The Green Thumb
Colorado Forestry and Horticulture Association
Organized in 1884
“To preserve the natural beauty of Colorado; to protect the forests; to encourage proper maintenance and additional planting of trees, shrubs and gardens; to make available correct information regarding forestry, horticultural practices and plants best suited to the climate; and to coordinate the knowledge and experience of foresters, horticulturists and gardeners for their mutual benefit.”

INDEX

<table>
<thead>
<tr>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calendar of Events</td>
<td>4</td>
</tr>
<tr>
<td>Colorado Flowers Score Again, by James C. Lloyd</td>
<td>5</td>
</tr>
<tr>
<td>1960 All-America Selections, by W. Ray Hastings</td>
<td>7</td>
</tr>
<tr>
<td>House Plants, by LoVica Bonar</td>
<td>11</td>
</tr>
<tr>
<td>Who’s for Rejuvenation? by Maros L. Shubert</td>
<td>12</td>
</tr>
<tr>
<td>The Ladies Speak Their Minds</td>
<td>14</td>
</tr>
<tr>
<td>Denver Botanic Gardens—Progress in 1959, by A. C. Hildreth</td>
<td>15</td>
</tr>
<tr>
<td>Cooperation at Its Best</td>
<td>17</td>
</tr>
<tr>
<td>The Denver Civic Center, by S. R. DeBeer</td>
<td>18</td>
</tr>
<tr>
<td>Colorado Garden Show</td>
<td>25</td>
</tr>
<tr>
<td>Composting, by Irene Scott</td>
<td>26</td>
</tr>
<tr>
<td>The Right Tree in the Right Spot, by Mrs. K. B. Crisp</td>
<td>28</td>
</tr>
<tr>
<td>Wind River Caper, by E. K. Edwards</td>
<td>30</td>
</tr>
<tr>
<td>In Our Library</td>
<td>31</td>
</tr>
<tr>
<td>Dig These Questions</td>
<td>32</td>
</tr>
<tr>
<td>Seasonal Suggestions, by Pat</td>
<td>33</td>
</tr>
</tbody>
</table>

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The Colorado Forestry and Horticulture Association
A non-profit, privately financed Association

EA 2-9656
909 YORK ST.  DENVER 6, COLORADO
MEMO

Calendar of Events

Colorado Forestry and Horticulture Association Annual Banquet and Business Meeting, February 1, 6:30 p.m., American Legion Post Number 1, 14th and Broadway. See bottom this page for details.

House Plant Clinic, 7:30 p.m. to 9 p.m., February 15, 22, 29, March 7 and 14, Botanic Gardens House, 909 York Street. See page 10 for details.

The Green Thumb Program. Every Saturday morning on KLZ at 10:15 a.m.

Floral Art Courses: Opportunity School. Every Thursday 9 a.m.-11:30 a.m., 1 p.m.-3:30 p.m., 6:30 p.m.-9:15 p.m. There is no charge except for materials.

Colorado Gladiolus Society Bulb Auction. February 23, 7 p.m., at Botanic Gardens House, 909 York Street. Many varieties to choose from. Public invited.

BOTANIC GARDEN'S HOUSE MEETINGS
909 York Street

January 22—Men's Garden Club of Denver, 7:30 p.m.
January 28—Civic Garden Club, 1 p.m.
February 2—Mountain View Garden Club, 1 p.m.
February 3—Women's Faculty Club, Denver University, 1:30 p.m. Botany Club, 7:30 p.m.
February 8—Judges Council, 10 a.m.
February 9—Evergreen Garden Club, 7:30 p.m.
February 10—Organic Gardeners, 8 p.m.
February 11—Division B, Civic Garden Club, 12 noon. Rose Society, 7 p.m.
February 12—Colorado Forestry and Horticulture Finance Committee, 10:30 a.m.
Colorado Forestry and Horticulture Board Luncheon, 11:30 a.m.
February 13—Men's Garden Club of Colorado workshop, 9 a.m. to 4:30 p.m.
February 25—Civic Garden Club, 1 p.m.
March 1—Mountain View Garden Club, 1 p.m.
March 2—Botany Club, 7:30 p.m.

ANNUAL DINNER AND BUSINESS MEETING
THE COLORADO FORESTRY AND HORTICULTURE ASSOCIATION
MONDAY EVENING, FEBRUARY 1, 1960
Cocktails at 6:30 P.M. — Dinner at 7:00 P.M.
American Legion Leyden-Chiles-Wickersham Post No. 1
1370 BROADWAY — Parking Available
Dr. Richard D. Baisden, Associate Professor of Zoology, Colorado College, will present a talk on "The Changing Flora of the Front Range," illustrated with colored slides.
$3.50 (Tax and Tip Included) Cocktails Extra

COLORADO FLOWERS SCORE AGAIN
By James C. Lloyd
Public Relations

THE 1960 AAS award winning Rocket Series Snapdragons and two new Petunia introductions developed by Pan American Seeds, Inc., of Paonia, Colorado will be of special interest to gardeners of the Rocky Mountain Area.

All six varieties of the Rocket Series
received AAS awards for 1960. The Silver Medal went to the Red Rocket, each of the other five received a Bronze Medal. The Rocket Snapdragons were the highest scoring entrants in the 1958 Trials and consisted of a series of six separate colors of F1 Hybrid Maximum Grandiflora or Colossal types. The series consists of: Red Rocket, Yellow Rocket, Rose Rocket, White Rocket, Bronze Rocket, and Orchid Rocket. As each member of the Series received an award, seed bearing the AAS seal will be offered both as a mixture and as separate colors.

Being the first F1 Hybrid garden type Snapdragon to be introduced, the Rocket Snapdragons are far superior to any other garden Snapdragons yet offered. Although grown as F1 Hybrids from hand pollinated seed, the seed is expected to be plentiful. Also, since they are F1 Hybrids, each and every variety is very uniform. There is some difference in time of bloom between the different colors but the six varieties are quite well matched and hence make a good blend or mixture. The Rocket Snapdragons are of the tall later blooming type and this characteristic is enhanced by their great hybrid vigor. Young plants are very strong and sturdy and selfbranching, although pinching is recommended for a larger number of basal branches. The plants grow tall and stately and the spikes are borne on long straight stems. The flower spikes are long and graceful, resulting in florist quality cut flowers. The home gardener will prize these for their usefulness for cutting.

For home garden culture, Snapdragons are best grown from well grown, cold hardened, pinched plants, set into the garden as soon as the ground can be worked. All Snapdragons are hardy and will withstand several degrees of freezing. In fact, they do better if given a chance to get well rooted before the warmer days of spring.

One of the new Petunia introductions is the F1 Hybrid Grandiflora Maestro. This is a new bright rose-red Grandiflora fringed Petunia. The flowers are 3½ by 3½ inches across on compact well branched plants. The foliage is a dark green and the color is a very warm glowing deep rose-red with a yellow throat. This is a very striking addition to the famous Pan American F1 Hybrid Grandiflora Petunias.

