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LINDANE, NEW TERROR TO GARDEN PESTS
Jack Boley, California Spray-Chemical Corp.

Why is lindane in headlines in garden magazines these days? Is it another bug-killer destined for a brief flurry of success and then oblivion after a few years? What makes home gardeners and horticultural editors coast to coast so excited about its discovery.

While it is true that other insecticides have been introduced with great fanfare during the post-war era, lindane has quietly been tested in farms across the nation since 1945. Thousands of tons of lindane have been used successfully by farmers in controlling a wide range of pests. Now, during the spring season of 1950, it is hitting the market for the first time and is available to backyard gardeners. While no miracles are claimed for lindane, its backers quietly and confidently point to the fact that lindane is the first insecticide which has the advantage of killing insects three ways — by contact, by stomach poisoning, and by vapor action. The fact that it leaves a residue which still continues to efficiently kill bugs four to twelve days later after the original application is one of the reasons for its quick and sensational acceptance by home gardeners of America.

If anyone had predicted a few years ago, that an insecticide would be introduced in the market and still be effective for periods up to twelve days after the first application, persons making such a prediction would have been shocked at by professional gardeners. But it is a scientific fact that today lindane is outperforming any known non-poisonous insecticide in its ability to still effectively kill insects for many days after the first dusting or spraying.

Another “first” for lindane is the fact that it makes available to home gardeners a fairly simple way of getting rid of soil pests. It can be dusted on the ground around young vegetable plants or flowers with equal ease and will destroy wire worms and many common types of soil pests.

Gardeners plagued with wireworms infesting favorite root crops now merely have to dust the vegetable seeds lightly with lindane before planting, then spread a little dust on the soil surface after the seeds are planted, then use the balance of the dust on the foliage of the young plants as they emerge through the ground. No longer is it necessary to resort to expensive treatments and hard work to clean up ground before vegetable crops can be grown successfully. SUNSET Magazine, in an appraisal of lindane in its March issue, noted that the multi-purpose garden dusts and sprays of ten years ago killed fewer than a dozen common insects. The magazine then goes on to state that any of the 1950 multi-purpose sprays or dusts, containing lindane, are responsible for...
the death of at least a couple of dozen common backyard pests including a wide range of troubles caused by underground or soil pests. Specifically, a 1950 multi-purpose dust containing lindane is responsible for killing effectively these twenty major garden problems: Aphis, Thrips, Leafrollers, Caterpillars, Flea Beetles, White Flies, Cucumber Beetles, Leafminers, Armyworms, Sod Webworms in lawns, Ants, Mole Crickets, Chinch Bugs, Cutworms, Wireworms, White Grubs, Fuller Rose Beetle Larvae, House Flies and Mosquitoes.

Home gardeners may rightfully ask whether such a multi-purpose dust or spray is dangerous to use. The answer is that any spray or dust package containing lindane does not bear the familiar skull and crossbones on the labels which the law always insists on printing wherever there is danger of immediate poisoning. It has been generally stated by various entomologists that lindane is as safe to use as the widely known pyrethrum and rotenone products. There is practically no danger to youngsters or pets when these products have been used, and that is one more reason why lindane has caught on with such sudden popularity.

Lindane is available under trade names in several garden sprays and dusts, usually in combination with several other tried and true tested insect and fungus killing ingredients which even widen the scope of killing action of common pests and diseases. Botano deluxe is a multi-purpose garden dust containing lindane. Isotox garden spray is a liquid insecticide containing lindane.

For an all-purpose spray program mix Isotox garden spray and Orthorix together. This combination will control practically every insect and plant disease. You can use this combination of Isotox garden spray and Orthorix on primroses for example, to control not only the strawberry root weevil, but red spider mites, as well. Many growers have found this combination extremely effective. It has the further advantage of not burning the tenderest of plants.

Compared to DDT, the insecticide which received such a world-wide build-up during World War II, lindane has a great range of kill and is safer to use.

The fact that lindane is available in either dust or liquid form gives the home gardener a chance to use it in either handy puffer dust guns or the familiar garden hose spray gun. The cost of the new materials is reasonable, particularly, when the fact is taken into account that the original spraying or dusting is still working effectively up to periods of almost two weeks from the time of the first application.

