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THE MEANING IN THE PRIMROSE

Morgan T. Riley*, New York City

The low sun each day mounts higher; the winter's fierce winds abate; the stretches of snow sink, trickle away; what was white greens; sky's covering has shedded to fleecy cloud; that which was gray has blued; the rock-hard ground softens into the earth that feels good to the hand; it is spring, things are growing. And the Primrose, not the first but sure evidence of spring, jewels mayhap the borders of the last shreds of winter's cloak. Now is the year's youth. So, Madame Louise Cortambert, the first writer on the language of flowers, feeling the growing year, says the primevera means Première Jeunesse. She said it in 1819 in her Le Langage des Fleurs.

And English Henry Phillips saw her book and made her meaning for the Cowslip, Early Youth, his meaning for the Primrose in his Flora Historica of 1824, and his Flora Emblems of 1825.

And in America in 1835 some one made Madame Cortambert's French into his (or her) English, even named his book The Language of Flowers, stole the Frenchwoman's work. No name is on the title page.

And these three—Frenchwoman initiating, Englishman and American accepting—saw so truly that out of the thirty-eight who give a meaning to the Primrose, nineteen follow Madame Cortambert's footsteps; they too say: The Primrose means Early Youth.

Because no two of us have experienced the same things, when even so few as two independently look upon the same thing, we come out with different results. But because these aim look upon spring and the Primrose it brings forth, these others have found and given meanings to the Primrose that play about Early Youth.

One gives Childhood to the Primrose—is not Childhood the same with Early Youth—almost?

Two language-makers read Primrose—Early Youth, find it not satisfying. Keeping Early Youth in mind, they notice the ups and the downs of mood in young son and daughter. And looking again upon the Primrose one says Early Youth and Sadness, the other Early Grief. These are not of the flower, these—one a state of mind, the second reaction to occurrence—come out of the minds of these language-makers.

A third language-maker reading the same, seeing the same flower and the same kinds of people is taken with youth's brighter side. She says the Primrose means Early Youth Is Charming.

* Morgan T. Riley is the author of "Dahlias, What is known about Them" and of "About Ifom'ti" which is in preparation.
Like that maker of language who saw in the Primrose, Childhood, a fourth sees Youth. This seems, simply short for Early Youth.

A fifth, confused, mixes matters, says the Primrose means inconstancy. But Inconstancy is not of the Primrose, it is—we shall soon see—the meaning for the Evening Primrose, which is not of the Primrose family but an Oenothera.

The first language-maker gives to the Primrose a meaning that slips into next place. Charles Louis Mollevaut adding in 1818 a list of flowers and their meanings to his Les Fleurs, sees Credulity, and Esperance when he looks upon the Primrose; he sees believingness, and hope in the Primrose. And hope there is in spring's Primrose, and believingness in the young.

Madame Cortambert's Premiere Jeunessse started another Frenchman, Pierre Zaccone, to considering boys and girls. He sees the Primrose desirable, he finds in them a quality that is desirable. So from Primrose to the young and back to Primrose he fixes upon the Primrose Affection Tendre et Sincere.

Now look you again at the Primrose—at the spread of round leaves at its base, at its straight, slight stem rising to round of bright flowers—neat, trim, jewellike—doesn't Modest Worth fit? And neighbor to Modest Worth is Virtue, emblem given by John Mayne many's the year ago, in 1609. One of the language-makers, Dorothea Lynde Dix, finds his couplet, accepts it and in 1829 makes Virtue the meaning of the Primrose.

All the meanings in and rising out of the Primrose are kindly. This, our last, meaning by American Sarah Josepha Buell Hale ties all these others together. She says the Primrose means Have Confidence in Me.

But, say five language-makers, the Primrose that is rose-colored means Unpatronized Merit, a sixth the little different Neglected Genius.

Listen, friend, hear Beaumont and Fletcher, or was it Shakespeare?

"Primrose, first-born child of Ver,  
Merry spring-time's harbinger."

And now, the Evening Primrose:

A thread led the first meaning into the last in the Primrose; no thread can bind the meanings of the Evening Primrose, for the language-makers see meanings in the Evening Primrose that are exact opposites:

Inconstancy    Jeunesse et l' precoitc
I am more constant than thou. Silent Love.
I am more faithful than thou.

Again Madame Cortambert leads, again most follow; she says the Evening Primrose means Inconstancy. For this she has a reason: "We have several times refound only to lose once again this beautiful plant. It is originally from Virginia. M. Mordan de Launay has brought it to the gardens of Paris where despite its inconstancy we have given it a favorable reception." That's Madame Cortambert's reason for assigning Inconstancy. But English Henry Phillips, knowing Madame Cortambert's book, accepting her meaning, gives other reason for this same meaning: "This flower that shuns the day as if it could not face the truth, is made the emblem of Inconstancy."

Twenty-six of the thirty-five who give meanings to the Evening Primrose label it Inconstancy. But one language-maker says to her the Even-
CULTIVATION OF DOUBLE PRIMROSES

Capt. C. Hawkes, M.B.E., M.C., Nantwich, Chesire, England

A number of letters have been received recently from both sides of the Atlantic asking for the secret of growing double Primroses successfully. The answer is not easy to give, because in some districts these plants will grow almost as weeds, yet in other localities they only drag out a mere existence. There is no question that they succeed best where the climate is moist and temperate as in Scotland and Ireland. Unfortunately, those of us who are so keen on growing these treasures are not blessed with such conditions and then we must set about and make accommodation for them as near as possible to their likes.

