**2014-2015 Sclerotinia Drop of Lettuce Fungicide Trial**

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This study was conducted at the Yuma Valley Agricultural Center. The soil was a silty clay loam (7-56-37 sand-silt-clay, pH 7.2, O.M. 0.7%). Sclerotia of *Sclerotinia minor* were produced in 0.25 pt glass flasks containing 15 to 20 sterilized 0.5 in. cubes of potato by seeding the potato tissue with mycelia of the fungus. After incubation for 4 to 6 wk at 68°F, mature sclerotia were separated from residual potato tissue by washing the contents of each flask in running tap water within a soil sieve. Sclerotia were air-dried at room temperature, then stored at 40°F until needed. Inoculum of *Sclerotinia sclerotiorum* was produced in 2 qt glass containers by seeding moist sterilized barley seeds with mycelia of the pathogen. After 2 mo incubation at 68°F, abundant sclerotia were formed. The contents of each container were then removed, spread onto a clean surface and air-dried. The resultant mixture of sclerotia and infested barley seed was used as inoculum. Lettuce ‘Winterhaven’ was seeded, then sprinkler-irrigated to germinate seed on Nov 12, 2014 in double rows 12 inches apart on beds with 42 inches between bed centers. Plants were thinned at the 3-4 leaf stage to a 12 inch spacing Dec 15. For plots infested with *Sclerotinia minor*, 0.13 oz (3.6 grams) of sclerotia then were distributed evenly on the surface of each 25-ft-long plot between the rows of lettuce and incorporated into the top 1 inch of soil. For plots infested with *Sclerotinia sclerotiorum*, 0.5 pint of a dried mixture of sclerotia and infested barley grain was broadcast evenly over the surface of each 25-ft-long lettuce plot, again between the rows of lettuce on each bed, and incorporated into the top 1-inch of soil. Treatment beds were separated by single nontreated beds. Treatments were replicated five times in a randomized complete block design. Each replicate plot consisted of a 25 ft length of bed, which contained two 25 ft rows of lettuce. Control plots received sclerotia but were not treated with any fungicide.

For treatments first applied at seeding, sclerotia were introduced into the plots after seeding (Nov 12) before the first application of treatments. For most treatments first applied at seeding, treatment dates were Nov 12 (at seeding) and Dec 18 (after thinning). ENA-1410 was also applied Jan 7, 2015. For treatments first applied after thinning, sclerotia were introduced into plots after thinning (Dec 18) before the first application of these treatments. For most treatments first applied after thinning, treatment dates were Dec 18 and Jan 7. Procidic treatments and one Timorex Gold treatment were also applied Jan 16 and 22. Mean soil temperature (°F) at the 4 in. depth was as follows: Nov, 60; Dec, 55; Jan, 55; Feb, 61; 1 to 13 Mar, 63. Monthly rainfall in inches was as follows: Nov, 0.00; Dec, 0.34; Jan, 0.14; Feb, 0.00; 1 to 13 Mar, 0.45. An initial sprinkler irrigation supplied water for seed germination, with subsequent furrow irrigations for crop growth. The final severity of disease was determined at plant maturity (Mar 11 to 13) by recording the number of dead and dying plants in each plot due to *Sclerotinia*. As a point of reference, the original stand of lettuce was thinned to about 50 plants per plot.

There was a considerable amount of variability among replicate plots for applied treatments, which is not unusual in this trial. Please refer to the data tables to compare treatments of interest, using the Least Significant Difference Value listed at the bottom of each table to determine statistically significant differences among treatments. Compared to nontreated control plots, the highest recorded level of reduction in diseased plants was 61 and 63% for plots containing *Sclerotinia minor* and *Sclerotinia sclerotiorum*, respectively, when initial treatment started at seeding, and 60 and 70% for plots containing these respective pathogens when initial treatment began after thinning.