Storage and Market Diseases of Fruit. XIX

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MARKET AND STORAGE DISEASES OF CITRUS FRUITS

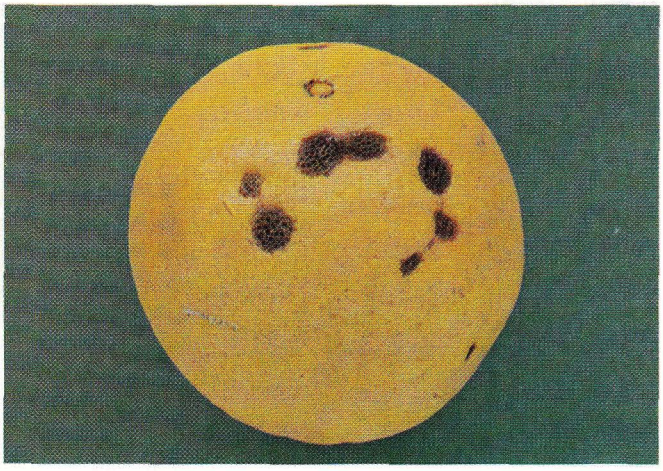
Septoria Spot

While the symptoms of septoria spot, caused by the fungus *Septoria depressa,* are similar to those of black spot (see Supp. XVI, Figs 67–69), the disease does not occur on coastal fruit, being confined to maturing citrus fruit in inland areas, where black spot does not occur.

The disease produces round, dark brown sunken spots on the rind which may vary in size from 1 to 10 mm and which may coalesce to form large blemished areas (Fig. 78). The lesions often exhibit a characteristic purplish tint and in later stages of the disease tiny black spots (pycnidia) can often be seen in the lesions. The rind underneath is discoloured and greyish. Septoria spot is often associated with frost injury which considerably reduces the resistance of the rind.

The infection occurs in the autumn or early winter and is favoured by cool showery weather or heavy dews. Development stops with the coming of warm weather. After harvest, if the temperatures are low or the fruit is in cool storage, fruit that is apparently healthy may develop severe septoria spot or even septoria rot (Fig. 79). Navel oranges seem to be more susceptible than other kinds, probably because they are maturing during winter months.

The disease can be controlled by spraying, in March, with Bordeaux mixture or the equivalent, following recommendations put out by the State Departments of Agriculture. Post-harvest treatments, e.g. in the packing house, are ineffective.



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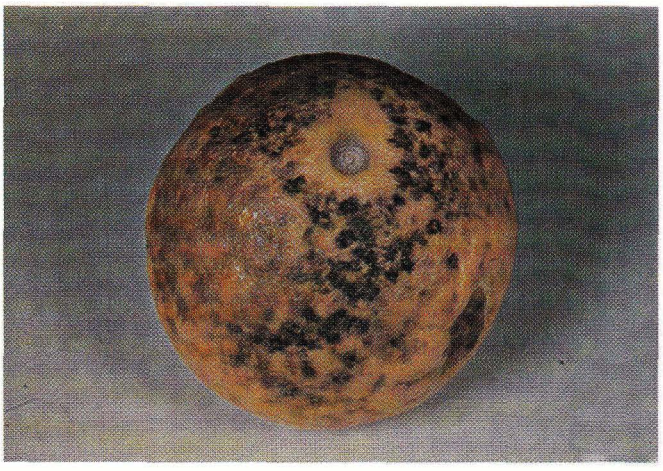
Septoria spot.



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Septoria rot.

Sooty Mould

Sooty mould is the heavy, almost black growth of *Capnodium* spp. and related fungi on the surface of fruit, leaves and twigs of citrus (Fig. 80). It grows on the sugary secretions of 'honey dew' produced by certain scales and other insects such as aphids that may infest citrus trees; it is entirely superficial and in no way parasitic. Sooty mould may interfere with normal colouring on the tree and should therefore be prevented where possible.