The great herbalist of the 16th century, John Gerarde, observes in the "epistle dedicatory" to The Herball or GENERAL HISTORIE of PLANTES which is dedicated to the Right Honourable Sir William Cecil, Knight, Baron of Burleigh, K. G., Lord High Treasurer of England "UNDER your Lordship I HAVE laboured with the SOILE to make it fit for the PLANTES and with the PLANTES to make them delight in the SOILE so that they might LIVE and prosper UNDER our climate as in NATIVE and proper COUNTRY."

The favorite haunt of the Primrose is copses, hedgerows and shady places, so following Gerarde's directions we must endeavor to create conditions suitable to their wants.

Generally speaking, the double kinds of Primroses are rather more difficult than the single ones and require more care, but if you can grow the latter well, there is no reason why you should not succeed with the former. Certain conditions have to be made if they are not already available in our garden and perhaps the most important is the position. As these plants are semi-woodlanders they should never be planted in a sunbaked border which is fatal to them since shelter and partial shade are conditions chiefly necessary to their well being. They should be given a position where they can get filtered sunshine near deciduous trees or under the shelter of a hedge where they can get a little morning and late afternoon sun but protected from the scorching rays of the mid-day sun. Trees or hedges are not always available so wattle hurdles can be used to great advantage for protection.

Double Primroses certainly do not like to be alone and should be planted fairly close together, in fact one amateur advocated to the writer the growing of annual weeds amongst. While one hesitated to recommend this method there is no doubt that shelter and part shade conditions are essentials. The late W. Robinson in his book The English Flower Garden says "it enjoys the shelter, not merely of tall objects around, but also of the long grass and herbaceous plants growing near."

Soil. The most suitable is a light, rich, vegetable soil. If your soil is of a light, sandy and hungry nature it can be brought into condition by a liberal addition of leaf mould and good horticultural peat. With a heavy clay texture soil, add peat, leaf mould and sharp sand in sufficient quantities to make the soil friable. The bed should be made slightly lower than the surrounding ground so that when watering has to be undertaken in dry weather it does not run off but soaks to the roots of the plants. Much as Primroses love moisture the bed should never be waterlogged.

On the question of manure, opinion is sharply divided, one school favoring it while the other is bitterly opposed to its use. A well-known Scottish grower uses hen manure but, perhaps if a fertilizer is used, there is nothing better than a light dressing of very old and well rotted cow manure given in the early spring.

In very dry weather the beds should be well soaked at least three times a week and not just merely sprinkled.

Double Primroses should be divided about every two or three years, otherwise their crowns will become congested.

One correspondent asks why suddenly a healthy looking plant will wither and die, and suggests disease. To answer this question it would be necessary to examine the plant, but the writer is of the opinion that more often than not, the trouble is caused by slugs or some root eating insect. The Grey Field Slug is a most troublesome and destructive pest to the foliage and buds, while the Small Black Garden Slug is even worse as it feeds both on the surface and underground, attacking the roots. Soot is the best remedy for these pests.

In conclusion, a pane of glass, or a cloche is much appreciated by the choicer kinds in winter as it does protect the plants from the attention of the birds and heavy winter rains.

Editor's Note: Captain Hawkes' suggestion of a cloche brings to mind the use to which Canadians, particularly, put clear-glass jugs. Instead of allowing the empty jugs to accumulate or having to haul them away, the bottom is burned out and the remainder is used as a bell glass over just such plants as double Primroses. A stout string is saturated in kerosene and wrapped two or three times, close together, at the place where the jug is to be severed. A match is touched to the string and a clean break results. By taking the bottom out the handle is left for easy management and the cork could be taken out if more air seemed necessary. If a more attractive job is wanted, the jug could be separated at the shoulder. For leaf cuttings, too, these bell jars are valuable providing a warm, humid atmosphere conducive to quick rooting.

THE PROPHECY

Only the gleam of a Primrose clump, but a fresh hope it has brought,
A golden dream in a cold grey world, a new and dawning thought.
Only a handful of tiny blooms, along the frosted lane,
But it means that hidden roots are quickening again,
Wistful faces pale and shy, peeping at the passers-by,

Fairy lamps along the way—lighting up the winter's day,
Only the green of a withered leaf, but it promises so much,
Bringing the iron of the frozen earth with a light and tender touch,

Only a few on the sheltered bank, but they speak a prophecy thrilling,
With a whispered hint of the joys that are to be,

Only flowerlets in the grass—but they tell me as I pass,
Sorrows fade at winter's end—and spring is just around the bend.

... "Patience Strong", An English poem contributed by Mrs. Robt. W. Ewell.
If one is the fortunate owner of a large area of soil, which lacks, through abuse and erosion, the power of maximum productivity, the problem is one which can be corrected advantageously by planning five to ten years in the future. Methods used will depend upon the nature of the soil, rainfall, topography of the land, but subsoiling, terracing, contouring, leveling, crops used for special purposes, green manuring, fertilizing, planned rotations of crops, and common sense, will all be used fully or in part.

The average gardener has a relatively small area over which to labor and remedial practices are more specific and can be carried forward with more concentration and rapidity. Fortunately no one person need contend with all factors involved. No matter where the area of soil to be considered is located but three highly important factors are actually involved. These are possibly in importance subsurface drainage, the physical condition and properties of the soil, and nutrients.

A gardener is free, if it pleases him, to thoroughly investigate the complexities of the chemistry and constituents of the soil, but usually it isn’t necessary to do extensive research to vastly improve refractory soils or low fertility.

The most disheartening garden soil to meet is that overlaying a subsoil which prevents drainage. The condition is disheartening because in many cases there is no ready remedy. There are extreme cases where actually no subsoil exists, but the top soil rests directly on laminate sand or limestone, tight clay or hardpan. By removing the top soil the clay and hardpan can be loosened to give temporary relief but these substances often have a way of running together even tighter shortly after being disturbed. The feasible plan would be to continue to build a foot or more of good top soil on the original top soil. An ingenious gardener should be capable of contriving such a setup, although low walls introduced in the most attractive manner might be the final solution.

