Greetings Primrosers; I hope you are all enjoying or at least enduring your winter weather. My plants are asleep under a blanket of wet snow that may be gone in a week during our traditional January thaw. Extreme cold in the northeastern US, lots of snow near Lake Superior, but a mild winter (so far) in the UK are all leaving us waiting for spring. Many of you are planting seeds from our Seed Exchange to chill outside before bringing them in to germinate under lights. The days are getting longer and spring shows are not so far away. Don't miss a chance to show pictures, or slides or talk to your local gardeners about our favorite plants when we are in need of some color in our lives and stimulation of dreams for the coming gardening season.

Make your reservations to visit the National Show and gardens of Victoria, BC and regional garden shows. If you want some of the APS rack cards to give to local nurseries and friends please contact me. Call, write or email Mary Irwin to reserve a slide show to present in your area. One of the NE Chapter members is working on digitizing the slide shows to CD's so they can be viewed on your computer, or shown as PowerPoint presentations. These will be available for purchase at a reasonable cost this spring.

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New England's Primroses Generate Family Enthusiasm
By The Irwin Family

Several years ago my husband and I moved into a new home. Snuggled in the foothills of The Berkshire Mountains, in Connecticut, I was presented with a formidable challenge: to create a garden from a yard that had overgrown shrubs, poor drainage, excessive run off, and about 10 square feet of level land. With spindly lilacs, a few mature maples, plus 7 different species of pine trees, I quickly realized why they named our street Spruce Mountain Terrace. I had always possessed an interest in gardening, many times marveling at my sister-in-law’s (Elaine Malloy) gardens in New York State. Her ability to integrate primroses with many other perennials in and amongst hostas looked so prolific. The numerous varieties of the small multi-colored flowers nestled here and there captivated my attention. I asked one day whether these primrose plants would acclimate in a terrain suited for a mountain goat, let alone grow in soil that seemed to bear at least 10 rocks for every shovel full you brought to eye level. As luck would have it, I learned about growing primroses. In doing so I opened another chapter of gardening, learning from others which varieties would survive here and be spectacular to look at while doing their best to be even more bountiful the following year. This enthusiasm took on new meaning and the therapeutic escapes we all seek from the daily challenges of life were manifested in numerous ways through primrose gardening. I now knew besides the rewards of watching a primrose grow, knew how it grew, then learned how I could make it grow stronger to survive many of the little battles plants seem to be faced with.

Primula display a lovely variety of colors, shapes, sizes and growing characteristics. I have grown common primrose varieties such as polyanthus sometimes found neglected and on sale in a supermarket to auricula growing in a special isolated section on a slope. They get their little houses shaped like igloos when the weather gets cold to protect the farina. I start primula seed in styrofoam boxes. The styrofoam boxes are grape packing cartons which I obtain at a grocery store. The seedlings gravitate to the adequate drainage and stability provided by this type of potting structure. In the winter, I mulch with wood chips and brush.

I also grow a variety of primula in troughs. These are made from discarded fish packing cartons I obtain at the store or sometimes they can be acquired at a local fish market. Made of styrofoam, they are used to pack salmon and ice - usually shipped to local fisheries, then to the stores. My husband and I rinse the boxes by adding a solution of bleach and water, then dry them out. Then a drill with a wire wheel attached roughs up the edges and we paint the boxes with a gray can of spray paint to replicate the color of rocks. I use a paint used to restore statues or simply a good quality latex gray then a random splash of black, again to authenticate a “stone” look. Then I cut 3-4 drainage holes in the bottom.

There are so many creative ways to grow primroses. In New England I have the soil and climate conditions to contend with, as many of my fellow primrose gardeners may also have various climates and growing conditions challenging them during their growing season. I have learned that you have to stop and smell the roses, so why not smell some primroses along the way as well? While I choose primroses as my favorites, I know the next primrose I plant or the next page I turn will create new experiences, new senses of enjoyment. Perhaps it will be a special moment such as when a special flower appears, or just a gorgeous day of gardening, both pleasing enough to pass on to a fellow gardener.

Today, Elaine and I still share an enthusiasm for primroses and for gardening. We have the opportunity to share plants, to be a part of a group which shares with other primrose enthusiasts the culture and characteristics of primula. We exchange photos and books, share many ideas and bits of knowledge we have learned in growing primroses. I can’t think of a better way to end a story, except to be thankful for being able to share with each of you a few of the experiences I have encountered along the way here in New England as I have learned about growing primroses.

(Elaine Malloy and Mary Irwin are co-presidents of the New England Chapter and have encouraged many to join APS.)
The ‘Redfield Strain’
By Judith Sellers

If you have ever noticed Primula japonica, ‘Redfield Strain’ in the seed lists or pictured in the plant catalogs and wondered where it came from, here is the history, as told to me by the originator of these exceptionally floriferous plants.

Tucked among the gentle hills of Eastern Connecticut is a farmhouse, over a century and a half old, surrounded by one of the loveliest gardens the New England APS Chapter members have visited. Since 1976 it has been the home of Richard Redfield.

Richard’s father, a ‘frustrated farmer who worked in New York City,’ had maintained a three acre garden in New Jersey during Richard’s boyhood. The family worked to grow many kinds of fruits and vegetables for City markets, so Richard had plenty of gardening experience.

Mr. Redfield, now in his eighties, actually started gardening here in 1971, when the house belonged to his sister, and he was in banking in New York City. With a spring fed stream in its own shaded valley, a relatively level area around the house, and a three sided stone foundation from the vanished barn, Richard found an assortment of conditions where an impressive variety of plants could be grown.

The large garden today includes huge trees and rare shrubs surrounding several rock gardens, scree and desert areas, bright perennial borders, gracefully leaved shade beds, and the woodland valley. A meandering path trails along the valley slope among old trees and an incredible diversity of plants. A huge patch of Trillium grandiflorum ‘Flora Pleno’ is perfectly established here, the envy of every woodland gardener, and the source of many nursery catalog photographs. Other woodland species carpet the ground in a seemingly random mix.

There are many Primula species and cultivars throughout the garden. Polyanthus and acaulis primroses in calm colors grow in the beds and borders. P. elatior, veris, sieboldii, and kisoana v.alba peek through here and there in the woodland garden. Raised beds built against the foundation stones of the old barn provide shelter for Primula marginata, P. auricula, P. allionii, and a host of other delicate alpine and Himalayan plants.

Beside the stream path, or growing in the water itself, are hundreds of Primula japonica bearing stems with up to nine tiers of large bright flowers encircling each stem. These plants are the result of ordinary japonica seeds having been sown in the right conditions, grown with care, and selected over many years by a master of gardening. The colors include luscious hues and tints from brilliant magenta to red, rose to palest pink. They are not growing en masse, but scattered among gnarled tree trunks and other bog loving plants so the shapes and colors of the trusses show against the varied textures of rocks, bark and foliage.

It was here that Pierre Bennerup of Sunny Border Nurseries, a friend of Richard’s, spied the impressive plants, asked to gather a few seeds, and grew them at his nursery. It became apparent that the progeny of Richard’s plants inherited their parents’ vigor, size and vibrant colors, so Pierre began to offer them for sale as Primula japonica, ‘Redfield Strain.’ Each year, in addition to saving seeds from his plants, Pierre returns to gather more seeds and Richard shares his primula and other seeds and plants with friends, nurseries, and visitors. Many gardeners have gained some vastly improved cultivars.