As it is entirely dependent on insect infestation and the presence of 'honey dew', control is by controlling scale insects and aphids, following the recommendations of State Departments of Agriculture. The growth can be rubbed off and if heavy, may break away in flakes. Affected fruit can readily be cleaned by using the efficient washing and wet-brushing methods recommended for routine use in the packing house.

Further reading

Anon. (1970). Sooty mould. N.S.W. Dep. Agric. Pl. Dis. Bull. No. 21.
Long, J.K., Leggo, D. and Seberry, J.A. (1965). Washing, sterilizing and waxing citrus fruits. N.S.W. Dep. Agric. Bull. No. H168.

Sooty Blotch

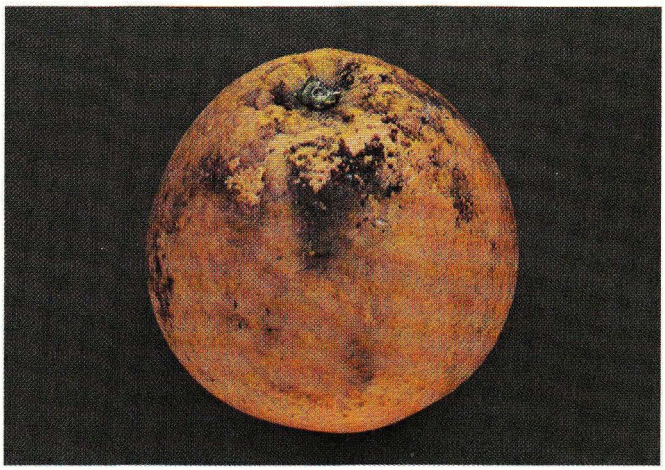
Sooty blotch is a superficial disease of citrus fruits, apples and pears. It is a superficial growth of the fungus *Gloeodes pomigena,* the closely packed fine threads (mycelium) of which produce dark filmy smudges on the fruit as if it were lightly dusted with soot (Fig. 81). Sooty blotch develops on the tree and is favoured by moist conditions and shade. When the disease is severe the individual growths coalesce and become heavier and darker.

The fungal growth is entirely superficial, and can readily be removed by rubbing or efficient spray-washing of the fruit over brushes. The disease is more common on mature fruit and is usually confined to fruit from coastal areas. It can be controlled by the spray programs recommended for control of black spot (Supp. XVI, Figs 67–69).

The unsightly blemishes produced by the fungus can also be bleached out by dipping the citrus fruits, apples or pears for 90 s in a solution of 25 g calcium hypochlorite (bleaching powder) plus 25 g boracic acid *or* 15 g sodium bicarbonate in 1 l water, in a non-metal container. Add the bleaching powder to the full volume of water and then add the other ingredient. Afrer dipping, the fruit should be rinsed in clean water and dried.

Further reading

Anon. (1965). Sooty blotch and fly speck. N.S.W. Dep. Agric. Pl. Dis. Leafl. No. 23.



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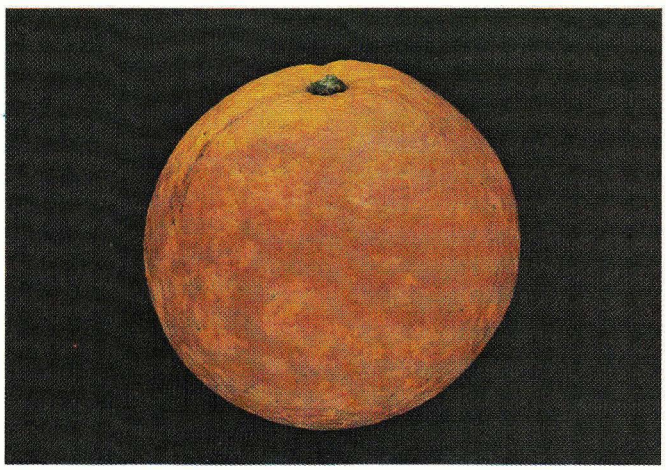
Sooty mould.



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Sooty blotch.