A schism as wide as the sea exists between those who advocate the use of chemical fertilizers and those who risk all on the introduction of humus in the rebuilding of poor soils. Although it appears that a balanced soil cannot be built without the introduction of humus it also appears to be far-fetched for a thoughtful person to make the statement that all phases of soil depletion can be corrected by the use of humus.

There is evidence that the constant feeding of soil with heavy yearly application of chemicals can bring about as serious results as were the result of the “mining” of the soil which has gone on from the time the first agriculturists reached the shores of a virgin continent. The use of chemical fertilizers by gardeners is a subject that each gardener should give attention to, remembering that he is growing perennial plants for the most part and not an annual vegetable crop. He can well afford to use slower acting elements and avoid the overgrowth of the vegetative portion of his plant in any given year. An over-fed plant is always subject to winter-kill in the less mild portions of the country.

Under natural conditions soil is formed by the combining of the broken down rocks of the earth’s crust with the normal collection of humus.
The addition of barnyard manure to soils does not necessarily indicate that a balanced soil can be attained. Manure is low in phosphorus in comparison to its content of nitrogen and potassium. If manure is used as a modifier, care should be exercised. The best practice would be to incorporate the material in the soil in the fall, planting to follow in the spring. Excess use of manure, or nitrogen, will usually force perennial plants into leggy growth with small blooms.

Compost made up of waste materials is the most satisfactory and at the same time the least expensive material to use in rejuvenating soil. By late years one has a tendency to flinch and duck at the mention of the word "compost." Compost is but collected waste vegetable matter to be used in the most natural way.

Vegetable matter can be piled indiscriminately together — leaves, vegetable waste from the kitchen and dug into the soil in the fall. Or such material can be composted for one to two years when its value is much enhanced.

Whether only sharp sand and sphagnum moss are added to break up tight clays or whether humus or finished compost are added to loose, sandy soils, not until this is done and the physical aspect of the soil is improved, is soil testing necessary. The simple test for acidity can be made but the beginning gardener usually knows whether his soil is acid or alkaline. If the gardener feels competent to make tests of soil for deficiencies of nitrogen, phosphorus, potassium and the trace elements he can have a lot of fun with a testing set, but he must use extreme care to avoid contamination and false readings. There is an agency available, usually at the agricultural schools, which will make such tests. After soil has been improved physically with organic additions, chemical deficiencies are much easier to appraise and shortages can then be made up with proper chemicals.

The incorporation of manure, sand and humus into the soil can be very tiring work or it can be made much simpler and rather a pleasure, if one is a true gardener, by the use of tools adapted to the job at hand. The D-handled spade and the spading fork are tools that have followed a pattern for many years. They have their occasional uses, but neither are tools fitted for spading of the soil. The blade of a spade, if of good material and sufficient length, when fitted with a long, straight irrigating shovel handle makes a very good instrument with which to turn soil. The D-spade is not so often found in the west, its place being taken by the irrigator's shovel. This tool varies in its shape to a great degree. A light weight shovel, with a double-steel ferrule and a straight handle, with practically no crook of the shank is the smoothest working and least tiring tool. Such a shovel is sometimes hard to find in the stores but when found becomes a treasure. The long-handled tools require less stooping by the operator and work into the soil more easily and as a consequence are less tiring.

In spading the blade of a shovel or spade should be driven straight down, not at an angle, and the spit of soil should be turned over and broken up if the soil is to be used immediately. If rubbish, such as leaves, is to be turned under the first spadeful of earth across the area being spaded, should be thrown out to form a trench. The trench so left should be filled with the organic material and covered with the soil from the following trench, and this to be kept up. If this work is done in the fall, it's just as well to leave the job rough to catch snow and rain water, and to freeze deeply, as this helps to break up the material covered over.

Spading should be attacked in a leisurely manner, otherwise the gardener will soon wear himself down; whereas if he attacks the soil with a well-selected tool and a supply of pleasant thoughts it is most amazing how much soil can be turned with a minimum of effort. Investment in a 16-inch file to be used at proper intervals to put a good cutting edge on the blade of the tool, and keep the blade polished will save much energy and many sore muscles.

**SIX NORTHWEST PRIMROSE SHOWS**

With six Primrose shows in the Pacific Northwest, in addition to the Society's 8th, it would seem to indicate that the golden age of Primroses in America is being approached. The development of the genus by both commercial and amateur growers, the enthusiasm and friendliness surrounding it, is making a mark on the pages of horticultural history.

The local garden clubs sponsoring the shows extend cordial invitations to all to be guests and to exhibit. Kirkland, Washington includes an offer of housing in their invitation if word is received in advance by their group. Mr. E. Perrine, Landscape Architect, "Loel" Glen, Kirkland, Washington, will relay any such notices to the proper committee.

**Grants Pass, Oregon**

Second Annual Primrose Show of Southern Oregon, April 7th and 8th, sponsored by garden clubs of southern Oregon and held in Jerome Prairie Community Hall.

**Longview, Washington**

Third Annual Show, April 11th and 12th, sponsored by the Garden Department of the Longview Woman's Club in the Woman's Club clubhouse, Longview.

**Bremerton, Washington**

Fifth Annual Show, April 22nd and 23rd, sponsored by East Bremerton Garden Club, Civic Recreation Center Bldg., Bremerton.

**Kirkland, Washington**

Second Annual Show, April 22nd, 23rd, 24th, sponsored by East Side Garden Club, Civic Center, Kirkland.

**Mt. Angel, Oregon**

Second Annual Show, April 24th, sponsored by Mt. Angel Garden Club.

