrids 7–8	DAISY BUSH, NEW ZEALAND (Olearia haasti) 8-10
angustifolia)	3-9	ALDER, BLACK—see Holly	May 1	BURNING BUSH—see Euonymus	DAPHNE
SASSAFRAS (S.albidum) SAUSAGE TREE (Kigelis pinnata)	5-9 10-10	ALLAMANDA, OLEANDER (Allamanda neriifolia)	9h 10	BUSH-CLOVER, JAPANESE (Lespedeza japonica) 6-9	February (D.mezereum) 5–8 Lilac (D.genkwa) 5–9a
SEA GRAPE (Coccolobis uvifera)	10-10	ALLSPICE, CAROLINA—see Sweet	9b-10	BUSHMAN'S POISON—see	Rose (D.cneorum) 5b-8a Winter (D.odora) 7b-10a
SHADBLOW or SERVICEBERRY		Shrub		Acokanthera BUTTERFLY BUSH or SUMMER LILAC	DAUBENTONIA or RATTLEBOX
(Amelanchier canadensis) SHOWER—see Cassia	3b-9a	ALMOND, FLOWERING—see Prunu	S	Orange-Eye (Buddleia davidi), including hybrids 6-9	Scarlet Wisteria Tree (D.tripeti) 8b-10 Sesban or Red Locust (D.punicea) 9-10
SILK TREE or MIMOSA (Albizzia		ALTHEA—see Hibiscus ANDROMEDA		Fountain (B.alternifolia) 5b-9 CALLIANDRA	DEUTZIA
julibrissin) Pink (A.j.rosea)	7-10a 6-9	Japanese (Pieris japonica) Mountain (P.floribunda)	6-9	Trinidad Flame Bush (C.guild-	Elegant (D.elengantissima) 6–9 Lemoine (D.lemoinei) 4b–8
	-	ountain (F. Horibunda)	5-9	ingi) 9b-10	Most other varieties 5–8



HYBRID TEA ROSE

In Wayside's magnificent new Spring Catalog you will find more garden beauty, color and quality than you ever dreamed possible. No other catalog in the world has such a complete selection of outstanding garden subjects for spring planting. This is a valuable reference book for your library... to be referred to again and again. See new Josephine Bruce, the darkest of the dark red roses... and an entirely new family of exquisite new English Asters.

SEND FOR THE WORLD'S FINEST HORTICULTURAL BOOK-CATALOG



SPECIAL OFFER! All Three 1962 All-America Winners 🗲 Value \$1.50 for only

Burpee Seeds

Here are the 3 New Flowers you've been reading about, All-America win-ners for 1962. For you to enjoy all 3 in your own garden for the price of two, we'll send this \$1.50 value postpaid for only \$1.00. (you may send \$1 bills at our risk)



Red Man Zinnia

A striking new color in the gorgeous Giant Burpeeanas that won such high praise last year. Brilliant scarlet, up to 6 in. across. Uni-form 2-ft. plants, long stems, blooming for a long season. Pkt. 50c



Bravo Dianthus

Dazzling new scarlet red hue in the ever popular 'pinks'. Big 2-in. fringed flowers with spicy fragrance. Blooms from July till frost.8 in. tall. Pkt.50c

icans,' etc.

GERMANDER

GENISTA-see Broom

Bush (Teucrium fruticans)

Chamaedrys (T.chamaedrys)

GOLD DUST PLANT-see Aucuba

GOLDEN DEW DROP—see Duranta

Pineapple (Feijoa sellowiana)

Strawberry (Psidium cattlei-

Corylus species and varieties,

HAZEL or FILBERT

HAWTHORN, INDIA-see Raphiolepis

GOLDENBELL—see Forsythia

GLORY-BOWER-see Clerodendrum



Old Mexico Zinnia

Deep mahogany pet-als; gold overlay on edges and tips. 2½ in. across, larger than the 'Persian Carpets' and mildew-resist-ant. 15 in. tall. Pkt. 50c

All 3 Packets, \$1.50 Value for \$1.00 10 Pkts., Your Choice, only 53.00

Supply Limited, So Order TODAY The seed supply of new flowers is often sold out before planting time—get yours NOW.

Money-Back Guarantee

W.ATLEE BURPEE CO., 369 Burpee Bldg.
Phila. 32, Pa. or Clinton, lowa or Riverside, Calif.

	Zones
DOGWOOD—see also Tree List	
Red Osier (Cornus stolonifera), including 'Goldentwig,' 'Col-	
orado,' etc.	3-8
Siberian or Tatarian (C.alba), including 'Coral Beauty,'	
'Bailey,' 'Variegated,' etc.	3-8
DURANTA	
Brazil Skyflower (D.stenostachya) Golden Dewdrop, Pigeon Berry,	96-10
or Creeping Skyflower	
(D.repens)	9b-10
ELAEAGNUS—see also Tree List Gumi (E.multiflora)	5-9a
Silverberry (E.commutata)	2b-7
Thorny (E.pungens), including	
'Golden,' 'Fruitland,' 'Silver- edge,' etc.	7-10a
ENKIANTHUS	
Redvein (E.campanulatus)	5-8
White (E.perulatus)	5b-8
Appleblossom (E.viscosa)	8b-10
Pink (E.organensis)	8b-10
White (E.montevidensis)	8b-10
EUONYMUS Burning Bush or Winged Spindle	
Tree (E.alatus)	3b-10a
Fernleaf (E.nanus turkestanicus)	3-7
Green or Evergreen (E.ja- ponicus)	7b-10a
Patens (E.kiautschovica)	6-10
Wintercreeper (E.fortunei), in- cluding 'Variegated'	6-10
EURYA	
Cleyera (Cleyera japonica or	
Eurya ochnacea), including 'Tricolor' or 'Variegated'	7b-10
Eurya (E.emarginata)	8-10
Ternstroemia (T.gymnanthera, often called Cleyera ja-	
ponica)	7b-10
FATSHEDERA or BOTANICAL	
WONDER (F.lizei)	8-10
FATSIA, ARALIA, or GLOSSY- LEAVED RICE PAPER PLANT	
(F.japonica)	8-10
FERN, SWEET—see Sweetfern	
FIG. FIDDLELEAF (Ficus lyrata	9b-10
or F.pandurata)	30-10
FIRETHORN Pyracantha angustifolia	5b-10a
P.coccinea, including P.c.lalandi,	
P.c.pauciflora, 'Kasan,' 'Runyan,' etc.	5b-10a
P.crenato-serrata, including	75 10
'Graber' and 'Rosedale' P.crenulata	7b-10 6b-10
P.koidzumi	8-10
FLAME BUSH, TRINIDAD—see	
Calliandra	
FLAME-OF-THE-WOODS (Ixora coccinea)	9b-10
FLAME-PEA BUSH (Chorizema	
varium)	9-10
FLANNEL BUSH (Fremontia	OL 10
mexicana)	8b-10
FLAX, YELLOW (Reinwardtia indica)	9-10
FORSYTHIA or GOLDENBELL	
Early (F.ovata)	4b-8
Showy (F.intermedia spectabilis) Weeping (F.suspensa)	5b-8 5b-8
White—see Abelia-Leaf	
Hybrids such as 'Beatrix Farrance 'Lynwood Gold,' 'Spring Glory'	5b-8
'Arnold Dwarf'	4-8
FRINGETREE (Chionanthus vir-	
ginicus)	5-10a
FUCHSIA Most kinds	9-10
Magellan (F.magellanica)	7b-10
GARDENIA or CAPE JASMINE	
Gardenia jasminoides, including 'Mystery,' 'Veitchi,' 'Rad-	

Black Eyed Heath (E. melanthera) 8b–10a Cornish Heath (Erica vagans and varieties) 7–8 Irish Heath (Daboecia cantabrica) 7–9a Mediterranean Heath (Erica mediter-7b-9a ranea) Scotch Heather or Ling (Calluna vulgaris and varieties) Spanish Heath (E.lusitanica) Spring Heath (E.carnea and varieties) **HEAVENLY BAMBOO**—see Nandina HEBE or VERONICA Autumn Glory (H.elliptica) Boxleaf (H.buxifolia) 7b-10a 9-10 H.speciosa HIBISCUS Chinese (H.rosa-sinensis and varieties) 9-10 Confederate or Cotton-Rose (H. mutabilis) Rose-of-Sharon or Shrub Althea 9-10 (H.syriacus and varieties) **HOLLY**—see also Tree List Chinese (Ilex cornuta), includ-ing 'Burford' and other varieties 7b-10a Dwarf—see Malpighia Grape—see Mahonia Grape—See Manonia Inkberry (I.glabra) Japanese (I.crenata and varie-ties) Long-Stalk (I.pedunculosa) Wilson (I.altaclarensis wilsoni) Winterberry or Black Alder (I.verticillata) 5-10a 7b-9a Yaupon (I.vomitoria) 7b-9 HONEY BUSH (Melianthus major) 9b-10 HONEYSUCKLE—see also Vine List Amur (Lonicera maacki) Box (L.nitida) 7b-10 4b-10a Lilac (L.syringantha) Morrow (L.morrowi) Privet (L.pileata) 4b-9a 6-10a Tatarian (L.tatarica), including 'Clavey's Dwarf' Winter (L.fragrantissima) 3-8 5-8 Zabel (L.korolkowi zabeli) HYDRANGEA French, House, or Big-Leaf (H. 7-10a macrophylla) 'Blue Wave' 'Nikko Blue' 6b-10a 5b-9 Hills-of-Snow or Snowhill (H.arbor-escens grandiflora) Oak-Leaved (H.quercifolia) 4-10a Peegee (H.paniculata grandiflora) 4-10a HYPERICUM or ST. JOHNSWORT Aaron's Beard (H.calycinum) 6-10 Golden (H.frondosum aureum) Gold-Flower (H.moserianum) Henry or Golden Cup (H.patulum 7-10 7b-10 henryi) 'Hidcote' 6-10 5b-10 'Sungold' Sunshine Shrub or Kalm (H.kal-mianum) ILEX-see Holly **INKBERRY**—see Holly JASMINE or JESSAMINE—see also Vines Cape-see Gardenia Italian (Jasminum humile revolutum) Orange (Murraea exotica) 9b-10 Parker (J.parkeri) Showy (J.floridum) 7b-10 Winter (J.nudiflorum) KASHMIR BOUQUET-see Clerodendrum KERRIA or GLOBE FLOWER 6a-9a (K.japonica pleniflora) KING'S MANTLE (Thunbergia 9b-10 erecta) LANTANA (L.camara) 9-10 LAUREL—see also Tree List English or Cherry—see Prunus Mountain—see Mountain Laurel LAURESTINUS—see Viburnum 6-10a **LAVENDER-COTTON** (Santolina chamaecyparissus) LAVENDER STAR PLANT (Grewia caffra) LAVENDER, TRUE (Lavandula offici-6-10a nalis)
'Hidcote' 8b-10a

LEADWORT-see Plumbago

LIGUSTRUM-see Privet

LILAC

LEUCOTHOE, DROOPING (L.catesbaei) 5-9

California or Wild-see Ceanothus

9b-10

Zones

5b-9

including 'Purple-Leaved' and

'Contorted' Winter—see Winter Hazel Witch—see Witch-Hazel

HEATH and HEATHER

	Zones
Chinese (Syringa chinensis)	3b-7b
Common (S. vulgaris), including	01.0
"French" hybrids	3b-8a
Daphne or Littleleaf (S.micro- phylla)	4-8a
Hungarian (S.josikaea)	4-7b
Japanese Tree (S.amurensis ja-	
ponica)	4b-8
Korean Early (S.oblata dilatata)	4b-8 3b-8a
Late (S.villosa) Persian (S.persica)	5-8
Summer-see Butterfly Bush	
LOCUST, RED—see Daubentonia	
LUPINE, CANARY ISLAND—see Car	nary
Island Lupine	
MAGNOLIA—see also Tree List	60
Purple Lily (M.liliflora nigra) Star (M.stellata)	6-9 5b-9
	-
MAHONIA or HOLLY-GRAPE Chinese (M.Iomarifolia)	3b-10a
Leatherleaf (M.beali)	7-10
Oregon (M.aquifolium)	5b-9
MALPIGHIA	
Barbados Cherry (M.glabra)	9-10
Dwarf-Holly (M.coccigera)	9-10
MELALEUCA—see Bottle Brush	
MIRROR PLANT (Coprosma baueri)	9b-10
MOCKORANGE	707
Lemoine (Philadelphus lemoinei),	
including 'Avalanche,' 'Mont	3-1-1-1-1-1
Blanc,' 'Innocence,' 'Belle	E 0
Etoile' Sweet (P.coronarius)	5-9a 4b-9a
'Golden-Leaved'	4-9a
Virginal (P.virginalis)	5-9a
'Atlas,' 'Minnesota Snowflake,'	
'Silver Stars'	4-9a
MORNING-GLORY, BUSH	0.10
Morocco (Convolvulus cneorum) C.mauritanicus	8-10 9-10
MOUNTAIN LAUREL (Kalmia latifoli	a) 5-9a
MYRTLE—see also Groundcovers	
Myrtus communis, including 'Box 'Dwarf,' 'Variegated'	8b-10
	00-10
NANDINA or HEAVENLY BAMBOO	
	7_0
(N.domestica)	7-9
(N.domestica) NATAL PLUM—see Carissa	7-9
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium	
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax)	7-9 9-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum	9–10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu	9–10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius)	9–10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu	9–10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius)	9–10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea	9–10 us 3b–9
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander)	9–10 us 3b–9
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia	9-10 1s 3b-9 8b-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia)	9-10 1s 3b-9 8b-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulitolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange	9-10 3b-9 8b-10 9b-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata)	9-10 as 3b-9 8b-10 9b-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata)	9-10 3b-9 8b-10 9b-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia	9-10 as 3b-9 8b-10 9b-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List	9-10 35-9 8b-10 9b-10 6b-10 8-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus)	9-10 s 3b-9 8b-10 9b-10 6b-10 8-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei)	9-10 35-9 8b-10 9b-10 6b-10 8-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus)	9-10 25 3b-9 8b-10 9b-10 6b-10 8-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids	9-10 s 3b-9 8b-10 9b-10 6b-10 7b-9 8-10a 7-10a 8b-10 8-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans)	9-10 ss 3b-9 8b-10 9b-10 6b-10 8-10 7b-9 8-10a 7-10a 8b-10 8b-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi)	9-10 s 3b-9 8b-10 9b-10 6b-10 7b-9 8-10a 7-10a 8b-10 8-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER—	9-10 ss 3b-9 8b-10 9b-10 6b-10 8-10 7b-9 8-10a 7-10a 8b-10 8b-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER— see Scimitar Plant	9-10 ss 3b-9 8b-10 9b-10 6b-10 8-10 7b-9 8-10a 7-10a 8b-10 8b-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER— see Scimitar Plant PEA-TREE, SIBERIAN	9-10 s 3b-9 8b-10 9b-10 6b-10 7b-9 8-10a 7-10a 8b-10 8-10 5-8a
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER— see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens	9-10 s 3b-9 8b-10 9b-10 6b-10 8-10 7b-9 8-10a 7-10a 8b-10 8-10 8-10 5-8a
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER—see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea	9-10 s 3b-9 8b-10 9b-10 6b-10 8-10 7b-9 8-10a 7-10a 8b-10 8-10 8-10 8-10 8-10 8-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER—see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea PEARL BUSH (Exochorda racemos)	9-10 s 3b-9 8b-10 9b-10 6b-10 8-10 7b-9 8-10a 7-10a 8b-10 8-10 5-8a 2b-9a 3-9a a) 5-9
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER—see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea	9-10 s 3b-9 8b-10 9b-10 6b-10 8-10 7b-9 8-10a 7-10a 8b-10 8-10 5-8a 2b-9a 3-9a a) 5-9
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER—see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea PEARL BUSH (Exochorda racemos PEPPER BUSH—see Summerswee PERNETTIA, CHILEAN	9-10 s 3b-9 8b-10 9b-10 6b-10 8-10 7b-9 8-10a 7-10a 8b-10 8-10 5-8a 2b-9a 3-9a a) 5-9 t
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER— see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea PEARL BUSH (Exochorda racemos) PEPPER BUSH—see Summersween PERNETTIA, CHILEAN (P.mucronata)	9-10 s 3b-9 8b-10 9b-10 6b-10 8-10 7b-9 8-10a 7-10a 8b-10 8-10 5-8a 2b-9a 3-9a a) 5-9
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER— see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea PEARL BUSH (Exochorda racemos PEPPER BUSH—see Summersweet PERNETTIA, CHILEAN (P.mucronata) PHOTINIA	9-10 s 3b-9 8b-10 9b-10 6b-10 7b-9 8-10a 7b-9 8-10a 2b-9a 3-9a a) 5-9 t 8-10a
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER—see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea PEARL BUSH (Exochorda racemos PEPPER BUSH—see Summerswee PERNETTIA, CHILEAN (P.mucronata) PHOTINIA Chinese (P.serrulata)	9-10 s 3b-9 8b-10 9b-10 6b-10 8-10 7b-9 8-10a 7-10a 8b-10 5-8a 2b-9a 3-9a a) 5-9 t 8-10a 7b-10a
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER—see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea PEARL BUSH (Exochorda racemos PEPPER BUSH—see Summerswee PERNETTIA, CHILEAN (P.mucronata) PHOTINIA Chinese (P.serrulata) Japanese (P.glabra)	9-10 s 3b-9 8b-10 9b-10 6b-10 7b-9 8-10a 7b-9 8-10a 2b-9a 3-9a a) 5-9 t 8-10a
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER—see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea PEARL BUSH (Exochorda racemos PEPPER BUSH—see Summerswee PERNETTIA, CHILEAN (P.mucronata) PHOTINIA Chinese (P.serrulata) Japanese (P.glabra) Oriental (P.villosa)	9-10 9-10 8b-10 9b-10 7b-9 8-10a 7-10a 8b-10 8-10 8-10 8-10 8-10 7b-9 8-10a 7b-9 8-10a
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER—see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea PEARL BUSH (Exochorda racemos PEPPER BUSH—see Summerswee PERNETTIA, CHILEAN (P.mucronata) PHOTINIA Chinese (P.serrulata) Japanese (P.glabra) Oriental (P.villosa) PIGEON BERRY—see Duranta	9-10 9-10 8b-10 9b-10 7b-9 8-10a 7-10a 8b-10 8-10 8-10 8-10 8-10 7b-9 8-10a 7b-9 8-10a
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER— see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea PEARL BUSH (Exochorda racemos PEPPER BUSH—see Summerswee PERNETTIA, CHILEAN (P.mucronata) PHOTINIA Chinese (P.serrulata) Japanese (P.glabra) Oriental (P.villosa) PIGEON BERRY—see Duranta PITTOSPORUM	9-10 s 3b-9 8b-10 9b-10 6b-10 7b-9 8-10a 7-10a 8b-10 8-10 8-10 8-10 8-10 8-10 5-8a 2b-9a 3-9a a) 5-9 t 8-10a 7b-10a 7b-9 5b-9
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER—see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea PEARL BUSH (Exochorda racemos PEPPER BUSH—see Summerswee PERNETTIA, CHILEAN (P.mucronata) PHOTINIA Chinese (P.serrulata) Japanese (P.glabra) Oriental (P.villosa) PIGEON BERRY—see Duranta PITTOSPORUM Japanese (P.tobira)	9-10 s 3b-9 8b-10 9b-10 6b-10 8-10 7b-9 8-10a 7-10a 8b-10 8-10 8-10 8-10 8-10 8-10 8-10 8-10 8-10 8-10 8-10 8-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER— see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea PEARL BUSH (Exochorda racemos PEPPER BUSH—see Summerswee PERNETTIA, CHILEAN (P.mucronata) PHOTINIA Chinese (P.serrulata) Japanese (P.glabra) Oriental (P.villosa) PIGEON BERRY—see Duranta PITTOSPORUM	9-10 s 3b-9 8b-10 9b-10 6b-10 8-10 7b-9 8-10a 7-10a 8b-10 8-10 8-10 8-10 8-10 8-10 8-10 8-10 8-10 8-10 8-10 8-10
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER— see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea PEARL BUSH (Exochorda racemos PEPPER BUSH—see Summerswee PERNETTIA, CHILEAN (P.mucronata) PHOTINIA Chinese (P.serrulata) Japanese (P.glabra) Oriental (P.villosa) PIGEON BERRY—see Duranta PITTOSPORUM Japanese (P.tobira) Karo or Evergreen (P.crassifoliur Queensland or Diamondleaf (P.rhombifolium)	9-10 s 3b-9 8b-10 9b-10 6b-10 8-10 7b-9 8-10a 7-10a 8b-10 8-10 8-10 7b-9a 3-9a a) 5-9 t 8-10a 7b-9a 7b-10a 7b-9a 7b-10a 7b-9 5b-9 8-10a
(N.domestica) NATAL PLUM—see Carissa NEW ZEALAND FLAX (Phormium tenax) NIGHTSHADE—see Solanum NINEBARK, EASTERN (Physocarpu opulifolius) OCEAN SPRAY—see Rock Spirea OLEANDER (Nerium oleander) OLEANDER, YELLOW (Thevetia nereifolia) OLIVE, SWEET—see Osmanthus ORANGE Box—see Box-Orange Hardy (Poncirus trifoliata) Mexican (Choisya ternata) OREGON GRAPE—see Mahonia OSMANTHUS—see also Tree List Chinese (O.armatus) Fortune's (O.fortunei) Holly (O.ilicifolius Orange (O.aurantiacus) San Jose Hybrids Sweet Olive (O.fragrans) PACHISTIMA, CANBY (P. canbyi) PEA-BUSH, SWAN RIVER— see Scimitar Plant PEA-TREE, SIBERIAN Caragana arborescens C.pygmaea PEARL BUSH (Exochorda racemos PEPPER BUSH—see Summerswee PERNETTIA, CHILEAN (P.mucronata) PHOTINIA Chinese (P.serrulata) Japanese (P.glabra) Oriental (P.villosa) PIGEON BERRY—see Duranta PITTOSPORUM Japanese (P.tobira) Karo or Evergreen (P.crassifoliur Queensland or Diamondleaf	9-10 s 3b-9 8b-10 9b-10 6b-10 7b-9 8-10a 7-10a 8b-10 8-10 8-10 8-10 5-8a 2b-9a 3-9a a) 5-9 t 8-10a 7b-10a 7b-9 5b-9

