The Green Thumb

JULY-AUGUST, 1947

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OFFICIAL OPENING OF

All members and friends of the Association are invited to visit Horticulture House, 1335 Bannock, any time from 11 A.M. to 9 P.M., July 12 and 13. There have been many delays in completing arrangements, but we are now opening the library for use and making the other services available for our members' convenience.

Here you will find books and bulletins on all horticultural subjects; an herbarium of native and cultivated plants; good pictures to help you identify the plants in your yard and the mountains; catalogs of horticultural products and a complete file of current forestry and horticultural magazines. There will be experts on duty to help you find what you want and enjoy your visit. The beauty and utility of the house will thrill you.

Activities indoors and outdoors for the next two months will include the following: As suitable speakers or pictures are available there will be special meetings arranged and announced.

There will be no panel discussion meeting arranged in July.


Aug. 2-3. Botanical study and collection trip to the Loveland Pass area. Mr. and Mrs. Earl Davis will be leaders. Details of the trip may be had by phoning Horticulture House a few days in advance.

Aug. 9. Panel discussion on seasonal topics at Horticulture House. August 17. Public trip to study gardens in the Denver area. Helen Fowler will be leader. Details can be obtained later.


To complete bound volumes we need a few copies of the following back numbers of the Green Thumb: Vol. 1, Nos. 3, 4 and 5; Vol. 2, No. 1. We will be glad to pay 25c for any of these issues.

NATURE TRIPS

Seventeen people spent a wonderful day, Sunday, June fifteenth, on the scheduled Wild Flower trip planned for that date. Miss Maud Reed arranged a fine breakfast for the party at her outdoor fireplace west of Boulder, then she conducted us over the foothill and mountain roads where she had scouted out the finest places to see the usual and unusual flowers. Seventy-nine different flowers were listed, several of them seen for the first time. In the afternoon Miss Hazel Schmoll of Ward, Colorado, showed us some of the grand spots on her Range View ranch. All agreed that it was a privilege to be able to attend a trip conducted by such people in such a wonderful country, and that many more people would appreciate attending future trips. Watch the schedule published each month in the Green Thumb and mark your calendar. Let us know a few days in advance so we can assist in arranging transportation. Let us know of other expenditures in town or halls that you would like to have us arrange.
THE IRIS IN COLORADO

By J. D. Long

THE popularity of Iris is increasing by leaps and bounds as the saying goes, the world over. This is because the size, types and colors have been improved so amazingly as to little resemble the original old time "Flugs" of way back when.

Since the Iris is a sun loving plant, and thrives best in a rather dry climate, Colorado is the "ideal state" in which to grow and enjoy this exceedingly lovely flower.

For the greatest enjoyment, plant named varieties of Iris, and keep them labeled. In addition to labeling the varieties, take a little more time to make a "map", showing location in your planting of each kind. Labels sometimes "walk off". Your map, filed in the lower bureau drawer, tells all.

There are various types, classes, and groups of Iris. I grow and am talking about the most popular and universally grown, the Tall Bearded Iris. Others are very charming also. The Tall Bloomers have never done well in my gardens, so I discarded them. But they are popular and in demand. I think they perform better somewhat farther south. He said they didn't bloom much, if any, in the fall.

In the Tall Bearded class, new colors and combinations of colors are now to be had that few, if any, of us ever dreamed would be found in Iris. Size, substance and habit are all improving.

What seems to be the greatest sensation in the Iris world is the now world-famous Iris, ELMOH, originated in Colorado by Dr. P. A. Loomis, of Colorado Springs, who has a number of other praiseworthy origins to his credit.

This Iris, ELMOH, has immense blooms, described as Bishop's purple, or wine-red. It seems to have just about everything else that goes to make a near perfect Iris; substance so heavy that the blooms stand much heat and a storm; form, all that could be desired. According to an article in a bulletin published by the American Iris Society, ELMOH won the coveted Dykes Medal in the shortest time after it was introduced, of any Iris. Moreover, the votes for it amounted to a landslide.

Speaking mostly to Coloradans, I feel it is not out of place to stress this data on ELMOH. It reflects great credit not only to its originator, but draws favorable attention from all over the world to Colorado. Just one more "plug" for good old Colorado.