Richard Redfield has shown us how, with care, time, and proper culture, an apparently ordinary plant can be transformed into an extraordinary one. His example is an inspiration for gardeners and a tribute to Nature.
Primula In Vermont
By Marianne Kuchel, Fairlee, VT

Living in a Zone 4 area of Vermont with 4 to 6 months of winter and hot and muggy summers, I was told by local gardeners when I moved here 6 years ago that primula were too hard to grow in this climate. Having grown up in Sweden and seeing wild primula in the fields in spring, I thought I would try anyway.

I started with a few Primula veris and vulgaris that I found in a local nursery. They did very well and I am still dividing the mother plants every year. From there I went to Primula japonica and they love it in our very rich and wet farm soil. They seed themselves freely and I am now starting a colony on the bank of a brook on our property. When I discovered the Primula Society’s seed exchange, I started trying all sorts of varieties. I plant the seeds as soon as they arrive, leave them outside all winter and, to hurry them along, put them back into the ground, but one good thing about primulas is that the deer do not seem to like them.

Other primula that I have in the garden are different types of Primula, Second Edition., with a note that pages 16-17 are missing. I would love to have copies of such pages. I have joined the APS and the New England Society’s Pictorial Dictionary of the Cultivated Species of the Genus Primula, Second Edition., with a note that pages 16-17 are missing. I would love to have copies of such pages. I have recently joined the APS and the New England Chapter and am learning much more.
The First APS Round Table  
Raising Primula From Seed  
by Richard Critz, Rosemont, PA  
(Reprinted, with edits, from the Summer 1985 issue)

RLC: Good evening ladies and gentlemen and welcome to our round table on seeding methods for primula. We all appreciate your willingness to share, we really do, and look forward a little later to your words of wisdom. But before introducing our impressive panel of experts I'd like to take just a few moments to tell both you and our audience why we are here just now and what we would like to accomplish.

The genus Primula contains more than 500 species, and a much larger number of hybrids. All species can be raised from seed (if available) and even many of the hybrids come true with sufficient regularity to make seeding a worthwhile method.

To those who decide for the first time to experience the satisfaction of raising primula from seed, it is confusing to discover that hardly any two growers agree on the proper "modus operandi." In such matters as seeding mixture, size and type of containers, pre-treatment of seed, time for planting, and many other details of the process there are wide differences of practice. One very successful grower of lovely primula once said right out loud, "Bosh! I just sow my seed out under an apple tree and let it grow." Another wrote me recently, "After more than 30 years of growing primula from seed I have developed a system that works for me with very little care after planting. I need that. But there are as many different methods as there are people who grow primula from seed. If you find a system that works for you, stick with it."

Now I know and you know that a million articles have appeared on the subject of primula seeding. But as Editor of this Journal I still get requests for information on this subject - numerous requests. Hence our Round Table, an attempt to bring together the practices and opinions of our best growers. While it is doubtless true that a book could be written about the specific requirements of each species, we hope that this subject - numerous requests. Hence our Round Table, an attempt to bring together the practices and opinions of our best growers.

RLC: OK, panel. Let's turn to our first consideration. Where do you obtain good seed, and how can you be sure it's "good?"

Joe Kennedy: "Most of the seed I sow comes from my own crosses, but I do get seed of species from the seed lists of the Alpine Garden Society in England, the Scottish Rock Garden Club, and of course, the APS."

Anita Alexander: "Yes. You have to be careful. The seed from many exchanges and commercial sources are not true to name."

Florence Bellis: "It is advisable to order seed early from a reputable dealer, whatever that might be."

Bernard Smith: "I don't recommend seed from seed merchants, but try if possible to get seed from fellow society members who often have a pinch to spare."

Rosetta Jones has done considerable study in genetics and brings a keen understanding of what is happening to her work. Needless to say, her plants are beautiful.

Florence Bellis is one of the great ones in American horticulture. Her important hybridizing program at Barnhaven, near Portland, OR, begun in the 1930s, resulted in a new race of hardy and beautiful polyanthus, created a deep and abiding interest in the U.S.A. for the genus Primula, and resulted - through her writing - in the formation of the American Primrose Society in the early 1940's.

Anita Alexander, a past president of the APS and former Editor of the Journal, lives with her husband in Boring, OR, where she has been hybridizing candelabra primulas (Section Proliferae) for 30 years.

Bernard Smith lives in Kent about 25 miles south of London. He is one of those fantastic English gardeners who have spent a lifetime "in trade" as they say, but have developed and honed a hobby to near perfection.

William Holt, from Ayrshire in Scotland, has known and loved primula for a lifetime, and has worked among them every day. His interests culminated some ten years ago in an intense interest in the cultivated forms of primroses (acaulis) and polyanthus.

Steven John Kelley is a young man from Long Lake, a small town in MN, about 20 miles west of Minneapolis. He has been interested in plants from childhood, and, together with his father, operates a small nursery and family business, which boasts extensive display gardens.

Herbert Dickson owns and operates the Chehalis Rare Plant Nursery 50 miles south of Tacoma. Primula is the business of CRPN, and of the many kinds grown, the auricula is king. In fact, Herb has spent much of his life developing remarkable and beautiful garden auricula. I am sure that nowhere else in the world could so many and such lovely kinds be found. He sells not only plants, but seed.

Procuring Good Seed

RLC: Good evening ladies and gentlemen and welcome to our round table on seeding methods for primula. We all appreciate your willingness to share, we really do, and look forward a little later to your words of wisdom. But before introducing our impressive panel of experts I'd like to take just a few moments to tell both you and our audience why we are here just now and what we would like to accomplish.

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Florence Bellis: "It is advisable to order seed early from a reputable dealer, whoever that might be."

Bernard Smith: "I don't recommend seed from seed merchants, but try if possible to get seed from fellow society members who often have a pinch to spare."
RLC: “How can you tell if the seed you get is good?”

Anita: “The petiolaris are a problem, Bill, and I’d like to add a word about another that was 3 years old! But I know that if I had let it sit around in a warm room for just a month it would be quite dead.”

RLC: “I noticed that you mentioned storing the seed. Anyone have ideas on that?”

Bernard Smith: “As soon as my seed are ripe I harvest and plant. That’s usually in September.”

W. Holt: “One cannot generalize over the whole primula range. But I sow vernales and others outdoors in July and August, and indoors from Christmas to the end of February, using bottom heat. This heat seems to give the process a boost, especially when the seed have been frozen during the winter.”

Anita: “The petiolaris are a problem, Bill, and I’d like to add a word about another toughie - Primula rosea. I dry rosea seed about 4 days, then refrigerate it, cold but not frozen. (I never allow primula seed to freeze.) I just germinated P. rosea seed that was 3 years old! But I know that if I had let it sit around in a warm room for just a month it would be quite dead.”