9b-10

7-10a

Tawhiwhi (P.tenuifolium)

PLUM, NATAL—see Carissa

PLUMBAGO

Victorian Box (P.undulatum)

Cape (P.capensis)
Chinese or Willmott Blue Leadwort (Ceratostigma wilmotti-

	Zones
POINCIANA or BIRD-OF-PARADISI	E
BUSH (P.gillesi) POINSETTIA (Euphorbia pulcherri	8-10 ma)
POMEGRANATE (Punica	9b-10
granatum) POTENTILLA or BUSH CINQUEFO	7b-10a
P.fruticosa 'Gold Drop,' 'Katherine Dykes,'	2b-9
'Moonlight,' 'Primrose Beauty'	
PRINCESS FLOWER (Tibouchina se	
decandra)	9b-10
Amur (L.amurense)	4b-9
Border (L.obtusifolium) Regel's (L.o.regelianum)	4-8 5-9
California (L.ovalifolium) Chinese (Amur in South) (L.sin-	6-10
ensis) Common (L.vulgare)	7-10 5-9
Glossy (L.lucidum) Ibolium or Hardy California	7b-10
(L.ibolium) Japanese (L.japonicum)	5b-9 7b-10
'Suwanee River' Vicary Golden or Chartreuse Shr	
(L.vicaryi) PRUNUS	5b-10
Catalina Cherry (P.lyoni) Dwarf Flowering Almond	8-10
(P.glandulosa) Carolina Cherry-Laurel	4b-9
(P.caroliniana) Flowering Almond or Rose Tree of	7-10 of
China (P.triloba multiplex) Nanking or Manchu Cherry	3b-8
(P.tomentosa) Portugal Laurel (P.lusitanica)	3-9a 7b-10
Purple-Leaf Sand Cherry (P.cistena)	3b-8
Western Sand Cherry (P.besseyi) PYRACANTHA—see Firethorn	3-8
QUINCE, FLOWERING, or CYDONIA	
(Chaenomeles lagenaria, C. japonica, and hybrids)	5-9a
RAPHIOLEPIS India Hawthorn (R.indica)	8-10
Roundleaf (R.japonica) RHODODENDRON—see also Azalea	8-10
California (R.macrophyllum) Carolina (R.carolinianum)	7-9a 5b-8a
Catawba (R.catawbiense) and hybrids	5-8a
Rosebay (R.maximum) For additional species and garde	4-8
hybrids, see hardiness ratings published by American Rhodos	
dron Society, 3514 N. Russet Si Portland 17, Oregon.	t.,
RICE PAPER PLANT (Tetrapanax	
papyriferum) RICE PAPER PLANT, GLOSSY-LEA	8-10a AVED—
see Fatsia ROCK-ROSE	
Brown-Eyed (Cistus ladaniferus maculatus)	8-10a
Laurel (C.laurifolius) Purple or Orchid (C.purpureus)	7-9 8-10a
White (C.hybridus)	8-10a
ROCK-SPIREA (Holodiscus discolor) ROCKSPRAY—see Cotoneaster	5-9a
ROSE—see also Vines Bush Garden Types (Hybrid Tea,	
Grandiflora, Floribunda, Polyantha)—with protection	3b-9
Without protection Miniature—with protection	6-9 4-9
Without protection Hedge or Shrub Types	6-9
Grootendorst Harison's Yellow	4-8 5-9a
Multiflora Rugosa	6-9a 3-8
Confederate—see Hibiscus Rock—see Rock-Rose	200
ROSE-OF-SHARON—see Hibiscus	
ROSE TREE OF CHINA—see Prunus RUBBER PLANT (Ficus elastica)	10-10
SARCOCOCCA	
Fragrant (S.ruscifolia) Willowleaf (S.saligna)	7-10a 7-10a
Hooker (S.hookeriana humilis) SCHEFFLERA (S.actinophylla)	6-10a
SCIMITAR PLANT or SWAN RIVER BUSH (Brachysema lanceolatun	PEA
	9b-10
SESBAN—see Cassia SESBAN—see Daubentonia	
SILVERBERRY—see Elaeagnus	
SKIMMIA (S.japonica) SMOKE BUSH (Cotinus coggygria),	b-10a
including 'Purple-Leaved'	5b-9

s		Zones
0	SNAIL-SEED, LAUREL-LEAF (Coccilaurifolius)	
0	SNOWBALL—see Viburnum SNOWBERRY (Symphoricarpos all	hus) 3-9
a	SOLANUM, BLUE, or NIGHTSHAD	
9	SPINDLE TREE—see Euonymus	30 10
9	SPIREA Blue—see Bluebeard Bridalwreath (Spiraea prunifolia	
0	plena) Bumalda (S.bumalda) 'Anthony Waterer'	5-9 4-9a
9	'Froebel' S.b.crispa	5-9a 5b-9a
8 9	Dwarf Bridalwreath (S.trilobata) Garland (S.arguta) Mikado or Red (S.japonica cocci	3b-9a 4-9 nea)
0		5-9a
9	Reeve's (S.cantoniensis) Rock—see Rock-Spirea Thunberg (S.thunbergi)	6-9 5-10a
9	Vanhoutte (S.vanhouttei)	4-10a
0	ST. JOHNSWORT—see Hypericum STEPHANANDRA, CUTLEAF (S.inc	cisa)
0	STEWARTIA—see also Tree List	5b-9a
0	Showy (S.ovata grandiflora) STRAWBERRY TREE (Arbutus	6-9
9	unedo)	8-10a
0	Fragrant (Rhus aromatica) Shining (R.copallina)	4-9 5-9
3	Staghorn (R.typhina) SUMMERSWEET or PEPPER BUSH	3-9
9	(Clethra alnifolia) SWEETFERN (Comptonia peregrin	3b-9
3	SWEETPEA SHRUB (Polygala dalm siana)	
	SWEETSHRUB or CAROLINA ALLS (Calycanthus floridus)	
1	SYRINGA—see Mockorange and L	ilac
	TAMARISK or SALT-CEDAR	, ,,
	Five-Stamen (Tamarix pentandra Kashgar (T.hispida)	a) 3-8 5-9
1	TEA TREE Australian (Leptospermum laevi- gatum)	9b-10
1	Dwarf Australian (L.reevesi) Keatley (L.keatleyi)	9b-10 9b-10
3	'Ruby Glow' TERNSTROEMIA—see Eurya	9-10a
	TOYON—see Christmas Berry	
	VERBENA, LEMON (Lippia citriodo	
		8b-10a
	VERONICA—see Hebe VIBURNUM	
	Arrow-Wood (V.dentatum)	3-8
	Black Haw (V.prunifolium) Burkwood (V.burkwoodi) Carles, Fragrant, Pink Snowball,	3b-8 5b-8
	or Korean Spice (V.carlesi) Cranberry Bush, American (V.	5-9
	trilobum) Cranberry Bush, European (V.	2b-8a
	opulus) 'Nanum' 'Compactum'	3-8a 4-8a
	David (V.davidi) Doublefile (V.plicatum tomen-	3b-8a 7b-10a
	tosum) Japanese (V.japonicum)	5b-8 7-10a
	Judd (V.juddi)	5b-9
	Leather (V.rhytidophyllum)	7b-10a 6-9
	Linden (V.dilatatum) Nannyberry (V.lentago)	5b-9a 3-8
	Sandankwa (V.suspensum)	8b-10a
	Snowball, Chinese (V.macroceph alum)	7-8
	Snowball, Common (V.opulus roseum)	3b-8
		5b-10a
	Snowball, Japanese (V.plicatum) Sweet (V.odoratissimum)	5b-8 8-10a
	Tea (V.setigerum)	6-9a
	Wayfaring Tree (V.lantana) Wright (V.wrighti)	3-8 5b-9a
	VITEX—see Chaste Tree	
	WAXFLOWER, Geraldton (Chamael	
	uncinatum or C.ciliatum) WEIGELA	9b-10
	Most species and hybrid varieties WINTERBERRY—see Holly	4b-9a
	WINTER-HAZEL Chinese (Corylopsis sinensis)	6.0
	Fragrant (C.glabrescens) Spike (C.spicata)	6-9a 6-9a 6b-9a
	-pino (otopicata)	00-9a

BE first TO GET THIS first FULL-COLOR SEED CATALOG FREE! * BEAUTIFUL * INFORMATIVE * IDEA-FILLED

Open this completely new kind of garden seed catalog — and you're in for a surprise! No more cold black and white photos; here's a big 81/4" x 11" book filled from cover to cover with warm true-to-life full-color photographs.

SEE! . . . Preview of 26 New Flowers and 18 Vegetables never shown before. Filled with time-saving ideas. How-to-do-it landscape color combinations. Everlastings for the new dried flower trend. Table arrangements,



bouquets, centerpieces. New-idea house plants and patio plants. Your 1962 Ferry-Morse catalog tells you where and when to plant — what you can expect from each packet of seed, honestly, without exaggeration. Be one of the first to have it. Send the coupon to America's largest home

garden seed company. SEND FOR YOUR

TODAY!



FERRY-MORSE SEED CO. Box 200, Dept. 11, Mountain View, Calif.

Garden Editors previewed State Fair last summer. They spent hours counting colors they'd never seen before. Landscape a yard with a single packet! Breathtaking bouquets of butter-plate size blooms.

Mixed Colors 75 seeds 25

FERRY-MORSE SEED CO., MT. VIEW, CALIF.

Please send me your 1962
free full-color Garden Catalog
I enclose 25c for State Fair Zinnia
Mixed Colors (Postage Prepaid) — 58538
Name
Address

Zone

State



32" or 26" rotary or 30" reel mowers. Does 12 year 'round yard jobs with Insta-Hitch attachments. Built for dependability priced to save!

For free EMPEROR literature, write Ariens Company, 225 Calumet St., Brillion, Wisconsin. Do it today!



SPRING HILL'S FREE 113th ANNIVERSARY
CATALOG



Send for this remarkable nursery catalog, 1,000 selected varieties of bulbs, trees, shrubs, flowers including rare items. Every page of this big colorful catalog is a gardener's treat. You'll like dealing with Spring Hill, the nursery with guaranteed-to-grow stock, Early order discounts. Write today—it's FREE!

Nurseries, Dent F.2 line City Dhie

Spring Hill Nurseries, Dept. E-21, Tipp City, Ohio



FREE FLOWER

If you love flowers, we want you to have a free copy of the new Park Flower Book for 1962.

This catalogue lists and describes over 3000 varieties of flower seed and plants—many rare kinds—all the new ones as well as the older varieties.



Also seed of house and window plants. Book gives cultural directions, pronounc-ing index, germination tables, lots of helpful information.

Send a postcard today for your

FREE FLOWER BOOK

GEORGE W. PARK SEED CO. Greenwood 46. S. C.



TREES

3 to 4 yr. healthy, selected trees, 8" to 16" tall. 5 each of: Colorado Blue Spruce–Norway Spruce–Austrian to 16" tall. 5 each of: Colorado Biue Spruce-Norway Spruce-Austrian Pine-Scotch Pine-White Fir. Postpaid at planting time Write for Free Evergreen Catalog

MUSSER FORESTS BOX 1-A INDIANA, PA.



EMLONG'S Box 346, Stevensville, Mich



WILSON BROS. Roachdale 5, Ind.

SHAGGY ASTERS RED + WHITE + BLUE + 3-15c PACKETS ONLY 10c, 45c Value Red, White and Blue, Gorgeous 5 in, Blooms, 2½ inches thick on stately stems. Send 10c for these lovely saters. Will include my Bis Seed Plant 8 Numany Catalog

R.H. SHUMWAY Seedsman, Dept. 301, Rockford, ILL.

Burpee Seed Book
It's America's favorite garden FREE
book and leading seed catalog FREE
with the fines selection of best flowers
and water tables is about to be set flowers and vegetables, including famed Burpee Hybrids. The easy shop-by-mail way to get the bestseeds that grow. Write Today!

W. ATLEE BURPEE CO., 368 Burpee Bldg. Phila, 32, Pa. or Clinton, Iowa or Riverside, Calif.

NEW 1962 LAVISH SPRING GARDEN **GUIDE & CATALOG**

A BREATHTAKING GALLERY OF BRILLIANT-HUED PERENNIALS. ORNAMENTAL SHRUBS, BERRY PLANTS, SHADE & FRUIT TREES FREE GIFTS WITH EARLY ORDERS! SEND POST CARD TODAY TO:

DEPT. AH-1

KELLY BROS. | NURSERIES, INC. DANSVILLE, N. Y.

2 GARDEN THRILLERS

DWARF SWEET PEA (Little Sweetheart)
— Grows only 8" tall; perfectly rounded upright bush. Blooms early and long; a "conversation" plant. Mixed colors. Package 15c, 2 for 25c.

age 15c, 2 for 25c.

NEW LILAC ZINNIA — Lilac Time is a giant, cactus-flowered zinnia in a beautiful shade of rosy lilac, 2-3° tall, with giant 5" blooms. Make your friends envious. Introductory package 10c.

FREE! A color-packed 80-page catalog — the best of the old plus the newest of the flowers, vegetables, fruits, bulbs, and shrubs. Write for FREE copy of our 75th (diamond anniversary) our 75th (diamond anniversary)



our 75th (diamond anniversary)

OLDS SEED CO. Box 1069-R Madison 1, Wis.

DWARF SWEET NEW CHERRY TREES Only 15 Feet Tall—Very Productive

Full size fruit of high quality. Trees are hardy: generally bear second year after planting. The ideal fruit tree for limited space in your yard or orchard. Write today for big FREE catalog

ALLEN'S NURSERIES, Inc., Box 200, Geneva, Ohio

E LANDSCAPE CONTRACTOR

LEARN MODERN LANDSCAPING for exciting hobby or profit. Thousands of spare or full time money making opportunities. Start a profitable business - we show you how. Study and earn your certificate at home. Write today for Free Book. 11826 San Vicente Blvd., Los Angeles 49, Calif.



Giant DAHLIAS
FROM SEED IN 10 WEEKS

duces gorgeous blooms from July to frost, Send 10c in cein for 50c Pkt. or 3 Pkts. for 25c and Copy Of Our Big New Garden Catalog FREE

CONDON BROS. SEEDSMEN . . . Now Combined With R. H. SHUMWAY Seedsman Dept. 302, Rockford, ILL. vest Varieties of Disease

TREES

Double Value—Shade Plus Profits
Best varieties of English Walnut, Hardy Pecans,
Black Walnut, Chestnut, etc. Heavy bearers.
Enough nuts to eat plus some to sell. Excellent
for shade, FREE catalog, Over 100 bargains in
shrubs, evergreens, fruits, roses, trees. Write
for your copy today.

Ackerman Nursery, 417 Lake St., Bridgman, Mich.

IMPORTED FRENCH



SEEDS FOR ONLY A BIG 25¢ PKT, OF



Grow 25 bouquets from a single packet of seed . . . and the blooms are as big as those you buy! Stems are 15 inches long, and each one produces 7 or 8 spicy-scented, 2 to 21/2 inch flowers. All shades of white, red, pink, yellow, two-tone. An improved strain produced for us by a French specialist.

Special offer - limited one to a customer. Send 4¢ stamp today.

"Home Planting Headquarters Since 1919"

EARL MAY SEED CO.