The F1 Hybrid Multiflora Mercury is the newest addition to the famous Pan American Space Age Petunias. The color is the nearest to blue yet, being a very soft and clear shade of light heavenly blue. Although somewhat taller than some of the other Multiflora Petunias, Mercury is the most dwarf of the Blues. It is an F1 Hybrid of the famous old variety "Heavenly Blue" but is much more uniform, both in growth and color and represents a great improvement. The habit is compact and branching. The height is from 15 to 18 inches.

1960 ALL-AMERICA SELECTIONS
By W. Ray Hastings

The first snapdragons bred for summer blooming, for long days and short nights and with summer heat tolerance, are now ready for home gardeners. Two and three crops per season from the same plants, with 10 to 12 tall spire-like spikes at a time loaded with bloom, are yours for the planting.

Six prime colors compose the new first generation (F1) hybrid Rocket snapdragon series: Bronze Rocket, Golden Rocket, Orchid Rocket, Red Rocket, Rose Rocket and White Rocket. Each variety is an All-America Selection. And, because they all are award winners, they receive a new class award and the formula mixture of all six colors may be offered as an All-America winner. This is extraordinary. Only the Petite marigolds previously have won a class award.

To make it more of a snapdragon year 'Vanguard' double snapdragon, in rose, pink, gold and yellow, and also an F1 hybrid, is the first double snapdragon to merit an All-America award.

Then, there is an extra large flowering annual phlox in the most desirable and exquisite salmon with enhancing richer eye. This is a vigorous tetraploid, accounting for its larger size and vigorous 12 inch height. It has the most beautiful color of all phlox, deserving its name 'Glamour'.

Marigolds have won a number of awards over the years and plant breeders continue to produce exceptional new varieties. 1960 brings a big orange called 'Toreador' to join this new Climax class of F1 hybrids. Toreador is an earlier and more prolific bloomer, 2½ to 3 feet tall with handsome dark green foliage on bushy plants. This class is the carnation flowered type but much larger than carnations and fully double.

Last but not least of the flower award winners is the 'Spun Gold' marigold. It is open-pollinated, not a true hybrid, and yet comes uniform and true. It practically covers its 12 inch bushy plants with big 3 inch chrysanthemum flowered blooms of brilliant golden yellow. Among the very earliest marigolds to bloom, it is strikingly remarkable how such large and beautifully mum-flowered blooms can be borne on such compact dwarf plants. For low borders, edging, beds and pots, Spun Gold is a honey.

The only 1960 vegetable winner is Just Right turnip. Excellent for both plentiful greens, held up off the ground, and for its high quality flattened globe shaped roots of clean white color. This all-purpose variety is the first hybrid turnip. Enormous yields, finest quality leaves for boiled greens and beautiful white roots make it the best turnip yet.

More detailed descriptions of the 1960 winners should intrigue every new and seasoned gardener.

The new 1960 Rocket Series of snapdragons grow to 3 feet in height. Plants branch from the base to produce 10 or more long spikes or spikes of flowers at a time. Unlike the short-day, cool weather, greenhouse varieties and varieties previously grown outdoors but which were not very heat or rust tolerant, the Rocket snaps are late, long-day blooming and flower beautifully even in the mid-summer heat of the western corn belt.

Rocket snaps show their hybrid vigor, strong and erect, with well spaced large flowers of the Colossal type on tapering spikes with many open at a time. They are excellent for cutting. After first blooming, stems may be cut back for a second crop and even a
third crop has been cut from the same plants before hard freezing weather.

Red Rocket is a little earlier to bloom than the others and has distinctive reddish foliage and stems. Foliage of the other five colors is bright green.

Golden Rocket is a self golden yellow with color brightness to be seen over the rest. Bronze Rocket is rich and glowing bronzy tangerine. Orchid Rocket is the ladies' favorite lavendar for arrangements as well as for outdoor beauty.

Rose Rocket is a rich rose with golden throat blotch and White Rocket is a self white.

Add to these the finest double snapdragon 'Vanguard', rose pink with gold throat markings, growing about 30 inches tall, and blooming earlier than the Rockets, and you will have a garden full of wonderful snaps. Vanguard is base branching with long stemmed spikes for garden or cutting.

Glamour phlox is a new tetraploid of mid-salmon color. Extra size flowers are up to 1¾ inches across and are borne in graceful clusters or umbels like pink parasols over the 12 inch plants. They bloom profusely through the summer and fall and can be used for cut flowers or in beds and borders. The flower color is certain to be a gardener's favorite, the most attractive in the phlox family.

Toreador marigold is a bright mid-orange F1 hybrid with deeper appearance at flower center. The color is enhanced in sunlight as well as by artificial light indoors. The fully double flowers are nicely ruffled and the blooming date is somewhat earlier than others of the Climax type. It has extra hybrid vigor, free flowering habit, uniformity of flower form and large flowers about 4 inches across.

Spun Gold marigold is only 10 to 12 inches tall and wide, with dwarf compact bushy form. Flowers to 3 inches practically blanket the shapely bush. Flower form is the popular chrysanthemum type, exceptionally large for such an early bloomer and such a dwarf plant. Although open-pollinated, Spun Gold is true and uniform for beds, edging, low borders and to bloom in pots.

All-America Selections is a nonprofit educational institution for the testing, comparison and evaluation of new seed varieties from plant breeders around the world. All new entries, before introduction, are thoroughly tested and compared with the nearest standard varieties in outdoor trial grounds in different climatic and soil conditions over the United States and southern Canada.

The greatest satisfaction in gardening comes with the best and most dependable varieties and kinds of plants to suit our needs and taste. Such are the new All-America Selections.

Janus was invoked at the commencement of most actions; even in the worship of the other gods the votary began by offering wine and incense to Janus. The first month in the year was named for him; and under the title of Matutinus he was regarded as the opener of the day. Hence he had charge of the gates of Heaven, and hence, too, all gates, Januae, were called after him, and supposed to be under his care. Hence, perhaps, it was, that he was represented with a staff and key, and that he was named the Opener (Patulcius), and the Shutter (Clusius).

M. A. Dwight—Grecian and Roman Mythology.

Landscape Contractor L. D. “LEW” HAMMER Tel. WE 5-5938
Annual Plant Auction and Sale

Early in May the cry of the plant auctioneer will ring out again, giving you a chance to buy plants and have fun doing it. Mrs. Alexander Barbour and Mrs. Hugh Catherwood, cochairmen, are busy with plans for this gala affair. They promise an expanded program to include the plant auction, an antique and horrible auction, a bedding plant sales booth and several surprise activities. They ask your cooperation in accumulating a quantity of antiques and horribles for this sale. If you are cleaning out the attic, or know of someone who is, remember that we can use all kinds of do-dads. You may bring them to 909 York, or if this is not possible, call EAst 2-9656 and we will try to make arrangements to pick them up.