**Napavine, Washington**

Fourth Annual Show, April 29th, 30th and May 1st, sponsored by the Southern District of the Lewis County Garden Club at the Town Hall, Napavine.

The Bremerton and Kirkland Primrose Shows being held simultaneously and on opposite sides of Puget Sound will enable visitors to attend both events.
A DISCUSSION OF SEEDING METHODS

Ralph W. Balcom, Edmonds, Wn.

TO THOSE who decide for the first time to experience the pleasure of raising Primulas from seed, it is confusing to discover that hardly any two growers agree as to the 'modus operandi.' In such matters as seeding medium, containers, pre-treatment of seed or the time of year to sow, there is always a difference of opinion somewhere in the process. While one may use a highly involved and complicated procedure, another will simply sow the seed in a flat during the winter, set it outside protected by a glass and wait for it to grow when the weather warms. One very successful grower of lovely Primulas said to me, "Bosh! I just sow my seed out under an apple tree and let it grow."

Though many articles have already appeared in the Quarterly, the editor is still receiving requests for information on this subject. Thus it is thought advisable to print a new complete set of instructions for the particular benefit of the person who is sowing his first seed. The following procedure is a sort of composite of the opinions of some of our best growers. While it is safe and will succeed with most all Primula seed that a beginner would be likely to use, be it understood however, that some of the rarer species and varieties do require other special treatment.

SEED

Of course, one must have viable seed to start with. If purchased, get it from a reliable dealer who understands how to properly harvest and cure it. If one wishes to use his own seed, it should be harvested with care. Choose a dry sunny day if possible, and be sure it is fully ripened before gathering. Dry thoroughly before separating from the chaff and then place the seed in a tight container and store it in the cool compartment of the refrigerator.

TIME TO SOW

February, March and April are the most popular months in which to sow Primula seed. Some of the species, especially the Candelabras, germinate best in the summer or fall. Now, however, using one of the new methods of pre-treating older seed, most of these will grow almost as well in the spring. Many growers do prefer to sow in the summertime, but often it is difficult then to get the seedling plants established with a sufficient root system to withstand heaving from the ground caused by alternate freezing and thawing during the winter.

SEEDING MEDIUM

A mixture of equal parts of sand, peat (or leaf mould) and garden soil sifted is as safe as any. Many other composts are just as good no doubt. Any mixture that is used should be porous in texture and should not be too rich in plant food. Sterilization of this medium before using will kill many weed seeds and help eliminate certain mosses and algae that are often troublesome later on. This can be done by placing the soil in a metal container and baking in the oven.

SOWING

For a container, a flat or most any shallow receptacle can be used as long as it is clean and has sufficient openings in the bottom for good drainage. Place an inch layer of coarse gravel, or some other such material, in the bottom and on top of this a similar layer of peat moss. Finish filling with the potting mixture, scrape off flush with the top and then press it all down a bit keeping the whole surface level. In sowing, scatter the seed thinly and as evenly as possible and press it into the soil with a small flat board. It can be sowed in rows about an inch apart, so that the seedlings can be cultivated later with a kitchen fork. It is not necessary to use a covering of soil, but if any is used, it should be sifted on very lightly and as evenly as possible. In place of a covering of soil, I prefer a thickness of wet burlap on top of the bed to prevent any seed from drying out before germinating. This is removed just as soon as the seedlings have sprouted. The bed should then be thoroughly watered. If possible, this should be done from the bottom by setting the flat in water to about two-thirds its depth and leaving it there until saturated. The flat is then covered with a pane of glass, on top of which a sheet of paper is placed.

CARE

The optimum temperature for germination is about 60 degrees. Inspect the flat every day as soon as the first seeds sprout, remove the paper and burlap and also tip up the glass to give more air. After a few more days remove the glass completely. The seedlings need good light but care should be taken that they are not exposed to a hot scorching sun. If they should begin to grow tall and spindly, give them more light and a better circulation of air. Avoid frequent sprinklings of water. Wait until they really need it and then give them a real soaking from the bottom. It is best not to water seedling plants by sprinkling from the top. Dusting at soil surface with a safe fungicide-insecticide controls damp-off and aphids, the two major seedling enemies.

TRANSPLANTING

The plants are ready to transplant to another flat containing a richer growing medium when they have their first true leaves, although they can be left longer if not crowded. Space them about two inches apart. Bi-monthly dusting to reach underside of foliage keeps aphids in check. The final moving to the open garden should be made when the plants have established a good root system and begin to get crowded here. It is best to do this in the afternoon of a cloudy day. A thorough watering several hours before transplanting the seedlings as well as a good soaking afterwards will lessen the shock and help them establish themselves.

HOT WATER TREATMENT OF SEED

Of the various methods of pre-treating Primula seed, the so-called Hot Water Method is the easiest; to use and I believe obtains as good results as any. I now treat all my spring planted seed with hot water. The method is simple. After the seeds have been sowed, sprinkle well with water heated to about 115 degrees being careful not to wash them out. Repeat this same procedure twenty-four hours later. That is all there is to it. There seems to be no danger of injuring the seed by use of this process, if care is taken that the water is not too hot. A temperature of 120 degrees seems to be the maximum.
The length of time that Primula seed will remain viable varies somewhat with the species. Some germinate best when fresh, while others seem to require a resting period. Most of the Auriculas are in this category. There is much experimenting yet to be done to determine the exact peculiarities of even some of the more common species.

Being curious to know if some three year old Garden Auricula seed that I had on hand would still grow, I decided to make a test. I had already planted some of the same seed when it was fresh and had obtained about an 85% germination at that time. Thus a comparison could be made.

After starting the test, of course I became more involved and decided it was a good opportunity to check at the same time the relative merits of the various new methods for pre-treating Primula seed. The results while not conclusive are worth recording.