The Hose-in-hose Green Edged Auricula which won Mrs. A. C. U. Berry's Spode plate for Mrs. John H. Karoopp exhibiting in The Rarities and Oddities Division.

LESSONS FROM THE 9th NATIONAL SHOW
"Mike" Lawrence, publicity chairman

The 1950 "big show" of the American Primrose Society exemplified the purposes of the Society even better than any of its predecessor exhibitions.

The general public's hunger for more knowledge about more and better — yes, and different — Primulas was met by an ambitious educa-
That its aims are succeeding is demonstrated by the way inferior primroses are coming less and less to public stands; and by the fact that where a few years back "a primrose was a primrose" now buyers pick up the better plants as soon as they are shown by the retailers.

At the show this same selectiveness on the part of both exhibitors and the general public was shown by the improvement in the quality of the more than eight hundred exhibits benched, and by the expressed wish of visitors to learn where they could buy plants and seeds of exhibition quality.

The 1950 show was simple and bold in its design. The sunken ballroom of Portland (Oregon) Masonic Temple is ideal for display use, with its balcony promenade surrounding the main floor on three sides. Benches of miniature gardens, flower arrangements by garden clubs, and the display of many trophies offered for various classes of Primulas, together with the winning exhibits, lined the outer walls of the balcony.

Horticultural displays and competitive benching, plus an enlarged educational section, was arranged on the ballroom floor in a design which was both attractive and comfortable to traffic.

Bold and colorful polyanthuses contributed by both commercial growers and amateurs were effectively massed in a central display bed. Three commercial growers entered square raised platforms of Auriculas and some of the newer garden types and strains of primroses. An adjoining room, used in the preparation and entering of exhibits the day before the show opened, was given over to the sale of plants during hours the exhibition was open to visitors. This turned out to be highly popular with the visiting public.

But the one thing about the 1950 annual "national" show more important than all others was the manner in which it expressed the ideals of the American Primrose Society, and the kind of attitude and response it deserved and was accorded. This can be summed up in the strongly dominant educational note, the better quality of exhibit material, the wonderful spirit of cooperation on the part of both members and outsiders who helped to put on the show, and the splendid tribute paid the 1950 show by the tremendous increase in the number of visitors from outside the Portland area.

More than six hundred people signed the "out-of-town" register. And they came from all parts of the United States and Canada.

They saw a good show. They saw the kind of show that happens when the sponsors have an abiding zeal for the flower they promote.

The reasons for attending Primrose Shows are as many and as varied as the people themselves. Many look only for the names of the ones exhibiting, following closely the colors of ribbons awarded, checking the posted names of the judges and agreeing and disagreeing vigorously with the decisions, feeling in the competitive classes the main interest in the Show. Then there are those of acquisitive natures, with possessive instincts, searching for that which might make their own gardens more attractive or more up to date. It was one of these who exclaimed over the booth of breathtaking doubles— "For goodness sake, why do they show them if you can't buy them." The canny connoisseurs come, intent on tints and textures and tetraploid vagaries. And lastly and largely, those who search for a renewal of the sense of beauty and peace, much as a devotee attends a symphony concert. For these and many similar reasons, each spring, thousands throng the primrose halls to see the best, the newest and the oldest of the seasons most colorful garden flower, the Primula.

If the Show chairmen and the faithful committee members who give so unstintingly of their strength and time could register, as one registers the volume of sound in decibels, the measure of influence this showing of infinite beauty has on the lives of so many, they would feel their purpose well achieved.

Entering the Kirkland, Washington Spring Show was like stepping directly into a woodland garden—so natural as to seem to have been created without effort at effect—demonstrating that "art which so artfully all art conceals." There were no shrubs too showily showered with bloom, and no tropical trees stole attention from the whole picture which stretched from the entrance to a brookside scene against the stage at the far end of the hall. The pools and the gurgle and splash of water made the primroses seem indeed to be growing in their native habitat on the 'rivers brim'.

A nice sense of spacing was displayed in the placing of the plants in the borders and beds. No crowding of one variety by its neighboring cousins. They were so grouped and spaced that the eye did not tangle with the form and color of adjoining plants while enjoying the perfection of a single plant or group of one variety. Too often this need for entity and separateness is overlooked.

