EVALUATION OF CAPTAN/SULFUR TANK MIXES FOR PEACH SCAB AND BROWN SPOT CONTROL ON PEACHES

Edward Sikora, Jim A. Pitts, Robert Boozer, and Clifford Sikora

Peach producers in Alabama commonly use sulfur as part of their disease management program. To improve its effectiveness, and to keep costs relatively low, some growers tank-mix sulfur with the fungicide Captan for spraying during the cover period. How effective this program is in controlling peach diseases and the relative ratio of sulfur to Captan needed for control are still not clear. This reports outlines the results of the third year of a three-year study comparing two sulfur/Captan tank-mix programs with the standard, full season cover spray programs of sulfur or Captan alone.

The experiment was conducted at the Chilton Research and Extension Center near Clanton, Alabama, on the cultivar 'Alred Alberta'. Treatments consisted of cover spray programs of (1) unsprayed control, (2) Captan 50 WP at 5 pounds per acre, (3) Sulfur 80% at 9 pounds per acre, (4) Captan 50 WP 3 pounds per acre plus Sulfur 80% at 5.5 pounds per acre, and (5) Captan 50 WP 2 pounds per acre plus Sulfur 80% at 3.5 pounds per acre.

All the fungicide programs performed significantly better than the unsprayed control in terms of scab incidence and marketability of fruit (see table). The sulfur-only program had a significantly higher level of scab incidence compared to the Captan and the Captan/sulfur tank-mix programs. The sulfur-only program also produced significantly less marketable fruit than the Captan program and the higher rate program of the Captan/sulfur tank mix. Brown rot was a significant problem based on the high level of disease incidence on the unsprayed control. There was no significant difference in brown rot incidence among the fungicide programs; however disease incidence was highest in the sulfur-only program and progressively less with higher rates of Captan. There were no significant differences in Rhizopus rot among the treatments, including the unsprayed control.

Results from this trial are similar to what was observed in 1999. Spray programs consisting of Captan alone at 5 pounds per acre or Captan 3 pounds per acre plus Sulfur at 5.5 pounds per acre had fewer fruit with scab lesions and higher levels of marketable fruit compared to the sulfur-only program. In the three-year study, the tank-mix programs have usually performed as well as the Captan-only program, though the lower rate of the Captan/sulfur tank-mix program is less effective in high scab pressure situations. The Captan/sulfur tank-mix programs and the sulfur-only program may also suffer from heavier losses from brown rot in high brown rot-pressure years, though this needs to be investigated further.

EVALUATION OF CAPTAN/SULFUR TANK MIXES FOR PEACH SCAB AND BROWN ROT CONTROL ON PEACHES, 2001

Fungicide cover spray program[1]	Fruit with scab	Marketable fruit	Brown rot	Rhizopus rot
	%			
Unsprayed control	92.7 a[2]	16.2 c	65.6 a	18.4 a
Captan 50 WP 5 lb/ac	5.7 c	96.8 a	8.8 b	23.9 a
Sulfur 80% 9 lb/ac	31.3 b	84.1 b	19.2 b	28.6 a
Captan 50 WP 3 lb/ac + Sulfur 80% 5.5 lb/ac	5.0 c	98.0 a	11.6 b	26.4 a
Captan 50 WP 2 lb/ac + Sulfur 80% 3.5 lb/ac	17.5 c	91.2 ab	16.5 b	25.7 a

[1] Bravo Ultrex was applied at shuck split and petal-fall and two Orbit sprays were applied at seven and one day before harvest for all treatments except the control. A total of 40 fruit were picked from the center two trees of each treatment/replication. Percent of fruit with scab and percent marketable fruit were determined at harvest. Incidence of brown rot and Rhizopus rot was determined seven days after harvest.

[2] Numbers followed by the same letter are not significantly different from one another.