

# Berry Advisor

TerraLink Horticulture Inc.

## What's New in Pest Control

### New Registrations in Blueberries

#### Chateau WDG

This herbicide is now registered for pre-emergence control of selected grassy and broadleaf weeds in blueberries, strawberries and grapes. The active ingredient, flumioxazin, represents new chemistry and is a water dispersible granule formulation. It is most effective on soils of less than 5% organic matter and coarse-textured soils. Moisture is required to activate Chateau WDG for residual weed control, and the soil should not be disturbed following application. Avoid making applications on poorly drained soil as crop injury may occur. Also, Chateau WDG must not come in contact with foliage and fruit, and is harmful to both aquatic and non-aquatic organisms, so buffer zones must be observed.

#### Revus

A new fungicide that has been registered for downy mildew in grapes, Revus contains the active ingredient mandipropamid, a preventative Group 40 chemical. Although it does not have true systemic activity, it does have translaminar movement and has excellent rainfastness. Revus inhibits mycelial growth and is active against spore germination. Even though it is really only effective on its own against downy mildew in grapes (a foliar oomycete pathogen), when combined with other fungicides the disease control spectrum and resistance management may be increased.

#### Movento 240SC

Movento 240 SC arrived on the scene part way through last season. A broad spectrum insecticide for sucking insects such as aphids, Movento 240SC is unique in what Bayer calls "two way pest control". Not only does

this product move downwards in a plant, through the phloem, it simultaneously moves upwards too, through the xylem. This includes going from the top of leaves right through them to their bottoms as well. Although you should still try and attain thorough coverage on all foliage including the old leaves, Movento 240SC will move to all the growing points and right to the ends of the roots.



Movento 240SC is a Group 23 product like Forbid. It is a lipid biosynthesis inhibitor and acts as a growth regulator. The result on insects is they stop feeding the moment they ingest the chemical, and may continue to move around on the leaves for three days before dying. Because Movento 240SC is primarily active on immature insects, application timing should coincide with an early threshold level indicated by crop scouting.

On grapes, Movento 240SC is labeled for control of whiteflies, mealybugs and Phylloxera and suppression of lecanium scale. Although not labeled for them, it will also control aphids if they are present. The pre-harvest interval is seven days. A maximum of two applications per year can be made provided that the total amount of product does not exceed 373 mL per acre between the two applications.

#### Ridomil Gold 480SL

Syngenta has changed the formulation of Ridomil Gold from an oil-based product to a water soluble one. This makes it easier to use, and it will penetrate into the soil much better. To distinguish it from the old product, Syngenta also made it a different colour, and it has less odour as well. Despite these differences, the rates of application are exactly the same.

## Weed Control in New Blueberries

### Mulches for New Plantings

One way to control weeds in new plantings of blueberries is to use an artificial mulch on the ground, through which the plants are set. Once in a while growers have tried polyethylene plastic, but the main concern about this product is the very real possibility of causing the root zone environment to become more humid, which might result in an increase in root rot pathogens. Recently, an idea has emerged involving the use of heavy duty spunbonded polypropylene "fabric", the same material as Novagryl floating row cover. The product is called Agryl P-50, black in colour, 50 grams per square meter in weight and permeable to water. It is available in a length of 250 meters, and although different widths may be ordered, 1.5 meters or five feet is probably the best width to try. Agryl P-50 can be applied with a mulch layer which tucks the product in on the edges. Cut an "X" or a hole to set plants. It can be applied over drip tubing if desired, otherwise it is quite permeable and rainfall or overhead irrigation will go through it. After a few years the product will eventually break down from exposure to ultraviolet light, although it will last longer if covered with sawdust or soil. The extra cost will be offset by the reduction in weed control chemicals.

## Liquid Fertilizer



New for 2009, TerraLink is introducing a line of liquid fertilizers under the TigerClaw brand. Designed for superior uptake and availability, TigerClaw products provide producers with the necessary tools to address plant nutritional needs based on physiology and peak nutrient demand. Used properly and as part of a complete fertilizer program based on soil-applied sources of major, secondary and minor nutrients, TigerClaw products can enhance crop quality and return on investment.

