FOURTH ROCKY MOUNTAIN HORTICULTURAL CONFERENCE

Sponsored by The Colorado Forestry & Horticulture Association and The Botany Department of the University of Denver

To be held in Denver University's New Classroom Building at 15th Street and Cleveland Place

January 2 and 3, 1951

All Sessions, $1.50; Single Sessions, 75c

PROGRAM

TUESDAY MORNING, JANUARY 2

Dr. A. C. Hildreth, Chairman

9:00—Registration.
9:45—Welcome by President Mrs. John Evans. Announcements
10:00—“Reading the Landscape,” by May Theilgaard Watts.
10:45—Intermission of half hour. See Exhibits, Garden Clinic and Movies. The garden clinic will have experts on plant diseases, insect pests and cultural problems. Discuss your questions with them at any intermission.
11:15—Professional Section (Maurice Marshall, chairman).
“Plant Breeding Possibilities and Techniques for Western Horticulture,” by S. W. Edgecombe of Utah State College.
11:15—Amateur Section.
12:15—Luncheon Hour.

TUESDAY AFTERNOON

Professor A. M. Binkley, Chairman

1:30—“Bees, Flowers and Plant Breeding,” by S. W. Edgecombe of Utah State College.
2:30—Intermission.
3:00—Professional Section (Maurice Marshall, chairman).
“Weed, Insect and Disease Control by Chemicals,” by Wm. Van Pelt of the Chemical Corp.
3:00—Amateur Section.
“Rose Symposium given by Members of the Home Garden Club.
3:00—Nature Leader’s Section.
“How to Interest Children in Nature,” by May Theilgaard Watts.

WEDNESDAY MORNING, JANUARY 3

Fred Johnson, Chairman

9:30—Announcements.
9:45—“Along the Garden Path,” by May Theilgaard Watts.
10:15—“Making Our Highways Attractive,” Pictures shown by Sam Huddleston.
10:45—Intermission.
11:15—Professional Section (Maurice Marshall, chairman).
“Tree Selection and Placing Problems in a Growing City,” by Representatives from the City Forester’s Office and the Public Service Co.
11:15—Amateur Section.
“Control of Insects in Home Gardens,” by Wm. Van Pelt of the Chemical Corp.
12:15—Luncheon Hour.

WEDNESDAY AFTERNOON

1:30—Outdoor Demonstrations of Sprayers, Power Saws and Other Tools. Contests of Skill Among Arboriculturists. Will be held at Northwest Corner of City Park, weather permitting; otherwise in City Park Greenhouse.

WEDNESDAY EVENING

6:30—Treemen’s and Nurserymen’s Dinner—to be held at the Auditorium Hotel, 14th Street and Stout.

Mrs. Watts and Dr. Edgecombe are our feature, out-of-state speakers this year. Mrs. Watts is a naturalist at the Morton Arboretum, near Chicago. She is nationally known for her educational work with children and adults, having worked out some very effective ways of interesting all kinds of people in Nature.

Dr. Edgecombe was formerly with Iowa State College, Horticulture Department, and has conducted research for the Burpee Seed Co. He is now head of the Horticulture Department of the Utah State College. He has had a wide range of experience in plant breeding and is a most interesting speaker.

If You Own Just a Tree or Have a Full Scale Garden

YOU CAN’’T MISS THIS CONFERENCE
January 14 and 28. Sundays. Snowshoe Nature Hikes. Leave Horticulture House, 8:30 A.M. Bring either snowshoes or skis, warm clothing and lunch. Register in advance to assure transportation. First trip to Urad Mine and Hassel Lake, and second to Apex and American City ghost towns.

Jan. 18. Horticulture House, 8 P.M. Yugoslavia and Tito—will be the subject before the Horticulture and forestry Assn. on Thursday, January 18th, at eight o’clock in the evening, when Mr. Benjamin F. Sweet, Denver attorney, brings us a most interesting account of his investigations there in the spring of 1950.

This topic may seem to be somewhat foreign to the usual program subjects offered at Horticulture House, but our chance to have peaceful gardens in Denver can be more closely connected with the affairs of Tito and the rest of the world than we like to think. It should be remembered that when the Roman civilization fell to pieces it was almost a thousand years before gardens flourished freely again in the world.

Since space at Horticulture House is limited, tickets will be sold for this particular talk. The price is 75c per person. The money so collected will be donated to the library fund of the Association. Tickets may be secured from Mrs. Helen Fowler, at Horticulture House, or from Mrs. Moras Shubert.

It is very encouraging to us to note the large number of members who voluntarily send in their renewals for the larger classes of memberships. Some may wonder why we encourage more members to join at the minimum rate of $3.00 when that does not cover the cost of even publishing this magazine. It must be remembered that this Association is not organized for profit, and some of us who believe in its objectives are willing to put up the extra money to balance the budget, temporarily, hoping that we will collect a large number of loyal members who will eventually appreciate the work sufficiently to be willing to put it on a self-supporting basis.

If you have been helped by the garden articles in the Green Thumb or if you believe in the community-wide improvements that the magazine advocates, tell your neighbors and business associates about it. The larger membership we have the more good we can do.
January, 1951

THE GREEN THUMB

and over again, and the sight and sound of it playing over a rock, or thrown from a small fountain, or even a small trickle from a wall fountain are refreshing both for mind and body.

It is small wonder, therefore, that various forms of patio gardens are found throughout the territory the Spaniards conquered, and even in some of the great northern cities this style of garden has been perfectly adapted, notably in the roof gardens of New York.