I divided a standard flat into four equal plots and, using the same medium in all of them, planted an even one hundred of the three year old seed in each plot.

Seed in plot No. 1 were scarified; seed in No. 2 were treated by the so-called Artificial Freezing Method; in No. 3 they were given the Hot Water treatment, and those in No. 4 received no special treatment, being used as a check.

Inasmuch as all the seeds were planted in the same flat, they were grown under identical conditions. Bottom heat was given—which I believe does aid in germinating most Primula seed—and a temperature of about 60 degrees maintained.

The results are shown in the chart below:

<table>
<thead>
<tr>
<th>Plot No. 1 (Scarified)</th>
<th>First Seeds Germinated</th>
<th>Number Of Plants Grown</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 days</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Plot No. 2 (Freezing)</td>
<td>15 days</td>
<td>42</td>
</tr>
<tr>
<td>Plot No. 3 (Hot Water)</td>
<td>11 days</td>
<td>68</td>
</tr>
<tr>
<td>Plot No. 4 (Check Plot)</td>
<td>15 days</td>
<td>35</td>
</tr>
</tbody>
</table>

Note: I must mention here that I feel I might have pressed too hard when scarifying the seed in Plot No. 1 and could have injured some of them, which would account for the poor showing of that particular plot. No doubt the test should be repeated to determine the possibility of error.

The most obvious conclusion reached is that Garden Auricula seed does not lose its viability as soon as has been commonly thought. Much of the failure of older seed to grow, which has been attributed to this factor, is evidently due to the drying out and to the hardening of its outer coat which makes the seed impervious to moisture. This substantiates the findings of some other growers here in the Northwest.

With no special treatment given, 85% of the seed germinated when fresh and only 35% did so after it had aged three years. However—except in plot No. 1—an increase was obtained by the use of some treatment that would break down or soften this hardened outer coat and allow moisture to penetrate.

The Hot Water Method obtained a 68% germination which, if one could judge by this one test, indicates a distinct advantage for this process.

It is evident that most of the seed was still viable, and when moisture—along with the other factors essential to germination, namely: optimum temperature and air—was properly supplied, the necessary chemical process began to function and the almost dormant embryo resumed its active life.

The maximum length of time that the majority of this Auricula seed would have remained viable is still undetermined. No doubt it varies widely with the other various Primula species. Some species seem to lose their ability to grow a few weeks after reaching maturity.

The seed treated by the Hot Water Method also germinated the quickest and more evenly. Speed in germination to me has never seemed too important. It seems much more desirable that the seed germinate at nearly the same time and grow evenly. Thus they all receive the proper care required at the various stages of their growth.

Vermiculite vs. Sawdust

My small glass house, along with my friends, are simply bulging with infant Primulas, Azaleas and Tuberous Begonias which in my zeal I have grown without realizing my limitations. (My husband says I set more sail than I can carry.) As a new but tremendously interested member of the Society I noted with particular interest the article on different seeding mediums in the current Quarterly (April, 1948). I have used Vermiculite also but the beginner can get into a great deal of trouble without more information. In the first place “dry fill” house insulation vermiculite and “poultry litter” vermiculite are too coarse and the “cornmeal” type is too fine. Garden Vermiculite as put out by the California Stucco Products comes in three textures—Grade B being about right for the actual sowing of seeds. Also you must shun “concrete aggregate vermiculite” which contains chemicals which injure plants.

In the second place having obtained the proper vermiculite, certain subjects such as most Primula require a low pH for strong rooting. Vermiculite (garden) has a pH of about 6.6 to 6.7 thus it would be necessary if using pure vermiculite to add a suitable acidifying material to bring down the pH. Needless to say this must be done very carefully in the nutrient solution. Personally I prefer the sawdust, less muss, fuss and bother.

This is probably presumptuous of me to tell you about my seed experience but I assure you that I do it very humbly.

—Mrs. Marion Keyes, Jr., Bellingham, Wash.
Among the first Primulas to bloom are Edgeworthii and Scapigera of the Petiolariis Section and how thrilling it is to watch these charming plants come into flower! Scapigera with its narrow, apple-green foliage and buds, opening into a lovely pink popcorn ball of flowers; Edgeworthii with its broader, white mealed, serrated leaves, and flowers of lavender with white eye and golden throat. Truly these are jewels among Primulas.

If you are the proud possessor of these two lovely species and enjoy propagating, your opportunities are three fold: (1) From seed, (2) Division and (3) Leaf cuttings.

Primula Edgeworthii sets seed very readily and, for best results, seed should be harvested just before the seed pod breaks. The seed should be planted while still green and kept moist and shaded. Primula Scapigera should be hand-pollinated to insure a crop of seeds. Both Primulas may be divided when more than one crown has formed.

The most interesting method of propagation is by leaf, taken after the plant has flowered. With Edgeworthii, as with Scapigera, be very sure to separate the leaf from the plant at the base.

Leaf cuttings may then be inserted in sand to a depth of one inch and kept moist and shaded. Small plants form quickly and these are planted in leaf mold, and kept moist and shaded at all times.

I have found that Primula Scapigera will bloom from leaf cuttings the following spring. Cuttings of Edgeworthii were taken the latter part of last June and will not flower this spring. This year's cuttings will be taken earlier in the hope of being rewarded with flowers in 1950.

These delightful plants have so much to offer in beauty, hardiness and ease in propagation, that we owe it to ourselves and to our gardens to increase their numbers and revel in their beauty. They are the heralds of a season of loveliness to come in the Primrose world.

