THE GREEN THUMB
A Bulletin of the
COLORADO FORESTRY AND HORTICULTURE ASSN.
Organized in 1884
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Denver, Colorado
Hours: 11 to 2 — Monday, Wednesday and Friday

To preserve the natural beauty of Colorado; to protect the forests; to encourage proper maintenance and addition 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.

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VOLUME IV NUMBER 1

ARTIST Lester Varian has shown on our cover this month how the new home of the Colorado Forestry and Horticulture Association will look when contractors Brown and Scheperman finish the remodeling designed by Architect Lester Varian. As shown by the plans on page 25, Horticulture House will have an apartment upstairs for Treasurer L. C. Shoemaker and Mrs. Shoemaker, an office downstairs for Mr. Shoemaker, an office for Mr. Kelly in his dual capacity of Horticulturist of the Association (see following announcement) and Editor of The Green Thumb, and a large room that will serve both as a library and meeting room.

In the basement will be facilities for a herbarium of Rocky Mountain plants, and for a botanical laboratory. Mrs. G. R. Marriage has made a landscape design for the premises which is shown on page 2 — and the nurserymen listed below have donated the material labor needed for by Mrs. Marriage's plan.

Mrs. Helen K. Fowler has made and secured donations of money and books that assure us the outstanding horticultural library in the Rocky Mountains. Dr. Malcolm Wyer, of the Division Public Library, has promised us every assistance possible.

Mrs. E. R. Kalmbach has been put in charge of the Herbarium and she solicits plant material from all members.

These are some of the facilities that will be afforded by our new home. As soon as building conditions make it possible to complete the extensive remodeling that is now under way, a general meeting of the Association will be held at Horticulture House.

We thank the following nurseries for generously offering to donate material and labor:
Alameda Nursery, Inc., Denver; Amidon's Cash Nursery, Denver; Arapahoe Acres Nursery, Littleton; Colorado Gardens, Colorado Springs; Glenmore Nursery, Denver; Green Bow's Nursery, Denver; Hartschen Nursery & Landscaping Service, Cheyenne; Krah Brothers, Loveland; Littleton Nurseries, Littleton; Marshall Nurseries, Denver; Oakesfield Nurseries, Wheatridge; Roberts Nurseries, Littleton; Union Springs, Colorado Springs; W. W. Wilmore Nurseries, Wheatridge; Williams Gardens, Greeley; Roy E. Woodman & Bros., Denver; St. Vrain Valley Nursery, Longmont.

GEORGE W. KELLY EMPLOYED AS FULL TIME HORTICULTURIST OF COLORADO FORESTRY AND HORTICULTURE ASSN'

Our president, Mrs. John Evans, has authorized us to state that Mr. George W. Kelly has been employed as full time Horticulturist for the Colorado Forestry and Horticulture Association. Mr. Kelly's achievements as Editor of The Green Thumb are known to all our members. He will continue to act in that capacity and will, in addition, spend 4 hours each week day at Horticulture House (the Association's new home at 1355 Bannock Street) promoting and coordinating all activities of the Association.

Among other things, it is planned that Mr. Kelly will perform the following services for our members and for the public:

Arrange for seasonal exhibits at Horticulture House; collect and disseminate publicity on current horticultural topics; be available each day at Horticulture House to furnish horticultural information; give talks to Garden Clubs and other similar organizations; help collect and identify specimens for the Herbarium; promote horticultural demonstrations; cooperate with all horticultural and forestry agencies in Colorado; render assistance, when requested, to the schools, churches, and all public and civic agencies.

ANNUAL MEETING JANUARY 27

Tentative plans have been made for our annual dinner meeting to be held January 27 in the Chamber of Commerce dining room, 1750 Champa Street, Denver. In addition to the dinner at 6:30 p.m. there will be an Horticultural "Information Please," and Mr. Harold Roberts will show some of his wonderful kodachromes of native wild flowers.

Send in your horticultural questions for submission to the experts. Address to the office, 1608 Broadway, attention James S. Holme. Further details will be mailed to each member later.

Make an effort to get your own renewal and new memberships for your friends in before this date, as after that time the annual memberships will be $2.00. If you believe that we are doing a worthwhile work back us up by securing additional members. We can continue to improve our magazine and other services if we are supported by a rapidly increasing membership.
WHAT is it? Why, literally, "a dry garden," better known as an Herbarium, a collection of dried plants. And we are to have just that at our new headquarters building. Yes, we are to have an Herbarium for the use of members and visitors to Colorado. Now perhaps some of you are asking why we need an Herbarium. The Colorado Forestry and Horticulture Association needs an Herbarium just as it needs a Library and all other reference material for the use of our Colorado citizens. Very often the Herbarium is the only means of positively identifying a species of plant, tree, or shrub. Books we must have, and to supplement their information, we must have specimens for comparison and identification. No botanist can depend upon the printed word alone. If indeed, this had been done, we would never have had new species described, for each year adds to our knowledge of our local and national flora.

But an Herbarium is not for the use of Botanists alone. When even the least of us fares forth and returns with some new form (at least new to us) of plant life, we should be able to find out what it is, and in this the Herbarium can be a very real help.