FREE! Big colorful catalog featuring hundreds of varieties of flowers, trees,

shrubs, plants and hybrid vegetables,

2409 Elm St.

Shenandoah, Iowa

	Zones
WINTERSWEET (Chimonanthus pra	
See also Acokanthera	75-3
WISTERIA-TREE—see Daubentonia WITCH-HAZEL	
Chinese (Hamamelis mollis) Common (H.virginiana)	6-9 4-8
Vernal (H.vernalis)	5-8
YAUPON—see Holly YELLOW-BELLS, -TRUMPET, -ELDE	R
(Stenolobium stans)	9b-10
VINES	
AKEBIA, FIVE-LEAF (A.quinata)	5b-9
TRUMPET (A.cathartica)	9b-10
(A.brevipedunculata)	5b-8
ASPARAGUS, FERN	9-10
(A.plumosus and A.sprengeri) BITTERSWEET	9-10
American (Celastrus scandens) Chinese (C.loeseneri)	4-8 4b-8
Evergreen—see Euonymus Oriental (C.orbiculatus)	5b-8
BLEEDINGHEART GLORYBOWER (Condendrum thomsoniae)	Clero- 9b-10
BOUGAINVILLAEA	
Most kinds B.glabra varieties	9-10
CAT'S CLAW—see Trumpet Vine	
Anemone (C.montana)	5b-10a
Armand (C.armandi) Cream (C.florida)	7b-10 7b-9a
'Belle of Woking' and 'Duchess of Edinburgh'	6-8
Golden (C.tangutica) Jouin (C.jouiniana), including	3-10a
'Mrs. Robert Brydon' Scarlet (C.texensis)	5b-8 4b-8a
Sweet Autumn (C.paniculata) "Large-Flowered Hybrids" (includ	4-9
ing C. jackmani and named hy- brids of C.lanuginosa, C.	
viticella, etc.), most kinds CLOCK VINE	5-8
Bengal or Blue Sky Vine (Thun- bergia grandiflora)	9b-10
Orange (T.gibsoni)	10-10
CROSS VINE—see Trumpet Vine	9-10
CUP-OF-GOLD VINE or GOLDCUP	
CHALICE VINE (Solandra guttata) DUTCHMAN'S PIPE or PELICAN FI	THE RESERVE OF
Aristolochia durior A.grandiflora	4b-9 10-10
EASTER LILY VINE—see Trumpet V	
EUONYMUS Wintercreeper (E.fortunei), most	
varieties Purpleleaf (E.f.coloratus)	5-9a 4b-8
Silveredge (E.f.gracilis) Evergreen Bittersweet (E.f.	6-9
vegetus)	5-9a
FATSHEDERA LIZEI or BOTANICAL WONDER	8-10
FIG, CREEPING (Ficus pumila)	9-10a
FLAME VINE—see Trumpet Vine GLORYBOWER—see Bleedingheart	
GLORY-PEA (Clianthus dampieri)	9b-10
GRAPE IVY—see Ivy	
HERALD'S TRUMPET—see Trumper HONEYSUCKLE	Vine
Cape (Tecomaria capensis) Everblooming (Lonicera hecrotti).	9b-10
including 'Gold Flame' Hall's (L.japonica halliana)	4b-9a 5b-9a
Trumpet (L.sempervirens)	4b-9
HYDRANGEA, CLIMBING (H.petiola	5-9a
Algerian (Hedera canariensis)	8-10
Boston (Parthenocissus tricus- pidata)	5-9
English (Hedera helix), most kinds	6-10
'Baltic' Grape (Cissus rhombifolia)	5b-9 10-10
Kangaroo (C. antarctica) Marine or Treebine (C.incisa)	10-10 6b-9
JASMINE or JESSAMINE Carolina or Yellow (Gelsemium	
	b-10a
mum) Madagascar—see Madagascar Ja:	10-10 smine
	b-10a

Primrose (J.mesnyi) Star or Confederate (Trachelo-spermum jasminoides)

Zones

KANGAROO VINE-see Ivy KUDZU VINE (Pueraria thunbergiana) 6-9 **MADAGASCAR JASMINE** (Stephanotis

MADEIRA VINE (Boussingaultia gracilis pseudobaselloides)

MATRIMONY VINE (Lycium halimifolium)

PANDOREA

Jasmine Pandorea or Bower Plant (P.jasminoides) 9b-10 Wonga-Wonga Vine (P.pandorana) 10-10 PARROT'S BILL (Clianthus puniceus)

PASSION FLOWER Bluecrown (Passiflora caerulea) 10–10 Mayhop (P.incarnata) 7–10 Purple Granadilla (P.edulis) 10–10 Scarlet (P.coccinea)

PELICAN FLOWER-see Dutchman's Pipe PHILODENDRON (many species and 10-10

PLUMBAGO, CAPE (P.capensis) 8b-10 PORCELAIN BERRY—see Ampelopsis RANGOON CREEPER (Quisqualis indica)

ROSES, CLIMBING Most hybrid varieties classed as "climbers" or "ramblers," wit winter protection without 6b-10a With winter protection Banksias, white and yellow Noisettes, such as 'Lamarque' 4b-10a 8-10 and 'Marechal Niel' Teas, such as 'Climbing Gloire,' 'De Dijon,' 'Climbing Maman 8-10a

Cochet' 8-10a SILVER FLEECE or SILVER LACE VINE (Polygonum auberti) 5-10a

SKY VINE-see Clock Vine

STEPHANOTIS—see Madagascar Jasmine

SWEETPEA, HARDY or PERENNIAL 4b-10a (Lathyrus latifolius)

TRUMPET VINE Cat's Claw or Funnelcreeper (Doxantha unguis-cati) Common (Campsis radicans) Chinese (C.grandiflora) 8b-10 4b-9 7-10a

Cross Vine (Bignonia capreolata) 7–10a Flame Vine (Pyrostegia ignea) 9b–10 9b-10 Golden Trumpet-see Allamanda Herald's Trumpet or Easterlily
Vine (Beaumontia grandiflora) 9b-10 Royal, or Vanilla-Scented (Distictis lactiflora) Scarlet or Blood (Phaedranthus 9b-10 buccinatorius) 9b-10

VIRGINIA CREEPER or WOODBINE 4-10a (Parthenocissus quinquefolia) WAX PLANT (Hoya carnosa) 9b-10

WINTERCREEPER—see Euonymus WISTERIA Chinese (W.sinensis) and va-rieties Japanese (W.floribunda) and va-

rieties 5-9 WONGA-WONGA VINE—see Pandorea WOOD ROSE (Ipomoea tuberosa) 9b-10

5b-9

GROUNDCOVERS

AJUGA or BUGLE (A.reptans) 5-9 ARTEMISIA, SILVER MOUND (A.schmidtiana nana) BABY'S TEARS (Helxine soleiroli) 10-10 BAMBOO, DWARF (Shibataea kamasasa) 6b-10

BAYBERRY-see Shrub List BEARBERRY (Arctostaphylos uva-ursi) 2h-9a

BERGENIA, HEARTLEAF (B.cordifolia) 5b-10 CAMOMILE, ROMAN (Anthemis nobliis 5a-10a

CATMINT or CATNIP—see Nepeta CEANOTHUS, POINT REYES-see Shrub

CORALBERRY-see Shrub List

COTONEASTER Bearberry (C.dammeri) Creeping and Rockspray-see Shrubs COWBERRY or LINGONBERRY (Vaccinium

vitis-idaea) CREEPING CHARLIE or JENNY-see

Moneywort DAISY, SOUTH AFRICAN—see Gazania

DICHONDRA (D.carolinensis) 9-10

EPIMEDIUM or BARRENWORT (E.grandi-florum and E.alpinum) 4--

Zones Vintergrand	Zones
EUONYMUS—see Wintercreeper FESCUE, BLUE—see Grass	STEPHANANDRA, CUTLEAF—see Shrub List
FLEECEFLOWER—see Polygonum	STRAWBERRY
GAZANIA or SOUTH AFRICAN	American (Fragaria vesca americana)
DAISY 9b-10	Barren or False (Waldsteinia 3b-10
GERANIUM Ivy-Leaf or Ivy-Vine (Pelar-	fragarioides) 5b-10a Wild or Sand (F.chiloensis) 6-10
gonium peltatum) 9b-10	Wild or Sand (F.chiloensis) 6–10 STRAWBERRY GERANIUM (Saxifraga
Strawberry—see Strawberry Geranium	sarmentosa) 7-9
GERMANDER—see Shrub List	SUNROSE (Helianthemum nummularium)
GOUTWEED, BISHOP'S (Aegopodium	THRIFT—see Flower List 5b-10a
podagraria) 4–9 GRASS, ORNAMENTAL	THYME, CREEPING, or MOTHER-OF-
Ribbon (Phalaris arundinacea	THYME (Thymus serpyllum) 5-10a
picta) 4b-9 Blue Fescue (Festuca ovina	WANDERING JEW (Tradescantia fluminensis) 10–10
glauca) 4b-9a	WINTERCREEPER
(Nepeta hederacea) 3-9a	Purpleleaf (Euonymus fortunei
HEATH and HEATHER	coloratus) 4b-8 Most other varieties of E.
Darley Heath (Erica darleyensis) 6-8	fortunei 5–9a
Other kinds—see Shrub List HONEYSUCKLE—see Vine List	WOADWAXEN, SILKY-LEAF (Genista pilosa) 6-8
ICE PLANT or MESEMBRYANTHEMUM	
(Cryophtum crystallinum) 9b-10	GARDEN FLOWERS-GENERAL
Algorian and English and Vine List	
Algerian and English—see Vine List Ground—see Ground Ivy	ACANTHUS or BEAR'S BREECH (A.mollis) 6b-10
JUNIPER	ACHILLEA—see Yarrow
Andorra (J.horizontalis plumosa) 3–9 Creeping (J.horizontalis) 3–9	AGERATUM, HARDY—see Mistflower
Japgarden (J.procumbens) 4-9	ALOE, TRUE (A.barbadensis or A.vera) 10-10
Sargent (J.chinensis sargenti) 4-10 Waukegan (J.horizontalis douglasi) 3-9	ALYSSUM SAXATILE or BASKET-
LANTANA, TRAILING (L.montevidensis	OF-GOLD 4–9a
or L.sellowiana) 8–10	Dwarf or Forget-Me-Not Anchusa
LAVENDER COTTON (Santolina chamae- cyparissus) 7b-10	(Brunnera macrophylla) 5-9
LEUCOTHOE—see Shrub List	Italian Alkanet (Anchusa azurea) 4-8 'Dropmore' 2b-8a
LILY-OF-THE-VALLEY (Convallaria	ANEMONE or WINDFLOWER—see also
majalis) 3–8 LILY TURF	Bulb List European Wood (A.nemorosa) 5b-8
Big Blue (Liriope muscari) 7-10	Dwarf Japanese (A.hupehensis) 5-8
Creeping (L.spicata) 5b-10 Dwarf (Ophiopogon japonicus or	Japanese (A. hupehensis japonica) 5-10a Pasque Flower (A. pulsatilla) 3-8a
Mondo japonicum) 7-10	Snowdrop (A.sylvestris) 3-8a
White (O.jaburan or M.jaburan) 7b-10	ANTHEMIS or CHAMOMILE Golden Marguerite (A.tinctoria) 4b-8
LIRIOPE—see Lily Turf MAHONIA, CREEPING (M.repens) 5–8a	ARTEMISIA or WORMWOOD
MESEMBRYANTHEMUM—see Ice Plant	Most ornamental herbaceous kinds, including 'Dusty Miller' and
MONEYWORT, CREEPING CHARLIE or	'Silver King' 4–9
JENNY (Lysimachia nummularia) 4-8	'Silver Mound' 3–9 ASTER, PERENNIAL
MYRTLE or PERIWINKLE	Alpine (A.alpinus) varieties,
Bigleaf (Vinca major) 7–10 Common (V.minor) 5–10a	such as 'Goliath' 4–9a Dwarf Cushion varieties 4b–8
NEPETA	New York and New England (A.
Catmint or Persian Nepeta	novi-belgi and A. novae- angliae) or Michaelmas Daisy
(N. mussini) 4b-8 Ground Ivy (N.hederacea) 3-9a	varieties 3b-8
OCONEE BELLS (Shortia galacifolia) 5-9a	ASTILBE or SPIREA Most hybrid varieties 4–9b
PACHISTIMA, CANBY—see Shrub List	AUBRIETA DELTOIDEA or PURPLE
PACHYSANDRA or JAPANESE SPURGE (P.terminalis) 5–8	ROCKCRESS. Most varieties 6-8a
PERIWINKLE—see Myrtle	BABY'S BREATH (Gypsophila pa- niculata and varieties) 3–8a
PERNETTYA, CHILEAN (P.mucronata)	BACHELOR BUTTON, PERENNIAL,
PHLOX, CREEPING—see Flower List	or MOUNTAIN BLUET (Centaurea
PLANTAIN LILY—see Flower List	montana) 3b–8 BALLOON FLOWER (Platycodon
POLYGONUM	grandiflorum and varieties) 4-8a
Reynoutria Fleeceflower	BASKET-OF-GOLD (Alyssum saxatile) 4-9a
(P. reynoutria) 4b-10a PLUMBAGO or LEADWORT (Ceratostigma	BEAR'S BREECH—see Acanthus
plumbaginoides) 5b-10a	BEEBALM or BERGAMOT (Monarda didyma, M.fistulosa and varieties) 4-9
ROSE	BEGONIA—see Bulb List
'Max Graf' 5b-9a Memorial (Rosa wichuraiana) 5b-9a	BELLFLOWER
SALAL (Gaultheria shallon) 6-9a	Carpathian (Campanula carpatica) 3-8
SANDWORT	Canterbury Bell (C.medium) (bien- nial) 4-9
Corsican (Arenaria balearica) 7–9 Moss (A.verna caespitosa) 4–8	Dalmatian (C.portenschlagiana) 4-10a Danesblood (C.glomerata) 4-9
SANTOLINA—see Lavender Cotton	Harebell or Bluebell of Scotland
SARCOCOCCA HOOKERIANA HUMILIS 6-9	(C.rotundifolia) 3–8 Peach-Leaved (C.persicifolia) 3–8
SAXIFRAGE, HEARTLEAF—see Bergenia	Serbian (C.poscharskyana) 3-8
SAXIFRAGE, STRAWBERRY (Saxifraga	BERGENIA CORDIFOLIA or GIANT-LEAVED SAXIFRAGE 5b-10
sarmentosa) 7-9 ST. JOHNSWORT—see Shrub List	BIRD-OF-PARADISE FLOWER
SEDUM	(Strelitzia reginae) 9b-10
Hardiest kinds, such as S.acre,	BLACKBERRY LILY (Belamcanda chinensis) 4-9a
S.album, S.spurium 4-10a SHORTIA—see Oconee Bells	BLANKETFLOWER—see Gaillardia
SNOW-IN-SUMMER (Cerastium	BLEEDINGHEART
	Old-Fashioned (Dicentra
tomentosum) 4b-10a SPURGE—see Pachysandra	spectabilis) 4-8

YES



WE ARE



GETTING



SOMEWHERE!



Twenty-five years ago, only 1 in 7 cancer patients was being cured. Fourteen years ago, 1 in 4. Today, 1 in 3 is being saved.

With what science knows about cancer right now, one in two could be saved by means of earlier diagnosis and proper treatment. The tragic fact is, however, that this year more than 85,000 Americans - who might have been saved - will die from cancer!

To learn how to guard yourself against cancer . . . the importance of Cancer's Seven Danger Signals and other life-saving facts . . . call your nearest Unit of the American Cancer Society or write to "Cancer" in care of your local post office. More than a million Americans are alive and well today, cured of cancer, because they went to their doctors in time.

AMERICAN CANCER SOCIETY



PLETE GARDENI CATALOG FOR 1962!



Vaughan's "Gardening questions... offers dependable authoritative advice resulting from 86 years of successful experience... illustrates the largest selection of flowers and vegetables in the U.S.A., also shrubs and lawn and You cannot purchase this catalog anywhere, but the coupon below or a postcard brings it promptly... and absolutely free.

Ban

SPECIAL OFFER! . \$1.45 Value -- Only 25c

One packet 25c Golden Heart Zinnia. One 50c packet Alyssum Pink Heather One 35c packet Petunia F-2 Starred Mixture. One 35c packet Snapdragon Master Blend F-2. Fine seed pelletized for easy sowing. Four packets for only 25c with Free Vaughan's Catalog.

VAUGHAN'S SEED CO.

601 W. Jackson Blvd., Chicago 6. Illinois 24 Vesey Street, New York 7, N.Y. Dept. AH-12

□ Please send "Gardening Illustrated" FREE ☐ Special Offer-Enclosed is 25c for 4 packets.

Address

MIRACLE TOMATO Yields 2 BUSHELS To a Vine Now—you can grow the world's most amazing To-mato right in your own gar-den and get 2 to 3 bushels of delicious tomatoes from a vine. BURGESS CLIMBING

Trip-L-Grop TOMATO grows 16 to 20 ft. high with huge fruit weighing as much as 2 pounds and measuring 6 in. across. Fine, meaty, solid tomatoes, wonderful flavor. Unexcelled for canning and slicing. Outyleidsallother known varieties. Grows any place.

Special Offer: Regular 50¢ Pkt. only 10¢ 3 for 25¢ (Limit 3 Pkts.) FREE: BURGESS Garden Guide Catalog listing many unusual Seeds, Plants, and Bulbs.

BURGESS SEED & PLANT CO. Dept.45, Galesburg, Mich.

UCCULENTS



Send for Our 36 page Beautiful Colored Catalog Picturing these Bright, Odd and Easily Grown House Plants. Do It Today!

African and Mexican Succulents. Mimicry Plants. Shade Cacti Supplies. CACTI-Hundreds of kinds described ORCHID CACTI IN MANY COLORS 10c Appreciated for Catalog



JOHNSON CACTUS GARDENS BOX AH-1 PARAMOUNT, CALIFORNIA



Big solid, scarlet fruit, disease resistant, heavy yielder. Ideal for table or canning. Send 125 SEED for mailing 125 seed FREE and Nursery Catalog. CONDON BROS. SEEDSMEN. . Now Combined With R. H. SHUMWAY Seedsman, Dept 300, Rockford, ILL.

WATER LILIES

FREE CATALOG
Complete listings & planting instructions
VAN NESS WATER GARDENS Rt. #1, Upland, Calif.

