

Tree Fruit Advisor

Technical Advisor for Professional Growers

Nutrition From the Sea

The Benefits of Stella Maris



Stella Maris Aquatic Plant Extract is derived exclusively from *Ascophyllum nodosum* kelp harvested from the

nutrient-rich North Atlantic coastal waters of Nova Scotia. It is a source of naturally occurring major and minor nutrients, carbohydrates, amino acids and bioactive compounds that enhance crop vigor, nutrition and quality resulting in improvements in plant development and yield.

Years of research by scientists at Acadian as well as university studies have demonstrated many benefits:

- Increases root growth and establishment of the crop.
- Improves overall plant health – increased vigor, improved plant canopy, better photosynthetic capacity.
- Enhances natural plant resistance to stresses – drought, salinity, temperature.
- Enhances nutrient levels.
- Increased production, fruit size, quality, delayed senescence, increased shelf life of perishable crops.

Stella Maris has been used for many years and has proven beneficial in a multitude of crops:

blueberries, cherries, grapes, pome and stone fruits, tomato, peppers, nuts, cole crops, cucurbits, leaf and legume vegetables, ornamentals, root and tuber vegetables, turf, and many other crops.

Acadian Seaplants, the Canadian firm that produces Stella Maris, just received a registration number from the CFIA – the only kelp product to have one. Acadian has a current OMRI listing for Stella Maris and is suitable for organic production.

Pest Control

New Registrations in Tree Fruit

Closer SC insecticide

A new product from Dow AgroSciences, Closer SC insecticide, active ingredient sulfoxaflor, was registered for aphids in stone fruit and tree nuts, as well as aphids, San Jose scale and suppression of woolly apple aphid in pome fruit. This Group 4C chemical is systemic and translaminar, fast acting and residual. Be very careful as it is toxic to honey bees. A maximum of 2 applications per season are allowed, The pre-harvest interval (PHI) is 7 days and the re-entry interval (REI) is 12 hours.

Actara 25WG

A Group 4 insecticide, Actara 25WG has been registered in apple and pear for suppression of Brown Marmorated Stink Bug (BMSB). The rate of application is 155 grams per acre as a foliar spray, maximum 2 applications per season with a 60 day pre-harvest interval. A minimum spray volume of

400 L per acre is recommended. It must be a post-bloom application only. Actara 25WG is a systemic chemical in the neonicotinoid family and registered in other crops for aphids and weevils. It is highly toxic to honey bees so be very careful if hives are in the vicinity.



Alion

This new Group 29 herbicide from Bayer CropScience has a full registration in pome fruit, stone fruit and tree nuts for pre-emergence control of annual grasses and broadleaf weeds. It provides excellent long term control, including control of glyphosate-resistant weeds. It can be applied any time as long as the soil is not too coarse, and as long as the ground is not frozen or snow-covered. Trees must have been established for at least 3 full growing seasons. The PHI is 14 days and the REI is 12 hours.



Delegate WG

One of Dow's spinosyn class chemicas, this Group 5 insecticide was given a label expansion to "reduce the numbers of Apple Clearwing Moth" in apples. It is meant to be applied using a handgun or backpack sprayer directed at the lower trunk of the tree, especially covering the graft union area and any pruning cuts. It is important to obtain good coverage, using 600-800 L per acre. The spray applications are targeted at the 1st instar larval stage. Two applications per season are allowed, no closer than 7 days to harvest.

Buran

For organic production, here is a new product for suppression of scab in apples and pears. Buran is a full registration, garlic-based product from AEF Global. Repeat applications and good coverage are important to maintain disease protection. The PHI is zero days. The rate of application is quite high; over 7 L per acre.

Chemical News

The Demise of Diazinon

The active ingredient diazinon is coming to the end of its life. And what a long life it has had. Developed in 1952, Ciba-Geigy created diazinon as a replacement chemical for the insecticide DDT. Diazinon is in the organophosphate chemical class, the cholinesterase inhibitors. Cholinesterase is an enzyme essential to normal nerve function in insects as well as humans.

For several years, the Pest Management Regulatory Agency (PMRA) has been reviewing all the registered organophosphates. One by one the registrations have been cancelled, as long as producers have other, newer chemicals to replace them. This is the schedule for the cancellation of all brands, formulations and sizes of the active ingredient diazinon:

- December 31, 2014: manufacturing of diazinon ceases.
- December 31, 2015: diazinon no longer available from retailers.
- December 31, 2016: illegal to apply diazinon past this date.

So there is no rush. However, producers are advised to think about crop programs, what products may be used to replace diazinon, and what effects might be expected from using replacements. For example, if your only options are biological pesticides, keep in mind the replacement products may not control insects as quickly as diazinon, or may be registered to suppress as opposed to control insect pests.

If you have questions regarding replacement products for a diazinon product, make sure to ask the staff at TerraLink for help.

References:

1. <https://en.wikipedia.org/wiki/Diazinon>. (July 17, 2013).
2. *Handbook for Pesticide Applicators and Dispensers*. BCME, 2005.


