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THE PRE-PINK AND PINK SPRAYS FOR APPLES.

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What are the Pre-pink and Pink Sprays? These are the two sprayings made fairly close together, if both are applied, between the dormant spray and the calyx spray. In other words they are semi-dormant to semi-summer sprays. They are applied usually between the last of April and the middle of May. The first is given when the fruit buds are just beginning to break through their enclosing leaves, and the second when the blossom buds are far enough advanced to show a decided pink color, but with none of the blossoms yet open. If the weather is favorable for rapid bud development they may be made within a week of each other; or the pre-pink may be made even earlier, near the delayed dormant as pictured by Darrow in his Spraying Bulletin (Extension No. 70) if there has been no dormant spray.

Why Used. Formerly these sprays, or at least the pre-pink, were not used to any great extent. To-day they are coming into more general use for a certain fungus on a variety susceptible to its attack, and for definite stages in the life history of a few insects. If this fungus or these insects do not trouble you in your orchard, then these sprays may be omitted.

When necessary for Fungi. Dormant or semi-dormant sprays are usually of little value for fungi in general. It may be that sooty-blotch is cleaned off the twigs to some extent, and that some spores of the black rot are killed, but for these alone it is very doubtful if these sprayings would be financially profitable.

With scab the benefits are much more evident. The reason for this is that on the young developing leaves the scab gets its first start. So far as we now know scab does not hold over to any great extent on the twigs, but depends for infection upon the mature stage that has developed on the old leaves on the ground. This stage begins to shoot its spores into the air about the time the young leaves are breaking through the buds, and the first or primary infection then takes place. If the scab gets a good start on these young leaves it is much more difficult to control later,

hence the necessity of keeping them fairly well protected from the time they begin to emerge from the buds until the calyx spray is put on. So far as apples are concerned the pre-pink and pink sprays need be used only on those varieties that are quite susceptible to scab. See Bulletin of Immediate Information No. 32.

When Necessary for Insects. The pre-pink and pink sprays are not as important for controlling insect pests as some of the later sprays. The European red mite and aphids may be controlled in both the pre-pink and pink sprays if they have not all been killed by the delayed dormant spray. Aphids if present at this time can usually be found on the new leaves and have not yet caused the leaves to curl around them. After the leaves are curled it is much harder to kill them with any spray.

There are a number of leaf-eating insects that begin to feed as soon as leaves appear. The most important ones are the larvae of the bud-moth, canker-worm, tent caterpillar and apple and thorn skeletonizer. Some of them spend the winter as larvae and are ready to begin to feed early. Others hatch from over-wintering eggs and the young begin to feed as soon as the foliage starts to grow. The pink rather than the pre-pink is the most important of these two applications for the control of leaf-eating insects.

What Sprays to Use. If you are spraying only for scab use the summer strength of a fungicide, namely, about 3 gallons of liquid lime-sulphur to 100 gallons of water, or the 8-8-100 Bordeaux mixture. There is not much danger of spray-burn or russet from the Bordeaux at this time. If insects are to be included in your control, nicotine sulphate can be added for the aphids and European red mite, and arsenate of lead for the leaf-eating insects. Nicotine sulphate is used at the rate of three-fourths of a pint, and lead arsenate (dry) 3 pounds to 100 gallons of the fungicide, or of water if the former is unnecessary.