HOUSE PLANT CLINIC

Place: Botanic Gardens House, 909 York Street, Denver.
Time: Five consecutive Monday nights, February 15, 22, 29, March 7 and 14, 7:30 to 9 p.m.
Cost: There will be a small fee of $2.00 to cover cost of materials.
Content: Care of plants, soils and potting, propagation, diseases and pests.
Direction: Under direction of Dr. Helen M. Zeiner.
Registration: Fee accepted on or before January 29 insures a place for you in the clinic. Fee should be mailed or taken to Botanic Gardens House by January 29. If fee is mailed, be sure to include name, address and phone number. Make checks payable to Denver Botanic Gardens.

GARDEN SHORTS

A garden of miniature roses at the Denver Botanic Gardens will be sponsored by the Home Garden Club of Denver, according to Mrs. T. A. White, recently installed president. The clubs' vice-presidents will be Mrs. A. R. Twist, Jr., first; Mrs. S. R. Swennes, second; Mrs. Beth Buckley, third; and Mrs. Lillian M. Doty, fourth. Mrs. Raymond A. Yaggy, retiring president, and her husband are moving to St. Petersburg, Fla.

LOOK AND LEARN TOURS

"Designed for Garden Living" is the theme of this year's garden tours. A special committee is now in the process of selecting gardens. Their decisions will be based on design, functional patio areas, and easy maintenance. They have a choice of some 40 gardens suggested by the Landscape Architects Association and the Denver Nurserymen. Tentative dates for this year's tours are July 13 and 14.

HOUSE PLANTS

Winter is upon us, but that is no reason for dormant "green thumbs". Raising house plants is one of the plant fancier's answers to winter weather. Most plants are adaptable to household environment, and take what comes without too much complaint. However, a knowledge of your plants' cultural requirements will make their care easier and more rewarding.

Geranium — Requires as much sun as possible. Prefers a moderate (50-60°) temperature. Water only when the soil is dry.

Cyclamen — Requires cool (60° maximum) humid conditions. Water from the bottom to prevent crown rot. Yellowning of leaves often caused by dry air or soil or a location which is too warm.

Impatiens — Plenty of moisture and good drainage are the main requirements. This plant takes indoor living as a matter of course and is almost ever blooming.

Philodendron — Requires light, but not direct sun. Spraying or washing the foliage with water every week is quite beneficial. Don't overwater.

Ivy — A good plant for north windows. Does best under moist, cool (45-50°) conditions. If these conditions can't be provided, spray or wash the leaves with water once a week.

Coleus — Likes a moist soil, but don't overwater. Needs sun to bring out the leaf colors. Pinching back reduces legginess. Watch for mealy bugs.

Cactus — Water from the bottom only when dry. Keep the plants in a sunny window. Plants which are not in the resting period may require more watering.

Begonia — Overwatering results in leaf drop. Humid conditions are beneficial. Likes partial or filtered sunlight.

Saint Paulia (African Violet) — Likes an east or west window and a minimum temperature of 60°. Is quite adaptable to wick watering, as moisture at the roots is preferable to top watering.

Kalanchoe — Culture same as for Cactus; sunshine and not too much water during the resting period.

Strawberry Begonia — Prefers shade from direct sun, a moist soil, and a temperature of 50°.

Peperomia — Prefers humid conditions and shade from direct sun.

Baby's Tears — Prefers partial shade. The new shoots do not trail far unless in contact with the soil.
WHO'S FOR REJUVENATION?

Dr. Moras L. Shubert
Department of Botany, University of Denver

A FEW of us, if given the chance, would want to struggle through it all again even though we do complain of advancing age. But still there remains a sort of romantic notion in the back of the mind that it would be nice to be youthful again.

Don't be either hopeful or alarmed, for I am not going to suggest how we can regain our youth, but I am going to discuss how our plants can be made to grow younger.

Who doesn't have a senile philodendron, English ivy, geranium, or one of many other species? Any plant that has been standing in its growth for a very long time needs to be either thrown away or rejuvenated. A plant can remain healthy only through the continuous production of new tissues, and the newly-produced leaves, stems and roots are as young as the day they are produced, no matter how old the plant is. When we marvel at the great age of a California redwood, we must remember that none of the live tissue in a thousand-year-old tree is more than a very few years old. And this potentially eternal life of perennial plants is a quality that we can use in renewing the vigor of senescent ones.

Let's take, as our example, the too-familiar dusty-leaved, dull old "split leaf" (Monstera deliciosa). How did it get into this sad state? We could have kept it "happier" by taking better care of it in the first place by proper watering and fertilization of the soil and by weekly sponging of its leaves with soapy lukewarm water, but we didn't. The oldest leaves are so full of excretory wastes that they are of little use any longer, so let's cut it back to only three or four leaves above the soil. Now since it has been for several years in the same tub of soil, we carefully work it out of the container and notice that the roots and soil are much too firmly packed, for the root volume added to the soil volume equals almost more than the tub could hold. So we straighten out the roots and even prune off the poorest ones. Some of the longest roots are shortened by cutting them cleanly with a sharp knife or pruning shears. While preparing the potting mixture we can immerse our whole much-mutilated specimen in a pan of water or else cover it with something wet enough to prevent drying. I like to use medium sand from which the finest particles have been sifted and peat in about equal parts plus some well-rotted compost, if available, for plants of this kind. These plants, in their native rain forests never touch anything like our soil, so forget about adding garden loam to the mixture. Now when we repot the plant we spread its roots out and slowly add the soil so that there is no packing together of the roots. We water it thoroughly and keep the soil moist, but not water-logged, until the first buds begin to open at the base of the leaves. At this time we give it its first application of mineral fertilizer. We let the soil dry down for several days then add enough soluble fertilizer, such as Hypoion or Rapidgro, to thoroughly moisten the soil. The solution of fertilizer is made up according to the manufacturer's directions for hydroponics, even though we are growing this in our synthetic "soil". If the first leaves that open on our now robust young plant do not have splits, as split-leaves should, we must recall that this is to be expected. Later ones will have characteristic splits.

Since plants that originate in the rain forests, like philodendrons and rubber trees, are favored by higher humidity than we usually have in our homes, we can make a very good use of some of those clear pliollim suitbags from the cleaners by making plastic tents over such plants temporarily. This will help give repotted plants a better start, but do not keep the bags so tight as to get moisture condensation inside.

Frequently the best treatment with many species is to start a completely new plant by rooting the stem tips. In some cases this can be done most satisfactorily by "air layering". To do this we take a razor blade or sharp knife and cut a notch in the side of the stem at a point where we want the new root system to form. Next we take a large piece of water-proof plastic and tie it firmly around the stem just below this notch in such a way that it can be drawn up around the stem to make an air-tight bag. We fill this plastic with saturated sphagnum and fasten the plastic (not too tightly) above the notch so that the moist sphagnum is held in place for rooting. Depending upon species, this rooting process may take from a few days to several weeks (for something like a rubber tree). The advantage is that the plant will continue to grow and when the new roots are formed (peeking is permitted!) we can cut off this top and pot it without any real injury to the specimen to be saved.

