

Hops Advisor

TerraLink Horticulture Inc.

May 2017

Introducing...

TerraLink Horticulture Inc.

TerraLink is the leading supplier of crop inputs in the Fraser Valley. We offer nutrients, crop protection, supplements and other products to all agricultural and horticultural producers, whether organic or conventional, in BC and the Pacific Northwest. In support of our clientele, we produce Agri Advisors: bulletins intended to offer some technical crop production information along with reminders of the wide variety of crop inputs available to you.

This is the inaugural edition of the Hops Agri Advisor. If you have received this, you have probably recently opened an account with TerraLink. If you wish, you may elect not to receive these bulletins. Just let us know, and we will remove your name from our mailing list, if that is the case.

Plant Growth Regulators

GroSpurt GS-4 Gibberellic Acid

Although GroSpurt GS-4 was only just registered in Canada last year, gibberellic acid as a plant growth regulator has been used elsewhere in the world for various uses in agriculture for decades. Gibberellic acid behaves differently in each crop. In the Okanagan Valley, for example, cherry growers

use this product every year without fail. It has been proven to increase fruit size. No cherry grower lets a year go by without applying it. Blueberry growers in the Fraser Valley began using it last year to improve fruit set. In ornamental flowers, it is used to increase plant size, increase the number of flowers, increase bloom size and other effects. Again, in each plant species, the benefits are different.

GroSpurt™ GS-4

GroSpurt GS-4 is the only gibberellic acid registered in Canada for hops. It has the potential to increase yield and increase fruit set (early work in the 1960's and 1970's showed enhanced fruit set in Northwest variety hops). GroSpurt GS-4 should be applied as a foliar application, sprayed to run-off. Apply 25 – 37.5 mL per 100 L of water, as a single foliar spray when the plants are about 5 – 8 feet in length. The concentration should be 10 – 15 ppm.



Pest Control

New Registrations in Hops

Centurion Herbicide:

Although not a new herbicide, Centurion, active ingredient clethodim, does a great job at controlling grasses in many broadleaf crops. During the winter, Centurion gained a minor use label expansion for control of grassy weeds in hops. This adds to an already long list of broadleaf fruit and vegetable crops, including potatoes, onions and other root crops. A group 1 chemical, Centurion is a post-emergence herbicide that must be used with the adjuvant Amigo. It has a restricted entry interval (REI) of 12 hours and a pre-harvest interval (PHI) of 21 days in hops. One application maximum is allowed per year.

Serenade Opti Biofungicide:

Early this year, serenade Opti, a wettable powder formulation biofungicide, was given a minor use label expansion registration in hops for partial suppression of downy mildew. This strain of dried *Bacillus subtilis* stimulates natural plant defence mechanisms to provide anti-fungal and anti-bacterial activity. It can be applied up to and including the day of harvest.

Vegol Crop Oil:

This light oil is a new broad spectrum emulsifiable concentrate that serves as an insecticide, miticide and fungicide all in one. It can be used in both roles as a dormant season spray and as a growing season

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application. Vegol Crop Oil 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.

Plant Nutrition

Fertilizers for Hops

TerraLink maintains stock in our warehouse of a wide variety of fertilizers that can be used in hop production. Following is a list of suggested granular and liquid fertilizers for both conventional and organic production of hops.

| Fertilizer Blend | Type | Production |
|-----------------------------------|----------|---------------|
| 15-5-15 + micronutrients, Low P | granular | conventional |
| 20-10-6 + micronutrients, Hi N | granular | conventional |
| 8-10-20 + micronutrients, Hi K | granular | conventional |
| 20.5-5-0, Xcelerator | liquid | conventional |
| 9-0-15, Greenfruit | liquid | conventional |
| Maximize 17-5-11 + micronutrients | granular | organic-based |
| Maximize 14-7-7 + micronutrients | granular | organic-based |
| Maximize 5-20-14 + micronutrients | granular | organic-based |
| BioFert 10-3-0, Hi-N | granular | organic |
| BioFert 4-3-9, General Purpose | granular | organic |
| BioFert 3-1-4 | liquid | organic |
| BioFish 3-1-2, Fish Fertilizer | liquid | organic |
| BioFert 1-3-15, Starter | liquid | organic |
| BioFert 6-0-2+14Ca, BioCal | liquid | organic-based |

- Individual nutrients such as nitrogen, phosphate and potash are available as well.
- The 'Maximize' line of granular fertilizers contain at least 15% organic matter, formulated to increase organic matter in our soils and combat soil degradation.
- 'BioFert' organic and organic-based fertilizers are manufactured in the Fraser Valley. Most are Ecocert-approved.

These are just a few of the product lines and diverse array of products to answer the nutritional needs of your soils and hop plantings. Please ask if you need something you don't see offered in this selection.

Pest Control

Crop Protection for Hops

TerraLink Horticulture Inc carries a wide variety of pest control products in our warehouse at any time. Many pesticides have received registration in hops to date. Here is a list of pest controls that we offer for both conventional and organic production of hops.

| Product | Type | Group | Production |
|-------------------------|--------------|--------|--------------|
| Acramite 50WS | miticide | UN | conventional |
| Admire 240 | insecticide | 4 | conventional |
| Agri-mek SC | miticide | 6 | conventional |
| Aim EC | herbicide | 14 | conventional |
| Beleaf 50SG | insecticide | 29 | conventional |
| Bioprotec CAF | insecticide | 11 | organic |
| Centurion | herbicide | 1 | conventional |
| Copper 53W | fungicide | M | conventional |
| Coragen | insecticide | 28 | conventional |
| Dipel 2X DF | insecticide | 11 | organic |
| Envidor 240 SC | miticide | 23 | conventional |
| Forum | fungicide | 40 | conventional |
| Kopa Insecticidal Soap | insecticide | N/A | organic |
| MilStop | fungicide | N/A | organic |
| Movento 240 SC | insecticide | 23 | conventional |
| Poast Ultra | herbicide | 1 | conventional |
| Pristine WG | fungicide | 7, 11 | conventional |
| Purespray Green Oil 13E | insecticide | N/A | organic |
| Quintec | fungicide | 13 | conventional |
| Regalia Maxx | biofungicide | P5 | organic |
| Revus | fungicide | 40 | conventional |
| Ridomil Gold 480SL | fungicide | 4 | conventional |
| RootShield | biofungicide | N/A | organic |
| Serenade Opti | fungicide | N/A | organic |
| Sivanto Prime | insecticide | 4D | conventional |
| Torrent 400SC | fungicide | 21 | conventional |
| Vegol | miticide | N/A | organic |
| Vivando SC | fungicide | U8 | conventional |
| Zampro | fungicide | 40, 45 | conventional |