Iris is fragile, and must be handled with care. But it seems that few understand that it can be cut in bud and will open up perfectly in the house, lasting for days, if plenty of buds are on the stem, and the faded blooms are picked off, the same as with Glads.

You can even ship Iris in the bud, but be sure to send only buds, and pack them DRY. I do not recommend it, however, for shipping in a big way.

There are no pure pinks, no clear dazzling reds, yet, in Iris, like in Roses, Sweet Peas, etc. But hybridizers are getting nearer these goals from year to year. In the meantime, feast your eyes on other colors that are rarely found in other flowers.

Mr. J. D. Long is a pioneer iris grower of Boulder, Colorado. He introduced Dr. Loomis' ELMOH, the Dykes Medal Winner in 1945. Mr. Long has generously allowed us to use his photo of ELMOH, which appears on the cover. Mr. Long advises us that he will be happy to mail a large size color plate of ELMOH—anyone cares to ship him a post card so requesting. —Edstor.

In Colorado the Iris is practically free from pests. No insects attack the blooms. Rarely indeed is found the borers, which causes loss in many other sections. No winter protection whatever is needed here. The roots (rhizomes, strictly speaking, or "toes" loosely speaking) do not "heave" in winter, and die.

Furthermore, even the grasshoppers don't arrive in time to feast on the blooms. They may eat the leaves to the ground, but chance are they will not prevent new blooms the next year.

I have a four-page leaflet on Iris culture which I shall be glad to send anyone on request. A few "high spots" are as follows:

Open Season for Iris. Iris may be set any time when ground isn't frozen. Best time is from midsummer to early September so the roots become well established before winter.

The Iris increased by new shoots forming from eyes or buds at the sides of the divisions or "toe" planted. In most selections the new shoots make new divisions strong enough to reset by early July the next year.

The main idea is to get the new Iris plants well established before winter. Many of the most satisfactory results I've ever had were from September and October plantings, hilled up and protected.

Set roots 12 to 16 inches apart according to room. The closer they are set the sooner they will need to be taken up, divided and reset. Even at 12 inches they should bloom three years before being thinned or reset.

Cover rhizomes a little over an inch. They like it near the surface. Tramp on the fleshy part of the root (the rhizome) and tramp hard after it is planted. Keep watered for a few weeks until new growth starts. Don't worry if the small thread-like roots are dried up when planting. New roots will start at once from the rhizome. If no rains, see that the ground doesn't dry out too much.

Iris can't stand wet feet. Always see that no water stands on them. If soil is not sandy, then better raise the beds or rows before planting, so good drainage is assured.

To guard against pests and disease I go over Iris that have been planted a year or more, and with big shears cut tops off close to the ground late in fall. Haul off tops and burn them, using kerosene.

Contrary to what seems reasonable, the Iris rhizomes can lie around in the air and sun for days, after which they will grow and thrive all the better for this "sun tan." In fact, one of the best treatments for diseased rhizomes is to dig them up, cut out all bad parts, then let the roots lie in the sun for some days before replanting.

Take notice how the rhizomes work themselves up to top of the ground if you let them. They crave air and sun. For late fall planting, when the roots are practically dormant, the tops may be cut back close to the roots.

July and August plantings require more attention and care than fall plantings. You have the matter of watering and excessive heat to deal with. Your newly planted Iris need moisture at the roots—preferable under the thick, fleshy part, the rhizome.

Avoid pouring water on the plants in hot weather, or letting water run over them or settle around them heayly. I lost some very high priced kinds some years ago by scalding the plants—let the water run too close and too long. A good rule to follow is to make a small circular trench around the plant and away from it a few inches, pour a pint or so water into the trench. After water sinks into the soil fill trench with dry soil.

Rhizome rot is caused by lack of drainage, too much rain or irrigating, followed by hot weather, or other weather or soil conditions. Usually the disease does not spread much and Nature will check it. Often only part of clump will perish. White maggots may be found in the diseased portion, but they are not the cause. They are the cure—one or more. They eat out the diseased parts.
But first aid can be given by scraping away the soil and exposing the damaged portion of the rhizome. Then scrape off all the rot and coat the surface heavily with powdered lime, sulphur, or a preparation farmers use for the control of smut in wheat. Do not put back the soil for a few days. Give the exposed rhizome air and sunshine.