We are fortunate in having the promise of some rare historical specimens, as well as a number of those more recently collected by various individuals, and we hope to add steadily to this small beginning.

The largest Herbarium between the Mississippi and the West Coast is the Rocky Mountain Herbarium at Laramie, Wyoming. We are open to suggestions for a name for our infant Herbarium—a name we hope to make known to the world in the years ahead.

Kathryn Kalmbach.

UNITED HORTICULTURE NEEDED

American interest in gardening is expanding in the amateur field, while the scientific and cultural phases of horticulture, as well as its economic and social aspects, are becoming more important than ever. These trends seem destined to continue.

With this development has come diversity of interest. Areas of limited scope have lost touch with one another. Although many special groups are contributing significantly to the horticultural life of the nation, there are times when the combined force of all is needed if horticulture is to receive proper recognition. History reveals the essential role of gardening in human civilization. Present day horticulture suffers from lack of perspective and lack of unity. Until its fundamental importance is fully recognized, many of its benefits cannot be re-
The principles of good design are much the same the world over although different features may be preferred in various localities. When it comes to the plants needed to execute a landscape, we find that there is a wide variance in the material which is suitable to use. We have peculiar climatic conditions in Colorado, and in most of the mountain and plains states which necessitates the use of much different material from that usually used in the East, South or West Coast areas. We have peculiar site conditions in various classes of soil. Only those who have had years of experience with plants in this area are competent to advise as to varieties to use here.

We will not attempt in this issue to refer to all the suitable plants for use in Colorado landscaping, as we have given rather complete lists in various classes in past issues, and we plan to give additional lists in future issues.

**TREES**

Trees form the backbone of any ornamental planting and are the most permanent of all the ornamental plants. They are planted to provide shade, beauty, and background. Specimen trees may be selected for some special feature such as flowers, fruit, fall color, or beautiful shape. Trees should be planted to grow as fast as possible. If a plan cannot be completed the first year, the trees should be put in first, as it takes many years to grow a good tree, while a good effect can be obtained from shrubs in a couple of years.

Trees should be planted at the correct distance apart, and the right size for the purpose. Thirty to forty feet apart is close enough for street trees, which means not more than one or two to a fifty foot lot. It is especially important that trees be dug with a good proportion of roots, and that they are handled carefully so that these roots have no chance to dry out before they are planted. One of the best shade trees to plant in Colorado is the Thornless Honeylocust. This is a very hardy, drought resistant tree. The Hackberry is equally hardy but difficult to transplant in larger sizes. The American Elm is subject to great damage from the Elm Scale unless frequently sprayed, but is still one of our best trees. The Silver Maple is a very attractive tree of medium rate of growth. The Green and White Ash are slow-growing and tough. The American Linden trees are very symmetrical and beautiful. If you must have quick results and plant the “weedy” trees such as the willows, poplars and Chinese elm, you will find in a few years that they are overgrown, diseased or broken and you will have to take them out and start all over again. One of the best trees for small gardens is the Colorado Cottonwood, which is of some size, shape, freedom from pests and diseases and its adaptability to our climatic conditions. It makes a practical non-invasive tree for city lots and small gardens.

The One of the best shade trees to plant in Colorado is the Robinia. This is a very hardy, deciduous tree and is a member of the pea family. It is very adaptable to our climatic conditions. The Robinia is a very attractive tree and is excellent for city lots. Some of the Robinia are useful for street trees. The Hops (red) Dolga (white) and Bechtel (double pink) are beautiful in flower and grow rather small. Hawthorns are beautiful in flower and a little larger. Hawthorns are not as hardy as the Robinia.

**PLANTS TO USE FOR LANDSCAPING**

Home of Mr. and Mrs. Middleton Stark, La Junta, Colorado
thorns make beautiful specimen trees with their attractive flowers and fruit. There are many other trees to choose from for special places if one cares to try the unusual kinds. Black Walnut, Catalpa, Kentucky Coffeetree, Cutleaf Birch, and Horse Chestnut are occasionally used. In non-irrigated areas some of the “weedy” trees are the very best, because without water they grow slower and are harder. The Siberian Elm responds to water so well that it is a soft easily-broken tree in irrigated areas, yet it has proven one of the best under dryland conditions. About half of the trees now growing in the plains area of Eastern Colorado are Siberian Elm.

**EVERGREENS**

Most plantings need a few evergreens to give them added variety and contrast, as well as to give them winter color, but of recent years the planting of evergreens around foundations has been much overdone. We can not successfully grow many of the nice evergreens which are so effectively used for foundation plantings in other parts of the country. To substitute trees which will eventually grow too large is one of the most common mistakes made. Blue Spruces are among our most popular trees, but are seldom suitable for use in a front yard. The larger growing pines have limited use in city plantings. The most useful and popular upright evergreen for Colorado use is the Colorado Juniper. It can be sheared and kept in bounds for many years. Consider its future size when planting it and do not use too many. Several of the slower growing pines are adapted for use in small yards. The Limber and Bristlecone Pines, native of high altitudes, are successfully used where a small evergreen is needed. In still smaller scale is the native Pinyon Pine. For low foundation plantings the Mugho Pine is very effective. There are many low junipers on the market, but for our climate the Pfitzer Juniper makes the best showing, where a large spreading plant is needed. For use in smaller places the Tamarixleaf Juniper is our best plant. It is much slower growing and holds its color well in winter. The Sabina Juniper is similar to the Pfitzer and is preferred by some. Most of the very low junipers are not hardy here. Just as well not waste money on arborvitae and yew trees, as only a few have ever survived in this climate.