The effect gained in the skillful spacing and careful color choice and size gradation was that of the appearance of a perfect garden with no problems of storms, bugs or wilted leaf, every floret petal-perfect—a garden of no yesterdays and no tomorrows just as so fittingly named a woodland garden Fantasy.

The wish was expressed by several viewing the display of arrangements that they could have been given more room and better disposal for the enjoyment of visitors. They were somewhat crowded and could be viewed only from very close up and largely below eye level. The creative thought and care that enters into their design and composition warrants better facilities for their appreciation.
“DOUBLES” written with capitals, again created a furor of interest. The exhibit was larger and more varied than in any previous showing in the Northwest, more shades in the coloring, and the stems and plants were stronger and more sturdily grown. These same doubles, many of them, were also shown at the Bremerton show where a second hybridizer added his new creations to the display. There are several growers in the Puget Sound region who are having marked success in the production of these most eagerly sought for rarities.

In several of the shows, as at Kirkland, tea was served. This is a very gracious gesture and if it were more generally understood that it is intended for the visitors too it would be a tremendously popular addition to the pleasure of the afternoon. However, the notice of fee charged is usually so inconspicuously placed that most visitors feel the service is for a favored few, members, etc., and so hesitate to avail themselves of the refreshment and restful pause in sightseeing.

To see and understand the glowing faces of those emerging from the plant sales rooms with arms laden with treasures was to bar the thought of commercialism— one was not beholding grimy barter but dealings in joy unlimited. These plants were perhaps the purchasers first step into the primrose-mania clan; maybe a choice Primula long desired or plants that would serve as reminders for years to come of the beautiful show of which they were a concrete token.

In Portland this side room was treated with small consideration, it was sort of a hush-hush backstage stepchild. In Kirkland this sales space was a little better managed, good lighting and more facilities for handling but still rather makeshift. Only in Bremerton, where incidentally no charge is made for admission to the show, was there a real attempt to make of the sales room a delightful feature for the benefit of both exhibiting growers and visitors. The room was large, with full daylight, and tables were arranged counter fashion behind which the growers or their assistants held open court with ample supply of really fine material. The cash registers rang a merry accompaniment to the laughter and chatter of the customers, but more important to the growers than the sales were the friendly contacts made with future buyers. These potential customers make the sales idea profitable to the growers as well as being a very much appreciated service to those attending the show.

The East Bremerton Garden Club of Bremerton, Washington, had as its theme the Colonial Bouquet and carried out the idea charmingly. The potted plants each had a dainty lace paper ruff inserted under the foliage on top of the pot making each individual plant seem to be an arm bouquet in Colonial style or a charming table centerpiece, and imparted to the mass array of them an airiness and fairylke appearance unique in show displays. Garbed in period gowns each hostess seemed to gain sweet courtly dignity with costume. They did not, however, as they so well might have done, carry or wear primroses done in the colonial manner, primroses make such perfect lace frilled nosegays to wear or arm-size ones to carry that their omission seemed a regrettable lost opportunity to display the primrose in its adaptation to personal use.

The hostesses and members of the clubs putting on the shows are missing a chance to popularize one of the delights of these most versatile flowers by not wearing them more often. Properly conditioned they are easy to handle and lend themselves to every possible form whether for the boutonniere, nosegay, corsage, lei, wristlet or wreath. Either tailored trim or made lavish lush for evening, promroses need only to be properly used to become an outstanding favorite to compliment any costume.

A decidedly new note was given at the Bremerton show as an incidental part of the theme. The stage carried a tableau, a colonial setting and included was an old-time organ which was played from time to time, sending soft melodies throughout the hall. This added so much to the general feeling of graciousness that voices softened and eyes smiled in recognition as oldtime chords of memory were struck.

The use of music should be a simple matter to incorporate in many of the shows. No programs to listen to, or that it would be rude to ignore, just soft accompaniment to the voices and rustle of the hall. In this day of mechanical devices when we even have music continuously in the physicians waiting rooms furnished as a utility like water and
light at so much per month it should be a simple matter for any show committee to secure any desired quota of music desired and paid for by the one sentence commercial: “This music is coming to you through the courtesy of” any florist or department store. It might be interesting to consider the added aesthetic enjoyment of the flowers.

