

TECHNICAL BULLETIN Apples

Apples are considered self-unfruitful, so pollen must be carried from the anther of one blossom to the stigma of a different cultivar variety (cross variety pollination).

Honey bees are the main transfer agents of pollen and are especially important to the difficult to pollinate Delicious variety apples.

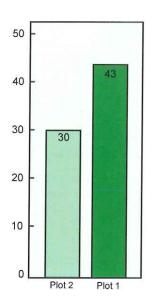
Pollination is fundamental to both fruit set and apple development. It is often assumed that complete pollination occurred a crop must be thinned. Not true. A large number of blossoms may have received just enough pollen to become set but lack an adequate amount of pollen to develop a premium quality apple.

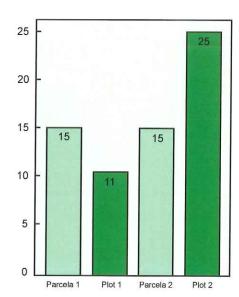
Research shows that the BEE-SCENT's pheromones in BEE-SCENT induce bee foraging in treated orchards. Concentrated bee activity insures thorough pollination of all ten ovules in each blossom. Every ovule pollinated creates one to two seeds that trigger the development of nearby tissue so a large well-shaped apple forms.

Using BEE-SCENT provides a second chance at achieving a good yield by helping pollinate lateral blooms. Increased pollination assures growers that every fruit on the tree can develop into a premium grade apple.

Effects of BEE-SCENT on fruit set in Apples*

Tests - Yakima Valley, Washington Dr. D. Mayer, WSU





Effects of BEE-SCENT on fruit set in Apples*

* Blacksburg, Virginia; Dr. R. Fell, VPI &SU

Fruit Set after Petal Fall		
Variety	Untreated	Treated
Double Red Stayma	n 28.2%	55.6%
Yellow Delicious	65.1%	84.5%

Increased Seeds

Increased

BEE-SCENT Application Recommendations

Apples

Rate- Two quarts of BEE-SCENT per acre; 4.75 - 5.0 liters per hectare.

Water Dilution-

Ground:

50 to 200 gallons per acre,

(470-1870 liters/Ha.).

Aerial:

8 to 15 gallons per acre,

(75-140 liters/Ha.).

Application Procedure - Early morning application is important. Avoid rain and check irrigation schedules. Weather must be favorable to bee flight: i.e., sunny and warmer than 60°F (15°C), with winds less than 15 mph (24km/h). To prevent interfering with the bee's homing abilities, do not overspray hives.

Timing of Application - The first BEE-SCENT treatment should be made at 20-30% bloom (king bloom). A second treatment should be made six to eight days later.

Chemical Compatibility-Do not mix with insecticides harmful to bees. Additionally, growers must pay special attention to the residual action of insecticides used just before of while conducting a BEE-SCENT bee attraction program.

ACTIVE INGREDIENTS

Pheromones ------ 9.5% Other Natural Attractants ------42.5% Inert Ingredients ------48.0% Total ------ 100.0%

Packaged:

2½ Gallon Bottles2 Bottles Per Case

Mixing BEE-SCENT with agricultural chemicals risks interfering with its pheromone message. Field tests have shown BEE-SCENT can safely mixed with:

Foliar Nutrients Most Surfactants Fungicides

Check with your local dealer or Scentry Biologicals representative before mixing BEE-SCENT with any chemical not listed.

Hive Numbers and Placement

Ideally, bees should be delivered to the crop one day before the planned BEE-SCENT treatment. This will prevent bees from becoming habituated on nearby competing flowers.

Hives should be placed at uniform intervals throughout the orchard or around the orchard peripherally. In the case of a small block; colonies can be placed on the downwind edge of the area.





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