

## SERENDADE MAX Biofungicide Granted 1<sup>st</sup> Canadian Registration for a Range of Crops, Crop groups and Diseases

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Agraquest Inc., UAP Canada Inc. and the Pest Management Regulatory Agency (PMRA) recently announced the registration of **Serenade Max** (*Bacillus subtilis* strain QST 713) biofungicide for a wide range of crop diseases in Canada. Serenade Max is a long-anticipated, new biopesticide which can be used by organic and conventional producers. This is the 1<sup>st</sup> registration of this product in Canada and marks an important milestone in addressing the biopesticide technology gap. Serenade Max is a disease control product derived from the bacteria *Bacillus subtilis* strain QST 713 and offers growers a novel mode of action to manage some key crop diseases. Serenade is listed by the Organic Materials Review Institute (OMRI) for use in organic production and provides Canadian organic growers with a much needed new disease management tool.

Serenade Max is registered for a number of key diseases of pome fruits, asparagus, berry crops, Brassica crops, Legume vegetables, bulb vegetables, cucurbit vegetables, fruiting vegetables, grapes, strawberries, lettuce and celery. The following table provides a summary of the crop and pest registrations on the new Canadian Serenade Max label:

| Crop or Crop Group  | Pest(s)  | Rate Product per hectare (kg / ha) | Application instructions  | Pre-harvest interval |
|---|--|------------------------------------|---|----------------------|
| Pome fruits including apples, pears, quince   | Fire blight, scab                              | 3.0 – 6.0                          | Consult the full product label for specific crop and disease application timings and instructions | 0 days for all crops |
| Apples  | Powdery mildew                                 | 3.0 – 6.0                          |   |                      |
| Berry crops including raspberry, blueberry, currant, gooseberry, blackberry               | Botrytis gray mold                             | 3.0 – 6.0                          |   |                      |
| Strawberries  | Botrytis gray mold                             | 3.0 – 6.0                          |   |                      |
| Grapes  | Powdery mildew, Gray mold                      | 3.0 – 6.0                          |   |                      |
| Asparagus   | Botrytis blight                                | 3.0 – 6.0                          |   |                      |
| Brassica crops including cabbage, broccoli, cauliflower, Brussels sprouts, mustard greens | Soft rot                                       | 3.0 – 6.0                          |   |                      |
| Lettuce   | Downy mildew, Powdery mildew, Sclerotinia drop | 3.0 – 6.0                          |   |                      |
| Celery  | Pink rot                                       | 3.0 – 6.0                          |   |                      |
| Tomatoes, Peppers   | Powdery mildew                                 | 3.0 – 6.0                          |   |                      |

| Crop or Crop Group   | Pest(s)                                 | Rate Product per hectare (kg / ha) | Application instructions  | Pre-harvest interval |
|--|---|------------------------------------|---|----------------------|
| Fruiting vegetables including tomatoes, peppers, eggplant, ground cherries             | Early blight                            | 4.5                                | Consult the full product label for specific crop and disease application timings and instructions | 0 days for all crops |
|  | Botrytis gray mold                      | 3.0 – 6.0                          |   |                      |
| Bulb vegetables including onions, leeks, garlic  | Botrytis neck rot, Botrytis leaf blight | 3.0 – 4.5                          |   |                      |
|  | Downy mildew                            | 3.0 – 6.0                          |   |                      |
| Cucurbit vegetables including cucumbers, melons, pumpkins, squash                      | Powdery mildew                          | 3.0 – 6.0                          |   |                      |
| Legume vegetables including dry beans, peas, lentils, chickpeas, succulent beans, peas | White mold, Botrytis pod rot            | 3.0 – 6.0                          |   |                      |

Follow all other directions for use on the Serenade Max biofungicide label carefully. Consult individual crop and pest recommendations on the Serenade Max label for application timing and additional use restrictions.

Serenade Max biofungicide should be used in an Integrated Pest Management program and in rotation with other management strategies to adequately manage resistance. Monitor disease populations consistently and apply when treatment thresholds are exceeded. Consult provincial guidelines and local extension specialists for monitoring protocols and treatment thresholds.

Certified organic growers are advised to contact their certification body to determine the appropriateness of using this product as a tool in their production program for the management of diseases.

We wish to thank the personnel of **Agraquest Inc.** for their support of this registration and the personnel of the Pest Management Regulatory Agency for evaluating and approving this important pest management tool. **UAP Canada Inc.** will be selling and distributing this new product to Canadian producers.

For copies of the new Serenade Max label contact Jim Chaput, OMAFRA, Guelph (519) 826-3539, Hugh Martin, OMAFRA, Guelph (519) 826-4587 or visit the UAP Canada website at [www.uap.ca](http://www.uap.ca).

**Note:** This article is not intended to be an endorsement or recommendation for this particular product, but rather a notice of registration activity.