Later, when America emerged as a new nation she thrust out westwards, and brought with her from the eastern seaboard the English influence of the colonists of New England, New York and Virginia. In direct contrast to the Spanish influence, the English influence might be called predominantly green: green lawns, shade trees and hedges—though these last have never yet been used unfailingly as have grass lawns.

Colorado is the crossroads between the Spanish and English influences. And it is interesting that, although the landscape is naturally arid, the English love of green predominates perhaps because so many English and other Europeans settled here in the city's early days.

So Denver wrestles with its gardens. By nature grey not green is the color that belongs to landscape and blue skies of Colorado. You find it in the desert plants, in the bark and twigs of aspen and mountain mahogany of the higher land, in the cottonwood, willows and scrub oak, rabbit bush and sages, the lead plant and the multens of the lower slopes.

The Spanish explorers were the first to write enthusiastically about the flowers they found along the southern coastline, and among them were such favorites as beebalm named for the Spanish botanist Nicholas Monardes who first illustrated the flower in his book published in 1571, and the California poppy that had to wait nearly three hundred years before it was so named as the emblem of that State.

The Spaniards naturally built Spanish type houses where they colonized, together with the patio garden that since those early days has been recognized throughout the south, the southwestern and southeastern seaboard as the most practical. And these patio gardens were not only practical, they were also beautiful and were the perfect compliment to the architecture that matched the landscape so superbly that it appeared "to belong".

In arid country where green grass is difficult to establish and costly to maintain, brick and stone or gravelled paths and courtyards are excellent substitutes, and they are the best groundwork on which to stand great tubs and pots of trees and plants.

Water, if a luxury, can be used over

TWO main influences can be traced throughout the great majority of gardens in Colorado; the English and the Spanish. Before the discovery of North America by Europeans, the Indians grew plants for their value as food and medicine, and were not concerned with gardens as we know them.

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COLORADO CROSSROADS

By Joan Parry

A garden in Santa Fe, New Mexico, showing the Spanish influence

A garden in Denver, Colorado, showing the English influence.
MY TWO most pleasant garden memories are connected with fragrance; a garden tour of Italy and the San Francisco World’s Fair.

In both cases I was hardly conscious of what was happening to me; I only knew that I was carried away by a beauty that went down deep. Then I realized: I was touched by a sensation that was more ancient than that of vision. The sense of smell can hardly be underestimated in garden appreciation.

Does that mean we should make our garden a collection of sweet smelling herbs, or a conglomeration of various fragrances? No. Rather should we, more or less casually, introduce those plants that perfume the air without ostentation. In San Francisco it was stocks and wallflowers, while I was there; in Italy sweet-scented shrubs. Thyme planted along a garden path where you are apt to step on it, will give that accidental touch; you may become conscious of it or not, it makes no difference, the emotional response is the same.

In mowing the lawn I cut some mint that was reaching out too far; it was a pleasant reminder. A single bush of Koreanspice Virburnum will perfume the air for yards and yards.

It is quite impossible to list all the fragrant garden plants, all the more so because different regions have different possibilities. In the South they can have jasmine, oleander, gardenia, magnolia, and various azaleas. Farther north lilacs, mockoranges and honey-suckles have to take their place.

Almost any garden can use fragrant annuals: sweet alyssum, heliotrope, stock, mignonette, sweet pea come to mind immediately. Some of the newly developed nasturtiums and marigolds are pleasant. Petunias?

Well, of course, there is no accounting for different people’s tastes. A friend of mine delights in smelling a skunk in the neighborhood. A farmer is apt to be critical of the city dude who is critical of the barnyard smell. You may, or you may not like petunias, and that holds for chrysanthemums.

Particularly pleasant is the sweet aroma that may pervade the air at night if there is a patch of ethereal-looking nicotianas. Tuberoses may be especially fragrant at night. I was agreeably surprised one evening when I had taken a large branch of Evening Star Flower in my room, and as it opened up, a strong perfume drew my attention to the event. Most night-blooming flowers are not only of a conspicuous white color but give off an aroma to attract night-flying insects.

Now to come back to that herb garden. So much has been written of late about herbs that it would be merely a re-hash to stress their fragrance. They are not as important for spreading this intangible allure as they are for tasting purposes. True enough, every one is fragrant on being crushed, but who wants to go about the garden nipping at herbs—and sniffing?

And finally we might devote a line to such animal-attractors as catnip and dog-loved juniper. Most garden lovers would prefer, I am afraid, to keep both dogs and cats at a larger distance from garden plants. Would a planting of dogbane and henbane be effective in keeping away these respective animals?

As for me, I give me roses and lilies and I’ll take a chance.
TEN WAYS TO CONTROL THE CLIMATE AROUND YOUR HOME
Prepared by
THE AMERICAN ASSOCIATION OF NURSERYMEN
Washington, D. C.

THERE are many ingenious ways for controlling climate on the average-sized house lot, as well as on the large estate or farm. By use of various planting devices, in which nurserymen are especially trained, you can make your house more comfortable both winter and summer, make your outdoor life more pleasant and enjoyable. Nobody likes to be cold in winter or hot in summer and these extremes can be moderated to considerable extent by proper plantings. At the same time you can save on fuel bills, and assure better living for the family.

Climate control by planting can moderate temperatures in some instances up to 10 or 15° F., thus meaning the difference between comfort and discomfort. Often the cost can be amortized by fuel saving alone in areas where cold winds are a winter problem.