**SHRUBS**

Tall Shrubs

The first consideration in selecting the proper shrub is its ultimate height. We will here roughly classify shrubs as Tall, (over 6 feet) Medium, (3 to 6 feet) and Low, (under 3 feet).

**Tall Shrubs**

Of the tall shrubs, the following are most commonly used. Amur Maple for its beautiful fall color. Hawthorns for their sturdiness and beautiful flowers and fruit. Euonymus for good fall color, bright fruit and ability to tolerate shade. Forsythia for their golden bells in early spring. Mockorange for their fragrant white flowers. The Bush Honeysuckle for their quick growth under difficult conditions. The Flowering Plum, Purpleleaf Plum and Manchu Cherry for their flowers, colored leaves and valuable fruit. Lilacs are old standbys, and may now be had in a great variety of colors. The lilac species, such as Late Lilacs, and Persian Lilacs are valuable additions to any planting. Most of the Viburnum family are good here. This includes the Snowball, Arrowwood, American Cranberrybush, Wayfaringtree, and Nannyberry Viburnum. Tall shrubs are used as backgrounds, screens and for high points around foundations. When a tall, slim shrub is needed Siberian Peashrub, Nannyberry Viburnum and some Euonymus will often be suitable.

**Medium Shrubs**

The medium height shrubs are the most useful. This size includes the Spireas, which are all good, though they have been generally overplanted. The Redosier Dogwood is especially beautiful in winter in connection with evergreens. One black-fruited and one red-fruited Cotoneaster (pronounced co-to'-ne-aster) are hardy here. They are such neat trim shrubs that we do not miss their absence of conspicuous flowers. Several of the Dwarf Mockoranges, such as Lemoines and Bouquet Blanc are very beautiful and easily grown. In early spring everyone wants a Flowering Quince, (red) Flowering Almond (pink) and Forsythia (yellow). The Dwarf Ninobark is becoming more popular each year. In addition to good foliage, shape and flowers, it has colored seed heads and good fall color.

**Low Shrubs**

When we try to select good low shrubs we feel the need of our proposed Rocky Mountain Arboretum. There are many more good low shrubs for Colorado if we could experiment and find them. Most of the Barberries are effective here. In general they require a rich, heavy soil to do their best. The Japanese Redleaf, Mentor and Columberrry are all adapted for use here. The Alpine Currant is slow-growing, nicely shaped and hardy. The Frobel Spirea, which produces flowers of various kinds and colors add to their attractiveness. There may not be “one best” shrub for every situation, as we usually have several kinds which will fill any given set of requirements. The first consideration in selecting the proper shrub is its ultimate height. We will here roughly classify shrubs as Tall, (over 6 feet) Medium, (3 to 6 feet) and Low, (under 3 feet).
magenta flowers in summer, is most useful. The Snowberry and Coralberry are extensively used, especially in shady places. Our native Bush Cinquefoil is effective when used as a “facsimile.” For very low effects nothing has been found to equal the Lodense Privet.

**HEDGES**

Informal or unclipped hedges may be made of any shrub which is sufficiently dense and will grow to the desired height. Clipped hedges must be made of material which will sprout out new growth from the clipped ends and become more dense as it is clipped.

For tall hedges, (4 to 8 feet) Russianolive, Siberian Elm, Siberian Peashrub, Bush Honeysuckle, Common Lilac and Colorado Juniper are effectively used.

Privet is still the best material for medium hedges. (2 to 4 feet). The English or Thompsons Privet makes very dense, dark green hedges which hold their leaves till very late in the fall. Peking Cotonestea, Vanhoutte Spirea and Dwarf Ninebark make good clipped hedges.

Privet Juniper and Mugho Pine can be trained to make good evergreen hedges.

Low hedges may be made of Lodense Privet, Columbemnry, Japanese Barberry, Alpine Currant and Dwarf Peashrub.

**VINES**

Almost any yard could well use a few vines. For clinging to a south wall the Engleman Ivy or its refined cousin, the StPaul Ivy, are about the best ones we can use. Boston Ivy and English Ivy are nearer and slower growing but will usually only survive on a shaded north wall. For covering fences the Sweet Autumn Clematis, Silverlace Vine or one of the many good vining Honeysuckles are effective. Grapes may be used to climb over a trellis or pergola.

**FRUIT**

Most yards have room for a little fruit. Montmorency Cherry and Dolgo Crabapple bear excellent fruit but still are among the best as ornamentals. Everbearing Raspberries and Strawberries require little room but may produce very fine fruit. Gooseberry, Current and Sandcherry bushes are equally valuable for fruit and ornament. Manchu Cherry is a new ornamental, which in favorable seasons bears quantities of bright red cherries of high quality.