What about time? We hear lots of talk about lime for Iris. Don’t believe ALL you hear. Depends on your soil—whether already acid or alkaline. Lime increases alkaline condition. Too much alkali is bad—very bad, for most plants. Locks up nourishment so your plants may starve in the midst of plenty. A neutral or slightly acid soil is preferable. If in doubt, leave it out. Eastern soils seem to run more to acid than our Colorado soil, and may need some lime. Use discretion. Go easy.

Warning! Don’t let blue grass or other grasses or weeds get into or close to your Iris plants. They spell disaster.

After all is said and done, the Iris is almost fool proof, and success is practically certain, even if many of these suggestions are overlooked or disregarded. I sort of hesitate to give such a “Long” list of things to do or not to do, lest you think Iris growing is difficult. Not so, it’s easy and it’s fun.

Mr. Kelly has requested me to give a list of twenty-five outstanding Irises. Of course selecting the most beautiful Irises is like choosing the most beautiful girls—opinions differ. However, since the request has been made, I will say that if anybody had each of the following Irises in his garden, he would have a great show and it wouldn’t be too expensive besides (with the exception of Elmoehr, which costs $2.00, all are $1.00 or less).


Do You Save Your Green Thumbs?

Have you noticed how informative and instructive the Green Thumbs are? Recently I have had occasion to examine Horticulture House Library’s bound volume of the “Thumbs” for the last three years. I found it a fine handbook for gardeners in this Rocky Mountain area.

True, I have read and enjoyed every issue as I have received it, but there have been many questions regarding planting, spraying and such that have recently arisen, and in going over the bound volume I found that most of these questions were completely answered. I thought that I would like to have my issues bound in a similar volume, and it occurred to me that if a number of members went together in having this done the cost might be considerably reduced.

A Member.

Ed. Note. The cost would be around $3.000 depending on binding and the number ordered at one time.

Simple Simon’s Adventure

Young Simple Simon wanted to sleep,
He wanted to sleep, perhaps to snore,
But he couldn’t do either, for chiming bells
Were chiming too loud outside his door.

He, therefore, went to hunt for flowers,
Out o’er the verdant hills, afar;
He did not have any weapon to use,
So used, instead—a shining star.

He had not seen any liquor that day,
A fact to which he could stoutly swear,
But, nevertheless, as he hurried along,
He simpered and said, “Good mornin’, miss!”

He caroled, “Dear Daisy, I’m half crazy!”
But alas, he met with sad disaster,
For “b’gosh” that it was a flower.

A black-eyed Susan nodded and smiled
As he approached her hillside bower;
And golden banner was only a pea.

He thought he’d found a flag of the free,
But quickly learned that it wouldn’t toot.
And tackle those flowers from another angle.

To wear next day with his Sunday clothes.

To make him fight his pappy’s buzz saw.

To pick a few for his mother-in-law;
But he didn’t because one whiff was enough
To make him fight his pappy’s buzz saw.

To make him fight his pappy’s buzz saw.

A golden banner he hailed with delight,
As he approached her hillside bower;
But it wouldn’t toot.

A gentian he plucked for a drinking cup,
But its fringy edge tickled his nose;
He swapped it off for a big king’s crown.

To make him fight his pappy’s buzz saw.

A pink calypso or coral root—
Instead, he chose a red trumpet phlox.
But quickly learned that it wouldn’t toot.

The scent of primula made him pause
To pick a few for his mother-in-law;
But he didn’t because one whiff was enough
To make him fight his pappy’s buzz saw.

So sorts bewildered he scooted for home,
The posy technique he couldn’t untangle;
But some day he plans to go out again
And tackle those flowers from another angle.

—Len Shoemaker
**QUAKING ASPEN AS SEEN BY THE WATERSHED RESEARCHER**

B. C. Goodell

**EVERY** autumn traveler through Colorado's mountains has thrilled to the sight of green and gold hillsides where conifer and aspen blend their foliage. By seasons, the beauty varies in brilliance as weather sequences mute the tones or give full play to colors drawn, in appearance, from veins of pure gold lying at root depth. The summer hiker finds his spirits soar and his steps lighten when, after traversing gombr miles of pine or spruce, he enters the bright day-light of an aspen stand and treads a flowered carpet among silvery boles and under a twinkling emerald canopy.

