

# Blueberry Advisor

TerraLink Horticulture Inc.

April 2017

## Gibberellic Acid

### A Logical Look at GroSpurt GS-4

GroSpurt GS-4 contains gibberellic acid, a plant growth regulator. Although it was registered for use in highbush blueberries in Canada just over a year ago, gibberellic acid has been used elsewhere in the world for various uses in agriculture for decades. In the Okanagan Valley, for example, cherry growers use it every year without fail. It has been scientifically proven to work, and no cherry grower lets a year go by without using it. That would be illogical.

## GroSpurt™ GS-4

Gibberellic acid behaves differently in each crop. GroSpurt GS-4 is registered in highbush blueberries to "improve fruit set when natural fruit set is poor due to reduced honeybee activity, adverse weather conditions or physiological factors". Now, no one would argue that this sounds a little vague. But, like so many things in life, there is more to this than meets the eye. As a grower, you should be asking if it is logical to use this product, especially as it sounds like 2017 might be a year of low-priced fruit. Is it, then, logical to use GroSpurt GS-4 on your blueberries?

**The answer is a resounding "Yes!" But, why is that?**

Local scientific work has strongly suggested that application of gibberellic acid probably increases fruit size and yield under the right conditions. This isn't a guarantee, but it is likely. In a year of doubtful fruit prices, the only choice you have is to maximize your crop. It is sensible to do anything to give your crop its best chance, including applications of GroSpurt GS-4. This is, indeed, the logical thing to do this year, with a slow, cold start to our season.

Second, GroSpurt GS-4 induces parthenocarpy. Very simply, this tongue twister of a word 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. Under conditions of poor pollination, the parthenocarpic effect should be most effective. There should be increased retention of seedless (parthenocarpic) fruit that likely would have dropped, and there may be increase in size of berries without a full complement of seeds.

*Who wouldn't spend \$30 to gain \$1200?*

Now let's do some math. If you would normally expect an average yield of, say, 12,000 pounds per acre under great pollination conditions, in a cold, wet spring you might end up with perhaps 20% less due to poor bee activity. That's only 9,600 pounds. Using an average fresh fruit price of \$1.00 a pound, that means you would have lost \$2,400

an acre. But, if you can keep your loss down to, say, 10%, or 1,200 pounds, you would lose only \$1,200 instead. If you can achieve that with an application of GroSpurt GS-4 that costs just \$30 an acre, to me, that sounds like a good trade! Who wouldn't spend \$30 to gain \$1,200?

Clearly, therefore, an application of GroSpurt GS-4 is like a good insurance policy. And this, arguably, is good logic.

## Marine Plant Extracts

### The Benefits of Stella Maris in Blueberries

Stella Maris Marine Plant Extract is sustainably hand-harvested *Ascophyllum nodosum* seaweed from the intertidal shores of Nova Scotia's Bay of Fundy. Evolved in the freezing but nutrient rich water, it contains very unique, bioactive components that, when applied to plants, allow for higher quality crops. Popular around the world for use in horticultural crops, research has demonstrated a full range of benefits, including increasing Brix. For maximum benefits, follow a complete application program. Many growers have also turned to bloom applications of Stella Maris to stimulate root growth, which leads to increases in fruit set and fruit size. Fundamentally, applications will improve overall plant health and allow the plant to better tolerate stress.



Rooted in your community.

TerraLink

## Encouraging Microbes

# TigerClaw Symbex – What is it?

TigerClaw Symbex is a soil biological stimulator that increases aerobic bacteria and beneficial fungi such as mycorrhizae. TigerClaw Symbex contains a patented formula of specific food sources, minerals and enzymes that stimulate growth of beneficial bacteria and fungi in the soil profile. TigerClaw Symbex does not contain live biological organisms that may not be adaptable to the specific soil and environmental conditions of your fields. Instead, TigerClaw Symbex works by significantly increasing the beneficial bacteria and fungi populations that are already in and adapted to the soils on your farm.

TigerClaw Symbex encourages an increase in the native beneficial bacteria and fungi populations that are present in your soil profile for approximately one month. This increase in native microbial activity causes a natural aeration effect in the soil through the additional release of carbon dioxide and the encouragement of increased activity of larger organism such as earthworms. This aeration activity can be very beneficial in poorly drained or overly wet soils. Research shows that TigerClaw Symbex can improve soil nutrient availability through increased microbial digestion and mycorrhizae activity.



TigerClaw Symbex is best applied in the spring and fall to amplify the natural increase in soil biological activity and plant root growth. On established plantings, TigerClaw Symbex can be applied through most irrigation systems (including drip systems) and watered in or band sprayed as a soil drench at the base of the rows. With new plantings, TigerClaw Symbex can be applied in the planting hole or as a soil drench immediately after planting. A second application on new plantings can be made approximately one month after the initial application. The goal with all applications is to ensure that TigerClaw Symbex is in the soil profile where it can impact native beneficial bacteria, fungi populations and overall soil health.



## New Canadian Registration

# TigerClaw Zinc Plus +4 DL

TigerClaw Zinc Plus +4 DL is a foliar micro nutrient product containing zinc, manganese, iron, copper and magnesium. This product utilizes Agro-K's Dextro-Lac manufacturing process to create carbohydrate-based micronutrient complexes. The Dextro-Lac process creates foliar micronutrient products that can quickly penetrate plant tissue and can be easily metabolized. As a simple sugar complex, TigerClaw Zinc Plus +4 DL requires less expended plant energy to metabolize than other nutrient forms, increasing nutrient efficiency.

Apply TigerClaw Zinc Plus +4 DL during periods of rapid plant leaf development. The nutrient balance of this product is designed to support chlorophyll development and maximize leaf size, which represents photosynthetic surface area. Plant health, fruit quality and yield can be positively impacted by supporting the plant's ability to produce carbohydrates through photosynthesis.

Remember that foliar nutritional products should only be applied to dry leaf surfaces as a foliar

mist "to wet". Although a compatibility check is recommended, TigerClaw Zinc Plus +4 DL is compatible as a tank mix with many fertilizers and pesticides.

## Spotted Wing Drosophila

# Capture 240 EC – Emergency Registration Again!

Once again, Capture 240 EC Insecticide has an emergency use registration for control of spotted wing drosophila in highbush blueberries. As always, this label is specific, and must be applied only in British Columbia from June 1st, 2017 until August 31st, 2017. Do NOT apply during bloom to avoid harming pollinators. Also, the active ingredient, bifenthrin, is not an IPM-friendly chemical. Beware of flare-ups of pest mite species after using Capture 240 EC, as it is harmful to biological controls.

## Good to Know

# Word of the Day

Two words, actually. These two words are commonly confused, or used incorrectly. In the farming business, we must know and understand the difference, and both can be affected by farming practices.

1. **Pollination:** the transfer of pollen to a stigma, ovule, flower, or plant to allow fertilization.
2. **Fertilization:** In terms of reproduction in plants, fertilization is defined by the fusing of a male cell with a female cell inside the ovary. Pollen transfers from the male part of a flower, the anther, to the female part, the stigma. Following that, a pollen tube grows down a stem called the style and into the ovary, where fertilization occurs.