Vermiculite as a Seeding Medium Over Soil

Tests made by George L. MacAlevy using approximately ¼" top dressing of plaster aggregate (sold under the name Zonalite, which is probably the same as Grade B Garden Vermiculite) over screened loam showed complete resistance to damp-off which attacked flats with no sterile top dressing. Moisture is readily absorbed and retained by such mediums and seed is kept uniformly moist at all times. After germination this collar acts as an absorbent protecting seedlings from soil surface saturation.
TESTING ARASAN, PHYGO N AND SPERGON
George L. MacAlevy, Sandy, Oregon

No. 1. Seeds of P. malacoides untreated.
No. 2. Seeds of P. malacoides treated with Arasan.
No. 3. Seeds of P. malacoides treated with Spergon.
No. 4. Seeds of P. malacoides treated with Phygon.

Seed sown on top of screened loam in 4" pots, kept in a humid frame at 60 degrees F. until true leaves appeared. Conditions ideal for both germination and fungus attack.

No. 1. The untreated seeds were the first to germinate. Damp-off losses were 25%.

No. 2. Arasan treated seeds germinated within two days of the untreated seed. Arasan also has no appreciable effect on the subsequent rate of growth. Control of post-emergence damp-off is not complete. Losses from this cause run between 5 and 10%.

No. 3. Spergon acts as an inhibitor of germination on Primulas to quite an extent. While untreated seedlings are now carrying true leaves, Spergon treated seed is still hard and ungerminated.

No. 4. Because of the writer's favorable experience with Phygon in other genera, great expectations were entertained. On Lupin and Lilium seeds no delaying of germination was caused by Phygon while at the same time fungus protection was 100%. On Primula, however, the same retardant characteristic exhibited by Spergon is unfortunately too apparent.

Conclusion: Until further testing and growing is accomplished using the various treatments now on the market, the use of Arasan would seem the best for Primula seed for maximum fungus protection with minimum retardant effect.

JACK-IN-THE-GREEN SEED VS. SPERGON

A packet of Jack-in-the-Green seeds was divided into two equal portions of ten seeds each.

No. 1 was untreated and sown on screened loam and put in a humid frame to germinate (60 degrees F.).

No. 2 was dusted with Spergon but otherwise handled the same.

Lot No. 1. Six good plants have been obtained from the ten seeds, the other four seeds so far failing to germinate. No damp-off occurred in the six.

Lot No. 2. To date, two months after sowing, not one of the Spergon treated seeds has germinated.

Note: The writer's general experience with Polyanthus and Auricula seedlings would indicate that damp-off is not a serious consideration in their culture and that therefore dusting with a fungicide can be eliminated in sowing these seeds.

With the Asiatics and greenhouse Primulas, damp-off is a serious factor and Arasan should be resorted to.

MR. FORRISTER'S YELLOW PRIMROSE
(Excerpts from a letter from W. E. Forrister, Framingham, Massachusetts.)

As I am very much interested in Primroses, especially Acaulis, I thought perhaps you might be interested in the following. Fifty years ago, at the age of seventeen, I started working at general greenhouse work. At that time the man I worked for purchased from a local grower twelve plants of the common yellow English Primrose known as P. vulgaris. Among these plants was one outstanding in strength of plant, size of flowers and length of stem. From this one plant I got five or six divisions as I wished to work up a stock of the same thing.

I increased the stock every year until I was growing from three to four thousand plants. That variety is still being grown from divisions all these years. Plants are grown in the fields during the summer, potted up and put in the cool greenhouse in October. As soon as the flowering season begins the flowers are cut and put up in small bunches, from twenty to twenty-five blossoms with their own foliage, and wholesaled in the Boston and New York Flower Market.

THE ENGLISH PRIMROSE IN MASSACHUSETTS

From Peter Henderson's Handbook of Plants, 1890.

The common Primrose, P. vulgaris, which grows wild and abundantly in Britain and on the continent of Europe, has been a favorite with American planters for generations, and may be found taking care of itself in old fashioned gardens for years especially north of Massachusetts where it is protected by heavy snows all winter. Mr. F. L. Temple of Cambridge, Massachusetts in a communication to "Garden and Forest," 1888 says: "I never knew it, however, to establish itself outside of the rich soil and limited space of the garden where it was given a place by man, until the past season, when I was shown a locality in Massachusetts where it took possession of a piece of pasture along the sides of a brook, and among scattered clumps of the Barberry and other shrubs. In this heavy, clayey soil it was perfectly at home, and thousands of vigorous plants were disputing successfully with grasses and weeds for a chance to live. This spot, in spring, when these beautiful blossoms are like a brilliant carpet of crimson and yellow, covering many square rods with their bloom, and peeping out of the half-shaded nooks among the wild undergrowth, is a sight to be long remembered by anyone who knows and loves this old Primrose."
EIGHTH ANNUAL NATIONAL PRIMROSE SHOW
Portland, Oregon, April 12-13-14, 1949

Mrs. M. A. Lawrence, Chairman

Just as each succeeding show gains by the adventures and the mish- chances of all its fore-runners, so does the 1949 exhibition of the American Primrose Society plan to give both exhibitors and visiting public the cumulative advantage it inherits from all the fun and troubles of the past.

If a smooth-running organization, and enthusiastic, able, experienced workers are any guaranty—and what better could be asked?—this year's show will be outshone only by those which will mark future years. One of the nicest illustrations of how a friendly, hard-working Society functions is found in the cordial cooperation of everyone in this year's effort to put on a show that is "really tops."

The motif of the 1949 show is purely horticultural and educational. The public having demonstrated by its reactions to past shows—especially the 1948— that it is becoming increasingly Primrose-conscious and eager to learn more and more about culture, newer types, and where to get the finer plants and seeds, it was decided that this year's exhibition would pay homage to the Primula for what it truly is: real garden and border plant material of useful beauty, easy culture, and a wide variety and adaptability. So the 1949 show will feature a central formal Primrose garden—united contribution of our commercial growers—surrounded by the competitive benching sections. No flower arrangements; the only decorative notes other than the big central garden being some miniature gardens featuring the use of Primulas with other plants, and a large display by the American Rock Garden Society. One or two other large exhibits of similar character are hoped for, yet all such will stress the virtues of various Primulas as highly decorative garden material.