The watershed manager is not oblivious to these beauties. He is spiritually glad when his work requires attention to all native forest types, for each has its beauties and the enjoyment of each may be greatest when all are embraced. However, the watershed manager must ask practical questions of these forest types—questions not answered by aspects of beauty but only through prosaic numbers obtained from carefully planned studies, careful measurements, and intricate analyses. Being primarily concerned with getting the maximum usable streamflow from his watershed he must ask a variety of questions about the precipitation which falls on the aspen stand. How much of the annual snow and rain is intercepted by the crowns and held until evaporation robs it from potential streamflow? Does the aspen stand provide the right conditions for protracted snow melt so that the spring streamflow will not be too rapid and brief? Do the life processes of aspen trees, as expressed in root development and leaf composition, favor the formation of a soil which will absorb precipitation and be stable against erosion?

It is one of the principles of ecology that plants and animals tend to live and grow together in rather definite groups or associations. Growing under aspen we commonly find certain herbaceous plants which are favored forage for cattle—animal members of the ecological association wherever they are allowed to become so.

To complete his knowledge of the aspen type, the watershed manager is interested in how cattle-grazing influences the watershed qualities of the type; whether the seasonal removal of part of the herbaceous vegetation allows more rainfall to reach the soil surface, to be eventually reflected in increased streamflow; and whether any increase in net rainfall is offset by changes in evaporation and transpiration.

These are not complex questions such as chemists and physicists ask of substance. But chemists and physicists work in laboratories where everything is in their control, even the atom. One just doesn't ask such complex questions of nature and expect answers. Nature is too variable, and single or even a few factors cannot be isolated from all others.

The statistical approach must be used in which variation is expected and used. Variation cannot be eliminated but can be separated into types, uncontrolled variations due to unknown factors, and other variations caused by controlled or measured factors such as kind of forest cover, cattle grazing and so forth. Comparisons between the two types, controlled and uncontrolled, give us our answers.

And we do have answers to these queries of the aspen forest type, answers which give aspen a grade of excellent in a rating of forest types on their watershed values.

More snow falls and stays on the ground under aspen than under lodgepole pine, and fully as much as in large forest openings. The winterbare branches catch negligible snow to be lost by evaporation. But these same bare branches and the tree boles do slow down the often dry winter winds and so reduce the evaporation loss which occurs from the snow blanket surface.

The snow under the aspen melts at about the same rate as that under pine, but under both it melts more slowly than in open areas. Here again, the aspen stand slows down the movement of winds, now warm and bearing the brunt of the job of clearing the soil for spring activities. True, more sunlight can enter the aspen than the pine stand, but sunlight is largely reflected from snow and from light-colored surfaces such as aspen tree stems. It is effective in melting snow only when absorbed by dirt-darkened
Snow or by other dark surfaces such as the holes of pines.

More summer rain penetrates the aspen canopy than the pine, even though leaves might have been found, we had made a survey each year of the species of plants found on each side of the enclosure fence and had estimated the percentage of ground coverage by each species on numerous small sample plots. This information is of interest, aside from its relation to rainfall and soil moisture. We found that grazing had definitely reduced the number and extent of ground coverage of several common plant species, including the following: dandelion (Taraxacum officinale), strawberry (Fragaria), vetch (Astragalus sp.), fireweed (Epilobium angustifolium), Drummond thistle (Cirsium drummondii), geranium (Geranium richardsonii), and grasses. The one species which showed an increase was the loco weed (Oxytropis sp.). Considering the totals of all species, the ground coverage of plants under grazing was the loco weed (Oxytropis sp.).

Lastly, we needed to answer the question as to what kind of soil structure is produced by aspen and its associated plant and animal life. Is it a structure which is open to the free entry of water, or is it such that rain and snow-melt water runs over the surface and starts erosion? This question could be answered by observation without repeated, careful measurements of passing things like winter snow and summer showers. The soil is relatively fixed and slow to change. So visits were made to many aspen stands here and there in the mountains, and the soil structure was observed and noted made on any signs of past or present run-off. A porous, highly permeable soil structure with no signs of erosion was the condition everywhere except where over-grazing by cattle or sheep had been so intense as to destroy partially the herbaceous vegetation and compact the soil. Under such abuse by livestock, neither aspen nor any other vegetational type can maintain itself and hold the all-important soil.