The Show of the Tacoma, Washington Primrose Society was engaging in its simplicity. It demonstrated how really enjoyable a display of the treasures from each home garden can be. There was no hint of wearied sophistication displayed by these hostesses, they were as happily proud of this, their first show, as are the proud young parents of their first born, and justifiably so for it was a sweet show. There was enough variety and each plant was placed to get the best effect of lighting in the sunlit flooded room where the show was held. This daylight feature did away with the ‘tragedy of the blues’ encountered when the blues and lavenders must be shown under artificial light.

Blue, as every gardener has had cause at one time or another to discover, just does not show up to advantage under artificial light: the light shades turn grayish and the deeper tones look muddy. The marvelous new blues in both the polyanthus and acaulis when shown in the exhibits under inside lighting usually elicit small praise. It should be possible to use daylight globes or other new lighting to bring out their full coloring when placed in some special section so lighted.

The National Show in Portland was, like the city itself, conservative, traditional and altogether delightful. If it were necessary to caption this show a suggested descriptive title would be the ‘Friendly Show’. Not only the hostesses but all the members of the Society seemed to carry a very special type of courtesy toward their guests. Fortune were the visitors who entered upon the display by circling the balcony and viewing the first floor in its entirety from the vantage point of height before descending to view it in detail. A coherence in the plan of display was thus possible which was difficult to grasp when actually wandering among the different classifications and entries.

The American Primrose Society has a unique advantage in the arrangement of the building where its shows are staged in Portland. The balcony with its openings and inviting chairs offers the visitor a place to rest a moment, chat with friends while absorbing the beauty of the scene below. These balcony vantage points also afford a chance to watch the crowds viewing the exhibits, to gauge their interests and reactions—not the least interesting feature in the enjoyment and zest in seeing shows.

Each Primrose Show has a distinct personality of its own, each its special points of appeal “with patterns and materials to cut a thousand dreams” and he, who having attended a primrose show, would aver he need see no others is much like the man declining the gift of a book because he “had a book.”

A Lighter View of the Subject of Pronunciation

“There are three pronunciations for every botanical name—the Latin, the English and your own.”—George MacAlevy.

Mulch your Primroses for better flowers and more healthy plants. A light mulch will provide shade, keep the ground from drying out and at the same time keep the roots cool and lessen the need for constant watering. A mulch also provides plenty of circulation which all plants need and must have along with good drainage to be healthy and happy.

For over twenty years I have advocated the use of grass clippings as a perfect mulch—not especially grass but of all tender leafage that is free from seeds and insects. All green vegetation is complete in the life giving elements, so why shouldn’t it be a perfect food for all sorts of plant growth.

With the mulch treatment very little cultivation is needed and seldom if ever should fertilizer be used. A mixture of bone meal and charcoal will keep the soil sweet and provide all the nourishment the plants may require.

A small amount of flowers of sulphur lightly sprinkled around the plants is helpful and enhances the color, too, slugs and insects dislike sulphur. My experience has been to use the grass clippings after mowing the lawn, sprinkling the clippings lightly around the plants so as not to exclude the sun and air. The grass soon browns and at the next mowing repeat this process. Soon there will be a nice light mulch that eventually works into the soil taking with it all the elements that plants require.

When plants have finished blooming carefully remove all seeds and some foliage — give them a sensible haircut — then lightly scratch the ground but do not disturb the root growth. Cutting the roots sometimes causes rot and creates a place for insects to deposit eggs or make a home for the very insect we most wish to avoid.

After the bed has been cared for, mulch with grass clippings for a nice comfortable protection from insects, severe winds and early frosts. (Snow is nature’s own fertilizer and protector.) Do not pile clippings too heavy, which could cause heat and mold, and also stop circulation.

All plants, shrubs and trees yield beautifully to this treatment or at least this has been my experience.