The 1949 show expects to give the public its first looks at many new and superb Primulas; some of the newer hybrids, as well as Show and Alpine Auriculas far surpassing previous displays.

The educational features will take their cues from last year's show. The information and educational tables will be prominent; the program will be keyed to the public's obvious preferences. Lectures will be fewer, and will be along popular lines, with more emphasis on picture shows. Last year's Program Committee did a grand job, yet public response did not pay our willing workers for their efforts. The 1949 show will try to give the public more of what it seemed hungry for in 1948, and use last year's wasted talents to better purpose. After all, that is what every member and the Society truly wants: to do its level best to satisfy and please the public, and to win more lovers for the Primrose, and more friends for the American Primrose Society.

Trophies and awards will in general follow the 1948 pattern which set a high standard and was well liked by donors, winners, and the visitors.

Show committee men are: Mrs. M. A. Lawrence, chairman; Mrs. John H. Holmes, assistant; finance, Mrs. Earl A. Marshall; publicity and planning, M. A. "Mike" Lawrence; properties, Allen W. Davis; schedule and rules, Florence Levy; entries and classification, Mrs. Ben F. Smith; color advisor, Mrs. H. R. Lathrop; placing, Mrs. T. W. Blakeney; judging and clerks, M. A. Lawrence; hospitality and information, Mrs. Joyce B. Néilan; program, Miss Arlie Seaman; garden clubs, Mrs. Leander Anderson; commercials, Allen W. Davis; ribbons, Mrs. John H. Holmes; trophies and window displays, Robert W. Ewell; educational, Mrs. John...
We Aim to Take Care of Our Own

The Society would like very much to provide hospitality for out of town guests visiting the 8th Annual Show. If those wishing accommodations will get in touch at once with the following committee, they will do their best to place everyone: Mrs. Carroll S. Higgins, Mr. Allen W. Davis, Mr. B. W. Hillway, Mr. R. W. Ewell.

The New Kodachromes from Dr. A. H. MacAndrews

Dr. MacAndrews' gift of several dozen Kodachrome slides showing his Primroses in Syracuse, N. Y., has been incorporated into the Society's slide library. This library is already in demand by garden clubs over the country. Mr. R. M. Brown, 1624 N.E. 62nd Ave., Portland, Oregon, is in charge.

Sustaining Members

The Society wishes to thank all members for their continued enthusiastic support. If errors or omissions have occurred in the Roster, either in listing the Sustaining or Active memberships, kindly advise the Secretary, Mrs. Earl A. Marshall, 1172 S.E. 55th Ave., Portland 15, Ore., and corrections will be made.

Preparing Plants for the Show

Show rule No. 5 provides an opportunity for exhibitors to enter all plants they consider worthy thereby increasing the number of possible awards they can win while building a larger, more interesting show. As a guide to the selection of prize-winning material and as a means of maintaining a more uniformly high quality for the benefit of the public, a review of points by which your plants will be judged might be helpful. On page 60 of the April, 1947 Year Book can be found How Polyanthus Are Judged with point score; on page 44 of the January, 1946 issue are the Standards of Excellence for Polyanthus, Gold Lace Polyanthus, Garden Auriculas, Show Auriculas, Acaulis and Julia Hybrids.

Preparation of plants for entry is simple and many exhibitors have worked out the method which suits them best. For those who are exhibiting for the first time the following procedure will act as a guide:

1. Three or four days before the show make the final selections choosing plants freshly in flower and with enough buds, if possible, to carry on the bloom during three days in a warm show room.

2. If weather is unfavorable place a glass pane over each plant to protect from heavy rain or hail.

3. It is permissible to water plants at this time with manure tea or a booster solution enabling them to resist the coming shock of transplanting.

4. Select pots which will fit the size of plants and soured clean. New pots should be thoroughly soaked.

5. Lift plants either Sunday, April 10th or early Monday morning, the 11th. Before digging, water thoroughly to keep intact the ball of soil when transferring to pot. Dig carefully in a circle around plant being careful not to slant the trowel too much or to cut roots too close to plant. Leave as many roots as possible keeping in mind the size of plant and size of pot.

6. Have containers ready to receive plants with either peat moss or tree moss in bottom forming an absorbent cushion to retain as much moisture as possible. Settle plants into pots carefully and fill in open spaces with peat or soil. Allow about 1/4 space on top for moss or gravel top dressing.

7. Water thoroughly, preferably by immersing pots for several hours or until entire contents are thoroughly soaked. Use water, manure tea or booster solution.

8. Drain the pots and groom plants. Remove any winter-burned or unsightly leaves by cutting with sharp knife close to crown but do not rob the plant of upset the symmetrical balance. See that foliage and flowers are clean; also containers. Keep in a cool place out of the wind until ready for entry on Monday, April 11th, from 1 P.M. until 8 P.M.
REPORT OF THE PRESIDENT

The American Primrose Society, under the capable leadership of Mr. Allan W. Davis, added about one hundred members during the last year. The regular meetings were occasions for presenting valuable programs, and for friendly exchanges of experiences in growing Primulas.

By means of the Society's Quarterly, ably edited by Mrs. Florence Levy, we hope to continue to spread enthusiasm for Primroses beyond the reaches of our local program. A plan for appointment of regional vice presidents, which is in the making, should do much toward unifying the membership. There will be an effort to effect more organization memberships this year, and as they are formed we anticipate interesting reports of their activities. Many letters come from individual members with valuable contributions of information. May we encourage more correspondence.