Florence: “In the 1930s when I became a seed specialist the behavior of seed was as yet little known. At that time primrose seed was notoriously difficult to germinate - a year’s wait for a spotty emergence was not unusual. Garden writers, who knew nothing about seed, poured out many positive words on the subject of viability. They had no way of knowing that poor germination, or outright failure, was not the fault of the seed, but the seed men’s improper picking and storing of it. Many growers unwittingly picked green seed along with the ripe, and no immature seed will germinate. Some believed that poor germination increased sales, and some of the Farinosae is very fine and tends to hide amongst the chaff and farina. But when rolled between finger and thumb this fine seed has a filmy or slippery feeling, and can be detected even amongst chaff and farina. Good seed is usually fat and slippery.”

RLC: The concensus then is that if seed cannot be sown at once it can be stored?

Florence: “Yes. Seed will live for years if kept cool, airtight and dry. I just germinated and any laying around in high heat and humidity can reduce its viability still further.”

RLC: All of which brings us to the question of when to plant. What is the best time to plant primula seed?

Herb Dickson: “I start planting during January in the warm comfort of my heated basement. I do as many as I like of an evening, and then set them right out in the weather. The natural conditions seem to help germination, and when everything is right, the seeds come up.”

B. Smith: “As soon as my seed are ripe I harvest and plant. That’s usually in September.”

J. Kennedy: “Most of my seed is sown about this same time, although I have sown up into late November. This seed germinated very well indeed, in February. For me, spring sowing from the seed lists does not germinate nearly so well.”

W. Holt: “One cannot generalize over the whole primula range. But I sow vernales and others outdoors in July and August, and indoors from Christmas to the end of February, using bottom heat. This heat seems to give the process a boost, especially when the seed have been frozen during the winter.”

Anita: “I find it varies by sections. I try to consider the native habitat and what the plants do in nature. Most primulas ripen their seed in early summer and do best if sown soon after collecting, from early to mid summer. That way, plants big enough to withstand the winter will be produced before dormancy comes. With summer
flowerers it's best to keep the seed, cool and dry of course, for spring sowing. Any bought seed may be a year old and should be sown immediately. Lots of people recommend sowing as soon as seed is ripe, but except for a very few difficult species, this is not really necessary, and can be downright detrimental to good germination. I remind you all of Florence's statement that a dormant period may produce germination-enhancing chemical changes. Often, storing seed dry until December, or even April, will lead to better results.

Rosetta: “Seed planted from January to March will produce good plants by fall and flower the following year. Fresh doubles seed do well at this time, but I understand that in a warm climate these do better if sowed earlier, say October through February.”

Kelley: “Like Anita I like to think of the normal cycle in the wild. While I have planted in both fall and spring with nearly equal success, I note that published research suggests that many seeds need a cold period before they will germinate. You know, successive freezing and thawing.”

RLC: Heavens, we have some diversity here! On the strength of what we’ve heard would it be safe to say that primula will germinate just about any time you put them in the ground?

RLC: I take it the rest of you are pretty much in agreement? No serious dissent?

Seedling Mixtures

Let’s move on then to the plant mix to be used in seeding. How many of you use soil-less mixes? Let’s have a show of hands. That’s just over half. And the rest of you use soil, I presume. Let’s hear from you soil-using people first.

Herb?: “First and most important, I start with a sterile medium. I used to bake small batches of soil in the oven and mix in peat, vermiculite and sand. As I grew more seed I acquired an electric sterilizer for my soil mix. Then, as I got older and lazier, and good prepared mixes became available, I used them and doctored with my own ingredients according to the species I was planting. My basic rooting mix is (roughly) 2 parts pumice, 2 parts sand, 2 parts garden loam and compost mixed, 1/2 part peat moss, 1/2 part perlite. To this I often add enough lime to get a pH of 6 to 6.5, and some slow release fertilizer. The Primrose Society has published other seed mixes from time to time, most of which use soil. What they say basically is that any mix is good provided it is porous in texture and not too nutrient rich. A lean bed is appropriate for germinating seeds and infant seedlings since they can use only the endosperm furnishes the nutrients for the initial growth.”

Anita: “The seedling mix must provide 3 things, physical anchorage for the plant, air drainage and constant moisture. At present I’m using a commercial mix too, of peat and volcanic rock. For candelabras I like sifted loam instead of the commercial mix. I often go by the feel of the mix. It has to be loose and friable.”

RLC: What about in Britain? Bill.

Holt: “I use a soil-less compost mixture - 2 of peat, 2 sand, and 1 vermiculite, with Adrin or Gamma B. H. C. dust added. I never use anything but soil-less mix for seed sowing. The people at Chiltern Seed are pretty emphatic about this too. They say, “Without hesitation, we recommend that you sow all seed in a soil-less seed compost, not in soil. Whenever we have carried out comparative trials between the two the difference in germination has been quite remarkable. It’s worth the small extra cost.”

RLC: You must have something to say about all this Florence.

Florence: “I do, and thank you Richard. Properly picked and stored seed cannot help becoming healthy seedlings when air and water circulation is good, when there is a cool sun sweep and the seeding medium is not nutrient rich. A lean bed is appropriate for germinating seeds and infant seedlings since they can use only the food stored for them until their first true leaf appears soon after emergence. There is a choice of lean mediums: those with soil, those with no soil and no nutrients. The old standard mixture is loam, peat moss that has been thoroughly soaked and drained, and coarse concrete sand - the 3 mixed in equal amounts. This mixture has enough sponge to retard drying, and the air and water circulation is fairly good - but I often add a little 3/4” minus (which is crushed rock measuring from 3/4” down to particle size) for more openness. Packaged soil substitutes are sterile and usually nutrient free. There is bagged vermiculite, which is mineral in origin (it is expanded rapidly and disappears from the surface within a few seconds. If not, it is wise to add extra course sand until it does. Then, of course, the soil mix should be sterilized. This is important.”

RLC: Thanks Herb. That’s clear and concise. And now, how about the situation in the British Isles? Joe?

Kennedy: “I find a well sifted mix of 1/3 each peat, sand and leaf mold makes a nice soft medium - friable. I use John Innes compost, a prepared seed mix for the Auricula Section at times, but it tends to ‘cake’ hard if left in the seed tray too long. Brian Halliwell at Kew and Jack Drake in Scotland recommend a seed compost like mine and Brian, too, stresses sterilization.”

RLC: How about hearing from the soil-less group now? Rosetta?

Rosetta: “It is important to use a sterile mix. I use a purchased mix called Reddi-Earth. It is peat, vermiculite, sphagnum, with some fertilizer in it, and it is sterile. I use Reddi-Earth for all my seeds - but others use Agway or Pro Mix, there are lots of them. Seed does not need fertilizer until it has produced roots as the seed endosperm furnishes the nutrients for the initial growth.”

RLC: Thanks Herb. That’s clear and concise. And now, how about the situation in the British Isles? Joe?

