

#### 4. Chemical Control/New Products

##### EFFECT OF APPLICATION CONCENTRATION ON LEAFROLLER CONTROL WITH SUCCESS

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Dilute applications of Spinosad (Success 2 F, DowElanco) were compared to concentrate (3X) applications for their ability to control OBLR larvae of the summer generation. The test was conducted in an apple orchard at Milton-Freewater, OR. The trees were 2-yr-old Delicious on dwarfing rootstock. Treatments were applied to unreplicated 1/8-acre plots. This test was a direct comparison of the effectiveness of dilute versus concentrate applications. There was no plot left untreated in this test. All treatments were applied with a Rears Pack-Blast PTO air-blast sprayer. The sprayer was calibrated at 300 gpa for the dilute application and 100 gpa for the concentrate (3X) application. Application date was 20 Jul (approximately 100% egg hatch). The 31 Jul post-treatment evaluation was a visual inspection of 10 growing shoots/tree. Three trees were sampled from each of 6 rows/treatment, the number of live OBLR larvae was recorded, and counts from each row were kept separate for analysis. Weather conditions on the application day were as follows: 20 Jul, 75°F, wind 0-2 mph.

A comparison of treatments to an untreated control could not be performed on these data. However, the objective of this test was to compare dilute versus concentrate (3X) applications at two rates. A significant rate response was noted with both the dilute and concentrate (3X) applications of Success 2 F. There were no significant differences in OBLR larval mortality noted between dilute and concentrate (3X) applications for either rate of Success 2 F tested.

Treatment	Rate (AI/100 gal)	Concentration	30 Jul OBLR/10 shoots
Success 2F	7.1 g	Dilute	7.2b
Success 2F	14.2 g	Dilute	3.2a
Success 2F	21.3 g	Concentrate (3X)	7.1b
Success 2F	42.6 g	Concentrate (3X)	3.3a

Means in the same column followed by the same letter not significantly different ( $p=0.05$ , Fisher's Protected LSD).