**ROSES**

Roses are so variable in habit that some might be included under the head of Shrubs. Some under Vines and some under Perennials; yet they are such a large and important group that we will recognize them by giving them a head of their own. One of the tall shrub roses is indispensable in any shrub grouping. The Hison Yellow, Persian Yellow, Hugons and Austrian Copper are all beautiful and spectacular. Climbing roses such as Paula Scarlet, Pink Dorothy Perkins and Americana Beauty are very effective for covering fences and lattice. By far the greatest show of bloom for the least effort comes from the class of roses known as “floribunda.” They are easily grown, bloom all summer and are available in a variety of sizes and colors. Impeccable, Kirsten Poulson, Karen Poulson as well as many of the new patented varieties will be a joy to all the season throught. The red Gruss and Teplitz should really be classed here as it is a very vigorous everblooming rose. The hundreds of varieties of the Hybran Perpetual and Tea roses give an unlimited selection to suit everyones’s taste. These roses are usually more effective and easily cared for if they are grown in a bed by themselves.

**PERENNIALS**

To many people, a “garden” means perennials. As the name indicates, they do come up year after year, but some perennial borders “stays” put indefinitely. They must be renewed, replanted and thinned every few years. There are many fine plants which may be grown by those who are willing tocodile them, but the basis of most perennial gardens should be of “foolproof” plants. Next to hardiness, color, season, form and height are factors to consider in choosing perennials.

Tall Perennials

Dolphins head the list of good tall perennials. They are now available in a variety of beautiful shades and in immense sizes. The Yellow Helinquums and Helianthus are suitable for backgrounds in almost any garden. The tall Fall Asters in the new pure colors are now very beautiful and still hardy. Tall Blue Salvias, Goldenrods, and Hollyhtocks are effectively used.

Medium Perennials

The bulk of the useful perennials come in the medium height class. Peonies and Perennial Phlox are indispensable in any garden. Shasta Daisies, Coreopsis, Columbine and Early Chrysanthemums are easily handled. Painted Daisies, Oriental Cuppies, Daylilies, Gaillardias, Bleeding Hearts and Monarda are reliable and beautiful.

Low Perennials

There are not so many low perennials to choose from unless we go into the rock garden class of creepers and mat plants. Low Early Mums, small Dianthus, Oriental Poppies, Daylilies and many of the new patented varieties will be a joy to all the riaries.

**BULBS**

Bulbs might roughly include all the plants with thickened roots. The tall (spring flowering) bulbs are probably the most usefullt and of these the Tulip is best known. Most all types of tu-lips do well here if properly planted. In general all these bulbs do better in this climate if planted a little deeper than most directions indicate. Various kinds of Narcissus, Hyacinths, Scillas, Crocus and such will usually grow here, but many of these are unreliable and only persist a year or two. Dalihas and Gladiolus are chiefly flowers for the hobby-est. They come in a great variety and are usually handled, like roses, in a bed by themselves. Lilies vary greatly in their hardiness and cultural requirements, but some of them like the Umbel and Tiger Lilies may be successully grown in any garden.
ANNUALS

No planting is complete without including some annuals. There comes a time in July and August when the best planned perennial borders would look bare without a few appropriate annuals. There is a great variety to choose from for those who want to play with them, but for most people it is better to stick to the hardiest kinds. Zinnias and Petunias are always effective in Colorado. They are especially adapted to mass plantings. Marigolds, Calendulas, Annual Larkspur and Snapdragons are also very easily grown, usually self-seeding. For taller effects use Cosmos and Annual Dahlias. Sweet Alyssum, Portulacas, and Pansies make easily grown low borders. Verbenas, Phlox, Nasturtiums and Poppies will add color and variety to the garden.

Sweet Peas and Morning Glories are annual vines which may be grown by anyone.

Annuals may be planted among the perennials, in the borders or be used in groups by themselves. The “flower bed” cut in geometric pattern out of the center of the yard is usually poor design and a bother to take care of. Annuals are very effective when planted to follow bulbs such as tulips.

WHERE TO GET PLANTS

Usually the local nurseries can give better service than distant firms. Many of the attractive plants offered in eastern catalogs are not suitable for planting here. The local firms should have a better idea of what will be hardy in this state. Use good business judgment in selecting the firms to deal with. Your neighbors who have had many years dealing with nurseries are good ones to go to for advice. Do not expect to get good plants or services for bargain prices.

HOW TO CARE FOR PLANTS

The reliable nurseries will deliver your plants in good healthy condition. How they grow and thrive will depend on how you treat them later. Never let bare-root plants lie in the sun and wind for even a few minutes. Throw a wet sack over them if you will plant them soon, or cover the roots temporarily with soil if they must lie for several hours. Dig all the holes to receive plants plenty large. It will help the plant to get its new roots established if there is considerable good loose soil around them. Spread the roots out naturally in the hole and set at about the same depth as it grew in the nursery. Fill in carefully with loose soil and water by working the hose down through the soil to the bottom of the hole and let the soil settle from the bottom up. This is less liable to leave air pockets than to tramp the soil in.

