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Lower Mainland/Vancouver Island

Tree Fruit Advisor

Technical Advisor for Professional Growers

Pest Control

New Registrations in Tree Fruit

Purespray Green Spray Oil 13E

An oil for use in-season, Purespray Green Spray Oil 13E has a minor use registration in stone fruit for the suppression of powdery mildew. Please note that not all stone fruit varieties have been tested for tolerance. A benefit to this product is its mildness on beneficial insects, so it is useful in an IPM program. However, it should not be used within 2 weeks before or after applications of the active ingredient captan, or within the same timing of applications of chlorothalonil (Bravo, Echo) or permethrin (Pounce, Ambush).

Fontelis Fungicide

New last year from Du Pont, Fontelis is registered for use on pome fruit plantings for control of scab, powdery mildew and cedar apple rust. And, it is registered in stone fruit plantings for brown rot, blossom blight, fruit rot, powdery mildew, Cladosporium scab and (suppression of) Cherry leafspot. A Group 7 product, Fontelis has excellent rainfastness once dry on foliage, has both preventative and post-infection activity, is translaminar and has an REI of 12 hours. It is in the same family as BASF's Cantus.

Aim Herbicide

This Group 14 herbicide, active ingredient carfentrazone-ethyl, can be used in stone fruit and pome fruit plantings for sucker control. Avoid contacting other plant parts such as fruit, green bark and foliage. It has an REI of 12 hours and a PHI of 30 days.

Altacor Insecticide

The label for this Group 28 product has expanded. Altacor is now registered in pome fruit for European apple sawfly, green fruitworm, eyespotted bud moth, tufted apple bud moth, variegated leafroller, dogwood borer, and suppression of apple maggot, white apple leafhopper and Japanese beetle. In stone fruit, Altacor is registered for redbanded leafroller, and suppression of cherry fruit fly and Japanese beetle. A maximum of 3 applications per season are allowed.

Rimon 10EC Insecticide

A label expansion has been given to Rimon 10EC insecticide for control of Lesser Peach Tree Borer and Greater Peach Borer in stone fruit plantings. Rimon 10EC is novaluron, in Group 15. It is an insect growth regulator that must be absorbed by eggs or ingested by larvae for it to be effective. Insects die because of disruption of the molting process. Please note it is toxic to bees.

Luna Tranquility Fungicide

A brand new fungicide from Bayer, Luna Tranquility is a combination of Groups 7 and 9 active ingredients. It is registered for powdery mildew and leaf scab in apples. Despite the fact that it has curative activity, Luna Tranquility should be used in a preventative program.

Something to Think About

Glyphosate Concerns in the Orchard

In the September 2010 edition of Good Fruit Grower magazine there was an article outlining several concerns about the use of a very familiar herbicide: glyphosate. The author, quoting Dr. Don Huber (Purdue University), Dr. Hannah Mathers (Ohio State University) and Mark Longstroth (Michigan State University District Extension), said that several precautions are necessary to prevent not only plant damage but other indirect negative effects to fruit trees. Apparently Huber claimed that there is mounting evidence to demonstrate the many negative effects from over-use of glyphosate. Originally marketed as Round Up by Monsanto, glyphosate is the most widely used herbicide active ingredient in history. These negative effects include not just direct plant damage, but indirect effects such as an increase in bark cracking and brittleness in tree trunks, an increase in plant diseases such as fruit cankers caused by decreased resistance to diseases and pests, excessive tying up of nutrients, and destruction of microbes that are involved in mineralization and other nutrient processes in the soil. The author goes on to say that glyphosate accumulates in the soil and in plant tissue, is exuded from decomposing plant material and from roots of plants that are glyphosate-resistant. The author quotes Mathers saying thin-barked trees like apples and stone fruit are quite susceptible to glyphosate, not just when directed applications accidentally hit the bark but also from small

amounts of drift.

This is astounding. Glyphosate has been marketed for many years as perfectly safe. Never mind all the recent examples of glyphosate-resistant weeds all across North America. Never mind directly-caused plant damage. The article in Good Fruit Grower lists many more side effects than we have space for here. What do we do with this information?

In the Good Fruit Grower article, the author lists several tips to help avoid glyphosate damage or negative side effects. The first is obvious and fundamental to any old-time farmer or student of agriculture: *rotate*. Never over-use any pesticide, including glyphosate. Alternate with other herbicides. Avoid using it for sucker control. Always use a drift inhibitor and keep sprayer pressure low as possible. If possible use a hooded sprayer. Be careful choosing a surfactant; some of the newest ones improve the penetration of glyphosate into weeds but they naturally will also increase the chance of glyphosate entering through the bark. Avoid using controlled-droplet sprayers, as the fine droplets from a spinning disk on such applicators can remain airborne longer than drops from normal sprayers.

Reference: Good Fruit Grower, September 2010

Plant Nutrition

Boron Fertigation in Apple Orchards

Sometimes it's a good idea to review old studies, especially science that has been done by local researchers right in the Okanagan – in this case, a study done including Drs. G. Neilsen and E. Hogue that appeared in the Fluid Journal 2005-2007. The study looked at using foliar applications of boron to correct blossom blast, fruit corking and fruit cracking.

In orchards grown in semi-arid fruit production areas of the Pacific Northwest such as the Okanagan Valley, boron deficiency has been known to appear in both low and high density plantings of several cultivars planted in our typical coarse-textured soils. Under these conditions, boron is very mobile in the soil and under fertigation regimes boron deficiency in tissue becomes apparent when no boron is applied for two or so years. Resulting symptoms include blossom blast in spring and fruit corking and cracking at harvest time.

Luckily, boron deficiencies can be easily fixed with foliar or fertigated applications of boron. The research done in these trials showed that fertigation of 0.34 g of boron per tree increased soil solution boron levels as well as leaf tissue levels. A warning though, that it is easy to over-apply boron, which could result in toxicity levels instead. Make sure to follow the advice of agronomists at Growers Supply or TerraLink Horticulture.