	Zones	
BLUEBELL—see Bellflower and		(
Mertensia; also Squill in Bulb Li BOLTONIA ASTEROIDES and	st	(
B.LATISQUAMA BUGLOSS—see Anchusa	4-8	
BUTTERCUP, DOUBLE YELLOW		
(Ranunculus repens pleniflorus BUTTERFLY WEED (Asclepias	3) 4-8	
tuberosa) CANDYTUFT	3b-9	4
Evergreen (Iberis sempervirens) I.gibraltarica	5-9 5-7	
Persian (Aethionema grandiflorum)	4b-9	
CARDINAL FLOWER—see Lobelia		
CARNATION—see Pink CATMINT (Nepeta mussini)	4-8	
CELANDINE POPPY (Stylophorum	4h 0	
diphyllum) CENTURY PLANT or AMERICAN	4b-8	
ALOE (Agave americana) CHRISTMAS ROSE and LENTEN	10-10	
ROSE (Helleborus niger and H.orientalis)	4b-10a	
C.heracleifolia davidiana	4-9 3b-8	-
C.recta mandshurica	3-8	1
COLUMBINE (Aquilegia species and varieties). Most kinds	3b-9a	1
CONEFLOWER Golden Glow (Rudbeckia laciniata		
hortensia) Purple (Echinacea purpurea)	3-9 3-8a	-
CORAL BELLS (Heuchera sanguine and varieties)	5-10a	1
COREOPSIS (C. grandiflora or C.	4-9a	-
lanceolata) CUP FLOWER (Nierembergia repen	is	
or N.rivularis) CUPID'S DART or LOVE PLANT	7-9a	
(Catananche caerulea) CYCLAMEN—see Bulb List	6-10a	
DAISY		
Blue—see Felicia English (Bellis perennis)	5b-9	
Michaelmas—see Aster Painted or Pyrethrum (Chrysanthemum coccineum)	4-10a	
Shasta (C. maximum and varietie Most kinds		
Hardiest Transvaal—see Gerbera	4b-9	
DAYLILY (Hemerocallis hybrids)	5b-10	
Evergreen kinds Deciduous (winter-dormant)	3-9	
Chinese (D.grandiflora and		
varieties) 'Belladonna' and 'Bellamosum'	4-9	
Large-Flowered Hybrids DIANTHUS—see Pink	3b-8a	
DORONICUM-see Leopard's Bane		
Most species and varieties	4-8	
EREMURUS or FOXTAIL LILY Most species and varieties	6b-9	
FALSE-DRAGONHEAD (Physostegia	5-8	
virginiana and varieties) FELICIA, BLUE DAISY or BLUE	3-10a	
MARGUERITE (F.ammeloides)	8-10	
FILIPENDULA (Spirea). Most species and varieties	4-8	
Blue (Linum narbonense and L.	5-9a	
perenne) Golden (L.flavum) New Zealand—see Grasses	5-9a	
FORGET-ME-NOT (Myosotis	4-9a	
scorpioides or M. palustris) FORGET-ME-NOT ANCHUSA—	1-34	
see Anchusa FOXGLOVE (Digitalis species and		
varieties, mostly biennial) FUCHSIA—see Shrub List	5-9	
FUNKIA—see Plantain Lily		
(G.aristata and varieties)	R 3b-8	
GAS PLANT (Dictamnus alba or D. fraxinella and varieties)	4-8	
GAYFEATHER (Liatris pycnostachy L.scariosa and varieties)	a. 3-9a	
GERANIUM	Ja	

True (G.sanguineum)

	Zones	
ERBERA OF TRANSVAAL DAISY		Sundrops (O
(G.jamesoni and varieties)	8-10a	youngi)
Most species and varieties	4-10	ORCHID—see Hardy (Bletil hyacinthin
INGER, SHELL-FLOWER (Alpinia speciosa) ILOBEFLOWER (Trollius species	9-10	PANSY-see V
and varieties). Most kinds	4b-9a	PENSTEMON
ALOBE THISTLE (Echinops species and varieties). Most kinds	4-8	P.barbatus P.digitalis
RASSES, ORNAMENTAL		P.grandiflori Most hybrid
Blue Fescue (Festuca ovina glauca)	4b-9a	PENTAS-see
Blue Lime or Pampas (Erianthus ravennae) Eulalia, Zebra, or Fountain	5b-9	PEONY Herbaceous
(Miscanthus sinensis)	4-9	hybrids) Tree (P.suff
Fountain Grass (Pennisetum ruppeli) Horsetail Reed (Equisetum	5-8	PERIWINKLE- Madagascar
hyemale)	5-8	PHLOX
Job's Tears (Coix lacryma-jobi) Lily Turf or Mondo—see	9-10	Moss or Gro varieties)
Groundcovers New Zealand Flax (Phormium		Summer (P. Wild Sweet-N
tenax)	9b-10	PHYSOSTEGIA
Oat (Arrhenatherum elatius tuberosum)	8-10	PINCUSHION
Pampas (Cortaderia selloana)	8b-10	and variet
SYPSOPHILA—see Baby's Breath HELENIUM or SNEEZEWEED		PINKS (Dianth Allwood Hyb
Most garden varieties	4-10a	Carnations Cheddar Pir
Garden (Valeriana officinalis)	4b-8	Cottage, Bo
True (Heliotropium		Garden Pink Hardy Carna
arborescens)	10-10	Maiden Pink Sweet-Willia
HEMEROCALLIS—see Daylily HOLLYHOCK (Althaea rosea)		PLANTAIN LII
(usually biennial)	3-9a	varieties).
RIS Crested (I. cristata)	5-8	PLATYCODON
Japanese (I.kaempferi hybrids)	4-9a	POPPY Celandine—
Louisiana (hybrids of I.foliosa, I.fulva, I.giganticaerulea, etc.)	7-9a	Iceland (Pag
Siberian (I.sibirica hybrids) Spuria or Butterfly (I.spuria	3b-9a	Oriental (P.o. varieties)
hybrids)	6-9a	PRIMROSE
Tall Bearded hybrids	3-9	English (Prin
ADYSLIPPER or MOCCASIN FLOV Cypripedium acaule	3-9	Missouri—se Polyantha (I
C.calceolus pubescens C.reginae	3-9a 3-9a	RED VALERIA
AMB'S EARS or WOOLLY WOUND		ROCKCRESS (
(Stachys lanata)	3-9	alpina)
AVENDER—see Shrub List	3-9	ROCKCRESS,
	3-9 7b-10	TO STATE OF THE PARTY OF THE PA
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago		ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum	7b-10	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties)		ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum	7b-10	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List	7b-10	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria	7b-10 4b-9a	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (SANTOLINA—
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis)	7b-10 4b-9a 4-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (SANTOLINA— SAXIFRAGE, (
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue'	7b-10 4b-9a 4-8 6-9	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (SANTOLINA—
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDIN	7b-10 4b-9a 4-8 6-9	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S,pitcheri Purple Spire Vatican (S.S SANDWORT (SANTOLINA— SAXIFRAGE, (Bergenia
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINALIS	7b-10 4b-9a 4-8 6-9 AL 3-9	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (: Mealycup (S.S.pitcheri Purple Spire Vatican (S.S. SANDWORT (: SANTOLINA— SAXIFRAGE, (: Bergenia SCABIOSA—s SEA HOLLY (: SEDUM
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINI FLOWER LUNGWORT (Pulmonaria species)	7b-10 4b-9a 4-8 6-9	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage () Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT () SANTOLINA— SAXIFRAGE, () Bergenia SCABIOSA—s SEA HOLLY () SEDUM Hardiest kir S.album,
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUNGWORT (Pulmonaria species) LUPINE, PERENNIAL (Lupinus species and varieties)	7b-10 4b-9a 4-8 6-9 AL 3-9	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (: Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (: SANTOLINA— SAXIFRAGE, (: Bergenia SCABIOSA—s SEA HOLLY (! SEDUM Hardiest kir S.album, S.spectab
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINI FLOWER LUNGWORT (Pulmonaria species) LUPINE, PERENNIAL (Lupinus species and varieties)	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage () Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT () SANTOLINA— SAXIFRAGE, () Bergenia SCABIOSA—s SEA HOLLY () SEDUM Hardiest kir S.album,
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUNGWORT (Pulmonaria species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8 5-9a	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.s SANDWORT (SANTOLINA— SAXIFRAGE, (Bergenia SCABIOSA—s SEA HOLLY (I SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOWI SHRIMP PLAI
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILY TURF—see Groundcover List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINATIONER LUNGWORT (Pulmonaria species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica)	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (SANTOLINA— SAXIFRAGE, (Bergenia SCABIOSA—S SEA HOLLY (I SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOWI SHRIMP PLAI guttata)
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUNGWORT (Pulmonaria species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8 5-9a	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.s SANDWORT (SANTOLINA— SAXIFRAGE, (Bergenia SCABIOSA—s SEA HOLLY (I SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOWI SHRIMP PLAI
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUMGWORT (Pulmonaria species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 5-9a 3-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage () Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT () SANTOLINA— SAXIFRAGE, () Bergenia SCABIOSA—s SEA HOLLY (I) SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOW SHRIMP PLAI guttata) SNAPDRAGOI
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILIY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINI FLOWER LUNGWORT (Pulmonaria species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis MARGUERITE	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 5-9a 3-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (: Mealycup (S.S.pitcheri Purple Spire Vatican (S.S.SANDWORT (: SANTOLINA— SAXIFRAGE, (: Bergenia SCABIOSA—s SEA HOLLY (! SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOW: SHRIMP PLAI guttata) SNAPDRAGOI hybrids) SNEEZEWORT SNOW-IN-SUI
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUMGWORT (Pulmonaria species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 5-9a 3-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (I SANTOLINA— SAXIFRAGE, I Bergenia SCABIOSA—s SEA HOLLY (I SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOWI SHRIMP PLAI guttata) SNAPDRAGOI hybrids) SNEEZEWORT
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUNGWORT (Pulmonaria species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis MARGUERITE Blue—see Felicia Golden—see Anthemis MEADOWRUE—see Thalictrum	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 5-9a 3-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.s SANDWORT (SANTOLINA— SAXIFRAGE, (Bergenia SCABIOSA—s SEA HOLLY (I SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOWI SHRIMP PLAI guttata) SNAPDRAGOI hybrids) SNEEZEWORT SNOW-IN-SUI tomentos SPIREA—see also Shru
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUNGWORT (Pulmonaria species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis MARGUERITE Blue—see Felicia Golden—see Anthemis	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 5-9a 3-8 3b-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.s SANDWORT (SANTOLINA— SAXIFRAGE, (Bergenia SCABIOSA—s SEA HOLLY (I SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOWI SHRIMP PLAI guttata) SNAPDRAGOI hybrids) SNEEZEWORT SNOW-IN-SUI tomentos SPIREA—see
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILIT TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINI FLOWER LUPINE, PERENNIAL (Lupinus species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis MARGUERITE Blue—see Felicia Golden—see Anthemis MEADOWRUE—see Thalictrum MERTENSIA Virginia Bluebell or Cowslip (M.virginica)	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 5-9a 3-8 3b-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (SANTOLINA— SAXIFRAGE, (Bergenia SCABIOSA—s SEA HOLLY (S SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOW SHRIMP PLAI guttata) SNAPDRAGOI hybrids) SNEEZEWOR SNOW-IN-SU tomentos SPIREA—see also Shru SPURGE Japanese— Groundco
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUPINE, PERENNIAL (Lupinus species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis MARGUERITE Blue—see Felicia Golden—see Anthemis MEADOWRUE—see Thalictrum MERTENSIA Virginia Bluebell or Cowslip	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 5-9a 3-8 3b-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (SANTOLINA— SAXIFRAGE, (Bergenia SCABIOSA—S SEA HOLLY (I SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOWI SHRIMP PLAI guttata) SNAPDRAGOI hybrids) SNEEZEWORT SNOW-IN-SUI tomentos SPIREA—see also Shru SPURGE Japanese— Grounded Yellow (Eup
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUPINE, PERENNIAL (Lupinus species) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis MARGUERITE Blue—see Felicia Golden—see Anthemis MEADOWRUE—see Thalictrum MERTENSIA Virginia Bluebell or Cowslip (M.virginica) MISTFLOWER or HARDY AGERATI	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 5-9a 3-8 3b-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (SANTOLINA— SAXIFRAGE, (Bergenia SCABIOSA—s SEA HOLLY (S SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOW SHRIMP PLAI guttata) SNAPDRAGOI hybrids) SNEEZEWOR SNOW-IN-SU tomentos SPIREA—see also Shru SPURGE Japanese— Groundco
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUPINE, PERENNIAL (Lupinus species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis MARGUERITE Blue—see Felicia Golden—see Anthemis MEADOWRUE—see Thalictrum MERTENSIA Virginia Bluebell or Cowslip (M.virginica) MISTFLOWER or HARDY AGERATI (Eupatorium coelestinum) MOCCASIN FLOWER—see Ladyslip MONARDA, BEEBALM, or BERGAI	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 3-8 3b-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (I SANTOLINA— SAXIFRAGE, I Bergenia SCABIOSA—s SEA HOLLY (I SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOWI SHRIMP PLAI guttata) SNAPDRAGOI hybrids) SNEEZEWORT SNOW-IN-SUI tomentos SPIREA—see also Shru SPURGE Japanese— Groundco Yellow (Eup STARCLUSTE STOKES ASTI including
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUNGWORT (Pulmonaria species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis MARGUERIFE Blue—see Felicia Golden—see Anthemis MEADOWRUE—see Thalictrum MERTENSIA Virginia Bluebell or Cowslip (M.virginica) MISTFLOWER or HARDY AGERATI (Eupatorium coelestinum) MOCCASIN FLOWER—see Ladyslip	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 3-8 3b-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S. S. S
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUPINE, PERENNIAL (Lupinus species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis MARGUERITE Blue—see Felicia Golden—see Anthemis MEADOWRUE—see Thalictrum MERTENSIA Virginia Bluebell or Cowslip (M.virginica) MISTFLOWER or HARDY AGERATI (Eupatorium coelestinum) MOCCASIN FLOWER—see Ladyslip MONARDA, BEEBALM, or BERGAI (M.didyma, M.fistulosa, and varieties) MONKSHOOD (Aconitum species a	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 5-9a 3-8 3b-8 3b-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (I SANTOLINA— SAXIFRAGE, (I Bergenia SCABIOSA—s SEA HOLLY (I SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOWI SHRIMP PLAI guttata) SNAPDRAGOI hybrids) SNEEZEWORT SNOW-IN-SUI tomentos SPIREA—see also Shru SPURGE Japanese— Groundco Yellow (Eup STARCLUSTE STOKES ASTI including STONECROP- STRELITZIA—
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUMGWORT (Pulmonaria species) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis MARGUERITE Blue—see Anthemis MEADOWRUE—see Thalictrum MERTENSIA Virginia Bluebell or Cowslip (M.virginica) MISTFLOWER or HARDY AGERATI (Eupatorium coelestinum) MOCCASIN FLOWER—see Ladyslip MONARDA, BEEBALM, or BERGAI (M.didyma, M.fistulosa, and varieties) MONKSHOOD (Aconitum species a varieties)	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 5-9a 3-8 3b-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S. S. S
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUPINE, PERENNIAL (Lupinus species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis MARGUERITE Blue—see Felicia Golden—see Anthemis MEADOWRUE—see Thalictrum MERTENSIA Virginia Bluebell or Cowslip (M.virginica) MISTFLOWER or HARDY AGERATI (Eupatorium coelestinum) MOCCASIN FLOWER—see Ladyslip MONARDA, BEEBALM, or BERGAI (M.didyma, M.fistulosa, and varieties) MONARDA, BEEBALM, or BERGAI (M.didyma, M.fistulosa, and varieties) MULLEIN (Verbascum) English Hybrids	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 5-9a 3-8 3b-8 3b-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (S SANTOLINA— SAXIFRAGE, (Bergenia SCABIOSA—s SEA HOLLY (S SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOW SHRIMP PLAI guttata) SNAPDRAGOI hybrids) SNEZEWOR SNOW-IN-SUI tomentos SPIREA—see also Shru SPURGE Japanese— Groundco Yellow (Eup STARCLUSTE STOKES ASTI including STONECROP- STRELITZIA— SUNDROPS— SUNFLOWER and Helio
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUPINE, PERENNIAL (Lupinus species) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis MARGUERITE Blue—see Felicia Golden—see Anthemis MEADOWRUE—see Thalictrum MERTENSIA Virginia Bluebell or Cowslip (M.virginica) MISTFLOWER or HARDY AGERATI (Eupatorium coelestinum) MOCCASIN FLOWER—see Ladyslip MONARDA, BEEBALM, or BERGAI (M.didyma, M.fistulosa, and varieties) MONKSHOOD (Aconitum species a varieties) MULLEIN (Verbascum) English Hybrids OENOTHERA	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 5-9a 3-8 3b-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (I SANTOLINA— SAXIFRAGE, (I SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOW(SHRIMP PLAI guttata) SNAPDRAGOI hybrids) SNEEZEWORT SNOW-IN-SUI tomentos SPIREA—see also Shru SPURGE Japanese— Groundco Yellow (Eup STARCLUSTE STOKES ASTI including STONECROP- STRELITZIA— SUNDROPS— SUNFLOWER
AVENDER—see Shrub List AVENDER COTTON (Santolina chamaecyparissus) EADWORT—see Plumbago EOPARD'S BANE (Doronicum species and varieties) LIATRIS—see Gayfeather LILIES—see Bulb List LILY TURF—see Groundcover List LILY-OF-THE-VALLEY (Convallaria majalis) LITHOSPERMUM or GROMWELL 'Heavenly Blue' LOBELIA CARDINALIS or CARDINA FLOWER LUPINE, PERENNIAL (Lupinus species) LUPINE, PERENNIAL (Lupinus species and varieties) LYCHNIS Campion or Catchfly (L.viscaria) L. haageana Maltese Cross (L.chalcedonica) LYTHRUM or LOOSTRIFE Most species and varieties MALTESE CROSS—see Lychnis MARGUERITE Blue—see Felicia Golden—see Anthemis MEADOWRUE—see Thalictrum MERTENSIA Virginia Bluebell or Cowslip (M.virginica) MISTFLOWER or HARDY AGERATI (Eupatorium coelestinum) MOCCASIN FLOWER—see Ladyslip MONARDA, BEEBALM, or BERGAI (M.didyma, M.fistulosa, and varieties) MONARDA, BEEBALM, or BERGAI (M.didyma, M.fistulosa, and varieties) MULLEIN (Verbascum) English Hybrids	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 5-9a 3-8 3b-8	ROCKCRESS, ROSES—see S RUDBECKIA— SALVIA Blue Sage (Mealycup (S S.pitcheri Purple Spire Vatican (S.S SANDWORT (SANTOLINA— SAXIFRAGE, (SANTOLINA— SAXIFRAGE, (SEDUM Hardiest kir S.album, S.spectab S.sieboldi SHELL FLOW SHRIMP PLAI guttata) SNAPDRAGOI hybrids) SNEEZEWORT SNOW-IN-SUI tomentos SPIREA—see also Shru SPURGE Japanese— Groundco Yellow (Eup STARCLUSTE STOKES ASTI including STONECROP- STRELITZIA— SUNDROPS— SUNFLOWER and Helio varieties)