With geraniums and many other herbaceous pot plants the simplest treatment is to select cuttings and either root them in water and then plant them or else pot them directly in a potting soil that is essentially a rooting mixture. That is, the mixture should be quite a loose one for good moisture and air storage. Geranium cuttings will be less apt to rot if they are allowed to lie where the sun can shine on the cut ends for a couple of hours and dry the wound.

After the cuttings are growing on their own new roots in new potting soil, give the plants an adequate supply of mineral fertilizer to encourage robust new growth. It is worth remembering that the recommendations given here are for plants that should have been kept in healthier condition in the first place, so next time, we resolve, we will take vigorous cuttings sooner.
COLORADO NURSERYMEN’S AND ARBORISTS’ SHORT COURSE
Colorado State University, Fort Collins, Colorado
February 8 and 9, 1960

Planned to keep our nurserymen and arborists abreast with new developments in their fields, this year’s short course promises to be the best yet. Scheduled talks include “Small Trees and Dwarf Shrubs,” by Donald Wyman, Director of Arnold Arboretum; “Repair and Care of Storm Damaged Trees,” by Homer L. Jacobs, Vice President of Davey’s Tree Company; “Credit Safeguarded,” by Arthur Thompson, Credit Manager, Neusteters; “Countdown in Salesmanship,” Tom Hopkins, California Spray Chemical Corporation. These talks, along with others, promise two full days of exciting news in the field of horticulture. While intended primarily for the professional, the sessions of this short course are open to anyone interested. Registration is at 9 a.m., Monday, February 8, in the Student Union Annex, Colorado State University, Fort Collins, Colorado.

THE LADIES SPEAK THEIR MINDS

Of interest to horticulturists are some of the opinions expressed by the 100 women delegates to the 2nd Annual Congress on Better Living for 1959.

The Congress is designed to aid persons and firms who perform services for American families by informing them of the families’ desires as affected by the pattern of living.

Because of the trend to outdoor living, patios have become as important as closet space.

The American family wants to be able to see their yard, even when they can’t be outside. This desire resulted in a major complaint against windows placed too high for convenient viewing.

Another complaint, dear to the hearts of many, was against contractors who unnecessarily remove mature trees in order to plant new ones.

Builders who destroy fine old trees, then plant spindly new ones

Denver Botanic Gardens—Progress in 1959

By Dr. A. C. Hildreth, Director

The year 1959 was a period of great progress in the development of the Denver Botanic Gardens. The house at 909 York Street had been transferred to the Denver Botanic Gardens Foundation on December 16, 1958, however, it was March 8, 1959, before actual possession was obtained. On March 9 the Colorado Forestry and Horticulture Association moved their offices and the excellent Helen Fowler Library into the building. A week later, March 16, the Denver Botanic Gardens vacated their rooms in the Denver Museum of Natural History Building and moved into their new home. On April 3, the Federation of Garden Clubs established an office in the house. Thus the headquarters of these three related agencies were all housed under the same roof.

On June 11, Botanic Gardens House was formally presented to the Denver Botanic Gardens by Dr. and Mrs. James J. Waring, in memory of Mrs. Waring’s father, Henry M. Porter. Botanic Gardens House was made available to all botanical and horticultural organizations for meetings, conferences, study classes and displays. Almost every day some group used the main salon, the dining room or the conference room and sometimes two or three meetings were in progress simultaneously. The facilities for such group activities have been gradually improved during the year. Mrs. James J. Waring donated the beautiful furniture and carpet for the conference room, and also linens, silverware, dishes and glassware for the dining room. Folding chairs and folding tables were purchased for use in the auditorium room or wherever needed. The Colorado Forestry and Horticulture Association recently received a donation from Mr. C. Edgar Adelhelm of a slide projector and a 16 mm motion picture projector with sound track. The Association generously makes this excellent equipment available to any botanical or horticultural group meeting at Botanic Gardens House.

During the year, extensive developments were made in the 18-acre tract adjacent to Botanic Gardens House. More than 19,000 cubic yards of earth were moved in the initial grading. An underground irrigation system was installed for the entire area. The property west of York Street and the children’s garden area between York and...
Josephine Streets were enclosed by fencing. For this purpose were erected 2,755 linear feet of chainlink fence, 6 feet high; 425 feet of ornamental iron fence, 6 feet high and 360 feet of ornamental iron fence 4 feet high. In these fences, five chainlink gates and five ornamental iron gates were installed. The attractive gates at the main entrance were donated by Mrs. Stella Durrance.

Stone-faced walls and stone-faced gate pillars erected contained a total of 3,266 square feet of masonry. In the driveways and parking areas 7,777 square feet of concrete paving and 32,288 square feet of asphalt surface were laid. In addition 2,422 linear feet of concrete curbing and 270 feet of reinforced concrete retaining wall were constructed.

For pedestrian traffic there were laid 7,264 linear feet of gravel walkways, 10 feet wide; 311 linear feet of brick walk, 8 feet wide; 2,424 square feet of flagstone paving and 1,292 square feet of concrete walk.

Ornamental floodlighting was installed on the main entrance gates, the Denver Botanic Gardens sign and the exterior of Botanic Gardens House. These lights give a beautiful effect at night and also provide some protection against vandals and pilferers.

Basic equipment acquired during the year includes a tractor with necessary soil-working implements, a pick-up truck with dump body, a roto-tiller and miscellaneous hand tools. The pick-up truck was donated by the Men's Garden Club of Denver.

By early autumn, enough of the basic construction at the York Street site had been completed to permit operation of this area as a botanic garden. Therefore, on September 19, this unit of the Denver Botanic Gardens was formally dedicated to the public with appropriate ceremonies.

During this period of concentration on construction it was not forgotten that plants are the all-important feature of a botanic garden. As soon as the soil could be prepared in the spring of 1959, an extensive planting of annual flowers was made along the front of the property bordering York Street. The Park Floral Company of Englewood, Colorado, generously donated its services and greenhouse space for starting the 7,300 plants used in this planting.

A collection of rose varieties was presented by Jackson & Perkins Co., Newark, N. Y., Conard-Pyle Co., West Grove, Pa., Howard Rose Co., Hemet, Calif., and Armstrong Nurseries, Ontario, Calif. These were planted with the assistance of the Denver Rose Society.

In late summer and early fall the American Iris Society, Region 20, donated and planted a fine collection of iris species and varieties. Mr. Jack N. Withers donated and planted a collection of Hemerocallis varieties and hybrids. Gilbert H. Wild and Son, Saco, Me. contributed 25 varieties of peonies.

Over 14,000 bulbs consisting of tulips and crocuses, were received and planted this fall. These represent gifts from several donors including the Denver Dry Goods Company, Simpson Seed Company, Rocky Mountain Seed Company, Green Bowers Nursery and Mrs. N. R. Knox, all of Denver, and Associated Bulb Growers of Holland and Inter-State Nurseries, Hamburg, Iowa. Barteldes Seed Co. of Denver gave a collection of lily varieties and Mrs. Grant Fitzell, also of Denver, gave some hardy Amaryllis bulbs. For some experiments on overwintering canned roses, W. W. Wilmore Nurseries contributed over 400 canned rose plants.