Joe: “I find it is a good idea to use a mixture of peat and volcanic rock. For candelabras I use sifted loam instead of the commercial mix. I often go by the feel of the mix. It has to be loose and friable.”
light to germinate. There are no species known to prefer dark for germination, so should never be covered with any depth of soil, since many species definitely need Seed is sown thinly and evenly, and always left uncovered. In fact primula seed and no more - and spray the surface with a copper compound, using a fine spray. and tamp that too. Next, I water the compost, not too much - it should be just moist plastic pots (thoroughly cleaned 3 1/2" to 5" pots, depending on seed quantity) for Kennedy: “I use 4" deep boxes, about 18" x 14" for large seed sowings, or round and press it down lightly with the fingers. I top this with about 3' of my seed mix smaller sowings. 1 fill to within an inch of the top with a good growing on medium and draining, packing it firmly to the top of a shallow flat with very wide drainage cracks. (I'm told that sphagnum planting is especially effective for primula in the Soldanelloides Section.) It was a good germinating medium, but like all unfertilized soil substitutes, the seedlings had to be transferred to a fertile mix as soon as the first true leaf appeared. Incidentally, before I'm finished, a word about soil sterilization. Since I was not equipped for it I never did it. And recently I've learned that certain micro organisms in the soil multiply their numbers more than 5 times a period of cold to break dormancy. The optimum time for this is around 4 weeks, or even into October. Although the seed do not need light, it is best to allow light access just in case. Another temperature requirement, especially for old seed, is for stratification, a period of cold to break dormancy. The optimum time for this is around 4 weeks, much longer and the awakened seed may go back into dormancy again. 4 weeks at 5 degrees C. (41 degrees F) in the presence of moisture is about right. The best way to achieve this is to sow the seed on a moist compost, wrap the pot in a polythene bag and put it in a fridge. Then remove into a well-lighted, warm room and keep moist. Germination should follow shortly.” RLC: Great. That gives us something to work with. All right now Americans, do you do it any differently?

Anita: “I do my seed in the greenhouse to keep away varmints, and where I can watch them every day. I look at the seed trays every morning using a small hand glass. If any mold appears I mix 1 teaspoon of Benlate in a quart of water and spray everything. I also keep a fan running to create a tiny windstorm in the moist air. Air washing over seedlings is good therapy for possible fungal disasters.”

Herb: “I use 4 1/2" square plastic pots instead of flats or boxes for psychological on no account should a layer of opaque paper be placed over the pots. Next, I immerse the pot till the surface is wet. When you lift the pot from the water the seed are drawn tight against the soil, “set” I call it. Often I spray the surface again with the copper compound and put the pot in a clear plastic bag, securing it with a plastic-covered wire. This makes additional watering unnecessary until after the seed germinate. It prevents the compost from drying out - a common cause of failure. Holt: Yes, primula seed is very sensitive to drying out during germination. If there is insufficient moisture during this critical period, germination can be very poor or fail completely. One way to reduce this danger is to put a 1/4" layer of wetted milled sphagnum moss on top of the seed compost before sowing, and sow the seed directly on this. (Incidentally Jack Drake says never water seeds from above, but always by immersion from below.) After I plant my seed (always in flats) I take an empty, same-size seed tray, and upturn it over the seeds as a cover; this in turn has a brick placed on it to prevent dislodging. When the first seeds sprout we water again with Benlate, apply a very thin coating of the seed compost over the seeds, and replace the covering tray until the seedlings come up through the compost. Then of course the cover comes off and is replaced by a fine netting, polyethylene, or glass cloche for protection. I have read of other ways to do this, Richard, and I'd like to review one of them briefly now. It's based on the theory that most primula seeds germinate best at temperatures below 25 degrees C. (75 degrees F). At temperatures above 25 degrees C. almost all primula species need light to germinate. So, although it may not be optimum for all species, a temperature fluctuating between 10 and 20 degrees C. (50 and 68 degrees F) will give good germination of almost all primulas and should be the norm to aim at. Fortunately these conditions are easy to achieve in shaded frame or cool greenhouse, April through September, or even into October. Although the seed do not need light, it is best to allow light access just in case. Another temperature requirement, especially for old seed, is for stratification, a period of cold to break dormancy. The optimum time for this is around 4 weeks, much longer and the awakened seed may go back into dormancy again. 4 weeks at 5 degrees C. (41 degrees F) in the presence of moisture is about right. The best way to achieve this is to sow the seed on a moist compost, wrap the pot in a polythene bag and put it in a fridge. Then remove into a well-lighted, warm room and keep moist. Germination should follow shortly.”

RLC: Thanks Florence. That was a good summary.

Sowing the Seed

And now we come to the heart of the matter - sowing the seed. Suppose we stick with our Europe-America division. It seems to work out well. Europe?

Kennedy: “I use 4" deep boxes, about 18" x 14" for large seed sowings, or round plastic pots (thoroughly cleaned 3 1/2" to 5" pots, depending on seed quantity) for smaller sowings. I fill to within an inch of the top with a good growing on medium and press it down lightly with the fingers. I top this with about 1/4" of my seed mix and tamp that too. Next, I water the compost, not too much - it should be just moist and no more - and spray the surface with a copper compound, using a fine spray. Seed is sown thinly and evenly, and always left uncovered. In fact primula seed should never be covered with any depth of soil, since many species definitely need light to germinate. There are no species known to prefer dark for germination, so
reasons. Because when transplanting I can do one pot in a limited time where I might hesitate to start on a whole flat. This way I can at least get some transplanted when they should be. I fill my pots to the top and then press down about 1/4" below the rim. I wet this, and plant, and then cover with about 1/8" of vermiculite for large seed (auricula and polyanthus) or just the merest dusting of vermiculite for fine (vialli, reidi, etc). That's to keep the cover from lying directly on the seed. Because I cover all pots with a piece of cotton cloth (old sheets) cut to fit, then put a few grains of coarse chicken grit on the cloth to hold it in place. I water lightly with a fog nozzle, and set my pots outside on benches in full sun, wind, snow and rain. The cloth cover serves several purposes. It helps keep the surface moist, it keeps the birds from eating the seed, it keeps heavy rain from washing the seed out, and it makes it easy to water my near 1000 pots in a hurry when it doesn't rain. I take the cloth off when the seed starts germinating. Incidentally, Richard, I have brought along two or three methods for seeding which were published in earlier issues of the Bulletin. I thought they might be of interest here. Would you like to hear about them?

RLC: Of course, Herb. What have you brought?

