

# Cranberry Chronicle

A TerraLink Newsletter

## Plant Growth Regulators

### Gibberellic Acid Trial

An upcoming trial at the BC Cranberry Research Station is being organized to study the effects of a growth regulator on cranberries. Dr. Rene Prasad will test the effects of GroSpurt GS-4, a gibberellic acid product registered in Canada for use on a wide variety of crops. In the Okanagan Valley, cherry growers routinely use GroSpurt GS-4 to increase fruit size. Blueberry growers began to use GS-4 last year just after it was registered. Gibberellic acid has been used elsewhere in the world for various uses in agriculture for decades. In cranberries, the 2017 trial will look at both fruit sizing and parthenocarpy. Very simply, parthenocarpy describes the production of fruit without the seed (in other words, the production of fruit without fertilization). GroSpurt GS-4 induces parthenocarpy when applied during bloom. Dr. Prasad will test applications of various concentrations at different bloom stages. A 20 ppm and a 40 ppm concentration will be tested at 75% bloom and a follow-up application a week later.

## Plant Nutrition

### TigerClaw Foliar Fertilizer

Foliar fertilization in cranberries allows for directed applications of specific nutrients just before and at peak nutrient demand periods. Individual elements such as zinc, boron, magnesium, calcium and potassium all support the plant in different ways. By meeting key nutrient demands at specific times during plant and fruit development, optimum yield, fruit firmness, fruit

Timing	Product	Suggested Rate
Hook stage through full bloom	TigerClaw Cal-Bor-Moly	1 L / acre
	Power SeaCal	2 L / acre
Fast leaf growth through peak leaf growth	TigerClaw Power Calcium	2 L / acre
	TigerClaw Magnesium DL	1 L / acre
	TigerClaw Zinc DL	1.5 - 2 L / acre

*Timing and rates for foliar TigerClaw applications.*

size and fruit colour can be achieved. The right nutrients, in the right forms, at the right times will enhance production.



As the cranberry vines move through the different stages of growth, targeted foliar nutrient applications will enhance fruit set and quality. During hook stage, bloom through fruit set, boron and molybdenum influence pollination and fruit set. Calcium plays a direct role in cell wall density and thickness, which translates in to fruit firmness. However, calcium is one of the least mobile nutrients in the plant and can only be absorbed into the fruit's cell walls during cell division, which happens at fruit set and early fruit development. During this time of rapid cell division, applications of potassium should be limited as they can antagonise the plants ability to move calcium into the cell walls of the fruit. Foliar potassium should be applied later in the season,

as the fruit begins to colour, in support of fruit bulking and fruit colour.

## Pest Control

### Vegol Crop Oil

**NEW**

Vegol Crop Oil is a new broad spectrum emulsifiable concentrate that serves as an insecticide, miticide and fungicide all in one. It can be used as a dormant season spray and as a growing season application. It is registered to control a wide variety of insects, mites, and scale insects in many crops. Like other pesticidal oils, Vegol Crop Oil coats target pests, suffocating them. It additionally acts as a repellent (ovipositional and feeding deterrent). The active ingredient in Vegol Crop Oil is a non-GMO food-grade canola oil. It does not persist in the environment and has minimal impact on the environment.

For cranberries, mix a 2% solution and spray to maximum coverage until all surfaces are wet. Up to 2 dormant season applications and 4 summer applications may be made per year. In cranberries, it will control scale, if it is present. It will also control aphids, mealybugs and mites. Make sure to read the entire label and understand all restrictions.

**Two Locations:**

**TerraLink Abbotsford**  
464 Riverside Road

**TerraLink Delta**  
4119 - 40th St.

**One Number:**  
1-800-661-4559

## Marine Plant Extract Benefits of Stella Maris

This kelp product has been used by producers of many crops across North America for decades. Growers everywhere have benefited from increases in yield and quality, improved plant vigor, and increased root growth and plant establishment. These effects have all been scientifically proven.