In the City Park Unit the old plantings were maintained and some new additions were made. Mr. S. R. DeBoer donated six more ornamental crabapples for his already extensive collection. Long's Gardens, Boulder, Colo., donated 2 varieties of Iris and 1000 Gladiolus corms comprising 10 varieties. The Gladiolus planting was designed and set out by the Gladiolus Society. Fifteen additional rose varieties totaling 127 plants were set in the rose garden the past spring. These plants were contributed by Melvin E. Wyant, Rose Specialist, Inc., Mentor, Ohio, and the Jackson & Perkins, Conard-Pyle and Armstrong's nurseries previously mentioned. An additional 69 rose plants purchased locally were set as replacements.

Some improvements were made in the Alpine Unit on Mount Goliath. The U.S. Forest Service erected a large, rustic sign near the road at the upper end of the trail, identifying the area as a unit of the Denver Botanic Gardens. Plastic-covered signboards on which will be given information about plants and other natural features along the trails, were donated by Dr. John R. Durrance. These will be set in place next summer.

Much of this development was made possible by contributions received during the year. One hundred sixty-five donors gave $90,396.10 to the Denver Botanic Gardens in cash and pledges. These contributions came from various commercial firms, foundations, horticultural organizations, and private individuals. It is regretted that space does not permit publication of the names of all these donors.

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**COOPERATION AT ITS BEST**

Never in Denver's horticultural history have we had such pleasant and important collaboration between the various clubs and other agencies promoting gardening. The latest example is that of our Colorado Forestry and Horticulture Director, Patrick J. Gallavan, being elected to the presidency of the oldest men's garden club of Colorado called Men's Garden Club of Denver.

There was a time, in the tragic past, when some garden clubs thought of the Colorado Forestry and Horticulture Association as a competitor for membership. Now we all feel that we can do best by working together in perfect harmony. The number of garden club members who are taking advantage of the special club-membership in the over-all organization, has grown fast in the past few months, and still is growing. It is an encouraging sign!

Other examples? The County Agent's office cooperates in perfect harmony with all these organizations. So does the City Forester's office. So does the Botanic Gardens Association.

For the first time we have offices of the Colorado Federation of Garden Clubs and of the Colorado Forestry and Horticulture Association in the Botanic Gardens Building. For the first time there is almost continuous garden activity at the headquarters building: garden shows, meetings, conferences, horticultural visitors, teas, parties, lectures. Notice elsewhere the many programs going on. And stop in to see it with your own eyes!

Who profits? Everybody interested in gardening, botany, conservation, flowers, trees, shrubs, evergreens, greenhouses!

If you think this is proof of "you put me on the back and I'll glorify you," — well, a little appreciation has never hurt anybody. It's a lot more pleasant than bickering, isn't it?
THE DENVER CIVIC CENTER
By S. R. DeBoer, Landscape Architect

As you stand on that step of the Colorado Capitol which is exactly 5,280 feet above the sea, you view the great mountain panorama above the columns of the City Hall. I am grateful to the men of a quarter century ago who preserved that view. Mayor Ben Stapleton who was in on the old Speer plans and steadily and faithfully carried them out built the present City Hall. It is a beautiful building but it came at the end of an architectural era and as such was obsolete when it was brand new. The mountain view, however, never became obsolete. The elevation profiles which we took between Colorado’s main government buildings were worthwhile. The view is grand.

There were other plans for the City Hall. A more modern design suggested by George Crammer and drawn by Jac Benediet visualized a tower building, but to preserve the mountain view meant a low horizontal building. I am glad that this happened.

Denver, fifty years ago, was not the tourist center which it is today. Colorado Springs was the center of tourism of the type we had at that time. Denver was the center of a mining industry which had been greatly depleted and in places was not active at all. It had little industry but there was considerable trading especially of mining equipment. It had no shopping centers and the John Thompson store in the loop delivered groceries with horse-drawn wagons. Denver was the center, more or less, of a health district. People came from all over the world to live in the clear sunshine of Colorado and New Mexico and many of them made their headquarters in Denver. At that time there were many sanatoria and hospitals for tuberculosis in Denver and the Denver region.

Many times people have asked me if the Denver Civic Center is actually worth the money the city paid for it. For that money we could have had much better park service in other places. The Civic Center cannot be used for ball games, for swimming, nor for any large scale recreation. It is not a playground. Was it worth the nearly two million 1911-type of dollars which Denver paid for it? Now that I have posed the question, I am also going to answer it.

After the Denver Civic Center began to show its beauty, a change came over Denver. Its mountain park roads and its city parks generated an influx of tourists. This was materially aided by the establishment of Rocky Mountain National Park and Estes Park became a secondary center of tourism but tributary to Denver. The city at that time was an isolated spot on the western plains. Railroad connections were long and tedious. There were no highways and not enough automobiles to demand them and, of course, there were no planes or buses. By the end of World War I, that is approximately 1920, Denver began to attract tourists and it witnessed growth which was partly due to the reaction of the war. So I would like to answer my own question, “Was the Denver Civic Center worth all the money that the people of the then little Denver had put into it?” My answer is emphatically, “Yes!” I believe that Denver’s return from its Civic Center money could easily be figured at least 100% annually. The amount of money which now enters the city’s business houses from tourism is so great that the $2,000,000 cost of the land acquisition for the Civic Center is hardly a beginning. It was a good investment and so were the other parks.

The first plan of the Denver Civic Center was drawn by Frederick Macmonnies who was employed by Mayor...
Speer as a sculptor. After years of litigation, the Colorado Supreme Court finally handed down a decision in November, 1911 that the purchase of the Civic Center land and the other park lands was legal. In spite of the long litigation and the hot legal battles, the fact was brought out that less than 25% of the property owners involved had protested the program. The court confirmed that the people of Denver had the power to purchase land for park and parkway purposes and the payment, therefore, by assessments made upon the property within the district specially benefitted and that the charter provisions in that respect were constitutional. The land deals were made by the City Park Commission of which Jacob Fillius was the president and guiding genius.

The Macmonnies plan was very largely the plan which has been followed. Many planners have worked on the succeeding developments, but the basic elements of the Macmonnies plan were embodied in nearly all of them. These basic items are that the two blocks between Broadway and Bannock Streets would be acquired, that a building would be placed on the west side of Bannock Street in the axes of the Capitol grounds, that this building would be of a low character so as not to obscure the mountain view from the Capitol steps, that there would be a building to balance the old library building, that there should be some architectural treatment of the surrounding facades that face on 14th Avenue and on Cleveland Place. The first major feature of the plan was the Pioneer Monument on the triangle at 14th Avenue which is now part of the new library grounds. A central fountain which has been a feature of all plans, or nearly all, was to be close to Broadway. In later plans it was moved to the crossing of the east and west axes with the north and south axes.