**Keep Your Home Warmer in Winter, Cooler in Summer**

In many areas of the country, the coldest winds come from the north, northeast, and northwest. In the summer, on the other hand, they usually emanate from the west, southwest or south. By curved plantings of evergreen trees and shrubs in the form of a high hedge, the wintry blasts from the north can be guided around your home. This type of planting can save considerable fuel in the winter. If the windbreak reduces the wind from 12 to 3 miles per hour at 32 degrees Fahrenheit, it will take only half the amount of fuel to heat your house. In fact, the fuel requirement is a little larger for the combination of 32 degrees and a 12-mile wind than it is for zero temperature and a 3-mile wind. In a state experiment station test of a windbreak, it was shown that the fuel cost was reduced 22.9 per cent.

By the same token, in the summer, when you want the breezes from the west they will be guided into a pocket. The same amount of air entering the wide opening toward the west will be forced through the narrow space between your house and the planting, thus increasing both the air movement and the coolness. An outdoor terrace on the east then will be cooler on hot summer nights.

In areas where conditions differ from the above, by observing the direction of prevailing winds in both summer and winter, the same idea can be carried out.

**Properly Directed Shade Makes Your House More Liveable**

In the summer the sun sets in the northwest in the temperate zone and nearer to due west as one goes south. The hottest part of the day is in the early afternoon, when the more direct rays of the sun strike the roof of the house. Later in the afternoon, the rays pour directly on the west wall of the house, heating it to an uncomfortable degree.

A tree located to shade the wall and roof in the afternoon will keep house temperatures more comfortable, may reduce the wall and roof temperatures by as much as 20 to 40° Fahrenheit. This helps to eliminate the well-known "attic furnace." Rooftop temperatures of 140 degrees have been recorded. By having a tree shade the west wall and roof of the house you will be protected from the hot sun when and where you most require such protection. Likewise, you can plant different kinds of trees, such as fruit, or other flowering trees around your property to give you shade where you want it, at the time of the year you most desire it.

In the spring, fall and winter, the tree shading your house will not interfere with the sun, which at that time sets in the southwest. Moreover, by use of a tree which sheds its leaves the sun will be certain to shine on the property during the cold season when you need all the natural warmth you can obtain.

**Make Cold Air Flow Away in Winter, But Pocket It in Summer**

Cold air, like water, flows downward and settles at the lowest point. Early frost sometimes flows in a layer two or three inches above the ground. It requires only a slope of a foot or so on a lot to set up this air movement. In the average yard frost pockets can be eliminated by a gate in the hedge on the lower side of the garden. The coldest air will flow out through the gate. Where there is good air movement the tender buds of many plants are less liable to damage from cold.

Some of the earlier frosts in the fall and the late frosts in the spring can be prevented in this way. Conversely, in the summer, by keeping...
the gate closed a cool pocket of air will collect on the lower side of the garden, thus making a cool place to sit on hot summer nights.

Some hedge plants need not be formally clipped, if this is preferred.

Plants Make the Sun Work With You, Not Against You

There are many ways to make the sun work with you. Shrubbery and lawns may do this, especially by keeping you cooler in summer. The temperature of plants is many degrees cooler than that of pavement in the hot sun. By use of shrubbery and grass the rays of the sun are not reflected against the house from the pavement to make the house doubly hot in summer. Glare, too, is eliminated.

Paved areas store and radiate heat for many hours after sundown and may cause stifling conditions in the house at night, making sleep difficult. Plants, on the other hand, transpire and evaporation of the moisture rising from them makes the air cooler.

Noise and dust are absorbed by shrubbery and lawns. A test in one large city revealed that the dust count on the leeward side of a planted area was reduced by 75 per cent.

Nature Regulates Sun in Windows With a "Plant Awnning"

"Plant awnings" help to add beauty and graceful living to your home. In the summer time when in full leaf they shade the windows. In winter, providing you use a plant that sheds its leaves, you get the full sun. Either a trellis may be used, or a wire netting close to the house above the window. And for extra measure you can use a vine which provides colorful flowers and adds a splash of brilliance to the house, or even delicious grapes which make the mouth water as they ripen in the fall.

Wall Plants Make the House More Comfortable

Often we see solid walls of a wood, brick or stucco house out in the sun where they absorb the full blast of the sun's heat. The heat is stored all through the house to cause many sleepless nights. Where this situation exists, vines, shrubs or espaliered plants provide cooler house walls in the summer, and if they are the kind that shed their leaves, give the house the full benefit of the sun's warmth in winter.

Espalier trees beside the house walls can also provide delightful blooms, ornamental or edible fruits. If vines are used, they may be colorful, as in the case of climbing roses. Trellises of plants along one or more walls will add to beauty as well as utility. They also give your home an air of graciousness, eliminate that bare look which all home lovers try to avoid. Plants can create a beautiful pictorial effect on your outside walls.

Pergolas Cool the House, Add to Comfort

If the pergola is built to keep the sun off the west side of the house it will add to your living comfort by cooling the walls of the house. Pergolas of flowering vines, such as climbing roses and similar plants, as well as fruits, such as grapes, will provide cool spots beside the house, in the yard or outdoor living room. Sitting in a cool bower on hot summer nights is a delight for anyone.

An Enclosed Pool of Water Makes the Yard Cooler in Summer

In the part of the yard used for outdoor living in the summer, water can make the area cooler and more liveable on hot summer nights. It requires large quantities of heat to evaporate water and the resulting cooler air will settle in your outdoor living room, providing you trap it there with hedges and other plantings.
A solidly paved walk or driveway absorbs as well as reflects heat, and it also causes glare. By making a walk of small squares so that grass grows between them the heat is lowered to considerable extent and glare is reduced.

Keep Your Walks Cooler

Where wind is a problem in the enjoyment of a garden, and you still may not want to cut off the view, oftentimes a combination of hedges and glass will solve your difficulty.