## Industry Events

### Upcoming Events

Put these upcoming BC Blueberry Council events on your calendar:

#### Field Day:

The BCBC will host a Field Day on Saturday May 2nd at 1:00 p.m. at Gaskin's Farm in Port Coquitlam at 4350 Oliver Road. Topics will include pollination and spraying.

#### Annual General Meeting:

The BC Blueberry Council will have their AGM on Thursday June 4th at 7-9 p.m. at Newlands Golf and Country Club on 48th Avenue in Langley.

#### Berry Industry Golf Tournament:

This yearly event will be on Friday May 22, 2009 at Ledgeview Golf Course in Abbotsford. Always a popular event, it begins at 1:00 pm and includes a banquet in the evening.

## Plant Nutrition

### Combating Glyphosate-induced Zinc and Manganese Deficiency in Blueberries

In glyphosate-tolerant ("Roundup Ready") silage corn, it has been documented by several university studies that glyphosate exuded from the roots of the corn has

a negative effect on microbes that assist in the uptake of manganese and zinc into the crop. Although glyphosate isn't meant to be sprayed to blueberry foliage, nevertheless an effect is often noticed after spraying. This isn't from overspray. What happens is glyphosate is exuded from the roots of the sprayed weeds into the root zone of the blueberry plants. Some glyphosate may in fact percolate down through the coarse pieces of fresh shavings. Since blueberries have rudimentary roots in the first place, they depend on microbial activity to help them take up nutrients from the soil. Anything that has a detrimental effect on microbial activity thus has a negative effect on the crop. TerraLink has a new liquid foliar fertilizer that can help with this effect, **Tigerclaw ManZinc 23**. It was designed based on scientific studies from the universities of Purdue, Kansas State and Nebraska, and contains zinc and manganese, formulated to provide these micronutrients to combat the deficiencies that might occur following treatment of glyphosate. Ask the Abbotsford Sales Desk for more information on **Tigerclaw ManZinc 23**.



## Pollination

### Give Your Crop a Boost

When the weather is cool and wet, pollination of blueberries can be enhanced by the use of Fruit Boost (Pollen Boost). It mimics a pheromone given off by the queen bee of the hive. When a honey bee comes in contact with a blossom sprayed with this pheromone, it forages much more aggressively on all of the blossoms. When it returns to the hive it signals the other bees of its findings and more of the bees return to this area and forage aggressively for pollen. The product lasts only a few days once sprayed. Optimum application timing is early morning of a warm day near peak bloom. This will maximize the chances of at least a few bees carrying the message back to the hive. Based on yield work done by Simon Fraser University, it only takes a small yield increase to pay for the product.

## Non-Chemical Pest Control

### Biological Control in Raspberries

You may have noticed a very oddly outfitted ATV humming up and down raspberry rows in June and July last year or so. What you have seen is TerraLink's Bug Blower in action. Actually introduced in 2002, it is a service offered to apply biological controls in raspberries. Most of the time the service applies a parasitic wasp for control of Oblique Banded Leaf Roller (OBLR) and other lepidopteran insect pests, but can also be used to apply a predatory mite for control of two spotted mite. In both cases, the Bug Blower works by precisely distributing predators evenly into the crop foliage. The predators take it from there, gaining control of pest populations. For control of OBLR, the parasitic wasp is *trichogramma minutum*, distributed into the raspberry foliage in pre-parasitized eggs. When the eggs hatch, the wasp moves around the raspberry canopy in search of caterpillar eggs in which it will lay its eggs. Don't worry though, these wasps are very tiny and no danger at all to workers and won't contaminate fruit. Also, this method of control is no more costly than chemical control. If you are interested you must book the program early so we can give the insectary time to build up its populations. If the customers who buy your berries are interested in less chemicals, think about using this IPM-friendly program.

## Slug Control

### Slugs Could be a Problem



If the cool wet weather continues, the potential for slug damage in strawberries and other crops could be high. Slugs overwinter in the soil or under protective layers of mulch or leaves. Two chemical options are available, Deadline M-Ps and Sluggo. Deadline M-Ps is a metaldehyde product in a rainfast mini pellet. Sluggo is an OMRI-listed rainfast pellet as well, but the active ingredient is low-toxicity iron phosphate, and can be safely spread in the crop area close to harvest without any fear of accidental poisoning. Sluggo can also be safely blended in custom fertilizer mixes, saving application time and cost, as well as getting very even distribution when topdressed.