Clearing of the buildings was begun immediately after the Supreme Court decision, and Olmsted Brothers of Boston were employed to draw up the final plan. Frederick Law Olmsted spent considerable time in Denver studying the plan. At that time Mayor Speer did not run for reelection and a new mayor, Henry J. Arnold had been elected. The Park Board was re-organized. This was the Fall of the big snowstorm when many of us got stranded downtown and were not able to reach our homes. Personally I landed in the Albany Hotel and, of course, the newspapers had to publish the names of all the people in the different hotels and my name happened
and the Voorhees Memorial basically came from this plan, but were designed by Marean and Norton and by Fisher & Fisher, Denver architects respectively. The mural paintings in the theatre are by Allen True.

The tree planting of the original plan consisted mostly of Ash trees, but in the revised plan we suggested that Oak trees be used. It was very much an experiment. At that time there were only a couple of Oak trees in Fairmount Cemetery and, of course, there were the Burr Oaks in Littleton. I rather trembled in my boots because after all I was still, more or less, a newcomer and did not know the Colorado climate too well. The Park Board, after long deliberations, decided to go ahead and make the experiment but by the time they came to a decision it was the 17th of April and the trees had to come from Pennsylvania. They arrived after the middle of May and the buds were an inch and a half long and white. I knew that we were licked before the trees were planted, but lo and behold, the 250 trees lived with the exception of one or two. I learned something new about horticulture. The best time to transplant a tree is when the buds are pushing and swollen, ready to open up. We nursed those oak trees like babies and I counted them every day to see if a new one was starting out. Of course, we had planted Ash trees in between the Oak trees so that in case we should fail with the Oak trees, we would still have the Ash trees. The Ash trees were later taken out and planted somewhere else.

The Bennett plan as well as the Olmsted plan had the central feature in the middle of the Civic Center where the two axes cross. The plan also included four statues of which only two, the Bucking Bronco donated by J. K. Mullen and the Indian, “On the Warpath”, donated by Stephen Knight were actually put in. There have been no more fine donations like these for decades. The main objection of Mayor Speer to the Olmsted plan was that it was too horticultural. He had been in Europe and was thinking of a great open plaza, a meeting place for great numbers of people. The theatre design, more or less, carried out that thought and we kept the space between the Greek Theatre and the Voorhees Memorial as open gravel space. Colfax Avenue was bent around the Voorhees Memorial after long deliberation whether Colfax should not be tunneled under the Civic Center.

The next major step in the development of the Civic Center was the building of the new City Hall. The old city hall was located on 14th Street and Larimer Street on the bank of Cherry Creek and had become rather obsolete. There was much argument over the location of the new City Hall and a committee of which Isaac Keator was chairman went out to promote the location on the Civic Center. Other sites had been suggested, especially in the lower part of the city. It was largely due to the activities of this committee that the site on Bannock Street was acquired and the City Hall erected at this point.

After the City Hall had been built, the whole plan of the Civic Center became much more apparent than it was before and we began to think of the
Civic Center as reaching from the Capitol to the City Hall. We prepared a plan that would unify the two grounds.

The Capitol Building has always seemed stilted to me. It was a sort of standard design used for many capitol. I would not be surprised if the architect had the basement story in the ground and had only the superstructure on his drawing board. In the construction, the basement story was put above the ground, making the whole design too high. Our plan provided for parking underground in the hill on Lincoln Street. A two or three story parking garage is possible here. The design can be made to eliminate the stilted appearance of the Capitol.

To connect the State and City parts of the park into one design, some of the trees on Broadway were removed so that an open vista between the two buildings became available. The plan called also for moving the English Elms between Bannock and Acoma Streets farther apart and putting a reflecting pool in at this point.

Next we had a hot argument over the location of a memorial fountain for Mayor Speer. I had hoped that it could be placed at the point where the two axes cross. A plan was drawn up and submitted by Arnold Ronnebeck, the sculptor. At the same time the Art Commission had another plan drawn up by William Zorach of New York, a sculptor. This plan would have reorganized the whole Civic Center and all the work that had been done previously would have had to be removed and a brand new arrangement made. The sculpture work itself was beautiful but the rearrangement of the Civic Center seemed to me to mean complete destruction of the Speer plans. The central fountain would be eliminated and there would be an avenue of statuary from Broadway west. It was a rather difficult decision and artists were divided into two parties. Mayor Stapleton finally decided to use the money to build a Speer Memorial hospital as part of the City Hospital.

The Civic Center plan has been with me for nearly half a century, perhaps longer than with any man living. This is my apology for offering some ideas for its future:

1. The surroundings of the park north of Colfax Avenue and south of 14th Avenue must be zoned against excessive height. The threat of a 31 story building to replace the Tours Hotel I hope has been allayed, but the city must definitely put down zoning restriction which will keep buildings down to six stories or less. They can step up toward the next street as occurred in the Hilton Hotel.

2. The next item of construction should be the treatment of the Capitol grounds.

3. The central fountain still to be named after Robert Speer and the reflecting pool in front of the City Hall should be put in soon.

4. The new Library is not a very attractive building but it is at least low. A fountain to match the Pioneer Memorial would help the appearance of the library.

5. A new Art Gallery must be designed to fit the park.

6. Continuation of the park design by a Mall to the West must be revived and consideration given to a connection between the City Hall and the new Westside Court Building.

7. Two statues to match the present ones should be erected.

8. A decision must be reached in regard to a building to match the present Water Building.

9. No new names of civic benefactors have been added on the walls of the theatre. Let's have some new names!
COMPOSTING
By Irene (Mrs. John) Scott

This is the season of beginnings, not only for me, your appointed scribe for the Colorado Federation of Garden Clubs, Inc., but for gardeners the country over who yearly retain the better plantings while looking forward to newer and possibly better floricultural findings.

Flower fanciers, in company with other horticultural hobbyists, are dependent upon the timing of the elements. Some still plant potatoes on Good Friday, and all are calendar conscious. But, not perhaps, from a program planning point.

Programs can make or break a garden club. A program chairman strives to please or pacify, inform, instruct or inspire members through material presented. Nor is this super assignment all. She should be ever mindful of the New Member, who thinks strawberries grow on bushes; the Jaded Member, who fades away from thrice told tales; and the Prospective Member (guest) who might join if the program stimulates or strikes her. "Imagine, vanilla coming from orchids."

There is help. Start with your local Chamber of Commerce, and if there's no Chamber, there that seems appropriate for even a segment of gardening, proceed to State for another try, and then ascend to National. It's the latter I'm going to enlarge upon, but the same plan applies to all three levels.

A booklet of some fifty pages, about the size of typewriter sheets, formerly distributed by the Chamber of Commerce of the United States, called "Chases Calendar of Annual Events" is available. This brochure, in combination with "The Trade Promotion Planning Calendar" includes the Special Days, Weeks and Months in 1960. If businesses find this an invaluable aid to highlighting their products, why shouldn't gardeners point up their programs with its timely ideas, too?

Most of us are familiar with some of the Calendar's established dates such as: National Garden Week beginning Sunday, April 17 and continuing through the 23rd. This annual event is sponsored by our own National Council of State Garden Clubs in recognition of the birth of J. Sterling Morton, founder of Arbor Day National Flower Week, Oct. 23-30, sponsored by the Society of American Florists, promotes the appreciation, use and sale of flowers. Vegetable Growers Association of America, Nov 28-Dec. 1, for the purpose of disseminating the latest research information and equipment to vegetable growers.