### WEEDKILLERS MAY AFFECT GERMINATION

By Dr. R. Milton Carleton, Director of Vaughan’s Garden Research Center

Gardeners who had trouble with germination of grass seed last fall would do well to check what crab grass killer they used last summer. Recent tests at the experimental gardens of Vaughan’s Garden Research Center, Western Springs, Ill., showed that some modern crab grass killers are unsafe to use if home lawn makers intend to re-seed soon after the crab grass has been destroyed. When phenyl mercury compounds were applied during August, grass seed sown as late as October 1st germinated poorly. The seed that did sprout made weak growth and did not make a good turf.

Outdoor tests were later repeated in the greenhouse under controlled conditions with the same results. Effects of phenyl mercury crab grass killers were not as serious on sandy soils as on clay or loam. Liquid sprays lost their effects sooner than those applied in dry or dust form.

The effect of 2,4-D was also bad but did not last as long. A combination of 2,4-D with phenyl mercuric acetate showed severe injury to new seedlings. The effect of 2,4-D is destroyed in about three weeks by soil bacteria, but the mercury compounds kill the bacteria. Mercury is not easy to wash out of soil.

Tests indicated that potassium cyanate or PC is the safest crab grass killer to use when the lawn is to be reseeded within a month or so after treatment. Instead of hurting germination, PC actually stimulates young growth. Clippings from seed plots treated with PC in the Vaughan experiments only a hour before seeding were three times as heavy as those from untreated plots. Treated plots sprayed with PC produced eight times as heavy a cut as those sprayed with a phenyl mercury compound.

### COMMON MILKWEED

This plant is interesting in several ways. The milky sap gives it its name, the pods are much valued for winter arrangements and the floss attached to the seeds is a marvel of lightness superior to any similar synthetic product.

The sun shining on these tiny parachutes gives a glistening effect like that of silk. During our last war school children were urged to collect this floss to be used for life belts and for insulation in Arctic suits. Nature has so arranged these fibers that they hold particles of air around them and make a very buoyant and highly insulating product. Children have enjoyed blowing these seeds and their parachutes around keeping them from landing as long as possible.

The raw stems and roots are however poisonous. Some have even made sugar from the flowers.

The form of the flowers is very interesting being unlike the make-up of other flowers. Look at one closely the next time they are in bloom.

Usually this plant has been classed as a weed, but it has a number of useful and beautiful characteristics.
WINTER INJURIES OF SHADE AND ORNAMENTAL TREES

By W. D. Thomas, Jr.
Colorado A & M College, Fort Collins, Colo.

The common tendency to introduce exotic species into landscape planning is a practice which leads to disappointment. Whenever plants are introduced into an environment other than that to which they are adapted, trouble may result. This difference in environment may be either regional or local. For example, when some of our native tree species are used as shade trees they may be considered exotic to such an environment. The extreme temperature changes in Colorado, together with intense winter sunlight and strong Chinook winds tax our trees to the limit of their tolerance. Consequently, winter kill and frost damage assume the position of being two of the most important disorders of our shade and ornamental trees. Most hardwoods and conifers, especially those growing outside their natural range, are susceptible to freezing injury. The wilting, discoloration and watersoaking of leaves following a killing frost is familiar to all of us. But the darkening of the young bark, followed by a dieback of the tender tips and stems is not so familiar. On larger trees radial frost cracks may originate near the root collar and extend upward into the heartwood; gummosis, or a profuse flow of sap, may accompany such injury. The hardwoods may form callous tissue over these cracks, but often the injury is so severe that several years are required before a satisfactory recovery may result.

Freezing injury sometimes is not easily ascertained. This is true especially when the roots are affected.

The primary symptoms of root freezing can be best determined after thawing. They first have a water-soaked appearance later becoming brown with some disintegration. Because they are more tender, the smaller roots are affected first. Following this injury, the way is free for invasion by soil fungi, some of which are capable of destroying the remaining root system. Under such conditions, the tree may die rapidly; otherwise, the crown will be weak with a stag-head appearance.

In order to prevent winter injury to young trees it is best to protect young seedlings and transplants by mulching. Nurseries definitely should not be situated in frost pockets or hollows, for the lower temperatures concentrate in such sites. There should be every effort made to use trees within their optimum natural range, selected from frost-hardy stock.

Diagrammatic illustration of effect of frost cracks on internal structure of Scotch Pine.

In Colorado and its neighboring states drought injury is commonplace among conifers any season of the year. It is most prevalent following winters in which Chinook winds successively buffet the foothill areas. The resulting symptoms showing extensive browning, dying, and casting of the needles is commonly known as "red belt". It develops following excessive transpiration caused by the winds; due to the frozen condition of the ground, the roots are unable to obtain water from the soil. Consequently, a drought condition results. Many trees may be killed outright while others may show a browning only on the windward or sunny side. Here again, mulching may prevent much injury to ornamental conifers such as pine, spruce and fir. Shields of burlap can be placed around trees which are unduly exposed to the prevailing winter winds, thereby protecting them from winter drying.

During the past summer we experienced a common and devastating experience when late snow in June created havoc in the Denver area. The resulting damage was very extensive. The trees hardest hit were those with a spreading type of crown. Other badly damaged trees exposed well-developed cases of heart rot which had resulted from winter injuries and snow breakage from previous years. Such rots weaken trees very severely. Damaged crotches were often the primary reason for the breakage. If the limbs had been repaired or strengthened by bracing, such damage would have been greatly reduced. When damage does occur, repairs should be made with as little delay as possible to prevent the invasion of the wounds by different wood-rotting fungi. Moreover, the trees should be trimmed thoroughly; otherwise, extreme one-sidedness often results. This leads to development of open tops or heavy branches extending far beyond the main body of the crowns. The latter will break off in wind or snow storms or they may break of their own weight.
OUR GARDEN WASN'T IN THE BUDGET
By MYRTLE ROSS DAVIS

This is good advice for all new home owners on how to have a garden with little expense. Note that Mrs. Davis saved, not by ordering "bargains" from unknown out-of-town firms, but by growing plants from seedlings or cuttings. Editor.