Stella Maris™

Stella Maris Improves Size and Yield in Cherries

DEMONSTRATION TRIAL

Conclusion: Application of Stella Maris resulted in improved colour, stem thickness and size of cherries

LOCATION: Hollister, CA, USA **YEAR:** 2012

DESIGN: Non-replicated demonstration trial

PLOT SIZE: 10 trees in each treatment, 100 cherries sampled per treatment

VARIETY: Bing Cherries

TREATMENTS:

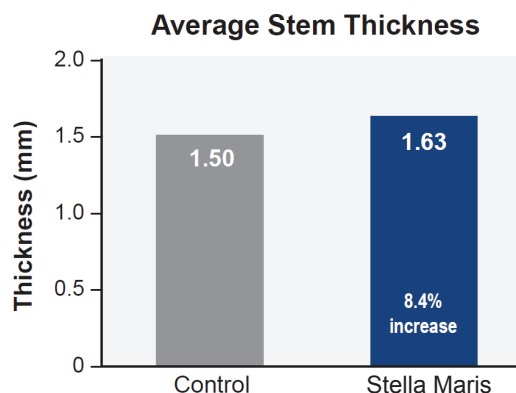
Control: Grower standard practice

Treatment: The same as the Control with the addition of Stella Maris applied at 4 pints per acre (4.7 L/ha) at the following timings:

- White bud
- Petal fall to shuck fall (11 days later)
- Exposed young fruit (16 days later)
- Straw-coloured fruit (21 days later)

RESULTS:

Stella Maris-treated cherries had thicker stems than the control. Stem thickness helps maintain cherry quality after harvest; thicker stems stay attached to the fruit longer.





Keep your crop safe.

PyGanic Crop Protection EC 1.4 II is an organic-compliant product containing Pyrethrins, a botanical insecticide derived from chrysanthemums. It delivers quick knockdown and kill of crop-damaging pests, such as beetles, aphids, leaf hoppers and caterpillars. **PyGanic has an Emergency Use Registration for Spotted Wing Drosophila in stone fruit and berry crops.**

PyGanic® 
Crop Protection EC 1.4II

- No pre-harvest interval
- No residual activity.
- Excellent IPM rotation product
- Controls both soft and hard bodied insect pests, fast!

For more information or to place an order us at **1-800-661-4559** or visit **www.tlhort.com**.

©2012 MGK®. MGK® - Registered trademark of McLaughlin Gormley King Company.

Rooted in your community.

TerraLink

Bird Control in Cherries

Rejex-It Migrate Bird Repellent

Migrate™ is a microencapsulated product containing the active ingredient Methyl Anthranilate, a food grade bird repellent. It is a taste repellent that makes the treated crop unpalatable to birds. After attempting to feed, birds will find the treated crop distasteful, and will be forced to feed elsewhere. Although it is toxic to aquatic organisms and you must observe buffer zones around waterways, it is otherwise a very safe product. In fact, Methyl Anthranilate can be found in fruit juices, candy, chewing gum and other food products.

Migrate™ is registered under the PCP Act in Canada for use in cherries, blueberries and turf. Apply to fruit after it begins to



Rejex-It

ripen but before birds begin to feed. Apply to dry fruit when no rain is expected and irrigation is not scheduled for as long as possible. Migrate™ is formulated with a polymeric sticker that will protect it from occasional light rainfall, as long as it has had a chance to dry on the fruit. It will not last through a significant rainfall.

On cherries, one application is usually enough to deter birds. Use with a non-ionic surfactant at up to 0.25% v/v. If birds do continue feeding on the fruit, repeat applications may be required in about 7 days. Cherries can be harvested within 3 days of application. There will be no impact on taste of the fruit if these days-to-harvest periods are observed.

Caution:

- Test-spray Migrate™ on a small group of plants prior to widespread application, and watch the plants for about a week. Methyl Anthranilate may cause leaf discoloration or burn.
- Migrate™ is toxic to aquatic organisms. Observe buffer zone recommendations on the

label.

- Do not apply during periods of dead calm.
- There is no information on tank mixes. Until these are known, do not mix Migrate™.
- Observe all safety precautions on label and MSDS.





Food Safe & Effective: **FruitSize**



85% Gibberellic Acid

For proven food safety, buy only registered products such as **FruitSize 85% Gibberellic Acid**, prepared for the purpose of increasing fruit size in sweet cherries.

Yep, that's BIG!

To support our growers, for every unit bought, TerraLink pays a royalty of \$10 to the Kootenay & Okanagan Cherry Growers Association.



South Valley Sales
Oliver: 250-498-6406
Keremeos: 250-499-2900



**Growers Supply
Company Limited**
**Growers Supply
Company Ltd.**
Kelowna: 250-765-4500
Penticton: 250-493-2885

Registered exclusively by:
TerraLink Horticulture Inc.
464 Riverside Road
Abbotsford, BC V2S7M1
www.tlhort.com



TerraLink

Recycle your empty pesticide containers

IT'S FREE AND EASY!



RINSE

Triple or pressure RINSE



REMOVE

Caps and booklet, leave the label on



RETURN

To your local collection site



FARMS™

Visit www.cleanfarms.ca
to find the collection site nearest you.

For your Viticulture and Tree Fruit inputs in the Okanagan Valley, please visit one of these locations:

Growers Supply Co. Ltd., Main Office
2605 Acland Road, Kelowna BC, V1X 7J4
Tel: 250-765-4500 Fax: 250-765-4545
info@growers-supply-co.com

Growers Supply Co. Ltd. South Okanagan
360 Okanagan Ave. East, Penticton BC, V2A 8N3
Tel: 250-493-2885 Fax: 250-493-8153
info@growers-supply-co.com

South Valley Sales Oliver
34625-91st Street, Oliver BC, V0H 1T0
Toll Free: 1-888-875-6670
Tel: 250-498-6408 Fax: 498-4022
brad@southvalleysales.com

South Valley Sales Keremeos
1813-5th Street, PO Box 372, Keremeos BC, V0X 1N0
Tel: 250-499-2900 Fax: 250-499-2960
info@southvalleysales.com

TerraLink Horticulture Inc.
Toll Free: 1-800-661-4559 www.tlhort.com

TerraLink