Most all trees and shrubs should be cut back or thinned about one fourth to one third, after they are transplanted. They will be healthier and larger by fall for this treatment.

Watering is one operation where a “green thumb” is valuable. Different plants need different amounts of water. In general water so that the soil a foot or so below the surface is wet. The condition of the surface matters little. Care should be taken, especially in heavy soils, to avoid overwatering so that the soil is soggy. This condition is as bad as too little water. Sprinkling newly moved plants over the top is often beneficial, but this treatment seldom does more to the soil than bake the surface. Water thoroughly when you do water, and avoid frequent light sprinklings.

Drawings courtesy Margaret Rickletts, of Kansas Nursery & Landscape Co., Salina, Kans.
Evergreens are always delivered “balled and burlapped” as they cannot stand having their roots exposed to the air for even a few minutes. Take care not to break this ball of earth when handling it. Always handle by the ball and not the top. Dig holes to receive evergreens just the depth desired but considerably larger than the balls. Place the ball in the hole and adjust to suit, then fill the hole halfway up with loose soil and loosen the burlap around the top of the ball. Finish filling in and water as for shrubs. Do not attempt to remove the burlap before placing in the hole.

It is important to get orders for nursery stock in early. For most things early spring is the best time to move them, but some fast growing trees and shrubs and certain perennials are properly moved in the fall. Planting time is that period between the time that leaves fall and the time that they reappear. During the middle of this period frozen soil will usually prohibit the moving of plants for several weeks. The spring planting season is usually from the middle of February to the middle of May, and the fall season is usually from October 15 to December 15.

Do not forget that our warm sun and dry air will draw moisture out of plants all winter even though the leaves are off, so be sure that all plants go into winter with the soil around their roots wet, and that they are given additional water during those frequent warm dry periods of our typical Colorado winter. The tender or “borderline” trees and shrubs should have some shade provided, at least the first winter.

GARDEN ACCESSORIES

Landscaping does not stop with the planting of trees and shrubs. Proper designing and construction of walks, walls, platforms, drives, gates, fences, fireplaces, pools and garden furniture are all important parts of a complete and satisfactory garden plan. Our native flagstone fits in with other garden features better than concrete in most cases. Some beautiful effects can be achieved by its proper use.

COST

By this time all readers are asking, “But will this cost me?” So that you may have an idea of approximate cost we have reprinted the numbered drawing used in the September Green Thumb as an example of what an average front yard may be planted for. We have changed the plants used in the original plan to more common, inexpensive and foolproof kinds. We then asked several prominent nurserymen to give an estimate of what this planting should cost at this time. The prices here quoted are an average of these various quoted prices. Of course there was a variation of as much as 25% in some individual quotations as compared with this average. This is because of variations in size and quality of plants furnished by different firms and varying degrees of service and guarantee offered. By multiplying or dividing this estimated cost the approximate cost of smaller or larger plantings may be determined.

KEY TO PLANTS SHOWN IN DRAWING

1. French Hybrid Lilac
2. Forsythia suspensa
3. Japanese Barberry
4. Hugonis Rose
5. Pinyon Pine, B. & B.
6. Ferny
7. Floribunda Rose
8. Bridal Wreath Spirea
9. Redleaf Jap. Barberry
10. Flowering Almond
11. and 12. Proelis Spirea
12. Dwarf Ninebark
13. Spirea Rose
14. Floribunda Rose
15. Goldflame Honeysuckle
16. Tamarix Juniper, B. & B.
17. Pfitzer Juniper, B. & B.
18. Colorado Juniper, B. & B.
19. Redtwig Dogwood
20. Thornless Honeylocust
22. Garland Spirea
23. Winged Erythrous

Average price quoted for material only $77.00
Average price planted and guaranteed $100.00
SOIL

The proper preparation of soil around a house where plantings are to be made is one of the most important things to be done. Trees, shrubs, flowers or grass planted in poor soil can never grow vigorously and give much satisfaction. If possible, check the soil before, during and after building. Do not let the contractor remove or cover up any of the good top soil, or dump any plastic or rubbish in the yard to be covered up or mixed with the good soil. Hauling out poor soil and hauling in good is expensive, but money well spent. Add manure, peat or leafmould if possible and work the ground up deeply. Soil that a vegetable grower would expect to raise good crops from will also produce vigorous trees, shrubs and grass.

SHRUBS THAT WILL ENDURE PARTIAL SHADE

Barberries, Cotoneaster, Euonymus, Dogwood, Elderberry, Honeysuckles, Lilacs, Mockernut, Privets.