Dickson: Here's one by Maude Hannon, which appeared way back in 1968. She writes, "We have tried many methods but prefer to plant in clay pots and sink them into the soil outside before the winter freeze. We cover these with old burlap sacks so that rain and watering will not disturb the seed, and so that there is adequate ventilation. When the weather warms the little seeds will begin germination. We uncover them and place a pane of glass over, tilted a little for circulation. In our seeding mix we use Blue Whale, up to 1/2 if procurable, along with regular peat, sand, loam, etc. We believe that Blue Whale, the 100% organic soil builder and conditioner, with its antifungal action, has helped us maintain our record of never having damp-off or disease in the seed pans." Here's another - from J. E. Mason, dated 1968. "On the 12th of September I sifted some rotted alder wood (any rotted wood would probably do), placing the material 1/2" deep on a brick which I had previously set in a pan of water. The water was 1/2" deep with the brick in it. I left the whole assembly for several days till I was sure the proper moisture was being maintained, and then scattered polyanthus seed on the wood screenings. I then placed some of the dry screenings in a pepper shaker and sifted it over the seed, barely covering them. The whole thing was then left in a temperature of 60 degrees F. Three days after planting the seed began to germinate, and in 6 days I had the best germination I ever experienced. By October 24 the whole pan was ready to transplant." And here's the prize - a unique method developed by Marge Edgren and used by many of her friends. "If you have no greenhouse, why not try a sandwich bag? I have raised a surprising number of vigorous rock plants, including some difficult primula, without benefit of leaf mold, loam, sun, or compost. Here's how I do it. When seeds arrive I prepare 2 sandwich bags for each packet, each containing
Top: 2003 Garden Path
Both Photos are Arlene Perkins Garden, E. Montpelier, Vermont
Bottom: Light Blue Garden Auricula

Top: Barnhaven Double
Both Photos are Arlene Perkins Garden, E. Montpelier, Vermont
Dark Laced Polyanthus
Top: Polyanthus Hose-in-Hose “You and Me”
Both Photos are Arlene Perkins Garden, E. Montpelier, Vermont
Bottom: Polyanthus Jackanapes

Top: P. Juliae
Both Photos are Arlene Perkins Garden, E. Montpelier, Vermont
Bottom: Green Polyanthus
Top: *P. bulleyana* in a woodland garden setting
Marianne Kuchel, Fairlee, VT

Bottom: *P. japonica ‘Redfield’*

Top: Mary Irwin’s woodland garden. Mary Irwin Photo
Bottom: *P. sieboldii* hybrids in Elaine Malloy’s Garden. Elaine Malloy Photo
A seed starter made from a 2 liter plastic bottle can eliminate this problem. Once the medium is moistened and planted, one never has to water again. The water condenses on the sides and circulates back into the soil, sustaining the seedlings until they are ready for pricking out. The bottle cuts easily with scissors. Punch a-hole in the side with a knife to insert the scissors and then cut the bottle carefully in two, leaving about 6” for the bottom. Next, cut the top back so that the lower edge fits inside the bottom part. This is important, so that water as it condenses will run back down in the medium. Do not put drain holes anywhere. And keep the cap on, but not tightened. This allows air in but keeps algae and fungal spores out.
The whole thing makes a mini-greenhouse that can accommodate up to 50 seeds. Use a sterile medium and mix with water till all the soil is moist. Sprinkle the seed on top, then add just a little perlite to anchor the primary roots. Put the parts together, place in good light but out of direct sun, and forget it. Or, you can even freeze and thaw the seed, right in the container. Things can go wrong, for instance, if direct sun reaches the container it will promptly cook, not dry but cook, the seedlings. If you use any liquid or other fertilizer to moisten the soil the seedlings will come up quickly and just as promptly die. A little common sense will help your plants bubble with efflorescense. I now use another method for some of my best seed. I use a 6 part cavity tray, like you get from the greenhouse with 6 little plants in. One seed goes in each compartment. I always cover with a very little perlite, which lets in light but keeps a humid layer near the seed, and later anchors the primary roots into the planting mix. Perlite is so light that seedlings have no problem pushing through it. This method eliminates the pricking out of small plants. They grow on in the cavity until time for potting."

RLC: I guess we’ve heard it all Florence, do you have anything to add, or would you care to sum up?

Florence: “No Richard. My methods have been pretty well covered, and we have all been presented with some things to think about.”

Fungus And Mold

Florence: “On second thought, I will add something about air. When we put seed into the soil we know that it needs moisture, but often overlook its need for oxygen. When the rains continue to saturate the soil seeds die for lack of oxygen, which wet soil excludes. When we sow or cover too deeply, the shoots run out of food and oxygen before they can emerge. I do not cover primula seed, for nowhere are germinating seeds and seedlings more dependent upon a brisk circulation of air and water than those grown in flats or pots under controlled conditions. Without it, damping-off fungi can wipe out an entire planting in a few hours. In the nursery I grew 200,000 seedlings a year. They were grown in roofed but otherwise open sheds, surrounded by young trees and thickets. So I had to learn to propagate in an air-retarded pocket. What I learned held all the simplicity of a miracle. After losing two benches of germinating seed to bread mold and damp-off one spring, I began sowing them as close to the bench top as possible for the greatest air drift round the seed, and the necks of the newly germinated seedlings. The lath frames I hung up in the early afternoon I took down in the evening so that the night breezes and the cool morning sun brushed across the benches for the longest possible time. And I learned to use little more than an inch of seeding mixture over a deep bench full of 3/4” minus gravel for air play around the roots, and a speed drip-away of water. My next lesson came with the near loss of a summer crop of transplanted seedlings which had begun to rot. I found that the drainage cracks in the flats had swollen shut with many waterings. With brace and bit I bored here and there right through soil and bottoms of more than a thousand flats. Then I had miniature railroad tracks of 2 x 4s laid, and elevated the flats across the rails for quick drip-away and air circulation. Then I cultivated the young transplants with a carving fork as deep as it would go and saved the crop with oxygen. What I did not know then was that I had also enlisted the help of the antibiotic producers. With air and water flowing freely I had created an environment attractive to the benevolent disease-fighting microorganisms. For those not familiar with damp-off or wilt and how it works, there are 30 varieties of malign fungi capable of causing the disease. The most common one strikes seedlings near or at soil surface for as long as their necks are tender. When seed is sown too thickly, and the tiny seedlings are crowded together, drops of moisture collect in the forest of necks. Too much shade, poor air and water circulation - either or both - add greatly to the already unhealthy crowded condition. When damp-off hits the tender seedlings they collapse as though scalded. A number of fungicides have long been offered for the pre-treatment of seed to prevent damp-off. I tried one of them and killed 2 benches of seedlings. Perhaps I did not dilute it more than instructed. Or perhaps primrose seed is allergic to this particular fungicide. Whatever caused the disaster made me fear fungicides, soil drenches and fumigants from that day to this.”

Smith: “I sympathize with your feelings, Florence, but for one reason or another some of us feel we simply must take chemical measures against the possibility of fungal disasters. My seed often has bits of chaff in it which sneaks in fungal spores. A routine watering with Benlate, diluted according to the package directions, usually takes care of that.”

Rosetta: “Damp-off could be critical in my pop bottles, but I find that using a sterile mix just about eliminates the worry for me. If I’m in doubt however, Captan works very well. The Captan I mix with the seed, dry-roll it around to coat each. If fungal mix just about eliminates the worry for me. If I’m in doubt however, Captan works very well. The Captan I mix with the seed, dry-roll it around to coat each. If fungal growth occurs after rooting I dust Captan or Lilly’s Rose Dust with fungicide in it over the surface.”

Kennedy: “Just to be safe I lace my initial immersion bath with Benomyl, and when the flats are in their final position they are sprayed with a 1 in 25 solution of Algofen by Mac Penney International to deter algae, liverwort and mosses. I spray the surrounding area, too. Other things are used over here. Chilton recommends a liquid copper fungicide, easy to make up in small quantities according to directions on the bottle (1/3 teaspoon in a half pint of water). Make up a fresh solution each time you use it. Others use Phalton or Fermate diluted with water, or Natriphene.