Letter Excerpt from a Minnesota Member

It appeared that my usual results with seeds would again upset hopes for some different varieties. After mixing a combination of 1/3 peat, 1/3 sand and 1/3 loam, I planted the seeds in a number of 8” clay pots, covered them and then sunk them in a shady spot alongside our house. The Belled Primulas germinated sporadically and for three weeks nothing showed up in the Candelabra group. So as an experiment I rubbed a quantity of sphagnum moss through a ¼” wire screen, then sprinkled this over lightly and put a glass over each pot. Imagine my surprise in the next two days the pots were swarming with minuscule Candelabra seedlings. I’m going to try this on the rest of the pots of Belled seeds to see if any more will germinate.

A. J. Fakler, Minneapolis
SOME SUMMER CHORES
Mrs. A. C. U. Berry

Has anyone neglected the job of dividing and replanting their Primulas? It isn't too late, but it's almost the last call to get busy. And don't for a minute neglect watering. During the summer, which is usually dry and when Primulas are making new roots, they must never be allowed to dry out.

Re-pot all Primulas growing in pots. Watch carefully for Primula root aphis and, if present, wash roots carefully being sure every tiny bit of white 'wool' is removed. Work dry sand about the roots before re-potting in clean pots, sterilizing those which have been used previously. In dividing your potted Primulas, and of course those in the garden, take off the larger outer leaves rather than cut the leaves short if the leaf surface seems too much for the roots to support. The most important growth elements are in the tips of the leaves.

If re-potting Auriculas, a little very dried cow manure seems to help. I also use a bit of it for my European Primulas both in pots and in the open as I think it encourages blooming. While the drainage for Auriculas must be very good, do not make the soil too light and porous—they seem to thrive on a heavy mixture.

Mulching Primulas in the garden keeps the soil from drying out so rapidly. This year I have tried well-rotted sawdust and they have grown so big and so fast I am almost appalled at the results. Am going to use it in the potting mixture for the Edged and Show Auriculas instead of leaf mold.

And more than anything else — DON'T LET THEM DRY OUT!

New double Polyanthus in the Bay View Gardens, Olympia, Wash.

For the Newer Members

In this issue of the Quarterly are three different cultural practices, two of which are at the opposite ends of the pole. Mr. Cullen undoubtedly horrifying Mrs. Gale with his heavy-handed fertilizing and he in turn wondering what sustains her plants. Mrs. Berry keeps a middle-of-the-road course with well-rotted sawdust, and well-rotted should be underscored for nothing promotes root growth faster than rotten wood and nothing locks soil quicker than fresh sawdust which uses all available nitrogen in the process of decomposition. Then there is Dr. Worth on page 59 of the April Quarterly with his unorthodox practice of heavily fertilizing, with rather fresh stable manure, a rich black muck only a few weeks before planting. Each one is reporting a method of growing plants which has met with outstanding success.

Site, climatic conditions, type of plants grown and what is expected of them influence methods used. While Mrs. Berry and Dr. Worth are well-known plant collectors and gardeners enjoying wide renown, it is not as generally known as should be that Nettie Gale is one of the really clever and successful growers of Northwestern natives. She, possibly
PRIMROSE SHOW AT JEFFERSON HIGH SCHOOL

Portland garden clubs have a project whereby high schools are encouraged in gardening, each high school having its own sponsoring society which helps the young people make a show or display during the year. Jefferson High chose Primroses and on the first of May this year, they put on their first show in conjunction with their May festival, recalling the May Day Primrose fetes of seventeenth and eighteenth century England. The faculty, of course, cooperated, but the actual work and planning was done by the boys and girls. Despite the late date and the fact that it was the first venture, they had a very fine display indeed. The sweepstakes cup went to Wilma Anderson for a lovely dark red Auricula. There were table arrangements, shadow boxes, dish gardens and entries from other high schools. The American Primrose Society helped with judges and with specimen plants which were used as an educational display and later given as prizes. Always symbolically associated with early youth, Primroses were never more charming than those so eagerly shown by the young gardeners of Jefferson High.

SECRETARY'S NOTES

Perhaps you have had recently a little list from Holland. It is from a new member, Mr. Henri Schilpzand of the Isle of Texel. He was much pleased to be sponsored by Dr. Bond, and he writes, "From this little isle far in the north of Holland I greet all members of the Society. If there is anything I can do for the Society I shall always be willing to help gratis. I shall try to be a good member and to follow the steps of generosity as Dr. Bond taught us. Each member visiting Holland can dwell in our 'Castle' in the wilderness for some time to see our Primroses, birds and flora. Everybody is welcome." Mr. Schilpzand showed his sincerity by mailing us a little silver spoon with the arms of Texel on it, to be used as a prize, or to 'do what you think is right with it.'