One of the greatest advantages to the application of Stella Maris is the maximization of resistance to stresses due to temperature extremes. The high temperatures that we seem to have now in the Fraser Valley every season can, and do, directly reduce plant development, photosynthesis, plant growth and yield. In scientific studies, plants that were deprived of water, and re-hydrated, were compared. Those that were treated prior to stress were less wilted and recovered more fully. To see an example of this, see the Stella Maris page on our website. A time lapse video showing tomato plants demonstrates clearly how Stella Maris helps plants recover from drought conditions.

While you are on that same web page, take a look at the other time lapse video showing how Stella Maris promotes root initiation, development and growth.

The results speak for themselves. For more information on Stella Maris, call the Sales Desk at 800-661-4559.

## Organic-Based Technology NEW! CranFish 2-10-10 Liquid Fish Fertilizer

Over a year ago TerraLink Horticulture Inc. purchased BioFert Manufacturing Inc, acquiring in the process access to a wide variety of organic and organic-based products and technology. The state-of-the-art liquid and dry manufacturing facilities in Chilliwack have been successfully up and running for a year now, under very stringent quality controls. As a result we are able to now offer cranberry producers CranFish 2-10-10, a much better and higher quality liquid fish fertilizer than we were able to offer in the past, and much better quality than is currently available elsewhere in the market. This product isn't imported; we make it right in the Fraser Valley – fresh every batch!

## Weed Control NEW! Devrinol 2-XT Liquid Herbicide

Devrinol 2-XT can be applied as a broadcast foliar application or by chemigation. One application per year is permitted in early spring, or in late winter. This new liquid formulation will be much more efficient to handle and apply. As for previous formulations of Devrinol, this new liquid product is registered in cranberries for control of grassy weeds. Refer to the label for specific weeds.

Some restrictions remain the same:

- Devrinol 2-XT is recommended for use on mineral soils only (less than 10% organic matter).
- Only one application per season.
- Devrinol 2-XT does not control established weeds.
- Foliage and/or refuse litter covering the surface of the soil may interfere with the quality of weed control.

- Do not apply to frozen ground.
- Chemigation to cranberry bogs may be applied through a solid-set overhead sprinkler irrigation system.

## Pest Control Controlling Girdler with Nematodes

Like Blackheaded Fireworm and Tipworm, the Cranberry Girdler can cause significant damage in cranberry bogs. Adult moths appear in June, flying at night near the surface of the bog. They have long mouth parts which give them the appearance of having an extended "snout". In cranberries, the damage from chewing on the vines can result in large, irregular patches of dead plants. Adults are active for almost two months, laying up to several hundred eggs into the leaf litter. The larvae cause damage, then pupate and overwinter in a cocoon that develops in September or October.

Cranberry Girdler can be managed in an integrated program. It is best to hire the services of a consultant to monitor Girdler population dynamics. Sand can be top-dressed before eggs are laid by the adults in June, which is believed to cover fungi and moss that the young larvae feed on. Larvae can also be drowned by flooding for up to two days in late August, however keep in mind that if water is left on the bog too long it can cause an increase in fruit rot.

Many cranberry growers now apply entomopathogenic nematodes to control Girdler. The most common is *Steinernema carpocapsae* but *Heterorhabditis bacteriophora* is also available. A rate of 3 billion nematodes per acre is recommended to achieve firm control. Nematodes can be applied by spraying or chemigation. It is best to apply during cool conditions and to follow application with irrigation, to avoid the nematodes drying out and to rinse the nematodes off the foliage and into the leaf litter.

TerraLink is a distributor of beneficial entomopathogenic nematodes. On our website [www.tlhort.com](http://www.tlhort.com), type "nematode" into the search bar to download a tech sheet on nematodes for Girdler, as well as other beneficial nematodes for pests in other crops. Alternately, call and inquire with our sales desk toll free at 1-800-661-4559.