Kelly: “I agree with Florence. Primulas rarely give me a problem with damping off - they certainly rank among the most care-free in this regard. I’ve heard of drenching both seeds and medium in a fungicide, but have never taken such precautions.”

Dickson: “A rule I follow for good healthy plants is to keep seedlings growing fast.
this way and that as the infant root dives into the earth, obeying gravity. Then the working whole. This is birth in the green world.

fashion. And with this breathing all parts and agents come together into a smoothly newborn plant begins to breathe, to photosynthesize, on its own, after its own energizing boost of these the embryo bursts through the softened walls. It twists down into soluble amino acids; insoluble minerals become soluble chemicals. With the touch of moisture, enzymes begin converting its packaged lunch into available substances. Insoluble starch becomes soluble sugar; insoluble proteins are broken up into amino acids. Insoluble lignin becomes water-soluble. Soluble sugars dissolving and leaching the cell walls. Soluble salts and amino acids dissolve. The cell wall disintegrates. It will be a very different plant from this fertilized egg cell.

You know Richard, germination is so remarkable. The reason for keeping the soil moist goes far beyond softening the seed coat. As soon as the embryo feels the energizing boost of these the embryo bursts through the softened walls. It twists down into soluble amino acids; insoluble minerals become soluble chemicals. With the touch of moisture, enzymes begin converting its packaged lunch into available substances. Insoluble starch becomes soluble sugar; insoluble proteins are broken down into soluble amino acids; soluble minerals become soluble chemicals. With the energizing boost of these the embryo bursts through the softened walls. It twists this way and that as the infant root dives into the earth, obeying gravity. Then the newborn plant begins to breathe, to photosynthesize, on its own, after its own fashion. And with this breathing all parts and agents come together into a smoothly working whole. This is birth in the green world.

Florence: “You know Richard, germination is so remarkable. The reason for keeping the soil moist goes far beyond softening the seed coat. As soon as the embryo feels the touch of moisture, enzymes begin converting its packaged lunch into available substances. Insoluble starch becomes soluble sugar; insoluble proteins are broken down into soluble amino acids; insoluble minerals become soluble chemicals. With the energizing boost of these the embryo bursts through the softened walls. It twists this way and that as the infant root dives into the earth, obeying gravity. Then the newborn plant begins to breathe, to photosynthesize, on its own, after its own fashion. And with this breathing all parts and agents come together into a smoothly working whole. This is birth in the green world.”

Dickson: “I want to repeat what we just heard - never let your seed pans dry out. Keep them moist, but not soggy. I have my pots on a bench outside with light cloth covers on. These clothes come off when the seed start germinating, and I start to water from the bottom. I try to avoid sprinkling with water from above at this stage - maybe an occasional fine mist when I’m in a hurry. And I wait until they really need it. Then I give them a real bottom soaking. Keep the pots in the shade with good air circulation, protected from the drips, the beating rains and birds. These last are a major enemy of new seedlings. The seedlings need good light, but not...
strong sun. If they begin to spindle I give them more light and air.”

Rosetta: “I have a greenhouse and my pop bottle containers are plunged in a bench with heat cables. But in the house one could put the seed pans on shelves under fluorescent lights. A friend of mine in Pennsylvania completely encloses his seed pots in polyethylene bags and puts them on a north window sill. After the seedlings come up the bags are gradually opened as true leaves appear.

Transplanting

RLC: Now, before we finish let’s have just a word or two about transplanting and caring for the seedlings. Herb, when do you transplant?

Dickson: “I transplant soon after the first set of true leaves develop. I use flats with drainage in the bottom and filled with my standard growing medium -1 part garden soil, 1 part sand, 1 part peat, 1 part perlite or crushed tufa. I separate a few seedlings at a time for planting so they won’t dry out. I set the seedlings one inch each way, as deeply as I can without covering the base of the leaves. I keep my flats well-watered and in partial shade till they’re ready to plant out in their bedding plots. Ralph Balcom used to say (Winter, 1969) “Space seedlings 2” each way and dust the undersides of leaves every 2 months to keep aphids in check.”

RLC: Herb, you told us earlier about Marge Edgren and her method of seeding in sandwich bags. What’s the rest of that story?

Dickson: Wait a minute. . . let me find my notes. . . Ah - here we are. Marge says that the medium in which she plants her germinated seed is a soil-less one, composed of equal parts of sphagnum peat, perlite, sand, fine granite grit, and course granite grit. In the absence of seed stores, gravel or crushed rock can be substituted for the grit, but the quantities should be maintained. Only germinated seeds are planted. The rest are left in the bag to sprout later. Germinated seeds are lifted off the wet paper towel with tweezers; or, if the seedlings are numerous, and the plants strong growers, they are spread rapidly on top of the medium with the fingers. This is the most cumbersome part of the process. Planted pans are covered loosely with transparent plastic film (Saran Wrap is fine) and placed immediately under fluorescent lights in the basement. The tops of the pans are placed very close to the lights, usually within an inch, to promote fast compact growth of the seedlings. The pots are turned every day to shake down condensed moisture and to circulate air around the plants. Plastic covers are removed just as soon as the first true leaves appear. The lights used - 4-foot tubes - are always in pairs: one warm white and one daylight. Growlux are not necessary. Best of all, mature plants can be transplanted outside after only a few days of daylight acclimitization in a shady place outside.

RLC: Sensational! Florence, why don’t you summarize your practices for us. I’m sure no one here has raised more primula seedlings than you.

Florence: “The mechanics of transplanting from the lean seedling mix to a growing-on mix is basically the same as the preparation for seeding. Pots or flats should have wide cracks or holes, planted containers should be elevated for air and water circulation in a good air sweep; and I still put 3/4 minus in the bottom before adding about 2” of a good growing mix. This is tamped down, filled, and tamped again to just below the container edge. If you buy sacked potting soil or mix your own, don’t add concentrated fertilizers at this point, organic or inorganic. Some gardeners transplant before the first true leaves, and, though tedious, this is alright, even though the plant cannot take up nourishment or make sugar until that true leaf appears. However, when using a mix with no nutrients, transplanting in the cotyledon (the seed leaf) stage is necessary. Since the soil in my standard mix carries some nutrients it is easier for me to wait for the first true leaf or two and I understand that some gardeners wait an entire season to transplant, if the seedlings are not too crowded. Before lifting seedlings loosen the soil beneath them with a carving fork or ice pick to prevent root breakage, but loosen and lift only a few at a time to avoid drying. My dibble is my forefinger, and I make a hole deep enough to take the roots hanging straight down. The hand holding the seedling positions it with crown at soil surface while the dibbling finger and its thumb press roots and soil gently together. Space plants about 2” each way. As soon as each container is planted, water in or tray soak, place in the shade for a few days, then give them sun in the cooler hours. Elevate for drip-away and keep them moist but not wet. Occasionally cultivate lightly, after watering, with a kitchen fork. That’s all there is to it, Richard.”

RLC: Thank you Florence. Now, does anyone have a final word? We have about exhausted our topics for this season.

Smith: “Systems in the United Kingdom and the United States vary - we have seen that. But we can all agree I think that home raised seed or plants are better.”

Dickson: “I want to emphasize that the basic requirement is continual moisture.