Lews J. Cullen of Staten Island, New York expresses how strange it is that after all these years and after and during all these crises we still think the world is divided into two classes of people — those who grow primroses and those who plant petunias. And to make clear his affiliation, he sends from one of New York's top shops a Haviland primrose plate, sold by an English girl who spoke of the primroses embellishing her native heath. The plate is a prize for some lucky winner in the 1951 national Primrose Show in Portland to be awarded at the discretion of the show committee or to the girl who succeeds in raising a Prim that matches the color of her eyes, or the man who sweeps up after the show.

Again this year we were under obligation to Mrs. A. C. U. Berry for an interesting display during the show. Few realize the work and anxiety this involves for her, as the exposure at the show is very difficult for some of the rare plants. Among Mrs. Berry's plants was a pot of Oregon's native P. Cusickiana.

The show committee also wishes to give their thanks for the aid they had from some of the students of Jefferson High School. The help of strong young people was certainly a life-saver in setting up the show. They were intelligent and enthusiastic, so much so that one boy was on hand for fifteen hours and was busy every minute of that time.

Speaking of shows, our English correspondent, Mr. Lawfield, writes of the Chelsea show, "This year I thought that the Primulas were not so numerous as usual, but there were some good specimens. Mr. Haysom of the Bartley Nurseries had some very fine candelabras, particularly the newer 'Itton Court,' and some good P. nutans. In the new plant section Mr. Haysom showed a single specimen of P. x viatans, a cross between P. viall and P. nutans. It is quite an interesting plant midway between the two parents."

To you people who are especially interested in Auriculas, there are mimeographed sheets available of the article by Mr. Briggs, from the Auricula Yearbook of 1947, "How to Grow Auriculas."

We have an apology to make to some of our sustaining members. In the April Yearbook is a list of the sustaining members of 1949, and another which gives "sustaining members, 1950". This 1950 list did not include any of the 1950 sustaining members who also paid for 1949. This really was almost all of the list.

The American Primrose Society members enjoyed a picnic in July at the home of Miss Dora Broetje. Her grounds are a delightful place.
There are always requests for information on raising primroses from seed and, as with the care of mature plants, there are numerous methods from which ideas can be taken and adapted to individual needs. Any simple, logical procedure based upon fundamentals of cleanliness, adequate air and water drainage is usually successful and certainly preferable to an involved routine. Cleanliness, air and water drainage are required when sowings in any season, but are particularly needed in summer sowings because of the added fungus threat.

In this particular sowing of seed (early July) containers—benches in this instance—were scrubbed with a solution of Semesan. A layer of crushed rock was next put in followed by a screened and thoroughly mixed standard seeding compost made up of equal parts of soil, coarse sand and leaf mold. After the compost was leveled off and tamped to about a half inch below the top a thin blanket of finely-shredded, presaturated sphagnum moss was spread evenly over the compost surface. A thin blanket is preferable to a thick as its use is to provide a fairly sterile germinating medium which will keep the seeds constantly moist, yet one which will not be thick to the point of exhausting the seedling's embryonic food supply before the soil can be reached by the root. The screened sphagnum is immersed and wrung out before spreading as it is almost impossible to soak dry sphagnum with a sprinkling can. After the wet sphagnum was spread, a solution of Semesan, 1 level teaspoon (standard measure) to 2 quarts of water, was sprinkled evenly and lightly over the beds. Semesan solution in this proportion was also used on a box of sieved sand to be used later as the seeds germinated.

Wide, shallow rows made by lightly hammering a lath into the moss were made and the seed sown very thinly. The shallow drills, only deep enough to keep rows separated, the sparsely scattered seed sown close to the top of the bench were all precautionary measures to ensure the highest possible air circulation at soil surface. Half-inch mesh screen was then placed over the benches to keep out the birds. Seeds were not pre-treated with any pre-emergence fungicide in order to avoid retarded germination, and were not covered either directly with sand, soil or moss or indirectly by glass or cello-glass (benches are under roofed shelter to protect from heavy rains and receive morning and late afternoon sun). Covering the seed immediately after sowing hides any fungus which would develop should the spores be on the seed, and an overall cover was omitted to allow an unhindered circulation.