Mrs. Ben F. Smith has plans for enlarging our reference book collection and educational services. This will benefit both new and old members.

The Society now owns a projector and screen. Thanks to a number of contributing members, a film library is being accumulated, which may be loaned to garden groups.

The Test Garden on the campus of Lewis and Clark College is taking shape and will be planted this spring.

The Spring Show in April is becoming an event which annually attracts larger and finer displays of Primroses. There is, too, an increase of appreciative visitors. This year in May we will again have a later informal noncompetitive Asiatic and Auricula Show.

We heartily urge all nearby members to attend regular meetings of the Society. To farther away members, we invite you to come to Portland and let us welcome you to our Primrose gardens. —Mrs. Carroll S. Higgins

REPORT OF THE CORRESPONDING SECRETARY

So far this year, as a new officer, I have been striving to become more acquainted with the members of the Society, in person and by mail. I am finding everywhere that Primroses appeal to especially nice people. Eventually I hope to get the mailing lists into perfect—or at least almost perfect—line.

While I have grown Primroses for years, I am not as well versed in their culture. There is a limit to the amount of correspondence I can handle, but if there is any question regarding Primroses or their culture with which you are struggling, I will be glad to try to find an answer from some nearby expert.

—Mrs. Earl A. Marshall

REPORT OF THE TREASURER

Bank Balance, January 1, 1948 $1,078.66
Receipts for 1948 $2,917.65

Total $3,996.31

Disbursements:
Outlook Publishing Company $1,310.25
1948 Show 972.39
Save the Myrtlewood's campaign 50.00
Secretarial and Editorial 421.48
Postage and allied expense 272.53
Photography 88.30
Advance on rental for 1949 show 100.00 $3,215.35

Balance in Bank as of January 1, 1949 780.96
Savings Account, Horticultural Hall Fund 500.00

$1,280.96

Carl Maskey, Treasurer, 1948

REPORT OF THE EDITOR

The year just finished has seen the publication of articles of particularly outstanding merit by members here and abroad and a number of equally excellent contributions await the proper season and Volume 7. The spontaneity with which the articles are written and sent, the diversity of the material, the knowledge and time so generously given animates the pages and communicates an enthusiasm to the readers which has found expression in many letters and a deeper pleasure in gardening. The Society as a whole expresses appreciation to the contributors of these articles which will be read and read again many times. To my appreciation of the letter is added my gratitude for the spirit. Few publications have so wholeheartedly the cooperation of the membership, only those with a fondness for Primroses would be so friendly. There have been times when immediate acknowledgment of articles was not possible; times even when publication preceded the acknowledgment but always my limitations of time were understood. This year, more than ever before, I realize the privilege of this work and the friendships it brings. —Florence Levy.

ANNUAL MEETING, DECEMBER 21, 1948

By unanimous vote the nominees, as proposed by the nominating committee in October, were elected to office. Mrs. Carroll S. Higgins, President; Mr. B. W. Hillway, Vice President; Mrs. Lotus Stone, Recording Secretary; Mrs. E. H. Bowes and Mr. Richard Bond, directors. Mrs. Earl A. Marshall was elected by the Executive Board to the position of Secretary-Treasurer. The Executive Board, in addition to officers and the two newly elected members, are Mrs. H. A. Hartshorn, Mr. R. M. Brown, Mrs. John M. Young, Mrs. Mary Zach, Mr. Allen W. Davis, Past President and Florence Levy, Editor.

The business meeting was concluded in short order as everyone seemed in a celebrative mood. The Christmas party took an almost hilarious turn when it was found that anyone liking another's gift better than the one chosen for the gay wrappings could claim the coveted object, which allowed the robbed to choose again. In the course of the evening a copper hanging basket and a Yuletide wreath travelled through many hands before the serving of refreshments decided the final owners. Departures were made reluctantly testifying to the evening's success.

COMMITTEE CHAIRMEN FOR 1949


Regular monthly meetings are the third Tuesday of each month, 7:30 p.m., auditorium main floor, new Oregonian Bldg., S. W. Broadway, between Jefferson and Columbia streets.
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<th>Name</th>
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<td>Berry, Mrs. A. C. U.</td>
<td>11505 S. W. Summerville Ave., Portland 1, Oregon</td>
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<td>Collins, Dean</td>
<td>263 S. W. Riverwood Road, Portland 1, Oregon</td>
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<td>Levy, Florence</td>
<td>Gresham, Oregon</td>
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**SUSTAINING MEMBERS**

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<td>Adams, Mrs. E. L.</td>
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<td>Balcom, Mr. R. W.</td>
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<td>Blair, Mr. Walter D.</td>
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<td>Karnopp, Mrs. J. L.</td>
<td>2738 S. W. Rutland Terrace, Portland 1, Oregon</td>
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<td>Sorem, Mrs. Paul W.</td>
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<td>Templetton, Mrs. Herbert A.</td>
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<td>Torpen, Mrs. B. E.</td>
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<td>Wessinger, Mr. Henry</td>
<td>331 S. W. Edgecliffe Road, Portland 1, Oregon</td>
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<td>Wilmot, Mrs. W. R.</td>
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<td>Young, Mrs. John M.</td>
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**ACTIVE MEMBERS**

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**COLORADO**

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<td>Arnett, Mrs. Florence</td>
<td>1722 S. Nevada Ave., Colorado Springs</td>
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<td>Houldy, Mrs. R. F.</td>
<td>2597 Williams St., Denver 5</td>
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<td>Schrody, Mrs. George A.</td>
<td>108 East Monroe, Colorado Springs Route 2, Box 44, Fort Collins</td>
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<td>Setzer, Ruth</td>
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<td>Streetz, Miss Grace H.</td>
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**MONTANA**

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**PORTLAND, OREGON**

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