We have the answers on aspen. When considering watershed values, there is no longer a question as to whether certain areas of aspen forest should be converted to a pine or spruce forest to increase streamflow and further insure against soil erosion. We can't now sit back and relax, however. There are other problems of even more importance. Results from other research lead us to believe that streamflow from high mountain watersheds can be very materially increased through judicious cutting of mature pine and spruce timber and the proper thinning of young stands of this timber. It appears to us that this can be done over large areas without starting soil erosion, and in good agreement with the best methods of managing timber for maximum growth and lumber production. We believe these things, but they must be tested more extensively.

We must prove them not for just one area and set of conditions, but for the many watersheds from which water, the life blood of the West, emerges to supply our cities and our irrigated fields.

FEEDING

Where every inch of ground is used and a carpet of plants and bulbs is put under shrubs, the matter of feeding comes to be a problem, after nourishment, incorporated in the ground at planting time, is exhausted. Established shrubs may be kept in good condition if given a ration of 3 needed elements in equal quantities:

- Nitrate of Soda
- Acid Phosphate
- Muriate of Potash

mixed 24 hours before used. Put a handful of the above in bottom of holes, made by a crowbar at a distance of 12 inches from the base of the shrub, 18 inches apart. – Helen Fowler.
At 7:30 A.M., June 30 a party of four hardy botanists left Denver to explore the 2800-acre Narraguinnep Natural Area of the San Juan National Forest north of Dolores, Colorado. The party consisted of Kathryn Kalmbach, who kept the collection records; Anna Timm, who provided the wonderful food; Alice McWhinney the official shopper; and George W. Kelly, driver and camp flunkey. At Dolores we were joined by Lucy Hastings who immediately made herself indispensable in many ways. Before midnight June 7 we had covered over one thousand miles in the little Chevrolet pickup, and collected around two thousand specimens. The native flowers and plants were at their prime in many places along the route, and samples were taken at suitable locations every few miles. Most of the trip we were surrounded by grand snow-capped mountains. Few flowers were found in the high country, however, as it was too early. Along the Gunnison River, between Gunnison and Montrose, we found a great variety of flowers and blooming shrubs. The area near the Black Canyon of the Gunnison was especially rich in unusual plant varieties. Along the Dolores River and on the mesas above the Narraguinnep canyon we found wonderful displays of flowers—some rare ones. The Narraguinnep Natural Area proper was a little disappointment, as it was a rather monotonous...
Jutting out from the main range of the Rockies, between the Colorado and Gunnison rivers, rises a flat top mountain, a majestic buttress 6,000 feet above the valley floor, a lava-capped plateau of shale and clay. To the alpinst, perhaps not a challenge; but, withal, rather formidable and unapproachable as you see it from the Grand Valley.

Despite its massiveness, its ruggedness, its sprawling contours, this old dowager maintains a certain vaingloriousness that has commanded the respect and admiration of red men and white.

It sleeps through the winter with a cap of snow on its brow, resting as it will, perhaps not a challenge; but, withal, rather formidable and unapproachable as you see it from the Grand Valley.

Although its massiveness, its ruggedness, its sprawling contours, this old dowager maintains a certain vaingloriousness that has commanded the respect and admiration of red men and white.

It awakens in the spring, slowly, reluctantly at first; then noisily as the snow melts, the ice breaks, and the water cascades over the lava escarpment. Nature drapes it for the coming season: a verdant green carpet of grass at its base; a skirt of dark green pine and juniper; with a necklace of trembling aspen in yellowish green, topped with a crown of Engelmann spruce—a magnificent spring-time ensemble.