Holt: “Herb is right about the moisture. It’s the key. Many people use too shallow trays or pans for sowing primula seed. These can dry out quickly at the vital stage. I prefer trays or pots not less than 3” deep. Then, gardeners like you and me, often buy various seeds ‘Just to try this or that this year.’ This is a mistake, and will lead to disappointment, unless one studies the requirements of the resultant plants and can provide the right environment. The vernales primroses are the exception - they should be in every garden.”

Kelley: “Two related points I can’t stress enough. First, the novice should not be discouraged. Though ‘more learned’ folk may seem to have some answers to some questions, it’s through years of experimentation, learning from others, and making many errors themselves that they find themselves with advice to offer. There is no one right way to go about all this. Just get going! Second, keep meticulous records of everything you do, not only regarding planting seeds, but also, how things are going in the garden - what plants do well, what plants don’t make it. No, you will not remember in 1986 what you did to attain success in 1985. Records will be your most valuable asset as you proceed from year to year, and will keep you from repeating errors.”
Getting Seeds to Grow
By the B.C. Primrose Group
Edited by Maedythe Martin

Once you've received all those tidy little packages of primrose and auricula seeds, how do you go about getting them to grow?

At a recent meeting of the B.C. Primrose Group, I did a quick around the room survey of how members start their seeds, and the practices vary quite a bit. There are those who favor out-door methods, and those who start the seed indoors or in the greenhouse. But let us see who does what.

Phyllis and Ian Pledgerleith (Phyllis won the Best Named Self Auricula trophy at the APS show in 2002) come from an alpine plant-growing background, and have a very small space to work in, having removed to a townhouse. But the front and back gardens, tiny though they are, require new plants - what garden doesn't? So each year they start primrose seeds in a small commercial propagator unit. It has a heating cable in the bottom, and the mix they use is commercial seed mix plus added grit. Put the cover on, and wait for the first sign of seeds to come up. This propagator can be found at www.leevalley.com.

Ruby Chong, a great grower and prizewinner in our group, starts lots and lots of seed each year, and is a primrose traditionalist - she uses Rosetta Jones' pop bottle method. I hope you've heard of this way of germinating seeds, for those who use it swear by it, and Ruby says she never loses a seedling. You take a 2 liter pop bottle, well washed, of course, cut it in half, put seed mix in the bottom, plant seeds, and fit the top back inside the bottom of the bottle. Take the screw top off the bottle, as this provides a little air circulation, but in fact, what you've done is create a mini-greenhouse. Ruby says seedlings can live in here for months, even, until you are ready to prick out and they are safe and kept constantly moist. Like many of us, Ruby starts seeds in late December or early January so they can get a good root system going to make it through the summer.

Jean Hausman, another member, has a background of growing geraniums professionally. With a big greenhouse, and the propagation area for geraniums all set up with propagating benches, high sodium lights - this is a scenario to be envied. When Jean got her first packet of primrose seed, she just sowed them over the heat in this propagation area as if they were geraniums. What did I know?" she said. But of course everything popped up in no time, and grew like weeds under this great light source. But the tale takes a sad turn, as many of the seedlings went to the great garden in the sky, as Jean learned the tricks of growing primroses the hard way, but that's another story.

Ruth Anderson is a proponent of starting primrose and auricula seeds out of doors. Seeds go into soil-based seed mix over which she pours boiling water, to get rid of some of the nasty fungus lurking there to attack your seedling once they are up. Do this some time before you plant the seeds, so the soil has a chance to cool. Ruth also chooses to plant the seed well spaced out, so that if one tiny plant is attacked, there is a chance for the others. And the extra space also provides for better air circulation. Cover the seed trays with grit or a piece of window screen to protect the seeds from heavy direct rain or, heaven forbid, birds, and await the arrival of the first primrose seedling. This may be six to eight weeks, or even a couple of months, if the weather is unseasonably cold. Remember that we here at the West Coast often forget we are living in lotus land, and can manage well through a winter with only a few weeks of snow and usually only a few degrees of frost. For those primrose growers in areas of more serious winter, one of the windowsill methods might be the practice of choice. Promix, a commercial seed mix, has grit added and then it is used to fill up the containers. Plant the seed and wait. These containers are outside, exposed to the elements.

I follow an indoor method, and start all my seeds in pure vermiculite. There is no chance of damping off, as this is a sterile medium. I like a clear plastic container with a high lid, and fill it half full of vermiculite. The seed is planted in little rows, each with its label marker, and these go onto my brightest window sill - cool but definitely indoor temperatures - about 60 degrees. I can get about 8 to 10 packets of seeds in one container, so this a very compact method, as well. The primrose and auricula hybrids that I tend to grow seem to like this method, but if I were growing species primula, I would start them outside.

Stan Cryan has a large garden and is a keen grower. For his primrose seed, he starts them all outdoors in small peat pots that can be handled easily, one at a time, when you come to pricking out the seedlings. Stan sprays the freshly planted pots with a fungicide, covers the trays, and outside they go. It takes about 6 to 8 weeks for seedlings to appear.

Michael and Rhondda Plumb favor the out of doors method as well, though some of the auricula hybrids may be given a corner in the greenhouse. They use a commercial potting mix, which is soaked well before planting the seeds, and the seed trays are then covered with grit. In the greenhouse the seed seems to come up a bit sooner, 3 to 4 weeks, than if the trays are left outside. One of our members, Jack Stanley, works in a commercial greenhouse and sows huge cell-pack trays with seed. They are filled with a commercial mix and the seeds planted one to a cell, and in no time, in this large well vented but moist greenhouse, the primroses are up. Just wait until Jack presents you with one of these trays of 200 plus seedlings to prick out. Whew!

There are lots of methods, find one that suits you. But remember, the seeds won't grow in the packets - you have to plant them. The delight of seeing new little green primrose leaves is one of the great joys of spring, so it is well worth the effort of finding a method that works for you.

Get growing!
**How Can You Take your Primroses to the Show?**

By Ed Buyarski

The 2004 APS National Show is in Victoria, British Columbia, Canada. We want as many members and others to visit the Show to see and learn more about Primroses. Many of us want to bring plants to the Show to compete for ribbons and trophies. If you are a Canadian resident there is no problem but if you live in the States, you will need to have a Phytosanitary Certificate from the US Department of Agriculture to bring the plants through Canadian customs.

The certificate is only good for two weeks from the time of inspection. To find an inspector you may need to contact your local Cooperative Extension agent, Soil Conservation Service, or State Agriculture Department. Your plant should be in potting soil free of insects and diseases. Since the inspector may ask you to gently tip the plant out of its pot to see the roots, it should be repotted well ahead of time so it will have a good root system.

If you are flying to Victoria, Vancouver, or even to Seattle and then driving across the border you will need to pack your plants in a small box that can be carried on and fit in the overhead bin on the airplane. A small pet carrier available from local veterinarian or pet stores works well, is sturdy, ventilated, and easily opened for inspection at customs. At the Show, there will also be an Agriculture Canada inspector to check your new purchases and again give you a Certificate so you can bring them into the States. We’ll see you there!