During the first years of our married life, when the depression was on and our children were young, we didn't have much money to spend but we just had to have a garden. Our enthusiasm could be compared to that of opera lovers who hear their opera from the edge of a top gallery seat. We had to hold down the expense but we enjoyed our experience just as much as if we had had parquet seats.

Our garden had small beginnings and it took several years to materialize but the years rolled by quickly and we had real pleasure in watching our little seedlings, root sprouts and cuttings grow into a beautiful and useful garden. We felt that these plants, like our children, were really ours for we had raised them from tiny things. Each one had a history and they meant so much more to us than if we had bought them as large plants.

We were very careful not to fall for the pretty pictures in the eastern catalogues or bargain advertisements—we couldn't afford to waste our money—so when we bought anything we were sure that it was good and that some local nursery or seed store stood behind our purchase.

By studying the articles in garden magazines and attending some lectures on landscaping we learned about garden design. We found that a real garden was an out-door living room, enclosed so that outsiders couldn't look in. This meant that we must have tall shrubs around the outside border. Then, of course, we knew that we should have color harmony, balance and unity in order to create a beautiful picture.

We also thought that our native plants had a place in our garden and were fortunate in having a friend who owned a mountain ranch which had a large variety of trees, shrubs and flowers. He invited us to take anything we wanted for our garden so we transplanted dogwood, thimbleberry, chokecherries and sumac.

One of our finest trees, Bristle-corn pine, was salvaged from a new road grade. It was to be destroyed and we were given permission to save its life. Luckily, we had a burlap sack in our car so that we could take it with a ball of dirt and not expose the roots. One year we bought two matched Junipers in pots and used them for twin Christmas trees. We didn't keep them in the house too long and soon after Christmas planted them in our garden.

One day in early spring, when our garden was young and barren, I was walking through a nearby park. I saw some root sprouts and seedlings of lilacs, honeysuckle and snowball being dug up and thrown on a trash pile to burn. I wanted them for my garden so I timidly asked the gardener if I might take them home and try to make them live. Of course, he gave them to me and most of them lived and fulfilled their purpose in our tall shrub border.

We bought some inexpensive hybrid tea roses and some climbers but the majority of our roses were grown from stem cuttings. We kept these under jars slightly shaded by other bushes until they had grown enough roots to keep up with the evaporation. If we started our cutting in the fall we kept the jars on until the next June.

Of course, we had those perennials which spread rapidly from their roots and are exchanged among friends and neighbors. Phlox, Shasta daisies, daylilies, chrysanthemums, lily of the valley and many others come in this class. We had good luck growing delphinium from seed, if we planted it as soon as it was ripe in July or August. We found that the seeds dry out and will not germinate if they are kept around the house long after they are taken out of the seed pod. We also grew Violas, Painted Daisies and Lilies from seed. It was a good inexpensive way to get some choice varieties.

All the trees we had were grown from seedlings. They were a Black Walnut, Quaking Aspen, American Elm, Ash and some Russian Olives.

In the back part of our yard we had a picnic ground equipped with...
a fireplace. A few flat rocks from a rock slide, an old fireplace grate from a remodeled house and my husband's masonry did the job. Our family and friends loved the informality of outdoor meals and parties and the fascination of cooking over an open fire.

The ash pit, though a very practical structure in those days, made an unsightly corner in our picnic nook so a little lattice screen was made to hide it. In the opposite corner to balance it, we built that little lath house that I had longed for in which to raise tender primroses and ferns and start seedlings that needed partial shade.

As you expected, we had a rock garden. Like most rock gardens ours wasn't a perfect specimen of landscape architecture. The rocks should have been larger but we were limited by what we could load in our car. They, however, were all the same kind (lichen-covered granite) and they made a good home for our little sedums, saxifrages and sempervivums. A basin shaped rock made an efficient and well-attended bird bath.

Our rock garden furnished a back

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ground for our lily pond. The pool was small, just large enough for one water lily plant and was the result of one bag of cement and robbery committed on the baby's sand box.

A flagstone terrace next to the house seemed necessary to us but we found, to our sorrow, that flagstones were rather expensive. However, one day during a walk in the foothills we found some exposed stratified sandstone. The next weekend we got busy and peeled off enough flat rocks to make our terrace.

Our garden, as you can see was built slowly but it was quite satisfactory from the standpoint of beauty and utility. The trees grew large enough to give us plenty of shade and we enjoyed a sense of seclusion from our tall shrubs. It was an interesting and enjoyable experience and later, when we moved to a larger home, we built a new garden and we have used much of the valuable first hand experience we gained from our first little garden which was built with a lot of work but very little money.

QUESTIONS AND ANSWERS

How deep should Narcissus be planted and when should planting be done? Longmont.

A good rule to follow seems to be to plant the bulbs at a depth equal to twice the length of the bulb from nose to base. Ripening of the bulb is interfered with if planted too deeply. Regarding the time to plant Narcissus, I do not always practice what I preach, but Narcissus should be in the ground by the end of September. Tulip planting, however, may be put off as late as December or you might take a chance even later if the ground remains open.