By the middle of June it is fully green, and secured a rather complete collection for our herbarium. While this was rather a strenuous trip and full of discomforts we all found it very enjoyable and felt that it was a profitable week. The several trips planned for the rest of the season should be well attended. People who are willing to go on such "work" trips, are, we believe the finest in the world.
They looked to the Grand Mesa for water, diverted the streams to the land and it bloomed.

energy—energy born of faith in themselves and a firm belief that, by hard work, they could conquer all obstacles. They established towns, schools, and churches. They built houses, they plowed the land, they raised crops, and they learned, these people from the East. They learned that the soil was good, the growing season long, and that anything—hay, grain, fruit or vegetables—would grow when irrigated.

They looked to the Mesa for water, diverted the streams to the land. More settlers arrived, more land developed, more water needed. They followed the streams to the top, searching for more and still more water.

They found water, these farmers and fruit growers; they found the Mesa top dotted by hundreds of beautiful lakes. They found excellent watersheds, the soil protected from erosion by grass, ungrazed and undamaged. They found the watersheds covered by extensive stands of Engelmann spruce. They examined these watersheds in the winter and found an unbelievable amount of snow—water in cold storage. They examined the streams in the spring, and found the lakes could not hold the surplus.

They found this water, so clear, so cool, so pure, running uselessly to the rivers, yet so badly needed on the land. They built roads, they located trails, they pulled, they hauled, they packed equipment to the lakes. They constructed dams at the outlets to hold the water from the melting snow so it could be delivered in an orderly manner through the growing season to the land.

The more accessible lakes were developed first, then as more land yielded to the plow, as more orchards bloomed in the valley, as towns grew, more water was necessary and more lakes enlarged. Reservoir sites were selected, more storage provided.

All of the men who examined these lakes and the watersheds were not farmers or fruit growers. Many were stockmen; and the grass, the virgin range did not go unnoticed by them. Gradually at first, but later in eager competition, they pushed their herds by the thousands on to the Mesa. They followed the retreating snow in the spring, re-
maiming until the snow in the fall forced
them down.

Suddenly the scream of the iron horse
was heard in the Grand Valley. It ushered
in the age of exploitation and competition. The Mesa returned the chal-
lenge in an echo of rage.

The age was here: farmers, stockmen,
timbermen, business men, and engineers,
towns, and communities became competi-
tors for the blessings of the Mesa—selfish and careless, exploiters of a na-
tional resource. Poorly constructed dams
and ditches gave way from time to time,
causing erosion of the stream beds; fires nibbled at the protective timber on the
watersheds. Livestock were rapidly de-
stroying not only the range grasses, but
the soil itself, and causing widespread
erosion and irreparable damage.

As if in answer to the echo of rage,
the “Great White Father” declared the
Mesa a forest reserve.

The creation of the reserve nettled
the stockmen, though the more thought-
ful foresaw the future benefits of the
move. But more and more cattle were
pushed on to the Mesa during the next
decade in the competitive scramble for
these benefits. They grazed the watersheds, the open parks, the steep slopes,
the very grass roots, aspen and brush,
in a concerted effort to get everything
before control could be established. Tim-
ber operators and water users followed
the same policy, and fires continued to
nibble at the forest cover.

At the turn of the century, an admin-
istrative agency came into being, the
Forest Service, a new agency created for
a new job. Its first men were inexper-
ienced, but men with ideals, men who
subscribed to the policy that the national
forests belong to the people and not to
organized minorities, that they should
be administered to provide the greatest
good to the greatest number in the long
run.

When this infant organization as-
sumed control of the Mesa they, too,
stood in amazement at what they saw—
not the color scheme or gala dress, not
the bulging, sprawling mountain; but
the magnitude of the job facing them—
protection of water sheds, regulation of
grazing, harvesting of the timber, and
the blending of this great resource into
the economy of the valley.

They found the velvet, verdant carpet
at its base worn and made threadbare
by overuse, the skirt of green torn
and tattered through uncontrolled cutting.
The midriff of oak still retained its color,
but it was ripped and ravelled by erod-
ing roads and trails; the necklace was
broken in many places, and the crown
bent and battered from fire and timber
cutting.

They found some streams which once

Above—The Mesa Lakes, Water in storage, the life blood of the Valley.