SHRUBS THRIVING IN HOT DRY PLACES

Cotoneaster, Native Clematis, Shrub Roses, Siberian Peashrub, Spireas, Rose Acacia, Sumacs, Squaw Currant, Sandcherry, Seabuckthorn, Tamalix

TREES AND SHRUBS TOLERATING ALKALINE SOIL

Cotoneaster, Lilacs, Honeysuckles, Poplars, Russian Olive, Siberian Peashrub, Tamalix

SPRING-FLOWERING PERENNIALS

Bleeding Heart, Iceland Poppies, Mertensia, Lupines, Trailing Phlox

SUMMER-FLOWERING PERENNIALS

Balloonicorn, Coreopsis, Cologbine, Gaillardia, Baptisia, Delphinium, Digtails, Flax, Campanula, Monarda, Mertensia, Oriental Poppy, Penstemon, Shasta Daisy, Sokoesia, Veronica, Gaytresser, Hollyhock, Phlox, Scabiosa

FALL-FLOWERING PERENNIALS

Chrysanthemums, Fall Asters, Goldenrod, Helium, Hibiscus, Plantain, Salvia

BIG TREES

L. C. SHOEMAKER

MUCH has been written in recent years about big trees, for the subject is as perennial as trees themselves and seems to be as inexhaustible. Man's inherent love of trees goes back to the beginning of time, and he has always been interested in and intrigued by the tree of exceptional size. Therefore, "doin' what comes naturalee," whenever he finds a big tree, he tells his fellow man, for he knows the other fellow will be as interested as he.

The size of trees is comparative. A member of a species is large when compared with other members of the same species in a given locality. Colorado's largest tree is a mere weed when compared with California's "General Sherman," and all its trees are "toothpicks" when compared with the giant redwoods and firs of the Pacific Coast states. But, according to the above rule, we do have big trees in the Rocky Mountain region.

The most important Colorado tree (not the largest) is a Colorado Blue Spruce (Picea pungens), for it is the largest known member of that species. According to E. J. Postenberry, assistant supervisor of the Gunnison National Forest, it stands on the West Elk Creek watershed in that Forest, more definitely described as Section 11, T. 49 N., R. 4 W., NMPH. It is 11 feet 9 inches in circumference and 123 feet in height. In 1942, the American Forestry Association included this spruce in its hall of fame for trees. It showed the largest trees of their species reported to them prior to March 1 of that year, a long list extending across 35 states and Alaska. Colorado's only member was this Blue spruce—a Colorado Blue spruce, however, proudly upholding its name.

Our largest Engelmann spruce (Picea engelmanni) also stands on the Gunnison National Forest. Its location has been placed in Section 27, T. 51 N., R. 5 W., 6th PM—the Curricanti Creek watershed. Its size is not definitely recorded, being placed at over 15 feet in circumference and 164 feet in height by Theodore Krueger of the Forest Service and Ben Heilmann, a retired forest ranger, who located it in 1928. The Flatland National Forest of Montana grows the largest member of the species, according to the American Forestry Association.
Our largest Douglas fir (Pseudotsuga taxifolia) of record is growing on the Cross Creek water shed of the Rio Grande National Forest west of South Fork. It is 16 feet 10 inches in circumference and 85 feet in height. Another fir of equal size grows in Wild Basin of Rocky Mountain National Park, but it is a double tree, each part being considerably smaller above the fork. The AFA list shows the largest specimen to be growing in Olympic National Park in Washington. It is 53 feet 4 inches in circumference and 221 feet in height.

COTTONWOOD TREE IN GUNNISON RIVER CANYON

Our largest Limber pine (Pinus flexilis) grows on the San Isabel National forest. Paul Gilbert, a former forest ranger on the Huero fano district, once gave me the exact location, but it has been misplaced. The pine measures 18 feet 10 inches in circumference and 67 feet in height. A larger specimen grows on the Medicine Bow National Forest of Wyoming, about 22 miles southwest of Saratoga. It is 19 feet 11 inches in circumference and 48 feet in height. The AFA list shows the largest of the species in the Toiyabe National Forest of Nevada, with a girth of 21 feet and 1 inch.

Our largest Cottonwood (Populus Wisiolzoni) is growing in the Gunnison River canon, about 22 miles northwest of Delta. It is 19 feet 8 inches in circumference and 80 feet in height. The AFA list shows the largest Cottonwood to be on the Cover ranch near Thermopolis, Wyoming. It is of the more common variety—Populus sachristi—and has a girth of 29 feet 8 inches and a height of 55 feet.

There seems to be no definite record of large pines, pinons, junipers, aspens, oaks, and a few other species in the State. The Association will gladly welcome reports on big trees of these or other species and will from time to time give credit to donors in The Green Thumb. Perhaps in this way we may compile a hall of fame for Colorado trees. Who will be the first?

FORESTRY ON THE MARCH

By ALLEN S. PECK

Things are stirring nationally in the fields of forestry and of wild land use and management. There is much going on which holds interest for all who believe in right use and conservation of our natural resources and which have implications and possibilities of special concern to Coloradans.

