

Suggestions For Growing Croft Lilies Bulbs In All Pacific Northwest States

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This is the second installment of this article, started last week by the Pilot. It is the hope that by the reading growers will learn more about the lily, which has made this community famous.

Time to Plant

Croft lilies can be planted any time from the middle of October to the middle of November. Later planting should be avoided because of the unfavorable weather and the danger that planting may be delayed even further. It is desirable to have the bulbs in the ground early enough for them to become partly established before the onset of the winter weather.

Bulb Sizes

The size of a lily bulb is based on the number of inches around the bulb when measured at its largest diameter taken perpendicular to the main axis. In other words, a size three bulb is 3 inches in circumference; a size 4 bulb is 4 inches in circumference; a size 5 bulb is 5 inches in circumference. Stem bulbets usually are separated into three sizes. No. 1 stem bulbets are the largest of the three sizes and are often called "top size" stem bulbets. No. 2 stem bulbets are medium sized and No. 3's are the smaller size. In addition, there are stem bulbets which fall outside of these three grades. At the upper extremity we find a small percentage of large stem bulbets which are called "jumbos." Not many of these are ever sold since most all growers prefer to keep them. At the lower extremity we find a number of very small stem bulbets. It is possible to grow these successfully though the beginner may be disappointed with their performance. No. 1 stem bulbets approach 3-inch yearlings in size and can be planted same depth.

Depth to Plant

A good rule to follow is to cover the bulbs with as many inches of earth as there are inches in the circumference of the bulb. For example, 3-inch bulbs would have 3 inches of earth over them; 4-inch bulbs would have 4 inches of earth over them. It is not advisable, however, to place more than 6 inches of earth over any bulb, regardless of its size. No. 2 stem bulbets would be covered with about 2 inches of earth and No. 3 stem bulbets with 1½ to 2 inches of earth. The texture of the soil will also have some bearing on the depth at which the bulbs are covered. Bulbs planted in the heavier and more compact soils should be covered less deeply than bulbs planted in the lighter and more sandy soils.

Winter Care, Drainage

There is not much one can do with the lily planting during the winter months except to make sure that drainage is adequate and that the planting is protected against rodents and livestock. If stem bulbets in the smaller sizes have been planted it is often advisable to mulch these with a thin layer of straw as soon as the ground has become frozen. The straw should be free of weed seeds and should be removed by the middle of March at the latest. The danger from a mulch is in putting it on too thick and removing it too late.

Spring Clean Out

This is a critical time in the history of planting. It usually happens that a crop of weeds develops along with the lilies and these must be removed before they harm or injure the crop. It is usually necessary to remove most of the weeds by hand, though the spaces between the rows can

be tended with garden tools.

Where one must depend upon hand cultivation, a wheel hoe of the Planet Junior type, equipped with the necessary accessories, is a good investment. In such a situation, it is advisable to plant the lilies in single rows, two feet apart. The bulbs should have been carefully placed upright in the trench and covered without knocking them over. Unless such care was taken in planting them they will not come up in straight rows and their care and cultivation will be much more difficult.

Cultivation, Irrigation, etc

It is advisable to avoid deep cultivation, particularly after the stem roots have developed. Stir the surface of the soil frequently in order to maintain a loose mulch and to control weeds. If the summer should be hot and dry this mulch will also help to conserve moisture. It is often advisable to irrigate during the dry summer months. This should be done only when the ground is in need of moisture. In other words, give the ground a good soaking, cultivate, then wait until the need of more moisture is indicated. As soon as the stem roots begin to develop in the spring it is advisable to side-dress with a good all-around fertilizer such as 5-10-10. It is advisable to learn the needs of your soil and to fertilize accordingly. The fertilizer should be drilled along each side of the row within a distance of 3 to 4 inches of the plant where the stem roots or feeding roots can reach it.

Control of Botrytis Blight

Whenever possible, avoid working among the lilies while the foliage is wet. Fortunately, the Croft lily is fairly resistant to Botrytis blight or fire. This disease causes brown spots to appear on the leaves and these brown spots are characterized by concentric rings of different shades of brown. Such a spot may spread and kill a whole leaf. If enough leaves are infected, damage may be considerable since the growth of the bulb is dependent upon the food manufactured in the leaf. It is advisable to apply Bordeaux-Penetrol spray as a preventative. This spray should be applied at intervals of approximately ten days or two weeks during the growing season until the buds form. By the time the buds have formed the danger from Botrytis blight should be pretty well passed. However, young stock which continues to make a vegetative growth and does not bud, may need further protection.

Bordeaux-Penetrol Spray

The Bordeaux-Penetrol spray may be prepared by dissolving 4 pounds of bluestone (copper sulphate) in 4 or 5 gallons of water. This can best be done by filling a wooden keg, or a stone jar with a capacity of 4 or 5 gallons nearly to the top with water, and suspending the bluestone in the upper portion of the water in a cloth sack or similar container. Six pounds of hydrated lime may also be stirred in 4 or 5 gallons of water in a separate container. Assuming the sprayer has a 50-gallon tank, the tank should be filled about two-thirds full, and the mixture of lime and water strained into the tank with the agitator running. The bluestone solution should then be poured into the tank. A pint of Penetrol should be mixed with an equal amount of water and added to the spray mixture. Water should then be added to the spray mixture until the tank contains the full 50 gallons of spray. The Bordeaux-Penetrol spray should be

used without delay since it does not keep well.

Dieback Disease Control

Unfortunately, many stocks of Croft Easter Lilies carry an infection of the bud and leaf nematode. This nematode causes a disease known as "dieback" disease of Easter lilies. During the spring months the lower leaves, particularly of infected plants, become bronzed in appearance and tend to curl under. Later, these may develop brown streaks or a mottled brownish appearance, becoming completely brown and dead. If one of these leaves in the early stage of browning is macerated (torn or shredded) in a watch-glass or water and allowed to stand a short while, with the aid of a lens many minute worms can be observed, swimming in the water. These worms migrate from one part of the plant to another when the surface of the plant is covered with a film of water, such as it often is during wet weather in the spring. It is doubtless in this manner that they spread from one plant to another. These worms have the ability to penetrate the leaf tissue and the injury resulting from their activities brings on condition known as "dieback."

Hot Water-Formalin

Fortunately, we are able to eliminate nematodes from the bulbs of our planting stock. This can be done by employing the hot-water-formalin treatment.

This treatment consists in immersing the bulbs in a water bath, which is held at a temperature of 110 degrees Fahr., for one hour. Commercial formaldehyde (U. S. P.) should be added to the vat at the rate of one

pint to 25 gallons. The treating vat should be provided with an automatic heat control, circulation for the bath, and should be well insulated. Such portable vats or tanks have been designed and constructed. One of these tanks was manufactured for the use of the experiment station and several have been built for bulb

growers. It is understood that a company will build others under. (National Blower and Metal Co., 1129 St. Paul, Wash.). It will be noted that soon as the bulbs are placed in the bath the temperature drops several degrees. The most statistically controlled

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