THEY PRACTICE WHAT THEY PREACH

By George W. Kelly

We hear much of the traditional neglect of the blacksmith's horses, the preacher's children and the plumber's bathroom and see occasional examples to make us think that this neglect may also be the rule among horticulturists. Most landscape architects, nurserymen and park officials, however, are in that business because they like to work with plants and many of them find gardening both a vocation and an avocation.
We are showing here a few outstanding examples of some who really practice what their preach.

The picture on the cover is an interesting detail from the garden of Julia Jane Silverstein, Landscape Architect, who lives at 737 Franklin. She has packed more of garden interest into the small odd spaces around her large house than would be seen in a dozen ordinary gardens. She has not let the “front yard” be simply open lawn to set off the house, but has made of this space a very interesting garden. The side area, along the south, has a great variety of interesting plants and garden features. The formal rear platform and enclosed garden are beautiful all year around, and the otherwise waste space in front of what was once the “barn” makes the restful and intimate little patio shown in the accompanying picture. The outstanding impression given in this garden is that everything is carefully planned to fit in the place that is given to it. Jane enjoys planning delightful gardens for others and she also enjoys her own.

Out south at 835 W. Quincy Avenue in Englewood, Wm. (“Big Bill”) Lucking has created one of the finest examples of a garden (or rather a series of gardens) to be lived in, that I have seen. There is no waste space in this garden. The design is appropriate for the circumstance, the plants used are all most suitable for the effects desired and the maintenance leaves nothing to be desired. The space in front, of the house is enclosed, but is simply planted in a semi-formal design. The main garden is in a circular and sunken effect across the front drive. Here an immense and beautiful old cottonwood tree gives background and frames the wonderful view of the mountains. Behind the house is the really intimate garden leading off from the open porch. Here Bill and Mrs. Lucking can eat or relax in complete privacy. “Big Bill” has had a varied experience in horticulture, having worked with vegetables, outdoor cut flowers, nurseries and is now the most valued horticulturist in the Denver City Parks Department.

The third set of pictures shows four scenes around the home of John Waugh at 240 Clayton. John Waugh is a gardener, spending his time helping make other gardens beautiful. This garden is a good demonstration of how a small ordinary home grounds may be beautiful and liveable. There is nothing here so elaborate or expensive but that anyone might have a similar place if they cared to give it the excellent planning and maintenance that these folks do. (I suspect that Mrs. Waugh has a great deal to do with keeping up the attractiveness of this place.)

The last two pictures are taken of the front and rear of the home of Maurice Marshall, of the Marshall Nurseries. These views show that Maurice really likes plants and has a real green thumb. It is easy to see that his particular plant hobby is roses, but he loves to experiment with all the nice trees, evergreens and shrubs that he sells other people.

All of these places show the effect of owners who have green thumbs, but they also demonstrate in each instance that the real satisfying gardens are those which have had consideration given to all three of the essentials—good design, appropriate plants and careful maintenance.

These folks (and there are many more) really practice what they preach.

The talks given at the Horticultural conference will benefit every gardener.
CONSIDER THE POOR
CACTUS

In my walking one day, I came upon a cactus in such woeful circumstances that I looked the second time to make sure it was alive. The world depression had done its worst, and together with the drought of the previous summer, that was surely bad enough. But things were hardly as serious as they first appeared. Although it was midwinter, there was life under the tangle of spines, but not much activity. This was to be expected; but with no fall rains, the wrinkles which began in summer had gradually settled deeper. Its Indian instinct had pulled the belt a little tighter.

But that was not all. Already there was the anticipation of blossom time, which comes too early in spring for lengthy preparation. Forethought had provided the way. Before autumn had given place to winter, all the leftovers which had been preserved with the strictest economy were brought together, and by processes known only to a cactus had been recreated into tiny flower buds, which now in midwinter were nestling under the tuft of spines in the heart of the plant, ready for the first convincing breath of spring.

If thrift originated outside the heart of man, then surely the cactus was its progenitor. Bankers of high or low degree can offer no better reasons for thrift and economy, nor can they supply a better example.

By D. M. ANDREWS

CHINESE CATALPA

A tree often overlooked in our lists of smaller scale trees is the Chinese catalpa, Catalpa ovata. This tree is rated as having a height of 20 feet at maturity. It is a picturesque tree with its large leaves and pencil-like seed pods. The pink and white flowers are ornamental in June. The leaves are a little smaller than those of the Western Catalpa and are slightly lobed.

All available reports indicate that this tree is quite hardy in Colorado. There are several nice specimen trees growing near the northwest corner of Cheesman park in Denver. Little attention has been paid to these trees and it is not known whether any successful attempts have been made to propagate them from seed. More of these trees should be started and tried under various conditions in the state. We surely need a greater variety of good small trees for parking or garden planting.
Questions Sent in to Horticulture House and Their Answers

WHAT should be the location of a hardy garden? Colorado Springs.

If you are wondering where to place the perennial garden for your choice plants, next spring, look for the best spot with the most sun and one easy to reach—in close relation to the house. If you are compelled to travel a half a mile to get to your favorite plants, something is wrong. For a wild garden or a large rock garden, it is all right.

I have a very small garden, what book should I read? Denver.

I should strongly suggest the careful reading of The Little Garden by Mrs. Francis King. You will be forever grateful to her for suggestions to beautify your small grounds. To peruse this delightful book will not be work, it will be fun.

What is meant by plant genetics? High school student, Denver.

Genetics is the study of plant breeding and plant inheritance. Gregor Mendel (1822-1884), an Augustinian monk, is credited with having developed the fundamental principles of genetics. For other fields of modern Botany, see page 16 of College Botany, Horticulture House.