	Luiles		Lunes
AL DAISY rieties)	8-10a	Sundrops (O.tetragona or O. youngi)	3-10a
, iouics,	0 100	ORCHID—see also Ladyslipper	
ieties	4-10	Hardy (Bletilla striata or B. hyacinthina)	6-9
ER (Alpinia	9-10	PANSY—see Viola	
s species		PELARGONIUM—see Geranium	
t kinds nops species	4b-9a	PENSTEMON P.barbatus 41	o-10a
t kinds	4-8	P.digitalis	4-10
AL ovina			4-10a 5b-10
	4b-9a	PENTAS—see Starcluster	
(Erianthus	5b-9	PEONY Herbaceous (Paeonia albiflora	
intain is)	4-9	hybrids)	3b-8
nisetum	5-8	Tree (P.suffruticosa hybrids) PERIWINKLE—see also Groundcover	5-8
setum		Madagascar (Vinca rosea)	9-10
yma-jobi)	5-8 9-10	PHLOX Moss or Ground (P.subulata and	
ee		varieties)	3-9
normium	or 10	Summer (P. paniculata varieties) Wild Sweet-William (P.divaricata)	4-9a 4-9
elatius	9b-10	PHYSOSTEGIA—see False-Dragonhe	
selloana)	8-10 8b-10	and varieties). Most kinds	becies 5-10a
y's Breath		PINKS (Dianthus species and hybrid	
WEED	4-10a	Allwood Hybrids Carnations	5-9 8-10
S	4-104	Cheddar Pink Cottage, Border, or Grass Pink	4-8
ficinalis)	4b-8	Garden Pink (D.latifolius)	4-10 5-10
	10-10	Hardy Carnation Maiden Pink	6-10
Daylily		Sweet-William (biennial)	4-9
rosea)	3-9a	PLANTAIN LILY (Hosta species and varieties). Most kinds	3b-8
		PLATYCODON—see Balloon Flower	
ri hybrids)	5-8 4-9a	POPPY	
I.foliosa, rulea, etc.)	7-9a	Celandine—see Celandine Poppy Iceland (Papaver nudicaule)	3-10a
brids)	3b-9a	Oriental (P.orientale and varieties)	3-8
spuria	6-9a	PRIMROSE	
CACIN FLOW	3-9	English (Primula vulgaris) Evening—see Oenothera	5-9a
CASIN FLOV	3-9	Missouri—see Oenothera Polyantha (P.polyantha)	5-9a
ns	3-9a		
	3-9a	RED VALERIAN (Centranthus ruber)	6-8
LLY WOUND	WORT	ROCKCRESS (Arabis albida and A.	
		ROCKCRESS (Arabis albida and A. alpina)	5-8
LIST WOUND	WORT	ROCKCRESS (Arabis albida and A.	5-8
List Santolina	WORT	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet	5-8
List Santolina bago	WORT 3-9	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA	5-8
List Santolina	WORT 3-9	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea)	5-8 a 5-9 7-10a
List Santolina bago ronicum	WORT 3-9 7b-10	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba)	5-8 5-9 7-10a 5-8 5b-9
List Santolina) bago ronicum es)	WORT 3-9 7b-10	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety)	5-8 7-10a 5-8 5b-9 6-10a
List Santolina) bago ronicum es)	WORT 3-9 7b-10	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna)	5-8 5-9 7-10a 5-8 5b-9
List Santolina bago ronicum es) ler adcover List Convallaria	WORT 3-9 7b-10	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see	5-8 7-10a 5-8 5b-9 6-10a
List Santolina) bago ronicum es) er	WORT 3-9 7b-10 4b-9a	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia	5-8 7-10a 5-8 5b-9 6-10a
List Santolina bago ronicum es) ler adcover List Convallaria	7b-10 4b-9a 4-8 6-9	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower	5-8 7-10a 5-8 5b-9 6-10a
List Santolina bago ronicum es) leer dccover List Convallaria ROMWELL or CARDINA	7b-10 4b-9a 4-8 6-9 AL 3-9	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM	5-8 7-10a 5-8 5b-9 6-10a 4b-8
List Santolina bago ronicum es) dcover List Convallaria ROMWELL or CARDIN	7b-10 4b-9a 4-8 6-9	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre,	5-8 7-10a 5-8 5b-9 6-10a 4b-8
List Santolina bago ronicum es) deer dcover List Convallaria ROMWELL or CARDIN	7b-10 4b-9a 4-8 6-9 AL 3-9	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurium, and S.spectabile	5-8 a 5-9 7-10a 5-8 5b-9 6-10a 4b-8
List Santolina bago ronicum es) ler dcover List Convallaria ROMWELL or CARDIN	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurium, and S.spectabile	5-8 a 5-9 7-10a 5-8 5b-9 6-10a 4b-8
List Santolina bago ronicum es) ber dcover List Convallaria ROMWELL or CARDIN ria species) (Lupinus) (L.viscaria)	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8 5-9a	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurlum, and S.spectabile S.sieboldi SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone	5-8 7-10a 5-8 5b-9 6-10a 4b-8
List Santolina bago ronicum es) der dcover List Convallaria ROMWELL or CARDIN (Lupinus (L.viscaria)	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurium, and S.spectabile S.sieboldi SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata)	5-8 a 5-9 7-10a 5-8 5b-9 6-10a 4b-8
List Santolina bago ronicum es) deer dcover List Convallaria ROMWELL or CARDIN	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8 5-9a	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurlum, and S.spectabile S.sieboldi SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone	5-8 7-10a 5-8 5b-9 6-10a 4b-8
List Santolina bago ronicum es) leer dcover List Convallaria ROMWELL or CARDINI ria species) (Lupinus) (L.viscaria) licedonica) IFE	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8 5-9a 3-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurlum, and S.spectabile S.sieboldi SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus	5-8 7-10a 5-8 5-10a 6-10a 4b-8 5-8 4-10a 6-10a
List Santolina bago ronicum es) ler dcover List Convallaria ROMWELL or CARDINA ria species) (Lupinus) (L.viscaria) alcedonica) IFE rieties	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8 5-9a 3-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurium, and S.spectabile S.sieboldi SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus hybrids) SNEEZEWORT—see Yarrow SNOW-IN-SUMMER (Cerastium	5-8 7-10a 5-8 5b-9 6-10a 4b-8 5-8 5-8 5-8 4-10a 5-8
List Santolina bago ronicum es) der dcover List Convallaria ROMWELL or CARDIN (Lupinus) (L.viscaria) lcedonica) IFE rieties Lychnis	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8 5-9a 3-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurium, and S.spectabile S.sieboldi SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus hybrids) SNEZEWORT—see Yarrow SNOW-IN-SUMMER (Cerastium tomentosum) ASPIREA—see Astilbe and Filapendu	5-8 7-10a 5-8 5b-9 6-10a 4b-8 5-8 5-8 4-10a 8b-10 7-10a
List Santolina bago ronicum es) der dcover List Convallaria ROMWELL or CARDIN (Lupinus) (L.viscaria) lcedonica) IFE rieties Lychnis	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8 5-9a 3-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurium, and S.spectabile S.sieboldi SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus hybrids) SNEEZEWORT—see Yarrow SNOW-IN-SUMMER (Cerastium tomentosum) SPIREA—see Astilbe and Filapendu also Shrub List	5-8 7-10a 5-8 5b-9 6-10a 4b-8 5-8 5-8 4-10a 8b-10 7-10a
List Santolina bago ronicum es) ler dcover List Convallaria ROMWELL or CARDINI (L.viscaria) lcedonica) IFE rieties Lychnis alictrum	WORT 3-9 7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 5-9a 3-8 3b-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurium, and S.spectabile S.sieboldi SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus hybrids) SNEEZEWORT—see Yarrow SNOW-IN-SUMMER (Cerastium tomentosum) SPIREA—see Astilbe and Filapendu also Shrub List SPURGE Japanese—see Pachysandra in	5-8 7-10a 5-8 5b-9 6-10a 4b-8 5-8 5-8 4-10a 8b-10 7-10a
List Santolina bago ronicum es) ber dcover List Convallaria romwell or CARDIN (Lupinus i) (L.viscaria) llcedonica) IFE rieties Lychnis alictrum Cowslip	7b-10 4b-9a 4-8 6-9 4-8 3b-8 4-8 5-9a 3-8 3b-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurlum, and S.spectabile S.sieboldi 55 SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus hybrids) SNEEZEWORT—see Yarrow SNOW-IN-SUMMER (Cerastium tomentosum) 4 SPIREA—see Astilbe and Filapendu also Shrub List SPURGE	5-8 7-10a 5-8 5b-9 6-10a 4b-8 5-8 5-8 4-10a 8b-10 7-10a
List Santolina bago ronicum es) eer dcover List Convallaria ROMWELL or CARDIN (Lapinus) (L.viscaria) (Ledonica) IFE rieties Lychnis alictrum Cowslip DY AGERATI	7b-10 4b-9a 4-8 6-9 4-8 3b-8 4-8 5-9a 3-8 3b-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurium, and S.spectabile S.sieboldi SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus hybrids) SNEZEWORT—see Yarrow SNOW-IN-SUMMER (Cerastium tomentosum) SPIREA—see Astilbe and Filapendu also Shrub List SPURGE Japanese—see Pachysandra in Groundcover List	5-8 7-10a 5-8 5b-9 6-10a 4b-8 5-8 5-10a 4b-10a 8b-10 7-10a
List Santolina bago ronicum es) eer dcover List Convallaria ROMWELL or CARDIN ria species) (Lupinus c) (L.viscaria) elcedonica) er rieties c Lychnis alictrum cowslip DY AGERATI inum) see Ladyslip	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 3b-8 3b-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurlum, and S.spectabile S.sieboldi 55 SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus hybrids) SNEEZEWORT—see Yarrow SNOW-IN-SUMMER (Cerastium tomentosum) SPIREA—see Astilbe and Filapendu also Shrub List SPURGE Japanese—see Pachysandra in Groundcover List Yellow (Euphorbia epithymoides) STARCLUSTER (Pentas lanceolata) STOKES ASTER (Stokesia laevis),	5-8 a 5-9 7-10a 5-8 5b-9 6-10a 4b-8 5-8 4-10a 6b-10a 8b-10 7-10a 1b-10a la;
List Santolina bago ronicum es) bago ronicum es) convallaria ROMWELL or CARDINI ria species) (Lupinus cousins) licedonica) life rieties clychnis alictrum cowslip DY AGERATI num) see Ladyslip or BERGAI	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8 5-9a 3-8 3b-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurlum, and S.spectabile S.sieboldi SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus hybrids) SNEEZEWORT—see Yarrow SNOW-IN-SUMMER (Cerastium tomentosum) SPIREA—see Astilbe and Filapendu also Shrub List SPURGE Japanese—see Pachysandra in Groundcover List Yellow (Euphorbia epithymoides) STARCLUSTER (Pentas lanceolata) STOKES ASTER (Stokesia laevis), including 'Blue Moon'	5-8 7-10a 5-8 5-10a 6-10a 4b-8 5-8 4-10a 8b-10 7-10a 4-9a
List Santolina bago ronicum es) ber dcover List Convallaria ROMWELL or CARDINI ria species) (Lupinus clupinus c	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8 5-9a 3-8 3b-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurlum, and S.spectabile S.sieboldi 55 SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus hybrids) SNEEZEWORT—see Yarrow SNOW-IN-SUMMER (Cerastium tomentosum) SPIREA—see Astilbe and Filapendu also Shrub List SPURGE Japanese—see Pachysandra in Groundcover List Yellow (Euphorbia epithymoides) STARCLUSTER (Pentas lanceolata) STOKES ASTER (Stokesia laevis),	5-8 a 5-9 7-10a 5-8 5b-9 6-10a 4b-8 5-8 4-10a 6b-10a 8b-10 7-10a 1b-10a la;
List Santolina bago ronicum es) ber dcover List Convallaria ROMWELL or CARDINI ria species) (Lupinus clupinus c	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8 5-9a 3-8 3b-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurlum, and S.spectabile S.sieboldi SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus hybrids) SNEEZEWORT—see Yarrow SNOW-IN-SUMMER (Cerastium tomentosum) SPIREA—see Astilbe and Filapendu also Shrub List SPURGE Japanese—see Pachysandra in Groundcover List Yellow (Euphorbia epithymoides) STARCLUSTER (Pentas lanceolata) STOKES ASTER (Stokesia laevis), including 'Blue Moon' STONECROP—see Sedum	5-8 a 5-9 7-10a 5-8 5b-9 6-10a 4b-8 5-8 4-10a 6b-10a 8b-10 7-10a 1b-10a la;
List Santolina bago ronicum es) der dcover List Convallaria ROMWELL or CARDIN (Lupinus) (L.viscaria) lcedonica) IFE rieties Lychnis	7b-10 4b-9a 4-8 6-9 4-8 3b-8 4-8 5-9a 3-8 3b-8 3b-8 4-9 au 4-9 au 4-9 au 3-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurlum, and S.spectabile S.sieboldi 55 SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus hybrids) SNEEZEWORT—see Yarrow SNOW-IN-SUMMER (Cerastium tomentosum) 4 SPIREA—see Astilbe and Filapendu also Shrub List SPURGE Japanese—see Pachysandra in Groundcover List Yellow (Euphorbia epithymoides) STARCLUSTER (Pentas lanceolata) STOKES ASTER (Stokesia laevis), including "Blue Moon" STONECROP—see Sedum STRELITZIA—see Bird-of-Paradise SUNDROPS—see Oenothera SUNFLOWER, PERENNIAL (Helianti	5-8 a 5-9 7-10a 5-8 5b-9 6-10a 4b-8 5-8 4-10a 3b-10a 7-10a 4b-10a la; 4-9a 9-10 5b-10
List Santolina bago ronicum es) ler ddcover List Convallaria ROMWELL or CARDIN ria species) (Lupinus c) (L.viscaria) clicedonica) IFE rieties Lychnis alictrum Cowslip DY AGERATI inum) see Ladyslip or BERGAI sa, and	7b-10 4b-9a 4-8 6-9 AL 3-9 4-8 3b-8 4-8 5-9a 3-8 3b-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurlum, and S.spectabile S.sieboldi 55 SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus hybrids) SNEEZEWORT—see Yarrow SNOW-IN-SUMMER (Cerastium tomentosum) 49 SPIREA—see Astilbe and Filapendu also Shrub List SPURGE Japanese—see Pachysandra in Groundcover List Yellow (Euphorbia epithymoides) STARCLUSTER (Pentas lanceolata) STOKES ASTER (Stokesia laevis), including 'Blue Moon' STONECROP—see Sedum STRELITZIA—see Bird-of-Paradise SUNDROPS—see Oenothera	5-8 a 5-9 7-10a 5-8 5b-9 6-10a 4b-8 5-8 4-10a 6b-10a 8b-10 7-10a 4b-10a 6b-10a 5b-10
List Santolina bago ronicum es) ler ddcover List Convallaria ROMWELL or CARDIN ria species) (Lupinus c) (L.viscaria) clicedonica) IFE rieties Lychnis alictrum Cowslip DY AGERATI inum) see Ladyslip or BERGAI sa, and	7b-10 4b-9a 4-8 6-9 4-8 3b-8 4-8 5-9a 3-8 3b-8 3b-8 4-9 au 4-9 au 4-9 au 3-8	ROCKCRESS (Arabis albida and A. alpina) ROCKCRESS, PURPLE—see Aubriet ROSES—see Shrub and Vine Lists RUDBECKIA—see Coneflower SALVIA Blue Sage (S.azurea) Mealycup (S.farinacea) S.pitcheri Purple Spire (S.superba) Vatican (S.sclarea variety) SANDWORT (Arenaria verna) SANTOLINA—see Lavender Cotton SAXIFRAGE, GIANT-LEAVED—see Bergenia SCABIOSA—see Pincushion Flower SEA HOLLY (Eryngium maritimum) SEDUM Hardiest kinds, including S.acre, S.album, S.spurlum, and S.spectabile S.sieboldi 55 SHELL FLOWER—see Ginger SHRIMP PLANT (Beloperone guttata) SNAPDRAGON (Antirrhinum majus hybrids) SNEEZEWORT—see Yarrow SNOW-IN-SUMMER (Cerastium tomentosum) 4 SPIREA—see Astilbe and Filapendu also Shrub List SPURGE Japanese—see Pachysandra in Groundcover List Yellow (Euphorbia epithymoides) STARCLUSTER (Pentas lanceolata) STOKES ASTER (Stokesia laevis), including "Blue Moon" STONECROP—see Sedum STRELITZIA—see Bird-of-Paradise SUNDROPS—see Oenothera SUNFLOWER, PERENNIAL (Heliantia and Heliopsis species and varieties), Most kinds SUNROSE (Helianthemum species and SUNROSE (Helianthemum sp	5-8 a 5-9 7-10a 5-8 5b-9 6-10a 4b-8 5-8 4-10a 6b-10a 8b-10 7-10a 4b-10a 1a;

	Zones
SWEET-WILLIAM—see Pinks	
THALICTRUM or MEADOWRUE Most kinds	4b-9a
THISTLE, GLOBE-see Globe Ti	nistle
THRIFT or SEA PINK (Armeria maritima and varieties)	5-9
THYME (Thymus species and va Most kinds	arieties), 5-10a
TRILLIUM or WAKE-ROBIN—se	e Bulb List
TRITOMA or TORCH LILY (Knip species and hybrids), Most Hardiest	
TROLLIUS or GLOBE FLOWER	
Most species and varieties	4b-9a
VALERIAN—see Red Valerian	
VERBASCUM—see Mullein	
VERBENA	
V.bonariensis	9-10
Clump (V.canadensis) V. tennisecta	6-9 8-9
VERONICA or SPEEDWELL Hoary (V.incana) Most other species and varieties	4-9 5-10a
VINCA—see Periwinkle	
VIOLETS and VIOLAS Sweet Violets (Viola odorata varieties)	8-10
Most wild species	3-8
Viola hybrids, including Pansie (V.tricolor hybrids)	6-9a
WINDFLOWER—see Anemone	
YARROW or MILFOIL Pink Milfoil (Achillea millefoliu	m)
and varieties	3-9a
A.ptarmica and varieties Woolly Yarrow (A.tomentosa)	4-9a 3-9a
YUCCA	
Adam's Needle (Y.filamentosa Bear Grass (Y.glauca) Red Yucca (Hesperaloe) 4b-10 4-10
parvifolia)	8-10
Spanish Bayonet (Y.aloifolia)	8b-10

GARDEN FLOWERS-BULBS AND TUBEROUS ROOTS

NOTE: Many bulbs that are winter-hardy only in the South and on the West Coast (Zones 8, 9, 10) are grown in other parts of the country as "summer flowering bulbs"—that is, are planted in the spring, dug in the fall, and stored indoors over winter. Some can be left in the ground one zone farther north if covered with a heavy winter mulch.

	Zones
ACHIMENES	9-10
ACIDANTHERA	8-10
ALLIUM or FLOWERING ONION	
Giant (A.gigantium)	5b-9
Daffodil (A.neapolitanum)	8b-10
Most other species and varieties	5-9
ALSTROEMERIA	
Most kinds Golden Peruvian Lily	7-10
(A.aurantiaca)	6-8
AMARYLLIS	
Belladonna Lily (A.belladonna)	8b-10
Hardy—see Lycoris	
Dutch and American Hybrids	
(Hippeastrum hybrids)	8b-10
ANEMONE	
Flame or Scarlet (A.fulgens) Poppy-Flowered (A.coronaria)	8-9
AUTUMN DAFFODIL (Sternbergia	0-9
lutea)	5-8
BEGONIA	47.
B.multiflora	8b-10
B.sutherlandi	8-10
Hardy (B.evansiana)	6-10
Tuberous-Rooted Hybrids	9b-10
BERMUDA BUTTERCUP—see Oxal	is
BLUEBELL, ENGLISH—see Squill	
BRODIAEA, Hardy species	7b-10
CALADIUM, Most species and varie	
	9b-10
CALLA (Zantedeschia species and varieties)	9-10
	9-10
CAMAS (Camassia species and varieties)	4b-9a
CANNA, Most species and varieties	
CAPE COWSLIP (Lachenalia specie: and varieties)	
	10-10
CHINCHERINCHEE—see Star-of-Bethlehem	
Star-Or-Detmenenn	

Zones COLCHICUM or MEADOW SAFFRON 4-8 CRINUM or MILK-AND-WINE LILY 8b-10 CROCUS, Most spring and autumn flowering species and varieties 4-9

CROWN IMPERIAL—see Fritillaria CYCLAMEN Florist's (C.indicum varieties) 9b-10

C.europaeum C.coum and C.neapolitanum 7b-9 **DAFFODIL** (Narcissus species and hybrids), Most kinds Autumn—see Autumn Daffodil Paperwhite Narcissus 4b-9 9-10

Peruvian-see Peruvian Daffodil DAHLIA, Most kinds 8-10 DESERT CANDLE—see Eremurus

DOGTOOTH VIOLET-see Lily-Like Plants **ELEPHANT EAR** (Colocasia

antiquorum) 9-10 EREMURUS, FOXTAIL LILY, or DESERT CANDLE Most species and hybrids 5b-9

EUCHARIS or AMAZON LILY (E.grandi-flora or E.amazonica) 9b-9b-10 FREESIA (hybrid varieties) 9-10 FRITILLARIA Crown Imperial (F.imperialis) 4-10

Guineahen Flower or Checkered Lily (F. meleagris) 4-10a GALTONIA or SUMMER HYACINTH

(G.candicans) 7-10 GLADIOLUS (hybrid garden 8b-10 varieties) GLORIOSA or CLIMBING LILY

(G. rothschildiana and G.superba) 9b-10 GRAPE HYACINTH (Muscari armeniacum, M.botryoides and hybrids)

GUINEAHEN FLOWER—see Fritillaria HYACINTH

Common (Hyacinthus orientalis hybrids)
Grape—see Grape Hyacinth 4b-8 Miniature (H.ciliatus or Muscari azureum) Wood—see Squill 4b-8

IRIS, BULBOUS Dutch (I.xiphium hybrids)
English (I.xiphioides)
I. reticulata
Spanish (I.xiphium) 8-10a 8-10a 5b-8a 7b-10a

ISMENE-see Peruvian Daffodil IXIA, Most species and varieties 9-10 LILY (Lilium) Aurelian Hybrids Candlestick or Orange 4-8

(L.dauricum)
L.centifolium 'Olympic Hybrids'
Coral (L.pumilum) 4-8 4b-8 4-8 Easter (L.longiflorum)
'Croft' and 'Estate' 7b-10 6-10 Fiesta Hybrids 4-8 Formosa (L.formosanum) Gold Band (L.auratum) 6-9 4b-8 Madonna (L.candidum) 4h-8 Mid-Century Hybrids Regal (L.regale) 4b-8 5-9a Showy (L.speciosum, L.s.album, and L.s.rubrum) Tiger (L.tigrinum) 4b-9a

3-8a LILY-LIKE PLANTS Amazon Lily (Eucharis) 9b-10 Aztec or Jacobean Lily (Sprekelia)

8b-1
Belladonna Lily—see Amaryllis
Blackberry Lily (Belamcanda)
Blood Lily (Haemanthus)
Bugle Lily (Watsonia)
Checkered Lily—see Fritillaria
Climbing Lily (Gloriosa)
Daylily—see Garden Flowers—General
Dogtooth Violet or Trout Lily
(Erythronium)
Some 4-9a 9b-10 9-10a 9b-10

3b-9a 5-9 Guernsey Lily (Nerine)
Lily-of-the-Valley (Convallaria)
Magic Lily—see Lycoris
Mariposa Lily (Calochortus)
Milk-and-Wine Lily (Crinum) 9-10 3-8 4-10a 8b-10 8-10

Peruvian Lily—see Alstroemeria
Pineapple Lily (Eucomis)
Rain Lily (Cooperia)
Sand or Star Lily (Leucocrinum)
Spider Lily—see Peruvian Daffodil
and Lycoris 9-10 4b-10

LYCORIS Magic Lily or Hardy Amaryllis (L.squamigera) 4b-9 Golden Spider Lily (L.aurea) Short-Tube Lycoris (L.radiata) MEADOW SAFFRON-see Colchicum

Test Your Soil Is it Acid or Alkaline? Postpaid to You\$100

Easy as Reading a Thermometer

No knowledge of chemistry needed-the color chart and simple instructions tell you what to do. You can quickly correct acid or alkaline soil. Tells how to make your soil right for every kind of plant you want to grow; or choose plants that will do well in your soil as it is. Have lovely lawns. Most important secret of good gardening! New Sudbury Soil Tester, \$1 postpaid. Money-back Guarantee (Send \$1 bills at our risk) SUDBURY LABORATORY, Box 1563, Sudbury, Mass





loxinia BULB **Beautiful Pot Plants**

250 geous, easy to grow use plants, 3" to 4" wers, last for months. Send only 25c for 1; 50c for 2; \$1 for 5. Order Now. FREE

R. H. SHUMWAY Seedsman, Dept. 303, Rockford, ILL.





The loveliest of all flowers that can be grown at home. Exquisite jewel-like colors. Nearly every bloom reaches perfection.
Easy to grow in tub, pool or farm pond. Write today for your free copy of new, color 1962 catalog.