Bread mold appeared in a few isolated spots about a week after sowing. These spots were marked by inserted matches and treated by lightly syringing a solution of Semesan, 1 level teaspoon to 2 quarts of water, when detected and again in 24 hours, which brought about control of the affected areas. No spreading occurred. Last year a solution of 8 teaspoons to a twelve-quart sprinkler was used sparingly and with a very fine rose over the entire seed plantings with no damage, but these proportions used later on transplanted seedlings with a larger rose which gave a heavier application resulted in fatal burns; therefore, caution was indicated and affected spots only were treated which proved to be all that was necessary. Since using Semesan, Carco-X (see advertising section) has been recommended by a garden expert for the safe and effective control of bread mold. For further information on this fungus, refer to Edwin L. Hechtol's article, page 9, July, 1949 Quarterly. Howard W. Lynn in his article on Sowing Primula Seed in the April, 1950 Year Book recommends the use of Carco-X (page 55) for the control of bread-mold and damp-off. "Applied in the strength of 1/200 to seed flats after the seeds are sown it will inhibit the growth of both mold and damp-off. I have never observed either on a treated flat." Mr. Lynn's article is well worth re-reading.

Until germination began, watering was attended to every second or third day with better than warm and not actually hot water, about 110 degrees. This brought on the bulk of the germination in from two to three weeks, which is not unusual or rapid for fresh seed, but an approximate 75% simultaneous germination was different than the preceding summer's sowing in which cool water was used and the first germination was comparatively scant with two more following before fall, and another in the spring. As the seed germinated in this summer's sowing, no more bread mold appeared and a light sprinkling of the treated sand was used to protect the tender sprouts from direct sun, drying winds and to assist in the descent to the soil mixture. With the appearance of the cotyledons the moss was kept moist, tepid water being used, but not saturated as it had been prior to germination.

For those who garden in situations where the air moves freely and does not settle as in this sheltered pocket, fungus is not such a problem. And while vigilance here is directed mainly toward fungus detection, pests may be temporarily forgotten until a half row or so is found chewed off and the hatching cutworms are suddenly remembered. A dusting of Botano and unscented talc in equal parts was used and the next morning twenty-three cutworms in various stages of ill health were removed, the next morning, two, and none since.

When transplanting seedlings to an organically (not chemically) enriched mixture, which can be done after the first true leaf develops, the first steps are the same as those taken in the seedling process. Clean your containers and make sure the drainage cracks are wide enough to avoid swelling shut with the constant moisture they will be subjected to after seedlings are planted. If in doubt, bore holes, not neglecting the corner areas. The need for a rapid run-off of water, and an air circulation around and under the flats promoting a more wholesome condition generally was satisfied by elevating flats on tracks made of 2 x 4's, which action checked the beginning of rot and resulted in a prodigious growth spurt and some bloom on spring-sown seedlings less than five months from seed.

(From page 13)

to be on a warm Sunday afternoon, and we found primrose growers can certainly make a good potato salad and raspberry pie.

If there is anyone planning to visit England next spring, they will be interested in a conference being planned by the Alpine Garden Society and The Scottish Rock Garden Club, to be held April 24th to 27th in London, then a week in Edinburgh. They are hoping for "cultivators" from overseas. For those of us staying at home there are dreams.
THE ALPINE GARDEN SOCIETY of the United Kingdom
This Society, founded in 1930, has over 100 members in North America. Its Quarterly Bulletin is generally regarded in the British Isles as one of the best of the specialist garden publications. It contains descriptions of all new plants of merit, both those raised at home or introduced by collectors from abroad. Further particulars may be obtained from Dr. C. R. Worth, Groton, New York, who has undertaken to accept and forward the annual subscriptions of Members in the United States, or from the Secretary, C. B. Saunders, Esq., Husseys, Green Street Green, Farnborough, Kent, England.

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