H. F.

All those working with children’s groups should hear Mrs. Watts’ talk at the Horticultural Conference, 3 P.M., January 2.

NEW ALL-AMERICA FLOWER SELECTIONS FOR 1951

Two new flowers, Torch Tithonia and Glitters Marigold, both easily grown annuals from seed, have received the All-America Flower selection awards and are ready for wide planting this spring.

Torch Tithonia, the Golden Flower of the Incas or Mexican Sunflower, is a bush form, luxuriouslyfoliated plant with long-stemmed, orange-scarlet flowers. It is early to bloom, withstands summer heat and seems free from all diseases. It reaches some four feet in height and two feet across, the large grey-green leaves make it an attractive foliage plant. The straight-stemmed, blazing, three to four inch, single, Dahlia-like flowers are grand for cutting and are most useful in the making of a striking arrangement.

Sow the seeds outdoors as soon as the soil is warm, or start indoors and transplant.

Glitters Marigold grows from thirty to fifty inches tall, is uniform and bushy erect in habit. The attractive foliage is dark green, a good rich background for the clear yellow blooms. The flowers are on straight stems, are three to four inches across, double, chrysanthemum-like and have fringed outer petals. Glitters is early to bloom, fine for cutting and a colorful, free-blooming garden attraction.

LOOK TO YOUR TREES

Extract from Shade Tree Digest. Courtesy of Swingle Tree Surgery Co.

When one’s mind is troubled by thoughts of war, and an all-out effort is being made to produce the materials needed for National security, trees around the home are likely to be neglected. Such neglect is wrong. It is in such turbulent times that trees, if ever, prove their worth. The human mind can tolerate only so much worry and fatigue; if there be not some relaxation and change of thought and effort, a mental and physical breakdown is sure to result. Such an escape valve for pressures developed by prolonged anxieties and too strenuous labors, can be found in association with trees. There is something indestructible, a sense of permanency, about trees. In their structure and manner of life—in their flowers and fruit all pointed toward perpetuating the species, in their peaceful, non-competitive existence—they are symbolic of stability, strength, beauty and sublime faith in the future.

In associating with trees, caring for them, getting to know them intimately, no man can help but absorb some of the qualities with which they are so abundantly blessed and which are so greatly needed when days are difficult. Take care of your trees and they will repay you a thousand-fold.

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New Books Received at the Library During the Month of December


Hedges for Farm and Garden—J. L. Beddall.

Plants With Personality—Patrick M. Synge.

Practical Lawncraft—R. B. Dawson.

Land and Landscape—Brenda Colvin.

Flowers to Know and Grow—A. W. Hatfield.

Gardens and Gardening—Mercer and Hay.

The Garden Frame—J. S. Dakers.

The Folklore of Herbs—Katherine L. Oldmeadow.

Shrubs and Trees—Jackman and Bush.

One Hundred Beautiful Plants for the Small Garden—R. P. Faulkner.

Mountains in Flower—Vareschi and Krause.

The Story of Plants—John Aich.

My Garden in Summer—E. A. Bowles.


The Romance of the Rose—Josephine Craven Chandler.


Wildflowers, woodland flowers, field flowers.

Guide to familiar wildflowers—Zinn and Martin.


College Botany—Fuller and Tippo.

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SOME BOTANICAL TERMS EXPLAINED

Corolla—all the petals of a flower collectively.

Crown—where stems and roots join.

Cuttings—pieces of stem with leaves which, if placed in a suitable environment will take root and form new plants.

Disbud—to remove excess flower buds when quite small so that those remaining can develop more fully.

Division—cutting into two or more pieces so that each portion has both roots and stems or buds.

Fungicide—this is sometimes a confusing term; it is not the disease but a preparation for killing fungus diseases.

Grafting—taking a portion of one plant and causing it to unite with and grow upon another plant.

Humus—decayed organic matter such as leafmold, rotted manure, etc.

Hybrids—plants that have resulted from crossing two or more species.

Mulch—to cover the ground about plants with compost, leafmold, manure, peat-moss and the like; the material itself is also called a mulch.

Raceme—an elongated flower cluster in which each flower has an individual stem and the flowers open upwards.

Naturalizing—planting for informal effects so that care is reduced to a minimum. Bulbs planted in grass and left for years are said to be “naturalized.”

Radical—proceeding from the root.

Robustus—strong.

Rib—a projecting vein of a leaf.

Runner—a creeping stem, thrown out by a plant, such as a strawberry, tending to emit roots at its joint or extremity.

Speciosus—beautiful.

Spectabilis—notable.

Supurbus—magnificent.

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To all our friends this coming year,
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LOOKING BACKWARD AND FORWARD

WITH this issue we begin our eighth year of publishing the Green Thumb. We have watched it grow in size and, we hope, in usefulness. We have experimented with various arrangements and kinds of stories and pictures. We have always tried to make it fill the needs of the greatest number of people. Some have liked some kinds of articles and some have preferred others. Always we have tried to keep in mind that the purpose of the magazine is not to duplicate the service of any other magazine but to supply the best possible information on Horticulture in the Rocky Mountain Area, information which is not available anywhere else.

We have always had to work with a very limited budget and have never been able to do the things that we would like to have done in the way of stories and pictures appropriate to the season, but have usually been compelled simply to use the best available material as it was supplied to us by our many good and loyal friends.

Each reader can help the magazine to be more useful in the coming years if they will take it as a personal responsibility to let us know of those who might have material for a story that others might like to hear. Possibly some neighbor has had especially good success with some particular plant, or has specialized in a certain cultural practice or has been unusually successful in adapting some plant or practice to our unusual climatic conditions. Let us know of these people or get them to write up the story and supply pictures.