**Alpine Plants of North America**

An Encyclopedia of Mountain Flowers from the Rockies to Alaska

By Graham Nicholls, Rick Lupp, Consulting Editor; Foreword by Bobby Ward


Several years ago I was contacted by Graham Nicholls to help him find photos and information about the North American species of Primulas. By that time he had been asked enough times why an Englishman was writing a book about North American alpines that he was quick to mention others who had suggested he should fill this gap in the literature. He has done an admirable job to fill this book with fine photos and descriptions of range and habitat for a great selection of alpines.

This book does not include every species or even genus of alpine plant. Mr. Nicholls has tried to give more information about genera and species that he has some experience growing in his own nursery in the UK. The propagation and cultivation sections for each genus may be the most useful part of the book for those of us trying to grow these beautiful plants as habitat descriptions often do not give us enough information to succeed in our gardens. Of course some of us may disagree with his decisions on which plants are more garden worthy than others.

The author does describe the general alpine regions of Western North America up into Alaska where “Alpine” plants may grow near sea level at the high latitudes. He feels that the Appalachians and Adirondacks and their alpine flora are merely extensions of arctic tundra. I guess that’s putting a fine point on which alpines to include and the book should really be titled with Alpine Plants of “Western” North America.

Certainly all of us who are able should try to see some of these plants in their native habitats and try to acquire and grow a few from nurseries or seed exchanges if possible.

Ed Buyarski

**News From The Juneau Chapter**

By Robert Tonkin

With busy schedules and foul weather the Juneau Chapter has been slow to get rolling this season. In November our program was an excellent VHS tape of some of the European Shows made by Pat Salt for Linda Bailey, who was kind enough to loan it to us for showing. In January John O’Brian treated us with new slides from his twin, Harry Leighton, also of the northern section of NAPS. Most of the slides were of show auricula with both excellent photo quality and written narration from Harry. Many thanks to Pat Salt, Harry Leighton, and Linda Bailey for their efforts and generosity.

Readers may remember the Juneau Chapter petitioned the City and Borough of Juneau to officially proclaim the Primrose the Juneau City Flower. As a follow up to this event Paul Dick and Kerri Tonkin designed and had made an APS sign for the very large services directory board at the Juneau International Airport (see photo page 17). The sign proclaims Juneau the “Primrose Capital of Alaska”.

Important dates to keep in mind are May 14th, 15th and 16th. This weekend will be the Juneau Chapter Primrose Show, along with the Southeast Alaska Garden Conference. Kerri Tonkin and Lee Powelson will Co-Chair this year’s show. We will also participate in the annual plant sale the 7th and 8th of May, most likely in the Safeway parking lot.

Many of us are excited about the National Show in Victoria come April. It looks like we will have a large Juneau crowd going. See you all there!
Board Meeting Minutes
November 15 American Primrose


Quarterly: Robert said he would produce four more issues (one year) and then will ask to be replaced as Editor. The Juneau Chapter contributed $175 towards the cost of printing extra information in Primroses for the 2003 annual show. Robert reported the receipt of $250 from a local nursery from sales of the 60th Edition.

Seeds: Judy Sellers requested a discussion of having a two-tier price system for seeds with purchased seeds being higher priced than donated seed. Lengthy discussion followed. Rodney B. motioned that purchased seed should cost more than donated seed. After further lengthy discussion, the motion passed. The seed exchange group was assigned the task of determining the price per packet of seed.

Web Page: Pam E. stated she wants additional input to the website so it doesn’t become the voice for just one person. She is also looking for an apprentice who could eventually take over the webmaster position.

Slide Library: Members have asked that lists of available slide programs be printed in the Quarterly. This was agreed to. There was also discussion about a new member volunteering to put all the slide collections on CD’s. Mary was asked to work with this member to get the job done. Thea reported she is $242 in the hole but that this was due to purchasing the new Primula book.

Finances: Robert Tonkin said we are in excellent financial shape after reading Julia’s treasury report. Pam E. is concerned because other Societies seem to have more in their reserves. Several suggestions for raising funds for the Society were brought up: T-shirts, sweatshirts, coffee mugs. Robert stated the opinion that the Society needed to spend money towards recruiting new members in order to keep the Society financially healthy.

Duane Bell Memorial: Thea suggested a show award for American species would be a good memorial. This idea was discussed. Pam E. made the motion that an annual trophy for North American species be made in Duane’s name. Motion passed.

Dorothy Dwyer of the Gig Narrows Chapter asked for $200 for membership available for new Chapter startups. Michael P. motioned that we grant Gig Narrows the $200. More discussion ensued. Motion passed.

January 2004 Minutes Addition: The Board approved an amendment to the APS Bylaws submitted by the APS Judging Committee. The new By-Laws Article will be placed on the ballot in the Winter 2004 for approval by the membership.

The B.C. Primula Group and the Primrose Group of VIRAGS will host the 2004 American Primrose Society National Show in Victoria, B.C. Canada

Show to be held in the Mary Winspear Centre, at Sarsa, in Sidney, B.C. just off the Highway. Open Saturday, April 24 from 12 noon to 5 pm and Sunday from 10 to 1 pm. The banquet speaker will be Geoff Nicolle from Wales, holder of the National Collection of Border Auriculas. Banquet Tickets are $25, or after banquet tickets for Speaker only are $10.

There will be a mini-symposium with 5 speakers over the two days. Topics include:

- Primula Cultivation: Geoff Nicolle and April Boettger
- Primula and Alpines of Alaska: Ed Buyarski
- Living in Wales with an Avid Auricula Collector: Sonia Nicolle
- Auriculas Seen By Two Botanical Artists: Maedythe Martin
- I Tried But I Died (Struggling with show auriculas and other specialties at the West Coast): Michael and Rhonda Plumb

For further information contact Maedythe Martin at mjmartin@pacificcoast.net or 250-370-2951. Check the APS website for more updates over the next few weeks.
Alpine specialists offering an extensive selection of primula cultivars and species.

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Want More Primroses?
Back issues of the A.P.S. quarterly, *Primroses*, are available from the A.P.S. Quarterly Librarian. Prices depend on the issue date:

- 1996-2002: $6.50/copy
- 1970-1989: $2.50/copy
- 1990 & before: $1.50/copy

For availability or ordering please contact:
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Proposed Amendment to the APS By-Laws

ARTICLE VIII JUDGING COMMITTEE

There shall exist within the Society a Judging Committee. APS judging rules and show standards will be set forth in the document “APS Judging Rules & Standards”, and is to be followed by Chapters or Groups calling their show an APS show and/or displaying the APS logo. “APS Judging Rules & Standards” consists of previously APS Board approved judging and show standards as written and recorded.

The responsibility to originate change to “APS Judging Rules & Standards” will be held by the APS Judging Committee. The Judging Committee shall keep this publication current and make it available to any APS member upon request. “APS Judging Rules & Standards” shall only be changed or amended by an informed majority vote of APS judges and an informed majority vote of the APS Board of Directors.

Any APS Chapter or Group may request a one time only waiver of specific rules or regulations set forth in “APS Judging Rules & Standards”, by writing to the Judging Committee, wherein the Judging Committee may make a recommendation to the APS Board for action upon such request.

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