THREE SPRINGS FISHERIES 512 Main Road, Lilypons, Maryland

NEW WILDFLOWER CATALOG

Write for Putney Nursery's new Spring cata-log. We specialize in native, hardy Wildflow-ers, Trees, Shrubs, Perennials and Herbs. PUTNEY NURSERY, Inc. Box H, Putney, Vermont

now we're making a most generous offer ...
more than 100 seeds for only 10c! That
barely covers our postage and handling
costs, so don't pass this up—get yours now!



Imagine! Bushels of luscious, giant-size apples, pears, pear from Stark Dwarf T no bigger than a lilac bush...from your own backyard orchard! A riot of blossoms in the spring, beautiful all year, with quick fruit crops, often at 2 years. Plant up to 9 trees in plot only 20 ft.sq.

From

Write for Stark Fruit Tree and Landscape

CATALOG FREE

Shows dozens of U. S. Patented Leaders in Standard and Dwarf Fruit Trees. Also famous Stark Ornamentals, Roses, Shrubs, etc. Write for Free Catalog.

MAKE EXTRA MONEY sk for FREE Sales Outfit ows how to make extra mon king orders in spare time.



STARK BRO'S LOUISIANA, MISSOURI

Stark Bro's Nurseries, Dept. 212 Louisiana, Missouri h 1962 Edition of Stark COLOR CATALOG ... FREE! CHECK HERE for Free Money-Making Outfit

GIANT Fringed PETUNIAS

Int FREE

CONDON BROS. SEEDSMEN . . . Now Combined With R. H. SHUMWAY Seedsman, Bept. 304, Rockford, ILL.







HENRY FIELD Seed & Nursery Co. 749 Oak St., SHENANDOAH, IOWA

Yes, I'd like to rais Here's my dime. A new catalog of seeds	lso send free your
NAME	

(ZONE) - - CLIP AND MAIL TODAY! - - -



Plant Hardiness

ONION—see Allium

RANUNCULUS, PEONY-FLOWERED

SNOWDROP (Galanthus nivalis and

SNOWFLAKE (Leucojum aestivum

English Bluebell (Scilla

(continued from page 63)

experiment you'd do well to depend on the zone ranges given. In our future garden articles, references to trees, shrubs, vines, groundcovers, and herbaceous perennials will include hardiness zone ratings for recommended species and varieties.

ABOUT THE MAP. Our zone map is adapted from the U.S. De-FREE CATALOG SPRING HILL NURSERIES Dept. E-27, Tipp City, Onio partment of Agriculture Plant Hardiness Zone Map published in 1960 (available from the U.S. Government Printing Office, Washing-FROM SEED ALL KINDS AND FORMS ton 25, D.C. for 15c). The U.S.D.A. map is 19x281/2" and shows ten hardiness zones (each with a 10degree range of minimum winter temperatures) for the United States FREE and southern Canada. It includes county lines and divides each 10degree climate zone into 5-degree subzones, lettered a and b. It is accompanied by lists of six "indicator" or representative woody plants for each of the ten zones, plus an additional list of 32 woody plants, and gives the northernmost



9-10

46-8

8b-10

4-9

96-10

8b-10

9-10

9-10a

4-9

7b-10

For the first time science has found a new healing substance with the astonishing ability to shrink hemorations. rhoids and to relieve pain surgery.

surgery.
In case after case, while gently
In case after case, while gently
relieving pain, actual reduction
Most amazing of all—results were
so thorough that sufferers made
astonishing statements like "Piles
The secret is a new healing sub-

The secret is a new healing sub-stance (Bio-Dyne®)-discovery of a

stance (Bio-Dyne®)—discovery of a world-famous research institute.
This substance is now available in suppository or ointment form under the name Preparation H®. Ask for it at all drug counters. at all drug counters.







PLANTS FROM SEED. No

A . . . Now Combined With an, Dept. 307, Rockford, ILL. POTTED RHODODENDRONS FOR LESS THAN 55 CENTS EACH

WRIDER NURSERIES
BOX 62, MIDDLEBURY, IND.

Rurpee Seeds Grow. J and Vegetables old favorites too.
Write for the Burpe Seed Catalog FREE
White Seed Catalog FREE
Phila. 32, Pa. or Clinton, lows or Riverside, Calif.

Sewing show how to make money. Exmunding mitten. May we send yeef. and without ton, our information of send of the send without of send of the send without of the send of the

WHEN YOU CHANGE YOUR ADDRESS

zones in which each of these 92 plants can be expected to be winter-hardy.

The limited plant lists of the U.S.D.A. map restrict its usefulness to experienced gardeners and horticulturists, since these lists include only woody plants and also do not include the southernmost zones of plant adaptability. Therefore we have undertaken to publish the map with comprehensive lists of both woody and non-woody plants and with both northern and southern limits of their adaptability. Thus our Plant Hardiness Zone Map becomes extremely useful to experienced and inexperienced gardeners alike.

To preserve clarity in our smaller 13x19-inch map, we have eliminated county lines and have substituted the guide cities located in different parts of each state. We have also eliminated the zone subdivisions (lettered a and b) of the U.S.D.A. map. Neither of these changes, we're sure, will materially affect the usefulness of the map.

OUR BOARD OF EXPERTS. The zone ratings indicated in our plant lists were compiled from reports submitted by a board of horticultural scientists in various parts of the country. Our chief consultant was Henry T. Skinner, director of the U.S. National Arboretum, Washington, D.C. Dr. Skinner supervised the preparation of the U.S.D.A. map by the National Arboretum in co-operation with the American Horticultural Society. It was for this work that he was awarded last year's American Home Achievement Medal, as

reported in our June 1961 issue. Other members of our board of consultants were: E. L. Kammerer, Morton Arboretum, Lisle, Ill.; R. E. Lee, Cornell University, Ithaca, N.Y.; Fred Galle, Ida Cason Callaway Gardens, Pine Mountain, Ga.; E. A. Menninger, Stuart, Fla.; L. C. Snyder, University of Minnesota, St. Paul, Minn.; D. J. Martel, Oregon State College, Corvallis, Ore.; A. C. Hildreth, Denver Botanic Gardens, Denver, Colo.; and George H. Spalding, Los Angeles State and County Arboretum, Arcadia, Calif. Extensive use was also made of the writings of Donald Wyman of the Arnold Arboretum, Jamaica Plain, Mass. Dr. Wyman's hardiness ratings of woody plants have heretofore been keyed to a hardiness zone map compiled by the Arnold Arboretum in 1948.

Many other authorities in diferent parts of the country also helped with the ratings of special classes of plants.

In Plywood Handles like putty. Hardens like wood PLASTIC WOOD The Genuine - Accept No Substitute.

Tropical Flowers

TSIDE IN SUMMER—INSIDE IN WINTER

SELL GREETING CARDS lowelry · Stationery · Wrappings · Gifts · Toys Make Extra Money in Spare Time

Fallout Shelters

(continued from page 10)

- 4. HUMAN WASTE DISPOSAL. This could pose a severe occupancy hazard unless you spend at least \$500 for a regular toilet and septic tank system plus extra money for a well or tank water supply. At the very least you should make sure that you obtain a reliable chemical toilet.
- 5. WATERTIGHT CONSTRUCTION. An underground shelter should be enveloped with a thick polyethylene plastic skin to keep out seepage. Above ground it could be wrapped in the same way or thoroughly sealed with waterproofing compound. Waterproofing is recommended for a basement shelter. particularly if a wet condition exists. A floor drain may be needed. 6. HUMIDITY, CONDENSATION, AND HEATING SAFEGUARDS. A dehumidifier could be used if the electricity doesn't fail. The best solution, however, is to line the interior surfaces of a shelter with about one inch of insulation.

The insulation will also help keep a shelter warm in winter, although heating may not be as big a factor as you think. Evidence exists that there may be excessive heat rather than cold. Even in midwinter ground temperature below the frost line in our northernmost states seldom falls below 35° to 40°. Body temperature will help warm up a shelter. In fact, one of the simulated National Bureau of Standards tests indicated you can be "very comfortable in a sweater." However, it would be a good idea to stock warm clothes and blankets, especially for children.

Knowledge of your own basement temperature in winter will guide you if you build a basement shelter. An electric heater could be used if the power doesn't fail; a kerosene or similar open-flame heater could serve a basement shelter, but not necessarily an isolated outdoor shelter where it would consume vital oxygen.

- 7. ENTRANCE-WAY DESIGN. This is crucial. To reduce radiation, the shelter door should not open directly to the basement or outdoors; a short passageway with at least one right-angle turn is required between the shelter and its outside entrance. Radiation scatters mainly in a straight line; only some will go around corners.
- 8. GOOD DRAINAGE AWAY FROM THE SHELTER. This is important because radioactive fallout on the ground can be washed away with "amazing success," scientists report, by a good rain, for example.

- 9. RADIO RECEPTION. An antenna to the outside may be needed because thick construction could cut down reception. You should check this when your shelter is finished.
- 10. ADEQUATE ILLUMINATION. Provide at least one electric light and one outlet, as power may continue. An obvious necessity is a 4-cell, hot-shot battery wired to a 150-milliampere flashlight bulb, plus spares. You should also have flashlights, batteries, candles, and a lantern. Open flame lights should be used judiciously to conserve oxygen.
- 11. ADEQUATE SPACE. At least 10 square feet of floor area per person is the minimum for survival. Try for more, especially if you have small children. Before building, lay out the boundaries on the floor and judge for yourself if they are adequate. To conserve space, use fold-up bunks, drop-down tables, and put storage shelves high on walls. Painting the interior white can make a shelter appear larger.

FINANCING A SHELTER

You can finance a shelter the same way you would any other home improvement project. Shelters have been approved for both FHA-insured home improvement loan programs: FHA Title I loans of up to \$3500 with five years and one month to repay, and FHA's new plan of loans up to \$10,000 at 6 per cent interest with 20 years to pay. Many lenders will also provide financing under their own home improvement loan plans.

An open-end mortgage is an excellent way to finance a shelter. You may even refinance your present mortgage. It is possible to obtain a straight low-interest personal loan from your bank. Personal loans from finance companies are also available, but here you pay the steepest interest rates and credit charges.

Be wary of some of the installment-payment loans offered by dealers. Compute the total credit and interest charges before you sign up, and compare them with other methods of financing.

URGENT ACTION IS NEEDED

Much planning and decisive action remains to be done by local, state, and federal officials in the shelter program. Mere words and advice from our elected leaders are not enough. Most people left to their own devices, even for self-preservation, are inclined to do nothing. It is the duty of all of us to call or write our elected officials and congressmen to prod them into

The American Home believes that state and federal action is essential to carry out the following urgently needed proposals:

- 1. Research and development of design and occupancy standards for large community shelters for the guidance of local communities and contractors. Equipment and supplies, as well as the structural requirements, should be thoroughly tested before being recommended.
- 2. A total reappraisal of family fallout shelter requirements, not just for radiation protection, but to develop foolproof standards covering every aspect of shelter construction and occupancy. Genuine occupancy tests of actual shelters are long overdue.
- 3. A standard inspection system by experts for newly completed shelters. Human error during construction is inevitable. Local building inspectors, probably the best solution, should be trained by state or federal civil-defense authorities.
- 4. An effective plan to provide for decontamination work following a nuclear attack. This means training local fire departments, for example, in the hosing down of streets, sidewalks, and buildings in all populated areas to wash away radioactive fallout.
- 5. An investigation into the best methods of financing, particularly for community shelters. Many communities, such as Norwalk, would gladly approve local bond issues. A special one-shot tax may be another solution. Banks could and should provide low-interest loans to finance the addition of dual-purpose shelters in new buildings. Using shelters for two purposes could pay back their cost.

WORKSHOP ORDER FORM

(as shown on page 60)

PRINT name and address in coupon, which will be used as label for mailing. Send personal check or money order in the amount of 75c for one construction pattern for workshop Storage Cabinets (please do not send stamps). If you live in New York City, add 3% for City Sales Tax.

Please allow three weeks for handling and mailing.

American Home, Dept. CP-9 American Home Building Forest Hills 75, New York

P	lease print na	ne
ple	ease print add	ress



sliding glass doors with frames of WOOD

PAINT or Finish to Match your own color schemes. Now PELLA offers modern sliding glass doors that can be finished to match your own color scheme . . . inside and out! wood frames are reinforced with steel. No condensation. Snap-in glass dividers available for diamond or square panes. Screens close automatically. Distributors in U. S. and Canada.



wood sliding glass doors

Now Many Wear FALSE TEETH With More Comfort

FASTEETH, a pleasant alkaline (non-acid) powder, holds false teeth more firmly. To eat and talk in more comfort, just sprinkle a little FASTEETH on your plates. No gummy, gooey, pasty taste or feeling. Checks "plate odor" (denture breath). Get FASTEETH at drug counters everywhere.

Fill Cracks And Holes Better

Handles like putty. Hardens like wood.
PLASTIC WOOD

The Genuine - Accept No Substitute.

See and try.



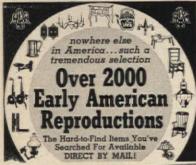
RECLINA-ROCKER



at your furniture dealer

Styled for rocking, TV viewing or just plain napping, the Reclina - Rocker by La-Z-Boy is the only all-in-one chair. Write Dept. AH for FREE literature.

LA-Z-BOY CHAIR CO. MONROE, MICH.









Hundreds of custom-feature dream plans illustrated. Noted for lasting comfort and beauty these plans save you \$1000 or more in building costs. Builder-proved blueprints at low cost. Write today:

SAVE ANY 3 BOOKS \$2
All 6 Books, over 1000 Plans only \$4

HOME BUILDING PLAN SERVICE HOME BUILDING PLAN SERVICE Portland 12, Oregon



WALK ON AIR MOCCASINS! Light, bouncy foam crepe soles, choice leather. Over 223 sizes in stock. Guaranteed! Red, White, Smoke, Taffytan, Black. Women's full & half sizes 3 to 13, AAAAAA to EEE. \$5.95 plus 50c post. COD's accepted.
MOCCASIN-CRAFT 65-AA Mulberry St., Lynn, Mass.



CHALK 'N' CORK BOARD

agle and brass nanging it is 20"x12". \$3.95 ppd Send for FREE Catalog No C.O.D.'s, plea

GOTHAM GIFTS 67-85 Exeter St., Dept. A-12 Forest Hills 75, N. Y. Write For



YOUR OLD FUR COAT INTO \$22.95 NEW CAPE, STOLE, JACKET

MORTON'S remodels your old fur coat, jacket or cape glamorous new fur fashion for only \$22.95. Includes

Order from MORTON'S, World's Largest Fur Restylli-pscialists. Largest selection at any Price. Over 40 Style tyling praised by fashion leaders. Send no money Ju-iall old fur, state dress size. Pay postman, plus postas

Write For NEW FREE STYLE BOOK MORTON'S Dept. 21-A Washington 4, D. C.



Jeff Elliot Craftsmen

Dept. A12, STATESVILLE, NORTH CAROLINA



TIME SAMPLER

Easy to do cross-stitch sampler for guest ro or entrance hall. Greets friends with a messo of simple warmth. Stamped for cross-stitch linen, with mylar and colored er complete with 11½" x 14" frame and instructions. es. Add 4% Tax. Sorry No Stamps THE ADDED TOUCH Bryn Mawr, AH 1, Penna.



500 NAME & LABELS 25¢



ith ANY nan iddress, 25c per set! 4 sets (with same name and ad-(with same hand address or all different) \$1.00!
With two-tone plastic gift
box, 35c per set. Order as
many or as few sets as you
want. Postpaid.

Walter Drake

401 Drake Bldg., Colorado Springs 14, Colo



Now Johnny can learn to multiply!

Get these new Musical Multiplication Records—and see his marks in arithmetic go up, quickly! All the Multiplication Tables from 2's through 12's have been set to music on 5 records. Each table has its own catchy tune and musical quiz. Children love to play them. Used in thousands of schools. Parents and teachers report wonderful results. Write for free folder today. Send name to—Bremner Records, Dept. S-4, Wilmette, Illinois.



shop

AMERICAN H



COUNTING THE DAYS of 1962, 63, and 64, this three-year calendar is an attractive new way to mark time. The antique white laminated paper in a 20x11" eagle-topped frame is in time for the new year, but in keeping with the spirit of early American years. Try this old-fashioned way of bringing your home up-to-date. \$3.98. Crescent House, Dept. AE, Box 621, Plainview, N.Y.



FIRMLY PLANTED in a twin-sized pot holder, your two favorite plants can be shown off to their best advantage. The bands of this double-duty planter adjust to hold pots 31/2" to 5" in diameter. Made of heavygauge steel painted dull black, it stretches 131/2" high and 20" across, which decorates a lot of wall. \$3. Colchester Forge, Dept. AH, Hartford Road, Colchester, Conn.



PRETTY TIERFUL curtains of unbleached muslin dressed up with calico will put a smile into any room. The 3" ruffles in red, green, yellow, or brown prints are colorfast and machine washable. The pair is 80" wide to use with a 10" valance or another tier. Val-ance, \$2. Tiers: 25", 30", 36", or 40" long, \$4. Country Curtains, Dept. AHC2, Stockbridge, Mass.