Below—Island Lake and adjacent reservoirs at the head of the Ward Creek watershed.
tracts which are valuable neither for timber or water control which should be eliminated from the forests, but those tracts are situated chiefly in New Mexico, Nevada and Arizona, and there is a comparatively negligible amount of such land in California, Colorado, Idaho, Oregon, Montana, Wyoming and Washington. This segregation should be done impartially and in a scientific manner. Opposition to this comes from those who mistake such a move for “an opening wedge” to despoil all Forests, and from the Government Bureaus who openly declare that no land shall ever be taken away from them “except over our dead bodies.” Neither of these objections is valid.

What about the great Deserts of America? The Red in Wyoming, the Owhaoe in Idaho and Oregon, the Harvey in Nevada, the Mojave in California and Arizona and the Great Salt Lake in Utah and Colorado, and the Joranada in New Mexico. In extent they comprise nearly 200 million acres (for comparison New York State has 15 million acres). They are dotted and pock-marked with State Lands, Army Air Targets, Ammunition dumps, Department of Commerce Air Landing fields, Indian Reservations, Game Refuges, National Parks and Monuments, Naval Oil Shale Reserves, Agricultural Experiment Stations, Power site withdrawals, Railroad alternate section grants, State land selections, water hole filings and tens of thousands of pieces of script and homestead filings.
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June 15, 1947

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JULY-AUGUST WORK IN THE GARDEN

Probably the most important thing for gardeners to watch out for in the next two months is insect damage. Usually when plants have had a very favorable growing season the bugs have also grown vigorously. It seems that we always have the aphis (plant lice) with us. Look for them on Delphinium, Spiresa, Colorado sunflowers and many other plants. Nicotine (Black Leaf 40) is still a most effective and safe insecticide to use. Usually a spreader such as soap chips is advisable to be used with nicotine to make it stick.

Red spider and the green spider-mites begin to show up as the weather gets warm. They may be on currants, Cinquefoil, Thimbleberry and evergreen trees. They have been hard to kill. Now there is a new treatment which seems to give good results. It is tetra-Phosphate. Ask your seedsmen for it and directions for using it. DDT is becoming more useful each year as more is known of its powers and deficiencies. A general spray consists of the specified amounts in a gallon of water of DDT, Nicotine and Sulphur. We are not ready as yet to throw out all the old chemicals in favor of DDT.

We wish that we could give specific directions for the cure of fire blight in apples, but we do not have many pests. (To keep your poplars growing vigorously usually means that nothing else will grow in your yard.)

The blight in Poplars can be treated if gone after in time, but it is a technical job, expensive, and not entirely effective. Keep your poplars growing vigorously and they will resist many pests. (To keep your poplars growing vigorously usually means that nothing else will grow in your yard.)

Preparations using 2,4-D are becoming more and more useful. They do effectively kill many weeds when used properly, but must be handled carefully to avoid damage to other good plants. Dandelions and plantain both yield to 2,4-D.

When you listen to a modern insecticide chemist roll off the jaw-breaking names of the chemicals used in fields and gardens you realize that the whole field of insect control, disease eradication, and weed killing is becoming a job for specialists. It would probably pay us to encourage specialists to do these jobs, as they could very likely give us more effective control for our money, but we will all have to know enough about the work to determine when a man really does know his chemicals.

The fertilizer game is also getting pretty technical. Most of us can still understand how to handle manure and mulches though and they are still very effective.

When we have used 2,4-D in every place possible there will still be plenty of use for the old-fashioned hoe to control weeds. Cultivation and mulching usually distinguishes the garden of a person with a good green thumb.

The good gardener will now be doing a lot of little shearing jobs. All the trees and shrubs and hedges that are trying to get out of bounds will need a little pinching here and there. There are many plants which will bloom and make a fine showing in May, but take note of those plants which bloom in August and plant more of them.

How Public Are Grazing Lands?

Continued from Page 21

lic auction and thus be placed on the tax rolls and help support schools and local government. Probably 75 to 100 million acres of so-called "deep desert" have a low value per acre for grazing, too low to justify payment of local property taxes. These lands are now in Taylor Grazing Districts and should remain there and be administered by the Federal Government.

These are the actual facts about the controversy which the two Stockmen's Associations have stirred up. The decision will and should be made by the Public Lands Committee of the House of Representatives where the whole matter can be presented and worked out.