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MADONNA LILIES

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The candidum lily, also called the Madonna lily, is very susceptible to the leaf-destroying malady, Botrytis blight. During the late spring, the leaves develop spots and begin to dry up. This loss of foliage weakens the plant, but meager blooms may develop on these defoliated stems giving the entire ensemble an unsightly appearance. This blighting is favored by the fact that these lilies send up foliage in the fall which winter kills. Botrytis decay develops on the winter-killed leaves in and above the dormant crowns. The fungus vegetates in the killed leaves and accumulates as a disease source for infecting the spring growth. Another factor which may account for this kind of lily being particularly susceptible to blight is the fact that old bulb perpetuated stocks are often fundamentally weak. The following suggestions for controlling this disease complex are based on six years of miscellaneous tests.

During mid-winter, after freezing injury has become noticeable in the fall foliage, the plants should be cut off just below the ground line and the lily plant debris carried away and destroyed. The area from which the debris has been removed should then be covered to a depth of a half inch with clean sandy loam--that is, sandy loam which has not been exposed to lilies. In the spring new foliage will come up through this soil layer and appear vigorous and free from fungus spotting. This simple procedure has proven very effective for the usual garden type of planting and may be well applied to commercial plantings.

The new spring foliage may be protected to good advantage with spray materials applied before the blight appears. No spray or spray combination has been tested which will stop Botrytis fire on candidum lilies when it is once well established. This kind of lily is very tolerant to copper sprays. For average home plantings the foliage may be first sprayed with Newton's resin spray in a dilution of about 1 to 40 and then dusted with Bordeaux dust. Commercial growers and home growers who have reasonably good spray outfits may use 4-4-50 Bordeaux applied with a detergent as spreader and sticker. A full discussion of Bordeaux sprays is given in Oregon Station Bulletin No. 336.

In our experience, we have found that the removal of the winter foliage as suggested above produces better lily plants than does spraying alone on the foliage of lilies which have not received this treatment. A combination of the two processes is recommended.

Candidum lilies and tulips should not be planted near one another. There are two reasons for this. In the first place the Botrytis blight of lilies and

the "fire" of tulips are essentially the same. In the second place, candidum lilies, especially those which have long been bulb-propagated, contain a hidden virus which, while it undoubtedly contributes to the fundamentally weak condition of these lilies, produces no special symptoms on them. This lily virus is extremely destructive to tulips. When introduced into tulips by mechanical inoculation or by natural transfer by leaf-inhabiting aphids this virus produces an extreme form of breaking in tulips. Candidum lilies are not the only kind of lilies that are dangerous to tulips. Tiger lilies are equally dangerous. These virus conditions of tulip and lily cannot be cured; they should be avoided.