Some dates not so widely known might include: National Wildlife Week, Mar. 20-26, focusing attention on national resources and pressing conservation problems. (Conservation & Bird chairman, note.) National Ornamental Iron Month, May 1-31 promotes grillwork, furniture, railings, etc. (This is for you, Landscape Chairman.) Old Lady Day, April 6, honoring the pillars of progress, reminding me that it's not so much a man's pull but a woman's push that gets us through this life. (Life Member Chairmen, this sounds tailor-made.) Asparagus Week is another promising date for imaginative chairmen to transplant. Wouldn't those stalks make nice line designs or spike material for arrangements? But coming home and to date, how about National Cherry Week, Feb. 15-22? This includes the now famous Cherry Pie baking contest, remember?

All right, let's break down this cherry theme, which should be a natural for Coloradoans. Articles for the press on the multiple values of the cherry tree, with some photographs of either outstanding citizens or pretty girls — who just happened to be passing and stopped to admire the tree or shrub. A tea or social function using cherries in menu and table setting. A scrapbook or window display showing cherries (artificial, when out of season) used in design classes for a show or home. These arrangements could feature cherries or use them in combination with other plant materials or alone. There could be cherry foliage, wood and accessory classes, too. Then, there's always George and his eternal hatchet heading the cherry personalities and legends.

Still stretching the imagination, why not enlist the cooperation of a local grocer, restaurant or store selling cooking utensils or dishes? Perhaps he'll sponsor a special event. Maybe offer an award, ribbon or prize to the person making the best arrangement in an empty cherry container. You'll think up more and better ideas that are applicable to this cherry theme and countless others that will conform, too.

We are a nation of conformists. For instance, the person who chooses to worship on a day other than Sunday, or wear clothes not found in shops has additional difficulties to surmount. The same holds for the gardener. By "getting with" the commercial people who must make a go of their products, be it Cadillacs or catarpillars, programs, promotion and publicity are made easier for garden clubs. It's a kind of togetherness that could be propagated more extensively.

For new gardening glow get "Chases Calendar of Annual Events, Special Days, Weeks and Months" published annually (in Nov.) for each forthcoming year by the Apple Tree Press, 2322 Mallory Street, Flint 4, Michigan. The price, one dollar prepaid. All users are invited to submit information and suggestions for future editions. So — why doesn't some garden club sponsor a national day, week or month? Columbine? Carnation? You name it. The world will observe it.

"FLORIADE" — WHAT IS IT?

If you combine Olympiad with Flora, you get Floriade. It stands for the International Horticultural Exhibition that will be held in Rotterdam this year, from March 25 to September 25, 1960 (six months).

It will celebrate the 400th anniversary of the arrival of the tulip in Holland. The theme is "from seed to force": everything from the newest in roses to the latest in shipping and storage.

The Floriade will occupy over 125 acres in the center of Rotterdam. The City of Rotterdam has contributed more than $2 million to its development. You will hear more about it.

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The Right Tree
In The Right Spot

By MRS. WILLIAM CRISP,
Member, Home Garden Club

American Elm

OFTEN when a tree is chosen the first consideration is to select it for its ornamental features. flowers, foliage or fruit. Those characteristics are important but the most pertinent factors in determining how appropriate a tree is for a certain spot are the contour, size, and structural framework. Colorful flowers, decorative fruit, foliage, bark are ornamental assets. But they are of little value if the tree bearing them is not adaptable in shape and size and suited climatically and culturally to the location being considered.

To the discerning eye the structural framework of a tree gives a clue to the functions it may serve best. Structural framework can be most easily observed during the winter months. If a tree has a flaring base or urn-shaped habit of growth, it is an ideal subject for framing vistas, buildings or for shading terraces. This habit of the American elm is well demonstrated on certain tree lined streets in Denver, for example 12th Avenue leading into Cheesman Park.

If a tree is broad headed with thick foliage, it is excellent for shade, shelter or may serve as a background. The linden is such a tree. Fine specimens can be seen on the west side of Cheesman Park. A tree with a dense twiggy habit may serve as a screen for boundary or a wind break. In either case foliage that persists may be an added asset for a dense screen.

Trees that are erect and columnar serve a still different use. They are chosen to accentuate architectural features or other plantings and are often called horticultural exclamation points of the landscape. At East High School, Bolleaua poplars and junipers planted next to the building accent and complement the beautiful tower.

Picturesque trees are such trees as hawthorns, and some crabapples. The branch delineation and silhouette present a pleasing deviation from the usual. They are the featured specimens which add distinction to landscape groupings. Such trees may be observed in Cheesman Park and also along Monaco Boulevard.

Certain trees such as buckeye, catalpa, horse chestnut, bur oak and sycamore are continually dropping dried flowers, leaves or fruits and thus disturb cleanliness and orderliness. This tendency to drop litter may down grade the tree in value for some persons.

After a tree has been selected for its functional aspects, careful consideration must be given to the problems related to culture. Congenial soil must be provided and maintained and adequate moisture and fertilizer applied whenever necessary. Wind protection is also desirable. In exposed positions staking is recommended to prevent wind sway. A paper tree wrap may be applied to the trunk of young trees to avoid sun scald. Rate of growth is also important, especially when a replacement is involved.

Some trees like the American elm at maturity tower high in the air above roofs and telephone wires. Others like the pin oak nearly always sweep the ground. One is not necessarily superior to the other, but each has a different use. Don’t look for a tree until you define your needs.

Through the year many varieties of trees have been brought into Colorado and have become acclimated. In the Denver area more than 100 species are growing successfully.

In future issues of the Green Thumb look for further information to help you select the tree you would like to plant.

SHADe TREE ConfErence TO BE HELD IN OMAHA, NEBRASKA

The 15th annual meeting of the Midwestern Chapter of the National Shade Tree Conference will be held February 10-12, 1960, in the Sheraton-Fonestelle Hotel, Omaha, Nebraska.

The educational program will feature discussions of diseases and insects that currently are affecting shade trees in the midwest. Equipment and supplies used in the care of trees and shrubs will be on display throughout the three-day meeting. Registration of members and others who wish to attend the meeting will begin at 8:00 A.M., Wednesday, February 10, at the hotel. An attendance of about 400 is expected.
WIND RIVER CAPER
By E. K. Edwards

RECENTLY I had some work to do on the highway in the Wind River Canyon between Shoshone and Thermopolis, Wyoming. It was in deep winter and there was construction going on that necessitated the closing of the road to all traffic except for one hour in the early morning and one hour in late evening.

I had to go into the canyon early for that reason. My work was taking pictures, and the sun did not rise in the depths of the canyon until about 10:30 a.m. and set about 2:30 p.m. That left me with nothing to do in this wild and rugged place from about 7 a.m. until almost noon. So, I looked around for something with which to amuse myself. Rock hunting was not feasible in that canyon of plain granite. Any activity outside the car was out of the question, for it was bitter cold and the wind blew in gusts and gales, proving that the canyon was well named.