C'EST LA GUERRE! Eugene Leliepvre, painter to the French Army, has done four fine prints of the American wars. The hand-colored drawings of a dragoon from the Indian Wars or the Revolution, or a Union or Confederate cavalryman, depict all their military splendor. On 10x13" heavy stock, the readyto-frame fighters are \$3 each. Jeff Elliot, Dept. AH-1, Statesville, N.C.



Welcome to the Market Place! Merchandise, if not personalized, may be returned within seven days for a full refund. Most of the firms mentioned in the Market Place prefer not to handle C.O.D.'s. Unless otherwise stated, postage is included in price.

delaw De Motte

MARKET PLACE



A PERFECT SET, UP in looks but down in price, these authenticlooking pieces are reproductions of old Victorian pressed glass toothpick holders. 21/2x21/2" holders in a set of four assorted colors, they are now useful as cigarette servers or for holding small cut flowers. Well placed on dining or coffee tables. Set of 4 for \$3. Miles Kimball, 126 Bond St., Oshkosh, Wis.



PROUD AS A PEACOCK of the effects you achieve in your home on a small budget? You'll really preen when you make a focal point of this regal Oriental Peacock chair-it can't help but steal the show anywhere. Made in the British Crown Colony of natural rattan, it is 48" high. \$14.88. Freight collect. Palley's, Dept. A, 2263 East Vernon Ave., Los Angeles 58, Calif.



ACROSS THE BOARD, in these seethrough containers, keep nails and small parts in plain sight. The 3" plastic jars have brackets welded to their black, rustproof caps so that they fit standard pegboard holes. A quick twist releases the jars. Makes lots of handy storage space in kitchen, garage, or workshop. Set of 6 (board not included), \$2.50. Meredith's, Evanston 3, Ill.



ROOMS FOR IMPROVEMENT can be planned in a professional manner with the help of Plan-It-Kit. Made of durable cardboard, the kit contains 69 punch-out furniture models and an 8x10" graph board that is large enough to lay out a room. The 1/4" architect's scale is used so that cutouts may be placed directly on blueprints. \$2.98. Plan-It-Kit, Dept. A, Box 429, Westport, Conn.



4 country scenes! Everyone different Lovely wall grouping! Early Americana scenes printed in striking colors on white mats. Mounted on thick Vermont-finished pine. Brass rings for hanging. Size 41/2 x5" ea. 4 in set.

Holen Gallagher 413-K1 Fulton St., Peoria, Illinois

FREE



SIMPLY ELEGANT FLATS

Our import from Mexico. A delightful flat heel pu dressy enough to wear to town, yet still "at home" with your casual clothes. Handtooled floral design, tiny buckle trim. Cozy and comfortable — for it's foam cushioned and leather lined. Sizes 4 to 10 (half sizes too). Bone, red or black in medium width. Tan in narmedium or wide. \$9.95 ppd. \$3.00 deposit on COD's. Satisfaction guaranteed.

Send for free catalog of Mexican shoes, bags, access

AMERICANA SHOP 12 East Todd Avenue Reed City, Michigan



adults comfortably, or use grained pine in mellow brown, har finish. Sturdy flared legs, flut te, 48" long, 13½" high. Wt. 26 tt. bench (17½") \$14.95 Wt. 26 tt. bench (17½") \$14.95 Per stalog.

GREENFIELD INDUSTRIES
Forest Road Greenfield, N. H.

EARLY AMERICAN ROOSTER TOWEL RINGS



end 10c for Early American Ca Visit our Early American Sto



BIG DEMAND, BIG PROFITS

Men, women any age! Learn to create, design a decorate unusual candles for all occasions! Fun, fascinating hobby or spare time business. Expand to colorful candle shop, later. Enormous demand. Iriends, clubs, stores, churches, everyone will clamor for your original, unusual candle shapes, colors, types a scents. As little as 10e in material brings \$2 income! All ages delight in this easy-to-learn craft. No artistic ability required. . . We show you how. Sendroday for free Facts on home instruction method. CANDLE Dept. XS81, Fallbrook, Calif.



RIGHT

ANY INSTRUMENT

even if you don't know a note now!

Now a note now !

Now it's EASY to learn ANY instrument.
No boring exercises. Even if you don't know a single note, you start playing delightful little pieces right from your FIRST lesson! Simple as A-B-C. Make amazing progress. No special "talent" needed. Teach-Vourself at home in spare time. Only few cents per lesson. Soon play any piece you wish—popular music, country music, hymns, classical and any other music. Over 1,000,000 students, all over the world.

FREE BOOK describing this famous home-study

Over 1,000,000 students, all over the world.

FREE BOOK describing this famous home-study course can be yours. Simply send this ad with your name and address filled in below to:

U. S. School of Music, Studio 1732, Port Washington, N.Y. (Estab. 1898—Licensed by N.Y. State Education Dept.) No obligation. No salesman will call.



City......Zone.....State.....



High-pay profession, partor full time, any age. Or open a pig profits. Ideal for men, women, entire families. Start now. 2 prominent Florists help you prepare unckly at home. Earn good money while learning.

10 Ways to Make Money at Home with Flowers Fower's costing pennies bring dollars in corsages, wedding bouquets, funeral pieces, etc. Many other ways, too—eity, town or farm. Instructions include Design Materials & "10 Ways to Make Money at Home with Flowers."

FREE—fall details and 3-month Subscription to "Flower Talk". Write today. There is no obligation. FLORAL ARTS CENTER, 3570 W. First St., Dept. 101, Los Angeles 4, Calif.

DAY-WIGHT MAILBOX MARKER



- Letters reflect light
 Embossed in aluminum plate
 Both sides the same
 Up to 17 letters & numbers
 Baked epoxy enamel finish
 Install in a minute
 Fits any mallbox

FAST SERVICE—WE SHIP WITHIN 48 HOURS

400-N Spear Bldg. Colorado Springs, Colo



BIG FREE CATALOG!

Shoes, size 10AAA to 16EEE! Fine quality in smartest new dress styles. Also sport and work shoes, boots, sox, slippers. All FOR BIG MEN ONLY! A postcard brings you big color Cat-alog, FREE! Write today!

PERFECT FIT in your big size! Sleeve lengths to 38, neck sizes to 18½! Ivy League stripes, plaids, solid-tones, whites in Sport and Dress styles. New wash-and-wear fabrics! Bodies cut 4" longer than ordinary shirts! Not sold in stores — by mail only! We are America's best-known specialists for BIG MEN ONLY! Finest quality at amazingly low prices! Satisfaction Guaranteed! Write for FREE Catalog!

KING-SIZE, INC. 2622 BROCKTON, MASS.



PAINT YOUR OWN WALL MURAL!

Enjoy the beauty, creative satisfaction of painting a lovely 5 to 14 ft. wide mural directly on your wall! New "paint-by-numbers" method is fun, incredibly easy. Taken just 3 to 5 hours. Artists charge up to \$350; wallpaper scenics cost \$100 and more. Our complete kits, \$12.95 up! Also fabulous "Black Light" mural kits. Many exquisite modern, provincial, oriental, etc. designs. A stunning prestige touch! Send for FREE Color Catalog. "How to "details."

MURAL ART CENTER 1038 S. LaBrea, Dept. H-741, Los Angeles 19, Calif.



Now your guests can find you

Say "welcome" to guests with plenty of light and an illuminated, readable house number—comand an illuminated, readable house number—combined in one attractive unit. Installs easily in place of any present porch light, or as original fixture. Simple instructions furnished. Your house number in black plastic numerals permanently bonded to snowy white Uvex plastic—fade and crack resistant—mounted on smart black steel case. Over-all size: 12"x5½" x4". Immediate shipment guaranteed. Send check or money order, no C.O.D.'s Specify house numbers (up to 5).

\$795 GOODNOW INDUSTRIES, Inc. P. O. Box 10101 Phoenix, Arizona

GIVES You \$1000.00



Automatically

START SAVING S1,000 NOW





If Your Child is a Poor Reader

See how The Sound Way to Easy Reading can help him to read and spell better in a few weeks. New home-tutoring course drills your child in phonics with records and cards. Easy to use. University tests and parents' reports show children gain up to full year's grade in reading skill weeks. Write for free illustrated folder and low price. Bremner-Davis Phonics, Dept. S-4, Wilmette, Ill.



FOR PLEASURE—please your friends and family with professional corsages, centerpieces, etc. Your church and club will welcome your assistance in arranging impressive floral designs. Win Blue Ribbons. Many earn good money while learning.

FOR PROFIT—prepare for tremendous moneymaking opportunities for trained men and women in the Floral Field. You may quickly learn how to make professional arrangements for the home, weddings, social affairs, funerals—wherever flowers are used. Start your own profitable business or get good paying position. Excellent part-time money-making opportunities. Study and earn your certificate at home. Our training Accredited by the National Home Study Council. May we send FREE, and without obligation, our informative booklet?

NORM & SUF MORRIS' NATIONAL FLORAL INCLUDE.

NORM & SUE MORRIS' NATIONAL FLORAL INSTITUTE 11826 SAN VICENTE BLVD., STUDIO A-12 LOS ANGELES 49, CALIFORNIA



NEVER BUY FILM AGAIN!



Don't run out of film! When you send Yan-kee your exposed black & white or color film,



REWARD \$200.50 FOR THIS COIN!

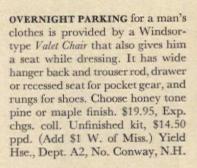


\$500,000.00 SEARCH FOR RARE COINSI FOR CERTAIN COINS WE PAY UP TO:

FOR CERTAIN COINS WE PAY
COIN
Silver Dollar 1895 . 12,800
Half Dollars 1078 \$ 12,000
Quarters 1913 - \$ 40,000
Silver Dollar 1898 O 4,440,000
Dimos 1916 D (New Type) 254,000
Lincoln Cents 1909 S V.D.B. 484,000
Lincoln Cents 1909 S V.D.B. 484,000
Lincoln Cents 1909 S V.D.B. 484,000 \$150.00 125.00 24.00 20.00 20.00 35.00 There are many other valuable coins listed in our catalogue.

CHALK ONE UP on this Early American slate whenever you want to remember what you're sure to forget, from shopping lists to notes for Junior. The 18x13" shield-shaped frame, pine with a Salem finish, sports an eagle above and a chalk holder below the easy-on-the-eyes sea-green slate. \$4.50. Sturbridge Yankee Workshop, 1 Brimfield Turnpike, Sturbridge, Mass.

COME CLEAN tablecloths that are easy and attractive are a saving grace on any dining table. These vinyl impregnated covers require only a whisk of a damp cloth. Turquoise or white with gold stripes and white cotton trim, they are pretty enough for company. 60" round, \$3.98; 60" x 80" with rounded corners, \$5.98. Post. 45c. Here's How, 95-AI Fifth Ave., New York, N.Y.



THE MAJOR ATTRACTION of metals to magnets is the force behind this knife rack. It uses only 3" of wall space, and extends 51/4" to hold up to 10 knives along its two sides. Made of a combination of white and beige plastic, gardeners and doit-yourselfers will find it handy for keeping small tools together. \$1. From Sunset House, 71 Sunset Building, Beverly Hills, Calif.

SPOUTING OFF about this pair of whales will be allowed, since they are really something to blubber over. 11" long and made of genuine taverneau, these cousins of Moby Dick have been hand carved and hand finished in Haiti. An adhesive wax allows hanging and rehanging without using nails or marring walls. \$2.98 a pr. Deer Hill, Dept. AH1, College Point 56, N.Y.

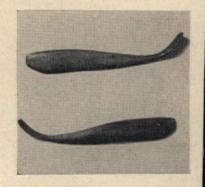
SINGING THE BLUE Willow praises, this casserole quartet is right in tune with your plans to glamorize the table. Each 21/2" deep and 5" wide bowl sits in its own wicker basket. Good for meat pies. vegetables, or soups, they can also leave the dining room, with or without baskets, as snack servers. Set of 4, \$2.95 plus 35c post. The Added Touch, Dept. AH, Bryn Mawr, Pa.















ONION ADDS FLAVOR to your table when you use place mats and a matching tile in a reproduction of this well-loved blue and white pattern. These accessories will accent "onion pattern" pieces or rest beautifully beneath any plain china. 111/2x171/2", each wipe-clean plastic mat with foam back is \$1.25. The 6" square ceramic tile, \$1.95. Edith Chapman, Dept. AH, Blauvelt, N.Y.



OUT-OF-HAND objects that you want in your hand can be brought there quickly and easily by the E-Z Reach. Adding 27" onto your arms, these mahogany plywood stretchers have a scissor-like grasp and magnet-tipped ends that will even pick up a pin, and will reach the topmost shelves. A sick-in-bed would adore a pair! \$2.95. Better Sleep, Dept. AH, New Providence, N.J.



BLOSSOMING OUT into a spray orchid which is always in bloom. this delicate pink flower is so real you can almost see it growing. The plastic plant is about 12" high, set in a small, white china rice bowl. It doesn't need any work or water-and there's no worrying about temperature. Also, it is washable. \$5.59. Constance Spry, 507-AH Madison Ave., New York 22, N.Y.



FROZEN ASSETS in the freezer or frozen food compartment, can be easily identified with these timesaving labels telling what's what. On the 2x11/4" stickers you have space to write the kind of food, its weight, and when it was frozen. Peel off the backing and applyeven to foil or plastic. 100 for \$1; 200, \$1.75; 400, \$3. Handy Gifts, Box 509-AH-1, Culver City, Calif.



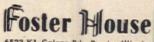
SHEDDING LIGHT into all corners, these ceiling-light diffusers will soften the glare of an uncovered bulb. Made of heat resistant, unbreakable, and translucent plastic, they will hold up to a 60-watt bulb. White only, the 9x7" fixture screws into any overhead socket. In bubble (left) or cone shape (front), they are \$2 ea. Frances-Morris, 125-A Ashland Place, Brooklyn 1, N.Y.

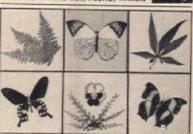


WITH A BANG of the hammer against this tiny anvil, there's almost nothing the amateur jeweler or hobbyist can't do. Only 7" long and 21/2 pounds light, the hard chromeplated tool is the smallest of its kind. Essential for working with small parts, it could also be used as a paperweight in a den or office. \$5.95. Fisher and Norris, 301-AH Monmouth Street, Trenton, N.J.



It's beautiful, practical in her kitchen! A graceful teakettle made of polished copper and bright brass that keeps its gleam. Heats 40 oz. of water jiffy-quick for instant coffee, hot tea, bouillon. Heat-proof bound handle for easy pouring. Satisfaction guaranteed. Order today!





MAKE YOUR OWN NATURE TILES

with colorful leaves, flowers, butterflies per-manently preserved in Castoglas. Pours like honey—hardens like glass at room tempera-ture. Use them for wall decorations, table tiles, coasters, trays, bookends, lamp shades, or make an entire table top—Castoglas is waterproof, heat- and acid-resistant. Easy to do, costs little, 20c for 6x6 inch tile. Make nice gifts. For illustrated directions, mail 25c to Dept. 86-A, The Castolite Co., Woodstock, Ill.



1000 Name & Address Labels \$1 ANY 3 DIFFERENT ORDERS \$2 ppd.

Sensational bargain! Your name and address handsomely printed on 1000 finest quality gummed labels. Padded—pastic GIFT BOX. Use bloom to the printed on 1000 son, cardio, correct the printed on 1000 son, cardio, correct the printed on the printed



FRANKLIN STOVES

PUR	ILAND S	STOVE FOU	NDRY CO	., Portland,	Me.
AD	DING	ACHI	NE C		0
\$		2	for 69	MANA MENNI	1
+	_	×	+	1 mm	1
Add	Subt.	Mult.	Div.	1	1
Do all 4	operation	s. Easy to	ise, 100%	1	

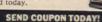
TOM THUMB, P.O. Box 276, Dept. J-112, Bethayres, Pa



Fascinating, easy-to-do embroidery on checked gingham for aprons, curtains, skirts, tablecloths, etc. Instruction-Design folder given to acquaint you with our new 48-page color book of Needle-crafts and Hobbycrafts. Both are FREE!

Includes big selection of ging hams and supplies, 1001 dif-ferent project ideas. For FREE Cross Stitch folder and Catalog, just mail coupon in envelope or paste on post-card today.





HERRSCHNER NEEDLECRAFTS, Dept. 118 72 E. Randolph St., Chicago 1, Illinois Please send Cross Stitch Folder and new Catalog. both FREE.



YOUR OLD FUR COAT \$22.95* TAX

INTO NEW CAPE, STOLE \$424.33 Free L. R. Fox, fur specialist, restyles your old, worn fur coat into a glamorous new cape or stole. Remodeling service includes cleaning, glazing, repairing, new lining, interlining, monogram. \$22.95 complete. (*mink, beaver, extras add'l.) Send no money Just wrap up your old fur coat, mall it to us now. Send your dress size and height on postcard. Pay postman \$22.95 plus postage when new cape arrives. Or write for free style book.

I.R. FOX, 146 W. 29th St., Dept. F-1, N. Y.1.

DOLLS!

LEARN WORLD'S MOST FASCINATING BUSINESS

We teach you to make, repair, and sell all kinds of Dolls and and sell all kinds of Dolls and accessories. Study at home. Excellent money making opportunities in every locality. Start a business part or full time. Easy to learn. Low monthly payments—many pay for their course out of earnings made while learning. We show you how. May we send FREE and without obligation our informative booklet? No salesman will call. For an exciting future, ACT NOW!

NORM and SUE MORRIS THE DOLL HOSPITAL SCHOOL 11826 SAN VICENTE BLVD., STUDIO A-12 LOS ANGELES 49, CALIFORNIA



HOUSEWIVES WANTED! No Exp

essary. S5 hour easy in spare time. Endless demand for lovely original Cake Decorations and luscious Professional Candy for Xmas, Easter, Weddings, Parties, all holidays and occasions.

IDEAL HOME BUSINESS... THRILLING HOBBY!



HERE'S THE COOKBOOK



WOMEN HAVE WANTED FOR 75 YEARS!

Ladies' Home JOURNAL COOKBOOK

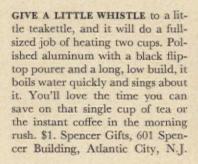


New and basic recipes Edited by Carol Truax ONLY \$5.95 (\$6.95 for the De Luxe thumb-indexed edition). Whether you're a beginner or an experienced cook, the LADIES' HOME JOURNAL COOKBOOK will put new excitement in your meals. Here are some of the unusual features of this first and only cookbook compiled by LADIES' HOME JOURNAL: . More than 2,500 recipes for everything from quick, off-the-shelf dishes to exotic, formal dishes . Over 100 color photographs-more than in any other basic cookbook-to show you just how exciting and appealing your meals can be . Lots of valuable information on shopping for best quality and getting the most for your money . The book lies flat when open and every recipe is complete wherever the book opens. You'll never need to turn a page to finish a recipe • Complete extra chapters on how to plan formal dinners, medically approved diets of all kinds with weight and calorie charts-even a thoughtfully-written bonus chapter on getting the most out of your kitchen space and layout . Over 300 casserole dishes and more than 100 exciting sauces . All the recipes have been triple-tested in the LADIES' HOME JOURNAL kitchens . The book is completely cross-indexed with tables of measurements, equivalents and temperatures for easier cooking. And it's priced at only \$5.95 for the regular edition—or \$6.95 for the De Luxe edition, thumb-indexed for quicker reference. Use the handy coupon to place your order now. There's no need to send money with your orderwe'll gladly bill you later. Examine the LADIES' HOME JOURNAL COOKBOOK in your own home under the protection of our free 7-day home trial plan.

