

TIPS ON GARDENING WITH PRIMULAS IN NEWFOUNDLAND

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What is a Primula?

Primula or primroses are a group of perennial, herbaceous (not woody) plants which may be evergreen or deciduous. Most are low-growing. The leaves usually produce tufted rosettes. The showy flowers are generally held in open clusters although some produce a single flower per stem, a dense rounded head, a candelabra arrangement or a dense spike of flowers. These blooms are usually upright or outward-facing and open funnel-shaped or less commonly, bell-shaped and pendant. Typically there are five petals, but semi-double and double forms do exist.

There are numerous species of primroses (about 500) and even more hybrids. Four species are native to Newfoundland and Labrador; *Primula mistassinica*, *P. egaliksensis*, *P. laurentiana* and *P. stricta*. These plants, which naturally occur in open limestone areas of western Newfoundland, the Great Northern Peninsula and south-east Labrador produce small pink or white flowers. Unfortunately these beautiful natives are extremely difficult to grow in cultivation.



Primula egaliksensis and *P. mistassinica* are two of our native primrose species.

Care and Maintenance

In nature, primroses inhabit a wide diversity of habitats including alpine slopes, coniferous forests, open deciduous forests, damp open meadows, swamps and even sub-tropical rainforests. Despite the numerous species and hybrids available, only a select few are suitable for growing in Newfoundland. All primroses prefer fertile soil, rich in organic matter. The soil pH should be slightly acidic to slightly alkaline. The soil we use at the Botanical Garden includes:

- 1 part organic material (leaf mould, compost and/or peat)
- 1 part topsoil
- 1 part coarse sand

Additional grit could be added to the planting area of the alpine primroses as they demand excellent drainage.

Primroses prefer a cool location and are intolerant of high temperatures or dryness during the growing season. Because they are susceptible to summer drought, plants should be well-watered if rainfall is scarce. Do not lightly sprinkle with water every day. To ensure deep root growth, give a thorough watering once a week.

Even though many books suggest planting primroses in lightly shaded areas, they often perform best in Newfoundland if exposed to full sun. This is especially true of the alpine types. Even woodland species of primroses will flower best if exposed to at least a few hours of sun a day.

Primroses prefer a steady snow cover in winter. Unfortunately, this is not always the case in the St. John's area. In fact, the cycle of alternate freezing and thawing in winter is a significant problem here and is the #1 killer of primroses. In addition, those with evergreen leaves are susceptible to winter desiccation. Thus a sheltered planting area is recommended. In more exposed areas covering plants with evergreen boughs will help prevent these problems. It is important to wait until the ground is frozen before adding the boughs.



Primula denticulata, the popular drumstick primrose.

Pests and Diseases

Primroses are not prone to many diseases. Crown-rot can occur if the soil is not well-drained, especially in winter. Protection against alternate freezing and thawing in winter, and the addition of coarse sand or grit to the soil of the planting area will keep rot to a minimum.

The leaves of primroses are quick to produce patches of dead tissue (a symptom of drought) if allowed to get too dry. Proper watering will prevent this physiological problem from occurring.

Slugs and snails are among the most serious pests and they will undoubtedly eat the flowers first! Slug bait is available from garden centers, but ensure you following the manufacturers recommended application procedures because these baits are poisonous to pets and birds. Alternatively, you can physically remove them.

The larvae of vine weevils can also do serious harm to primroses. The small, grub-like larvae burrow into the roots and cause the plants to collapse. There is no simple cure for this pest, however, predatory nematodes are available as a biological control.



Polyanthus primroses seem to be particularly at risk from slug and snail damage.

Propagation

Primroses may be propagated by seed or by division. The latter method is usually preferred, since this is a relatively simple process. In addition, division may even help maintain the health of the plant. Primroses can be divided in early spring (before they flower) or preferably after flowering (mid-summer for most). Carefully dig up the plant and cut the clump into two or more smaller divisions using a sharp knife. Some roots may be lost, but when placed into fresh soil, primroses are generally quick to send out new ones. The addition of bonemeal to the planting hole is often beneficial. Remember to keep the plants well watered after dividing, especially in mid-summer.



Vigorous primroses, like *Primula veris*, can be dug and divided about every 3 - 4 years.

Most groups, such as the auricula, sikkimensis and candelabra usually look better if left as a large colony while the polyanthus types will bloom better if divided every 3 - 4 years. Never divide the polyanthus types to just a single growth; it is better that each division have 3 - 4 growths. The other primrose groups are more forgiving and if need be, can be divided into single growths without any serious set-backs.

Growing primroses from seed can be challenging. The polyanthus types are readily available as seeds and germinate without too much fuss. Other primroses may need a chilling period (4 - 6 weeks) after sowing before the seeds will break dormancy. The key to success is to sow fresh seeds. When ready to sow, sprinkle the seeds on the surface of a pot filled with a high organic, sterilized mixture (we use Pro-Mix at the Botanical Garden). Place a very light layer of soil over the seed. Maintain even moisture and if the seeds are fresh, they should germinate in 2 - 3 weeks. Seeds which have been stored for several months or longer will sprout irregularly and may need to overwinter outdoors before they will germinate.