Many of our members have doubtless read in recent issues of "American Forests" about the third "Forest Congress" planned and conducted by the American Forestry Association. This was held in October and is covered rather fully in the November number of the magazine. Preliminary to the holding of the Congress a committee of experts and well informed leaders in forestry and related fields met at Higgins Lake, Michigan, and prepared a program for the future of forestry in this country, which program served as a basis for discussion at the Congress. The chairman of the program committee was Colorado's own Judge Clifford H. Stone, Director of the State Water Conservation Board and a man well versed in water problems and acquainted with the importance of watershed protection. This program was in turn based upon study of a report on an appraisal survey of forest conditions in the various states made during the last couple of years. in which one of the directors of the Colorado Forestry and Horticulture Association, J. Lee Deen, Dean of Forestry at Colorado A. & M. College participated. The complete proceedings of the third American Forest Congress will be issued shortly in book form and a copy will be in our Association library. You will find in this volume much about the proposals for public regulation of privately owned forest lands—both for and against it, and by what authority, Federal or State. If you think that the people generally of these United States have no need to be further concerned about the future of their forests, you will change your mind, I am sure, after reading what was said at the Congress and studying the facts presented by the speakers and the Forest Appraisal Report. For instance it was said that of the 75% of our commercial forest acreage which is privately owned, 75% in turn is made up of small holdings on which only 4% of the cutting follows good practices. This national picture is one which we in Colorado with our relatively large area of National Forests are apt toward.

However, we have a real need for a forestry set-up right here that would make it possible for the State Forester and a staff of assistants to give private land owners advice and help. This would go a long way toward correcting bad cutting practices. To help things along our Association is sponsoring a study of what this state needs in the way of forestry work and of an organization and facilities with which to do it. This study it is hoped will be made shortly by the Forest Survey Committee of the Charles Lath-
rop Pack Foundation and the Society of American Foresters.

Turning now to National Forests, there is a movement on foot that may threaten them (and even some National Parks) ultimately with disintegration. This is the proposal to turn Federal public lands over to the states with the express end and aim of getting "grazing land" into private ownership through sale to stockmen. Organized stockmen are of course working for this. If they win it would seem logical to expect that the breaking up of public domain pastures would be accompanied or followed by a classification program that would try to cut from the National Forests all lands not actually bearing commercial forest cover but useful for grazing cattle and sheep, and place them on the market. What then of our great western multiple use "commons"—our watersheds, our game ranges, our mountain trout streams, our scenic and recreation areas, breathing spaces in the years ahead for a nation of two hundred, three hundred, four hundred million people? It would seem that regulated conservative use of mountain ranges by sheep and cattle properly coordinated with other uses is to be preferred, rather than the passing to the stockmen of title to the ranges for their exclusive use.

Perhaps there is something significant in what happened this year on the public domain ranges. The Grazing Service which has been attempting to bring conservative use to these ranges was practically wrecked when its funds were cut in two by the 79th Congress. It has been suggested that a similar fate may be in store for the Forest Service.

This short review is offered by way of reminding ourselves that our Association has opportunities for much constructive effort in forestry as well as in other conservative activities.
LANDSCAPE THOSE QUONSETS
M. WALTER PESMAN

NOW, please don't start by saying: "It is not worth while." Sure enough, these Quonsets are supposed to be of short occupancy, and in some cases there is a definite contract that they must go within a certain number of years. But many of us are not too optimistic about the time it will take to catch up with our long-neglected building program, and many of these Quonsets may be occupied for several years to come.

Nor will they improve with age; if they do not please your aesthetic sense now, what will they look like in 1956? So: landscape those quonsets, and make them easier to look at.

Here is another, and a more pleasant thought. Many a young couple might as well have some landscape experience in a Quonset. Why, when they move into their permanent home they will be all the better qualified. Wasteful? Not very, because in the first place the plant material should be the hardy, inexpensive type, and secondly, some of it can be moved to the new location.

The interesting thing is that landscaping Quonsets is not so different from any other landscaping at all; it comes down to principles of design.

Yes, and principles of landscape design—or of design in general—are the same, whether

you apply them to an Italian villa, to a mountain cottage, to an insane asylum, or to your latest problem child, the Quonset hut. Only the application of these principles differs in each case.

Whatever is said in this article on landscaping a Quonset can be used for other home landscaping,—with a few modifications. If we will only put important things first and minor decorations last, we won't go very far wrong.

Unity. Let us begin with the general picture, the setting of the home. Even in a city block we should pay attention to the street as a whole before deciding on the type of tree for the parking, or the character of a hedge. In a Quonset layout this becomes all the more important since there is no getting away from the general pattern. It is just as important in this case as to say the layout, say by a type of low hedge, or a row of small trees,—as it is to give individuality to each home. Unity and variety,—the age-old twins in any design. This unification can be achieved either by the organization responsible for the entire layout, or by cooperative action of the "owners" of these "homes." In the treatment it is highly desirable to increase privacy; a hedge does it effectively.

Scale. How high is a Quonset? Nine feet? Then we should be careful not to get trees that will be overpowering in their height; in Colorado we have a number of small trees that will stay within bounds, such as hawthorns, crabapples, pinyon pines, mountain ash, Russianolives, Japanese varnish-trees, native alders and birches; there are a number of shrubs that can be trimmed as small trees, such as lilacs, caragana, some viburnums and some Prunus species. An occasional taller tree placed just right to furnish shade on the southwest side, (where the afternoon sun strikes the house,) may not overwhelm the layout too much, but care is the watchword.

