# Rose Mildew Control As We Now See It

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As soon as the transition season of fall is upon us with its bright, warm, sunny days and clear, cool nights, rose growers should be on the lookout for outbreaks of powdery mildew. The best method of prevention is careful attention to heating and ventilation practices coupled with the regular use of small amounts of flowers of sulphur applied to the pipes. Several growers in upstate New York who have carried out such practices conscientiously during the past year have remained almost entirely free from serious mildew outbreaks in their ranges.

If, however, instead of a preventive program, you need eradicative action to clean up an existing mildew situation, the use of some type of fungicidal application will probably be necessary. But even here, the heating-ventilation control practices carried out in your range may determine whether a spray program succeeds or fails. At present, our best mildew fungicides will not give 100 per cent control as long as environmental conditions in your rose houses are very favorable for continued mildew development.

During the past year there has been little change in the mildew fungicide picture. Mildex or Karathane, wettable sulphur used alone or in combination with malachite green, and Mathieson 466 or Omazene are the only materials that we feel can be given general recommendation at the present period. Mildex or Karathane may, if used improperly, cause bluing of Better Times, especially during periods of high temperature or very slow drying. Sulphur likewise will cause some injury during very high temperature periods. Omazene is most likely to cause injury during cool, moist weather.

Therefore, we would suggest the use of Mildex, Karathane or sulphur combinations during the cool part of the year, and Omazene during high temperature periods. Such a program should give maximum mildew eradicative power with a minimum chance of plant injury. Mildex or Karathane should be used at 6 to 8 ounces per 100 gallons; sulphur at about 1 pound per 100 gallons; and Omazene at 8 to 12 ounces per 100 gallons.

Sufficient spreader must be added to all materials to give good wetting of even the young leaves. The mildew colony itself is slightly more difficult to wet than even the young, waxy foliage; if the fungicide fails to wet the mildew lesion, it is certainly not going to damage the mildew.

One of the more interesting developments of the past year is the reaction of rose plants grown under the mist system of culture. We have seen in the literature, and also observed ourselves, that such plants tend to remain mildew-free. In fact, this is the method we are using currently to produce mildew-free plants for use in our research programs. This development is not too surprising, of course, for it has been known for years that mildew spores will not cause infection in the presence of free, liquid water. Naturally, no one is going to go to the expense of installing a mist system over his growing rose plants for the express purpose of mildew control, due to the rather sizeable outlay involved. However, the possibility of maintaining plants relatively mildew-free under this system of culture may well be considered as one good reason to consider mist as a method of culture.

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