LADIES' HOME JOURNAL Dept. 1475, Independence Square, Philadelphia 5, Penns	ylvania
Please send me copies of the LADIES' HOME JOURNAL COOKBOOK:	
Regular edition @ \$5.95 De Luxe edition @ \$6.95	
My name	☐ Payment en- closed (Penna, resi-
Street or R.D.	dents please add 4% state sales tax)
TownZoneState	70 conto salos tax)

JOURNAL COOKBOOK:		
Regular edition @ \$5.95	5 De Luxe edition @ \$6.95	
My name		Payment en- closed (Penna, resi-
Street or R.D.		dents please add
	Zone—State	4% state sales tax)
10wn	Zone State	
PILI	IEPRINT ORDER FORM	
	BP, AMERICAN HOME BLDG., FORE	ST HILLS 75. NEW YORK
	order in the amount of \$for Items	
in New York City, add 3 per cent sal	les tax. Please do not send stamps.	checked below. If you are
AMERI	ICAN HOME BLUEPRINT HOUSE #78	
☐ 1 complete set \$5	the same of the sa	3 complete sets \$10
☐ CATALO	GUE OF 30 BEST BLUEPRINT HOUSES	10c
(Catalogue includes photograph, flor covers cost of handling and mailing.)	or plan, over-all dimensions, and square fo	ootage of each house, 10c
	Print name	
	Print address	
City	Zone State	
The state of the s		

STOOL PIGEONS wouldn't mind perching on either of these Firenze stools. Handmade of natural Alpine willow, both the 18" mushroom and its 30" full-sized twin have 15" hand-woven seats. High stool, \$6.95. 4 for \$26; low, \$4.98. Shipping chgs. coll. Plastic, foam-lined covers in white, black, persimmon, or turquoise, \$3.95 each. Patio Sales, Box 25-AH, Highland Park, Ill.



BIG RETURNS from a visit or vacation trip can be carried home with no trouble if you take this foldaway suitcase with you. Only 1" wide when folded, it opens into a 19x12x51/2" lightweight carrier for taking back more than you came with. The latex-backed rayon sharkskin cover is color fast and waterproof. \$8.95, post. 65c. Mastercraft, 275-A Congress St., Boston, Mass.

FAT ON THE RIBS of this new type of kitchen utensil drains as you cook down into the deep ridges that can hold over a cup of grease. On the Grid-Way, bacon cooks without a curl, to just-right crispness; steaks, hamburgers, and frankfurters taste cooked out-ofdoors. It is heavy cast aluminum, 101/2" sq. \$5.95. O'Reilly Mfg. Co., 205-AH West 19 St., N.Y. 11, N.Y.

FOWL PLAY an important part in your décor when this rooster gets started holding your paper napkin supply. The 61/4" high holder adds a "bit of chick" just right to perk up that dull kitchen shelf. Made of mellow pine, this bird would also prove itself a fine feathered friend as a rack for your milk bills and shopping lists. \$1.98. Medford, 752-AH Fulton St., Farmingdale, N.Y.

ALL DRESSED IN WHITE, your switches will flip with pride. Solid hardwood switch-plate covers are beautifully lacquered antique white and trimmed with gold to blend with French or Italian Provincial furniture, or just to look pretty and feminine. Single switch plate, \$1.75; double, \$2. Double plug plate, \$1.75. Marian Bowater, Dept AH, Box 3037, Granada Hills, Calif.















GET SWINGING arm brackets to hold your potted plants or an oil lamp. Cast in satin black iron and measuring 9" up and 9" out, this groovy arm shaped like a leafy branch of acorns swings into all positions. Fill the bowl with dainty guest soap and throw a towel over the arm. \$3.25. (Add 50c W. of Miss.) The Ox Bow, 281-AH White Plains Rd., Tuckahoe, N.Y.



THE BRUSH-OFF you give your teeth is very important for dental health, and now you can brush after eating no matter where you are. The Brusheze has both bristles and a refillable handle which releases toothpaste with a squeeze. Plastic, in pastel colors, the whole unit is about the size of a pen. \$1.50. Whirlee, Dept AH, 31-01 Steinway St., Long Island City, N.Y.



JARRING NOTE for the spices in your life are these unbreakable "apothecary jars." Of clear plastic, each jar is 31/4", topped off by a white, airtight lid. They wear labels trimmed with black and gold, and keep small amounts of spices fresh. 10 for \$2.98; 20 for \$4.98; each set with 20 spice labels, 7 blanks. Heritage House, 529-HH Firethorn Dr., Monroeville, Pa.



SHADES OF MEANING to the owner of a student lamp in need of a new shade are these milk glass swirls. The 6" high cover and the brass-plated steel ring it rests on are only a couple of the many parts this company has available for old lamps retrieved from the attic. Shades: 7", \$3.75; 10", \$5.50. Rings: 7", \$1.65; 10", \$2.50. Old Guilford Forge, Dept. AH, Guilford, Conn.



IN FULL BLOOM on a plot the size of a postage stamp, an assortment of 25 rare and exotic flowers from 17 countries around the world decorate the faces of this spectacular collection. These all-different, all-beautiful stamps from far-off gardens will make any philatelist's dream blossom into reality. The bouquet of 25 stamps is 10c. H. E. Harris, Dept. Z2, Boston 17, Mass.



COMING TO GRIPS with the backs of your carpets, a sprinkle of Rug Safe keeps the slipping and sliding out of scatter rugs. Held down when stepped on, they can be moved easily when the weight is off. A powder that is harmless to floors or rugs, each can does 8 to 10 average scatter rugs. One treatment lasts months. \$1. Farlin Ind., Dept. AH, Box 115, Reading, Mass.

CUT-TO-FIT HOMES CUT COSTS Save labor cost up to 100%, reducing completed home cost up to 40%. You can assemble any of 57 designs from easy-to-follow plans. No measuring or cutting . . . every piece precision machine pre-cut and marked. BUY DIRECT FROM MILL eliminate all between overhead, profit and labor costs. Nothing to plan or figure. Complete with all lumber, hardware, paint, nails, glass, roofing, etc. Sterling Home quality material throughout. Freight paid most areas. Write today. Send 25c for illustrated, color catalog, floor plans and details. CHOICE OF 57 DESIGNS PRICED FROM \$2295 UP FIVE EASY-PAYMENT PLANS INTERNATIONAL MILL & TIMBER CO. Bay City, Michigan, DEPT. AH12 SEND PLEASE SEND PRICE LIST AND STERLING HOME COLOR CATALOG TO: 25c MAIL ADDRESS COUPON

Disposable VACUUM CLEANER BAGS All makes 24 For \$3

CITY

TODAY! i



Now you can buy the correct bag for your unit without hunting, without confusion, RIGHT FROM THE MANUFACTURER. Every make and model bag available. To order, simply send \$3 with MAKE AND MODEL NUMBER of your vacuum cleaner, and we will ship your disposable bags postpaid. COMPLETE SATISFACTION GUARANTEED. Sorry, no C.O.D.

ROBIN LORI ASSOCIATES
35 Sandalwood Ave.



Recipes in Use Need TRANSPARENT ENVELOPES

ZONE_STATE

For new recipes-or your old favorites - use these individual polyethylene envelopes. They're greaseproof and moistureproof... easily visible both sides, 3"x5" for handy filing. Will also protect other file-size home-making data. So inexpensive, too!

100 for \$1.00

Over 67 million purchased by American Home readers. Write today! Send check or money order:

THE AMERICAN HOME

American Home Bldg., Forest Hills 75, New York

SHOPPING **INFORMATION**

Cover: Fabrics-Everfast. Furniture, accesso-

FLOWER ARRANGING

Page 17: Wood sculpture-Highgate Gallery.

RENAISSANCE IN KITCHEN DESIGN

Pages 22-25, 58: Cabinets—Mutschler, Refrigera-Pages 22-25, 58: Cabinets—Mutschler. Refrigerator, washer-dryer, oven, surface cooking top, dishwasher—Whirlpool. Sink—Elkay. Counter tops, Dutch wall tile covering—Formica. Vinyl wall covering—Armstrong. Flooring—Goodyear. Red porcelain finish cast iron cookware—Prizer-Ware. Cast iron cookware—Griswold. Bell telephone. Furniture—Century. Upholstery fabric—Greeff. Curtain fabric—Payne. Fire tools, andirons, fender, sconces—Harvin. Candlestick, snuffer—Virginia Metalcrafters. "Blue Tonquin" dinnerware—B. Altman & Co. Stainless steel flatware—I. Freeman. Ironstone—Red-Cliff. Red and white dinnerware—Rich's. Glassware—Imperial. Chestnut roaster, pewter ware—S. P. Skinner. Tin molds, wire whisk, chocolate roll board, mortar and pestle—Bazar Francais. Red canisters—Azuma. Blue and white delft canister—Braat's. Shelf brackets, eagle hooks—Paul Assoc. Blue pitcher and covered cup—Bloomingdale's. Flower print—Old Print Center of Phyllis Lucas.

1962 DECORATING

Page 31: Resilient tile flooring and vinyl walls—Kentile. Round table—John Vesy. Furniture—Janet Rosenblum. Lamps—Hansen Lamps. Page 32: Avisco rayon fabrics—Cohama. "Windswept" rug—The Boss Co. Desk, bamboo chairs—Traditional Reproductions. Bedside tables—Yale Burge. Lamps—Paul Jones. (Bottom) Avisco rayon print fabric—Eaglesham. Page 33: All merchandise—R. H. Macy. Pages 34–35: Furniture—Auffray & Co. Tile floor—Herbert Bright. Fabric—Eaglesham Prints. Vinyl burlap wall covering—Murals Inc. Gas char-grill barbecue and hood—Majestic Co. Designer TV—General Electric. Accessories—Red Shutters. Lamps—Lang and Williams. Accent rug—Berven Carpets. Sculpture, paintings—Nordness Gallery. Bar-sink—Elkay Mfg. "Random Seadrift" dado paneling—Masonite Corp. Rattan chest—Luten-Clarey-Stern, Inc.

THIS CONTEMPORARY CAN SAVE YOU

All furniture—Kroehler Mfg. Co. Page 38: "Sunburst" rug—Bigelow Page 39: "Sea Flower" rugs—Bigelow Rugs & Carpets. Brass box on small table, accessories on coffee table, brass magazine holder—antiques. Blue ash tray on small table—Imported from Italy. Lamp—Frederick Cooper Studios. Painting—D. Landesman. Fireplace screen—Gustafson's. Fireplace tools—Segno Sliding glass doors—Slide View. Page 40: Gas burners—Roper. Blue cheese dish—Dansk. "Kashmire Stripe" rug—Regal. Counter top—Formica. Blue china plates, bowls, tea pot, cups. saucers—Imported from Japan. Drapery fabric—Forster Textile Mills. Blue bowl with fruit, Eskimo family sculpture—Raymor. Pewter cheese dish, duck decoys—antiques, Place mats—Marshall Field & Co. Blue bowl with flowers—C. S. Goodfriend. Knit tapestry—New York Graphic. Page 41: Carpet—V'Soski. "Prism" drapery fabric—Kroll Assoc. Lamp—Marshall Studios. Ash tray, vase, pottery animal in foreground—Raymor. Silk screen—Segno. Hat boxes, copper pencil holder—The Red Door.

A SPECIAL SMÖRGÅSBORD

Pages 44-46; Yellow plates, tablecloth and nap-kins, napkin rings, forks, carving set, turquoise-fish bottle opener, stainless steel platter, green glass plate, candelabra, round wooden tray, cheese tray, wooden fish tray, white rectangular platter, wooden mice, wooden handled spoon & fork, small Swedish horses—Seabon. Brass three-part server—Hammacher Schlemmer. Large Swedish horse, rooster—Swedish Imports.

TAKE A CAN OF PEAS

Pages 48, 49: Casserole, place mat, spoon and fork, coffee pot, cup and saucer—Bonnier's

BUYER'S GUIDE TO AUTOMATIC DRYERS

Pages 56, 57: Automatic dryer-Hotpoint.

WORKSHOP STORAGE CABINETS

Page 60: Workshop—U.S. Plywood. Portable power tools, hand tools—Stanley Tools, Ceiling—Armstrong. Floor—Amtico. Hardware—Grant Pulley and Hardware Corp. Radial arm saw—De Walt Power Tools, Inc. Lighting—Lightolier.

current outlook

Here's the last word as we go to press on last minute news, trends, or possibly gossip from the notebooks of your everon-the-go editors.

Fuel savings should be a warm note for a cold winter. The Humble Oil and Refining Co. has developed a Magic Grid to increase combustion efficiency on high-pressure oil burners. It's a heat booster that can save you from 20 to 40 per cent on fuel bills, and will make operation cleaner and quieter. If you are not satisfied in twelve months, the company will take it out, and refund the full price of \$54.60.

More on shell homes:

Good news to our ears from Certain-teed Products Corp. President Malcolm Meyer has announced that the company's wholly owned subsidiary, the Institute of Essential Housing (better known among shell house firms as IEH), has wiped out the controversial balloon-note method from its financing package. In its place: a sensible 12-year mortgage plan.

Lawn squabble: Who would have thought a lawn would grow into a lawsuit? In a San Francisco suburb, the Jack Kleins, frustrated to find grass wouldn't grow on a portion of their lawn, put in an ivy cover. Fireworks began when a citizen's group, calling themselves the Westlake Subdivisions Improvement Association, told the Kleins, in effect, "Since everyone else here has grass, you must too. Take out the ivy cover." The Kleins said no, and WSIA promptly sued. The famous-and flamboyant-lawyer Marvin Belli was so amazed at WSIA's effrontery, he took on the case for the Kleins. Now eight months later, it's still dragging through the courts. We're not so worried about who will win-what scares us is the frightening conformist implications.

Defaults are overrated.

Some financial conservatives have pointed a nervous finger recently at foreclosures of FHA-insured mortgages. FHA chief Neal Hardy countered by pointing out that foreclosures are still well below 1 per cent of outstanding FHA-backed mortgagesan "abnormally low" rate in the field of home mortgages.

Freeze-dried food should be showing up in your supermarket pretty soon. You've probably heard about these foods developed for outdoorsmen and until now available only in camping stores. About one-third to one-eighth of their original weights (all the moisture has been removed), they enable campers to prepare a variety of meals that can compete with homecooked dinners. Because they don't require refrigeration or special storage, you'll be able to keep a supply in your cupboard against any emergency.

Steering wheels may become "old hat" in automobiles. To take their place you may have a panel that sits on your lap like a ouija board.

On it will be two round knobs about four inches in diameter that are interconnected. Turning one or both will steer the car. The brainchild of Oldsmobile, it is expected to be an option on their 1963 models.

Sproutless potatoes will reach your vegetable bin soon as a result of a chemical developed by the Naugatuck Chemical division of United States Rubber Co. Mixed with water and sprayed over potato plants before harvesting, it keeps spuds sproutfree and in good condition for a month or more. Commercial users have had the advantage of these for some time, but now they are reaching the consumer market. You will be able to buy in larger quantities-and forget that chore of paring budding eyes.

A preview of furniture at the High Point, N.C., Furniture Market was unusually colorful. Not only was color important in upholstery, but the wood itself was often either painted or impreg-

nated with color. We're sorry to report that prices will probably be somewhat higher, but quality and design have never been better.

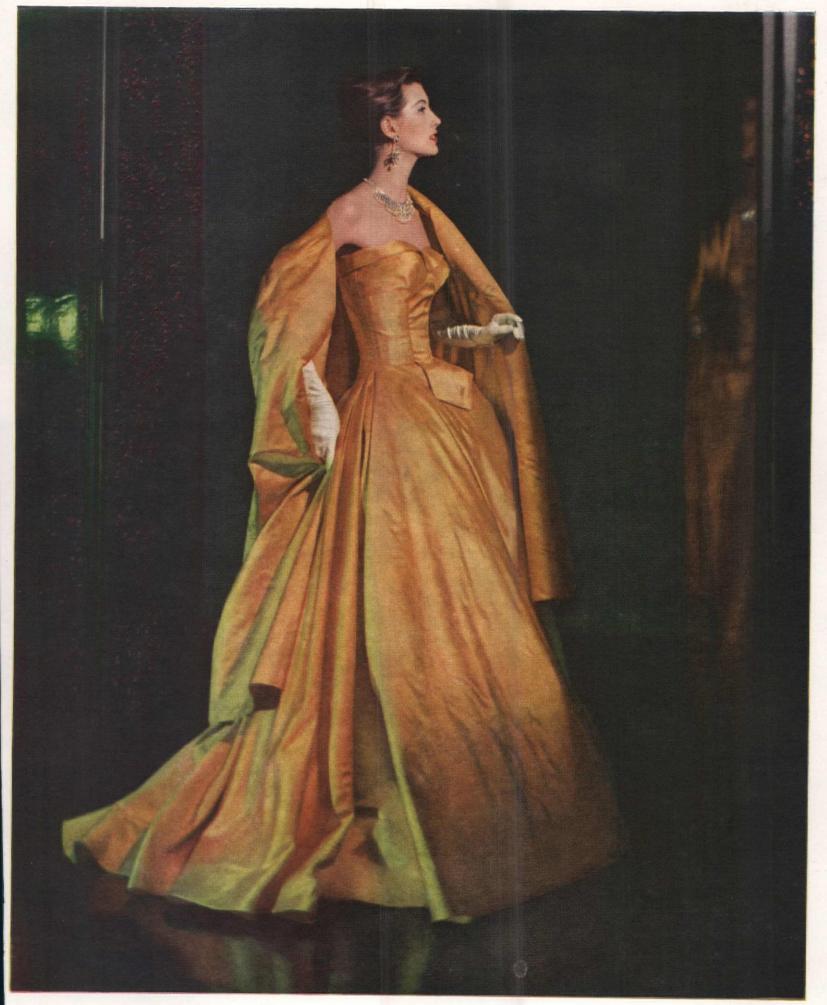
Speaking of color, if you are looking for fabrics in bright, fresh prints that you can wash (even with bleach), dry clean, or hang out in the noonday sun, look for Riverdale's new prints with the words "Color styled with Du Pont Savalux® fast colors" on the selvage. The combina-

tion of special dyes and a special printing process make these fabrics the ultimate in colorfastness.

Push-button butter. as well as salad dressings, dessert toppings, canapé spreads, and mustard may follow improved whipped cream in aerosol cans as a result of a new liquefied gas propellant announced by Du Pont. Union Carbide is also perfecting a better spray can to handle solids. Powdered products slated for this type of packaging include cosmetics, pharmaceuticals, household items, and agricultural and industrial materials.

Ham in cans will be easier to get at starting about Easter. An entirely new type of can will have a key that gives greater leverage in opening and won't run off the track. When the cover comes off, the exposed edges will be smooth. Only canned hams packed in the United States will have this new safety feature.

Tattletale gray has been blamed on a lot of things, but from the Home Laundry Conference comes the word that studies show women just aren't using enough detergent in their washers. Fear of over-sudsing makes them too cautious, and they overlook the fact that increased capacity of machines using more water calls for more detergent. All of the premeasured packets of detergents and bleaches now on the market should alleviate the situation.



Modess...because



FREE! Write for Formica® Kitchen & Bathroom Ideas

Here's the information you'll want on Formica laminated plastic before you build or remodel: Colorful idea pictures . . . suggestions on use and care of Formica surfaces . . . a Formica Blue Book of Qualified Dealers with names, addresses and phone numbers of craftsmen skilled in working with this famous long lasting material. Don't chance the disappointment of an imitation. Buy from the dealer who displays this emblem.

Your Guarantee of Quality

QUALIFIED

LANIBATIO PLANTIC DEALER

Write today... Formica Corporation • Department C105 • Cincinnati 32, Ohio • Want swatches of 85 Formica colors? Send 50c.

Subsidiary of CYANAMID

Offer good only in U.S.A.