



SONATA[®]

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Fungicide

Sonata is a foliar fungicide for the moderate control of damage caused by powdery mildew on protected crops of strawberry, blackberry and raspberry.

Also for the reduction of damage caused by powdery mildew on protected crops of tomato, pepper, aubergine, lambs lettuce, chive, blackcurrant, whitecurrant, redcurrant and seed crops.

A suspension concentrate containing 13.8 g/kg or 14.35 g/L of *Bacillus pumilus* strain QST 2808, corresponding to a minimum of 1×10^9 CFU/kg.

Authorisation holder:

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Marketing company:

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Safety Information

SONATA

Containing 13.8 g/kg or 14.35 g/L of *Bacillus pumilus* strain QST 2808, corresponding to a minimum of 1×10^9 CFU/kg.

Contains micro-organisms, may produce an allergic reaction.

Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste.

To avoid risks to human health and the environment, comply with the instructions for use.

PCS No. 05802

For professional use only.

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SAFETY PRECAUTIONS

Operator Protection

Wear protective gloves/protective clothing/eye protection/face protection.

Wear suitable respiratory protective equipment* when handling the concentrate or applying the product.

*Disposable filtering face piece respirator to at least EN149 FFP3 or equivalent.

Environmental Protection

Do not contaminate water with the product or its container, (do not clean application equipment near surface water / avoid contamination via drains from farmyards and roads).

Use appropriate containment to avoid environmental contamination.

This material and its container must be disposed of in a safe way.

Storage and Disposal

Keep in original container tightly closed in a safe place.

Rinse container thoroughly by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.

READ ALL INSTRUCTIONS CAREFULLY BEFORE USE.

For professional use only.

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To access the **Safety Data Sheet** for this product scan the code or use the link below:

www.bayercropscience.ie/sds/sonata.pdf

or alternatively contact your supplier

Bayer

DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

Sonata is a biofungicide containing *Bacillus pumilus* strain QST 2808, naturally occurring bacteria that are not genetically modified.

Sonata prevents the germination of fungal spores on plants by forming a physical barrier between the spores and the leaf surface. An amino sugar present in fermentation inhibits cell wall synthesis in fungi and bacteria which leads to destruction of cell integrity and to pathogen cell death. Also, *B. pumilus* QST 2808 may induce systemic acquired resistance (SAR) in plants, resulting in the plants becoming more resistant to a variety of pathogens.

Diseases Targeted

Crops	Disease
Protected crops of strawberry, blackberry and raspberry.	Powdery mildew – Moderate Control (<i>Sphaerotheca macularis</i>).
Protected crops of blackcurrant, whitecurrant and redcurrant.	Powdery mildew – Reduction of damage (<i>Sphaerotheca mors-uae</i> , <i>Microsphaera grossulariae</i> and <i>Erysiphe suffulta</i>).
Protected crops of lambs lettuce	Powdery mildew – Reduction of damage (<i>Sphaerotheca fuliginea</i> , <i>Erysiphe cichoracearum</i> and <i>Oidium neolycopersici</i>).
Protected crops of chicory.	Powdery mildew – Reduction of damage (<i>Sphaerotheca fuliginea</i> , and <i>Erysiphe cichoracearum</i>).
Protected crops of tomato, pepper and aubergine	Powdery mildew – Reduction of damage (<i>Oidium neolycopersici</i> and <i>Leveillula taurica</i>).
Protected seed crops.	Powdery mildew – Reduction of damage (<i>Leveillula taurica</i>).

Sonata may be applied as a foliar spray alone or in alternating spray programmes with other registered crop protection products. Alternating with fungicides of different modes of action, along with the use of cultural control methods, is advisable for resistance management.

For use only as a horticultural fungicide.

RATES OF USE:

Crops	Maximum individual dose	Maximum number of applications	Maximum total dose	Latest time of application
Strawberry (protected)	10 L/Ha	6 per crop	60 L/ha	Up to fully ripe, GS 89 PHI 1 day
Blackcurrant (protected) Redcurrant (protected) White currant (protected)	10 L/Ha	6 per crop	60 L/ha	Up to berries at base of racemes tending to drop, GS 89 PHI 1 day
Tomato (protected) Pepper (protected) Aubergine (protected)	10 L/Ha	6 per crop	60 L/ha	Up to fully ripe fruits, GS 89 PHI 1 day
Blackberry (protected) Raspberry (protected)	10 L/Ha	6 per crop	60 L/ha	Up to fully ripe fruits, GS 89 PHI 1 day
Chicory (protected) Lambs lettuce (protected)	10 L/Ha	6 per crop	60 L/ha	Up to GS 89, PHI 1 day
Seed crops (protected)	10 L/Ha	6 per crop	60 L/ha	Up to 0 days before harvest, GS 89

Restrictions and Warnings

CONSULT PROCESSOR BEFORE USING ON CROPS FOR PROCESSING.

Crop Specific Information:

Strawberry, raspberry, blackberry, (protected):

Apply in a water volume of 700 – 1000 Litres of water per hectare according to crop density. Apply as a MEDIUM quality spray (BCPC).

Powdery mildew control usually requires a programme of fungicide sprays and Sonata may be used as part of such a programme. Sonata works preventatively and with a contact mode of action, so for successful control of Powdery mildew it is vital to achieve complete foliage cover.

Apply Sonata at a rate of 10 L/ha, from the early onset of disease. Sonata may be used up to a maximum of six applications. A minimum of five days should fall between applications of Sonata.

Blackcurrant, redcurrant, whitecurrant, (protected):

Apply in a water volume of 200 – 1000 Litres of water per hectare according to crop density. Apply as a MEDIUM quality spray (BCPC).

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Tomato, pepper and aubergine (protected):

Apply in a min water volume of 200 Litres of water per hectare according to crop density. Apply as a MEDIUM quality spray (BCPC).

Powdery mildew control usually requires a programme of fungicide sprays and Sonata may be used as part of such a programme. Sonata works preventatively and with a contact mode of action, so for optimum control it is vital to achieve complete foliar cover when spraying. Apply Sonata at a rate of 10 L/ha, from the early onset of disease. Sonata may be used up to a maximum of six applications. A minimum of five days should fall between applications of Sonata.

Chicory and lambs lettuce (protected):

Apply in a water volume of 200 – 1500 Litres of water per hectare according to crop density. Apply as a MEDIUM quality spray (BCPC).

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Seed crops (protected):

Apply in a water volume of 200 – 1500 Litres of water per hectare according to crop density. Apply as a MEDIUM quality spray (BCPC).

Powdery mildew control usually requires a programme of fungicide sprays and Sonata may be used as part of such a programme. Sonata works preventatively and with a contact mode of action, so for optimum control it is vital to achieve complete cover when spraying. Apply Sonata at a rate of 10 L/ha, from the early onset of disease. Sonata may be used up to a maximum of six applications. A minimum of five days should fall between applications of Sonata.

Mixing and Spraying

Before use ensure that all spray equipment is clean.

Add half the volume of water required, and start agitating.

Agitate product container well and add the required amount of Sonata, continue filling spray tank with the required volume of water.

Keep agitating until spraying completed.

All application equipment must be thoroughly cleaned with water prior to storage or use on another crop.

Storage

Sonata is a biological product and so should be treated with some care. It can be stored at room temperature for two years. Storage at higher temperatures may reduce its shelf-life.

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2019 to date