

often be found to be affected with basal rot. Upon digging the diseased bulbs they usually fall apart because the connection between the bases of the scales and the basal plate has been destroyed. Mites and other soil inhabiting insects are almost always present in large numbers feeding on the decaying bulb tissue. Control measures should aim at keeping the fungus out of the garden if it is not already present. Examine bulbs carefully before planting and do not set any that show rot in the area where the scales join the basal plate. Newly purchased bulbs may be infected and show no symptoms in the early stages. As a precaution all newly purchased bulbs of the susceptible species mentioned above may be dipped in a 1-100 solution of commercial formalin (40 per cent formaldehyde) for one hour. Ordinarily, diseased bulbs are discarded as a total loss. If they are particularly valuable and if the infected area is not too large they can be trimmed free of all diseased and rotted tissue, dipped in 1-100 formalin for an hour and replanted in a new location. The scales which have been broken from the basal plate may have the diseased part cut off and then be used for scale propagation after disinfection.

Soil beds which are known to be infected with this fungus can be sterilized by drenching with a 1-50 commercial formalin solution at the rate of  $\frac{1}{2}$  to 1 gallon per sq. ft. of bed space. Cover the bed with tar paper or burlap for 24 hours after drenching, then uncover and allow to aerate for 2 weeks before replanting. Such soil treatment is particularly important in growing seedlings. In scale propagation scales should be dipped in a 1-100 formalin for an hour before planting.

In addition to basal rot there are a number of other bulb rots which are troublesome during shipment and storage. The gardener's chief concern with these rots is to learn to recognize them and refuse to buy bulbs which are badly diseased. Some species such as *L. rubellum* and *japonicum* are particularly likely to damage from storage rot. There are a number of other minor diseases which affect lilies but which are ordinarily not an important factor in the garden.

The insects which are troublesome in the lily garden are relatively few and unimportant. Several types of borers occasionally damage lily stems. Ordinarily these are not a major problem in the lily garden. If the frass from the insect chewings is apparent at the base of a stalk the opening can be found and the larva killed with a wire or stiff straw. Such a stalk is likely to break with the wind and must be staked if it is to produce bloom. Several mites and thrips infest lily bulbs and foliage. Ordinarily, however, these are not a serious problem in the garden and there is little that can be done in their control. Aphids, commonly called plant lice, frequently become so numerous on lily foliage that they cause considerable flower bud and foliage injury. They can be held in check by spraying or dusting with any of the commercial nicotine insecticides.

Another trouble not related to insects or fungi is chlorosis characterized by a lack of green coloring matter in the leaves. It is usually troublesome only on alkaline soils with lilies such as *L. canadense*, *superbum* and sometimes *Hansonii* which are best adapted to acid soils. This condition is due to a deficiency or unavailability of iron or magnesium in the soil. The addition of peat or sulfur to the soil will increase the acidity and make iron more avail-