

CONTROL OF SEPTORIA LEAFSPOT OF CELERY

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Benlate at 0.5 and 1.0 lb, Dyrene, Bravo and RH 3928 at 1.0 lb and Mertect were significantly better than all other treatments in these tests for the control of Septoria leafspot of celery. Topsin M and Dithane M-45 provided intermediate control. RH 3928, Mertect, and Topsin M are not registered for use on celery at the present time and therefore cannot be recommended.

SEPTORIA LEAFSPOT of celery caused by the fungus, *Septoria apicola* Speg., is a serious disease of celery in California during periods of heavy rainfall. Increased sprinkler irrigation in recent years has also favored development of the disease. Experiments conducted in 1967-69 showed Bravo, Dyrene, Benlate, and Mertect on a 14-day schedule gave excellent control, provided applications began as soon as the disease was first noted in celery fields. During the spring of 1973 an experiment was initiated to further evaluate new and old materials for effectiveness in controlling Septoria and their persistence under sprinkler irrigation.

1973 spring trial

Celery transplants (Ferry Morse variety 5270H), obtained from Marsh-

CONTROL OF SEPTORIA LEAFSPOT OF CELERY BY CHEMICALS, SPRING APPLICATIONS, 1973, SANTA ANA

| Treatments | Disease Rating* |
|------------------------|-----------------|
| | July 2 |
| Benlate 50W 1 lb. | 0.3 a |
| Dyrene 50W 3 lb. | 0.4 a |
| Bravo 75W 1.5 lb. | 0.5 a |
| Benlate 50W 0.5 lb. | 0.7 a |
| RH 3928 50W 1 lb. | 0.8 a |
| Mertect F 8 fl. oz. | 1.1 ab |
| Topsin M 70W 0.7 lb. | 1.7 bc |
| Dithane M-45 80W 3 lb. | 2.3 bc |
| RH 3928 50W 0.5 lb. | 2.4 c |
| Check or no treatment | 3.5 d |

* Disease rating, 0 = no symptoms, 4 = lesions completely covering petiole and many lesions on leaves. Duncan's Multiple Range test (significant at 1% level). Treatments with same letter are not significantly different.

burn's in Orange County, were planted at the University of California South Coast Field Station near Santa Ana in January. Plots consisted of single celery rows, 25 ft long, with plants spaced 8 inches apart in the rows. Plants were sprinkler irrigated at least two times per week to stimulate development of late blight.

Plants were repeatedly inoculated with a suspension of Septoria spores during the experiment. The inoculum was prepared by grinding 40 severely affected dried celery leaves in a blender (1 minute) and straining through cheesecloth. The resulting spore suspension was then sprayed over the plants. Sprinklers were activated to completely wet the foliage after inoculation.

The treatments used are shown in the table. Rates of materials are per 100 gallons of water. Four ounces of B-1956 spreader-sticker were applied with the Dyrene, Dithane M-45 and Bravo treatments. Fifty gallons of each fungicidal mixture was applied per acre when the plants were small, but as plants matured 125-150 gallons of the fungicidal mixture was applied per acre.

Sprays were applied on April 10 and 24, May 8 and 21, June 4 and 18. Disease symptoms were rated July 2, 1973, (see table) on a scale of 0 to 4, with 0 indicating no disease symptoms, and 4 indicating lesions completely covering the petiole and numerous lesions on the leaves.

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SU

... a new

BA

C. W. SCHALLER

LATE MATURITY AND DISEASE resistance are combined in Sutter, a new barley available to California producers. Named for the northern California county where its potential was first observed in field trials, the variety is highly tolerant to barley yellow dwarf and is moderately tolerant to the foliar diseases, net blotch, powdery mildew and scald.

Sutter is later in maturity than any barley now commonly grown in the major production areas of the state. As such, it should prove of most value in early plantings where its late maturity will minimize danger of loss from spring frost. Sutter's multiple disease tolerance adds to its value for early plantings since these plantings frequently suffer heavy disease losses.

Coastal areas

Developed by the Department of Agronomy and Range Science, U.C. Davis, Sutter is expected to find its greatest use in the Sacramento Valley, and in the coastal production areas. Sutter (CI 15479) is a six-rowed, spring-type feed barley developed by selection through the F₆ generation from the backcross CI 1237 × Winter Tennessee².

Barley has not performed as well as wheat on heavy soils, which frequently are saturated for long periods during the winter. However, Sutter has shown better growth under these conditions than