This manner of scale also influences the choice of shrubs. It is most desirable to break the monotonous ground line with a clump of shrubs here and there; it is unforgivable to swathe the entire foundation in a continuous line of tall shrubbery more than four or five feet in height is apt to give a smothering effect. Two or three feet is better. Symphoricarpos, hybrid snow garland, (and other low spireas), flowering alder cinquefoile, low caragana and low amopha, Lodense privet,—these are illustrations of such low shrubs. Most annuals are easy, many shrubs will grow, almost anything. The hardy, inexpensive type, not to be sneezed at if kept in check.

Individuality. The more monotonous a row of houses, the greater the need for individuality to be shown by the inhabitant. Our front door is said to be the gauge of our personality. Oh, for ideas about Quonset front doors.

Two possibilities present themselves: first, door planting and "applique effect on the wall. Some front yards may feature flowers and flower beds (but, please, not the timeworn round kind!), others may select a colorful flowerpot array, a seat, even an individualistic foot scraper. Others may restrict themselves to a dignified and very simple shrub planting; even a "stoop" treatment is not impossible.

Lattice work for climbing vines or merely for decoration, does much to rest the eye from looking at the recurring half circle.

Since the war we find a few decorative pot holder scrolls in the stores again,—a clever device for adding line and color to a blank wall. They need not be expensive.

At the risk of being banished from the landscape profession I might remind you that surface decoration in paint is an old, old device that dates way back into antiquity. In some cases: "what was good enough for our forefathers, might be good enough for the Quonset-hutter." Of course, aesthetic danger lies that way.

Hardiness. Tea roses and deutzias may be the heart's desire of the ambitious gardener,—they do not belong in the Quonset community. First of all, they will most likely not materialize, and they do not fit, even if they do. With the glare of the metal surfaces, the condition of the soil, the change of occupancy,—nothing but the hardiest plant material can cope. And a well-grown, happy-looking petunia is much more fun to water and cultivate than an aristocratic but anemic rose or English primrose. Most annuals are easy, many shrubs will stand neglect, even Michaelmas daisy and common woodbine are not to be sneezed at if kept in check.

Unity, scale, individuality, and hardiness then, are all-important in the landscape design of a "difficult" home. With their careful consideration even a Quonset hut can be made into a livable home, instead of just a product of our not-too-happy post-war period.
Oh, who can resist the hills in the spring, when Pasque flowers are blooming, and everything is full of new life and the birds on the wing? We all want to sing.

Or who can stay home, those days in the fall when Aspen are covered with gold, and all the high peaks and valleys, with Pine trees tall do beckon and call?

Yes, most of us live here in Colorado to be near the mountains that we all love so; to see their wild beauty, and green things that grow, all summer we go.

But, have you learned that there's nothing to fear from roaming the mountains each month of the year? That snow-covered trails should not interfere, though cold be severe?

Sure, skiing is fun; you ride up, slide down; its grand in the winter to get out of town and let the sun shine on faces till brown, and eat like a houn'.

But have you in winter hiked over the trail that you knew in spring, up the hill and down dale; when wildflowers were bright and sunlight was pale? Then do not fail.

If you will wear snowshoes they'll make you go slow and see all the tall trees and birds that you know. Or you can find hillsides not covered with snow, where you may go.

If your shoes are right and all clothes are warm you need not have fear in the fiercest of storm. You'll find sheltered spots that you may transform, and camp work perform.

So, try sleeping out, on some fine winter night, beneath a big rock, in your sleeping bag tight. It'll thrill you to try, and to lick Nature's might. You'll feel just alright.

GEORGE W. KELLY.
Perhaps the most important and useful feature of our new "Forestry House" will be the library. Mrs. Helen Fowler has been giving a great amount of her time in the past months to interesting friends in this project. At this time, almost $3000.00 has been given with which to purchase books. Many valuable books have been donated, and Mrs. Fowler is compiling a list of the most useful books to purchase when the shelves are ready. Quoting from her report to the Association recently, "Perhaps nowhere in America has an horticultural library had a beginning with such gracious giving and good will. In each mail letters and postcards come in indicating the anxiety of gardeners to actually see the books on the shelves." ** The Colorado Forestry and Horticulture Association Library shall have for its aim the selection of every book for the use of not only botanists and horticulturists, but for lovers of garden, field and wood; the most valuable authoritative information on, every garden subject with the distribution of subjects in groups, and a good beginning list of both technical and non-technical editions to meet the need of the greatest number of users.

Many friends have been assisting Mrs. Fowler in securing valuable books. Dr. Malcolm W. Wyer of the Denver Public Library has given much valuable assistance in securing rare and desirable volumes. Specialists and experts in all phases of Forestry and Horticulture have assisted in recommending the most important books in their special fields.

The Association also plans to give all assistance possible to members and others in finding the information desired and appraising this information as to its application to Colorado's climate.

There will be encyclopedias, dictionaries and technical books on every subject that botanists, foresters, gardeners, florists and students might be interested in. Plants for food will also be covered, with books on fruit and vegetable gardening.

** Quote from Mrs. Fowler's report.

** Picture of the library in Horticultural Hall, Worcester, Mass.

* Cut loaned by Editor of "Horticulture"
AUSTRIAN PINE, Pinus nigra