

Chemical Control/New Products

SUCCESS\*, A NEW TOOL FOR STONE FRUIT IPM

Barat Bisabri, Robert Van Steenwyk, Steve Dietz, and Tim Ksander  
Dow AgroSciences, Orinda, CA

*Keywords:* Success\*, spinosad, obliquebanded leafroller, *Choristoneura rosaceana*, western flower thrips, *Frankliniella occidentalis*, oriental fruit moth, *Grapholita molesta*, apricots, peaches, nectarines, application timing

**Control of obliquebanded leafroller (OBLR) in apricots with Success.** A field study was conducted in San Joaquin County of California in order to determine the best application timing for control of OBLR and evaluate the efficacy of Success relative to a conventional insecticide. Applications were made at delayed dormant or petal fall timing using an airblast orchard sprayer at 100 gpa. Experimental design was RCB with three replications of 7 rows by 25 trees. Evaluation was made by counting total number of OBLR larvae on 10 trees per plot. Numbers of OBLR larvae per tree were as follows: Success @ petal fall, 3.1(b); Success @ delayed dormant 5.7(ab); Asana @ delayed dormant 4.6(ab); and untreated 9.9(a). Only Success at petal fall was statistically different than the untreated. These results indicated that best timing for control of overwintering generation of OBLR in apricots might be at petal fall or some time during bloom.

Efficacy of Success against the summer generation of OBLR was evaluated in a separate trial in the same orchard. A single application of Success at 6 oz/acre applied at 520 DD from the biofix or an application of Success at 4.0 oz/acre followed by a second application of 4 oz/acre 14 days later were compared to single application of Imidan 70WP. Experimental design and the application equipment were the same as the winter trial. Percentages of fruit damage at harvest for different treatments were as follows: Success @ 4 oz, 2 applications 3.4%; Success @ 6 oz, one application 2.8%; Imidan 70WP one application, 5.1%; and untreated 12.2%. All treatments were significantly different than the untreated. These results showed that a single application of Success @ 6.0 oz or Imidan 70WP timed at 520 DD from the biofix provided good control of OBLR compared to the untreated.

**Control of western flower thrips in nectarines with Success.** Three field trials were conducted throughout the stone fruit growing regions of California in 2000 to define the optimal use rate and timing of Success for control of western flower thrips during bloom and at preharvest time in nectarines. Experimental designs were RCB with four single tree replications. Applications were made using a mistblower at 100 gpa. Evaluations were made by counting the number of fruit infested with thrips at predetermined time intervals following the application. Fruit damage was evaluated at harvest. Thrips pressure was high in all three studies. Results showed that Success at 4-6 oz/acre provided excellent control of thrips comparable to the commercial standard of Carzol and Lannate at both bloom and preharvest times.

**Control of oriental fruit moth (OFM) in peaches with Success.** Two field trials were conducted in California in 2000 to evaluate the efficacy of Success against OFM in peaches.

Experimental design was RCB with 3 replications. Plot sizes were 7 rows of 40 trees. Applications were made using a commercial airblast sprayer at 100 gpa. Evaluations were made at 7 and 14 days following the applications by counting OFM shoot strikes in 10 trees per plot. Treatments included Success, Asana, Pounce, Ambush, Sevin, Imidan and untreated. Results showed that at 7 days posttreatment, numbers of shoot strikes were less than one strike per tree in all treatments compared to 5.2 strikes per tree in the untreated. At 14 days posttreatment, Success plots had an average of 3.1 strikes per tree while the synthetic compounds had 0.3-1.2 strikes per tree. These results showed that Success provided OFM control comparable to the synthetic standards for 7-10 days. However, when using Success for OFM control, retreatment may be required if OFM pressure continues beyond 10 days.

\*Trademark of Dow AgroSciences.