

Post and Preemergence Weed Control in Tree Crops with V-53482

M. J. Ansolabehere – Valent USA Corporation, Fresno CA

V-53482, with the active ingredient flumioxazin, is being developed by Valent U.S.A. Corporation as a low use rate preemergence broadleaf herbicide for use in soybeans, peanuts, sunflowers, sugarcane, grapes, and almonds. V-53482 is also being developed for post directed applications in cotton and sugarcane. In conventional-tillage soybean and sunflower herbicide programs, V-53482 controls problem broadleaf weeds such as common ragweed, common lambsquarters, pigweeds, black nightshade, tall and common waterhemp, and prickly sida. In no-till and reduced-tillage programs, V-53482 aids rapid burndown and offers residual control (4 to 6 weeks) of broadleaf weeds.

In 1999, V-53482 was tested in tree and vine crops in CA for post and preemergence weed control. A trial was conducted in peaches to evaluate both post and preemergence activity. The trial was in the Reedley, CA area and was applied to the middles of one year old peaches. Each plot was 6.6 ft. X 30 ft. and each treatment was replicated 3 times. The materials were applied on 2/10/99 with a back pack sprayer that delivered 24 gpa at 43 psi. At application weeds present were: chickweed (3 to 8" wide), shepherdspurse (2 to 4 " tall), annual bluegrass (3 to 4 leaf and 1 to 1.5 " tall), common groundsel (2 to 3" tall), and henbit (2 to 3 " wide and 1.5 to 2 " tall). V-53482 was tested at 0.1, 0.19, 0.25 and 0.38 lb ai/A alone and in mixes with Roundup at 1.0 lb ai/A (all with Agridex at 1.0% v/v). V-53482 at 0.1 lb ai/A plus Roundup was also tested with AG 98, Silwet 77, and no adjuvant. Roundup was tested alone at 1.0 lb ai/A and Goal at 0.5 lb ai/A was tested w/ and w/o Roundup. Postemergence activity was rated at 7, 16 and 22 days after treatment (DAT). The 22 DAT evaluations are presented with this poster.

Preemergence control was evaluated later in the season by using the Valor 0.1, 0.19, 0.25, and 0.38 lb ai/A treatments that were in mixes with Roundup and Agridex. A Roundup alone treatment was used as the comparison for preemergence activity. The Goal + Roundup treatment was also evaluated even though the Goal rate used was for postemergence control. Weeds were "burned off" in these plots after the postemergence ratings so that the preemergences activity could be more easily evaluated. Preemergence evaluations were conducted at 63 and 112 DAT. The 112 DAT evaluations are presented with this poster.

Postemergence results: V-53482 at 0.19, 0.25, and 0.38 lb ai/A w/o Roundup provided 100% postemergence control of chickweed and henbit. None of the V-53482 rates alone provided acceptable control of annual bluegrass (ABG), shepherdspurse, or common groundsel. When V-53482 was tank mixed with Roundup 100% control of these three weed species was achieved.

Preemergence results: V-53482 at all rates tested except the low rate of 0.1 lb ai/A provided good preemergence control of spotted spurge and prostrate pigweed with the highest rate of 0.38 lb ai/A being the most efficacious (98 and 100% control respectively). V-53482 provided only fair preemergence control of annual bluegrass. The two higher V-53482 rates provided about 70% ABG control while the 0.19 lb ai/A rate only provided 37% control.