Each one can also help by letting us know what things they like to see in the Green Thumb and also those features that they do not enjoy.

Let's all work together to make the Green Thumb in 1951 bigger and better and helpful to a larger group of people.

GEORGE W. KELLY, Editor.
MILTON J. WEBBER, HORTICULTURIST
1865 - 1950

“A GOOD-SIZED oak or horse-chestnut? Did you try Broadview Nursery?” And nine times out of ten we were able to locate one there. Because Mr. Webber loved unusual trees and shrubs, and was willing to grow them to perfection, even if the profit on them might not be as much as on “the usual run of things.” Of course, the risk we would always run was his verdict: “I am not sure I want to sell this one to you, I have grown it for twenty years and it is really part of the place.”

No wonder, Broadview Nursery was designated on October 16, 1949 as a COLORADO BOTANICAL RESERVE; it contains a wealth of oak trees, maples, lindens, hawthorns, sycamores, even a tulip tree; it also boasts of many kinds of Viburnum, Prunus, Euonymus, Eleagnus, Cotoneaster, and many, many others. In fall it is a riot of scarlets, crimsons and gold. Buckeyes are particularly striking, Norway maples range from a pale yellow to a mottled pink. Mr. Webber knew every one of them as a personal friend.

And his Peony collection! There must be 150 varieties, all carefully selected for their merit in Colorado; discarded were the ones that did not come up to his rigid requirements. Mr. Webber was one of the too few members of the American Peony Society located in Colorado.

However, horticulture claimed only part of his well-rounded interests. Born in Illinois (Sept. 7, 1865), as the fourth child of a highly musical family, he and his brothers came to Colorado in 1891. Together they constituted a Webber brass band. Milton sang in church choirs of Trinity Methodist and St. John’s cathedral, incidentally winning a prize with them at the St. Louis World Fair, under Prof. Housely.

I wish I could do justice to his character, never compromising between right and wrong, of high intellect, of mechanical and scientific bent, loving his home and family, loving God and nature.

Tucked away within the nursery is a typical New England Colonial home, that might have been transplanted from Salem, but was entirely designed and built by the Webbers. Fortunately Mrs. Weber intends to carry on along the same lines her husband initiated.

M. WALTER PESMAN.

Principles of Landscaping will be taught in Adult Learning Classes of the University of Colorado Extension at 1405 Glenarm Place, Room 402, this winter quarter. The course is one part of a general study of The Home, having to do with various steps, from buying, and landscaping a home to interior decorating.

Mr. Pesman, the landscaping instructor, promises to go into such fundamentals as grading, cost estimating, ordering nursery stock. Advice on fences, fireplaces, stonework, walks, and even summerhouses will be given.

Does the new type of modern building stump your landscape design? Join the class and rub elbows with others, studying modern outdoor living, analyzing new needs, getting up-to-date ideas in space planning.

To judge by the opinion of previous students these classes are instructive, practical, and—just good fun besides. Wednesdays from 6:30 to 8:30 p.m.

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GARDEN REMINDERS FOR JANUARY

EACH year the plants go through their regular cycle of dormancy, new growth, bloom, ripening seed, fall color and again dormancy for the winter. Each year we must repeat much the same reminders and warnings. Old gardeners will know these things by instinct, but there will always be new gardeners (we hope) to whom these familiar reminders will be new and welcome. We will try to dress these familiar suggestions in new clothes, but they must, of necessity, be much the same from year to year.

In Colorado, we usually have our coldest weather in January so our chief outside chores may be to prevent snow breakage to trees and shrubs, and to prevent sunburn and snowburn to tender plants. Bracing trees and tying up tall, loose shrubs or evergreens may prevent some snow damage. A little shading or wrapping may keep tender-barked trees or evergreens from burning.

If there should come a few warm days when the ground thaws out it would be well to check the soil moisture. Sometimes narrow strips on the south of a building or on a steep south slope may need water when all other areas are sufficiently moist.

Most of our gardening in January will be done indoors. There will be the new catalogs to study telling all about the new plants that we may want to experiment with, and there will be hooks and magazines to study that we have not had time for during the active outdoor gardening season.

This should be the planning month. When the warm weather does come again we will have little time to figure out what we want to do—then is the time for action. Now we can surround ourselves with all the catalogs, books, magazines and bulletins on the subjects that we are interested in and dream our dreams of the whopper dahlias, perfect roses and bright petunias that we will grow. While these dreams are fresh is the time to put down notes of exactly what we want to do and when we want to do it. Get the necessary plants, seeds, and tools ordered now for delivery when they are wanted.

As you plan you will often think that you would like to know more about these interesting things that you are working with—where the roses originated, what the new insecticides are and how they are supposed to work, how a tree should be pruned, the different types of gardens, and just how a plant grows and reproduces itself. Get out your books, buy one that you need or come down to Horticulture House and read some of the many there for your benefit. The more we know about plants the more interested we become and the more interested we become the more we want to know. There is no end to the knowledge that a gardener may or should acquire.

During some of these stormy days get out all those clippings that you have hoarded around the place, but can never find when you want them. Classify them as to their principal subjects—Trees, Roses, House Plants, Fertilizers or Watering. Paste them in a scrapbook or file them in conveniently labelled folders. Often a couple of useful articles may be clipped from a magazine, filed, and the great bulk of uninteresting material discarded.

Season need not stop the real plant lover. Even snowshoeing up a little valley remembering that under the six feet or so of snow is the spot where you found the spring beauties or columbine last spring, is fun.