But the rushing river was interesting to watch. It was half frozen over in spots with huge rounded boulders ringed in ice distorting the swift flow of the water. Water Ousels dived and darted here and there, first along the surface, then under the cold water. It is a wonder that they did not freeze solid in the ice.

Then suddenly, three mallard ducks came flying upstream, two males and one female, and landed on the river near me. And thereby hangs my tale.

The ducks swam about playfully for a time, then all three dived and came up even more playfully some fifty feet downstream. Over and over this procedure was repeated until they disappeared around a bend of the river a quarter of a mile away. Presently, they came flying upstream again to land and repeat the process. A workman on the job told me that the three ducks had followed the construction project for a month, playing in this same manner.

As the sun began to peek over the canyon wall, I was preparing to go about my work when I heard the female duck squawking at the top of her voice. I went nearer and watched. It was she who signaled the time to dive. She would suddenly strike the water with her wings, squawk loudly and then dive—the drakes would follow suit. She would be the last to surface—all the while the two drakes were looking wildly around for her. When she would pop up they would rush to her side and go through all manner of consoling drake wheezes. Then as I watched, I made a discovery. The uncanny old female would do a most human female maneuver—deception, intrigue, come-on, hard-to-get, make-him-work-for-it; call it what you will, but this is what she would do. She would dash her wings against the water, let out a guffaw of quacks and act as if she were diving to China, but she did not, she just stayed afloat. The old drakes, goofs that they were, like stupid human males, dove like rocks. Then the hen would point her bill straight up and let off a series of quacks that sounded exactly like human belly laughs. The drakes would then surface far downstream, look all around for her and then come rushing back, fighting each other to see which reached her first. This went on and on, and did she enjoy it. The males never caught on nor joined forces in giving her the ducking of her life.

WIND RIVER CAPER

by step directions for successful rose culture including propagating and exhibiting with special sections on "Roses in Your Garden: Where and How to Use Them" and "Rose Types and Varieties."

Mr. Richard H. Pough in his introduction writes as follows: "We have long needed a historical survey that would give us the whole story of the white man’s effect on wildlife in North America, from the earliest records to the present day. Mr. Matthiessen’s book is precisely this, and its fulfillment of this need, its excellent documentation and engaging style of writing, make it an outstanding contribution to the literature in the field."

Color plates, photographs and a unique series of more than 100 line drawings of the rare, extinct and vanishing species.

Dr. Li states in his introduction that this work is an attempt to summarize the ancient and beautiful traditions of flower arrangement in China in the form of table culture and vase arrangement. He discusses in his book selectivity in the appreciation of flowers, symbolic values of flowers, and the distinct contribution made by China toward floral art in the highly developed craft of porcelain manufacturing.

—M. B. H.

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DIG THESE QUESTIONS

Question:
How do you plant an avocado seed indoors?

Answer:
Use a four-inch pot and sandy potting soil. Place the seed with the small end up about one-half inch below the surface of the soil. Keep moist. The process of germination may be speeded up by soaking the seed before planting, and the seed coat may be removed before planting. If you merely wish to watch the germination of the seed, and are not interested in maintaining the avocado as a potted plant, soak the seed and remove the seed coat; then, by using toothpicks inserted in the seed for support, suspend the seed in a glass jar so that the base of the large end of the seed touches the water. Be sure to keep the water level so that the base of the seed is always moist. This makes an interesting project for the children in the family.

Question:
Do lima beans grow in Denver?

Answer:
Yes, lima beans can be grown in Denver. They are not, however, well-suited to higher altitudes since they require a long growing season and since the seedlings are more sensitive to cool weather than are those of other beans. Suggested varieties for Denver are Fordhook No. 242, Henderson's Bush Lima, and Early Baby Potato Lima.

Question:
This year my geranium cuttings rotted at the base and did not root well. Those that did root and were potted later turned black and shriveled near the base, and soon died. What was wrong?

Answer:
This sounds like black leg stem rot, a fairly common disease of geraniums. Next year be sure that cuttings are taken from healthy plants, and use sterilized sand or vermiculite as a rooting medium.

Seasonal Suggestions

Although a great many new developments are taking place in the gardening field, they seldom receive front page mention like discoveries in rocketry or medicine. New flowers, new insecticides, new fertilizers and new tools are appearing with regularity. Since gardening is a seasonal activity all these new gimmicks hit the gardener at one time. This usually throws him into a state of utter confusion. Perhaps we could do well to take a lesson from the past Christmas season, with its cry to shop early and avoid the rush. January and February are slack months for the nurseryman and garden shop owner. Why not visit him now and get the jump on the spring rush? Now is a good time to get acquainted and to talk over your garden problems and needs with your dealer. He can also advise you on items that might be in short supply, so that you can place your order early.

Reading about new plants and products is also a good way to keep posted on new things in gardening. In this magazine you will find several articles on new All-America flowers for 1960. We also have a number of new books and pamphlets in our Helen Fowler Library at 909 York Street. Some of these are on general gardening, while others deal with specific plants and their culture. This library is maintained for your convenience and is open five days a week. Monday through Friday, 8:30 a.m. to 5 p.m. Miss Bonar, our assistant editor, will be glad to assist you in finding the books you want.

Speaking of reading material, you’ll undoubtedly receive a catalogue or two in the mails. View them to your heart’s content, but be cautious about ordering materials from them. Check first to see if the plant is available locally and if it isn’t, check with your local garden authority to see if it is hardy in your particular area. Remember the old adage, “All that glitters is not gold.”

This is also a good time to plan your garden for the coming season. Review your successes and failures of the past season. Decide just what plants you want to replace and the new ones that you want to add. Perhaps you need to revamp a perennial bed or change an entire section of your yard. Plan it now on paper so that you can do the job in orderly fashion come spring.

This period of the year to many persons is
bleak and dreary, mainly because they have never looked for winter beauty. Next time you're outdoors, notice the fascinating silhouettes presented by trees and shrubs. The forms, pattern designs and colors created by the stems and twigs of these plants show the deft touch of the Master's hand. Be sure to read Mrs. Crisp's article on page 28 for more on this idea.

If possible, damage done to our shade trees by the September storm should be repaired before the growing season begins. It's also time to apply dormant sprays for the control of scale insects. These sprays are touchy and have to be applied when the temperature is above 50° and when there is little wind. With our usual run of weather the arborist has very few days in which to apply these sprays. If you have large trees, be sure to contact your arborist soon, so that he can include them in his spray schedule.

While it's early to be thinking about most bedding plants, a few like verbenas, salvias, and coleus should be started indoors from seed around the first of February. If you want any of the All-America annuals, be sure to order your seed now while it is available.

You can make sprig come a little early by forcing twigs of shrubs like quince, forsythia, and flowering almond indoors any time from now on. All you have to do is cut the branches, crush the basal end and place them in cool water out of the light for several days.

![Dormant Spray](image)

**Force Shrubs**

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