

# CONTANS® WG

Biological Fungicide for the suppression/control of sclerotia of sclerotinia (*Sclerotinia sclerotiorum* and *Sclerotinia minor*) in Agricultural Soils

Wettable Granules

## COMMERCIAL

### ACTIVE INGREDIENT:

*Coniothyrium minitans* strain CON/M/91-08.....5.0%

Contains a minimum of  $1 \times 10^9$  CFU/g

CAUTION - POTENTIAL SENSITIZER

### READ THE LABEL BEFORE USING

**REGISTRATION NO. 29066 PEST CONTROL PRODUCTS ACT**

**NET CONTENTS: 400 g - 20 Kg**

Distributed by:

United Agri Products Canada Inc.

789 Donnybrook Drive

Dorchester, Ontario N0L 1G5

Product Information: 1-800-265-4624

Registrant: Bayer CropScience Inc.

Suite 200, 160 Quarry Park Blvd. S.E.

Calgary, AB T2C 3G3

In case of spills, poisoning or fire, telephone emergency response number 1-800-334-7577 (24 hours a day).

Date of Manufacture:

**NOTICE TO USER:**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

**FIRST AID:**

**If swallowed:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**TOXICOLOGICAL INFORMATION:** Treat symptomatically.

**PRECAUTIONS**

KEEP OUT OF REACH OF CHILDREN. May cause sensitization. Avoid contact with eyes, skin or clothing. Avoid inhaling/breathing dusts. Wear a long-sleeved shirt, long pants, water-proof gloves, shoes with socks, and a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter when handling, mixing/loading or applying the product and during all clean-up/repair activities. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**ENVIRONMENTAL HAZARDS**

**To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.**

**STORAGE**

Store in a dry area inaccessible to children. Store in original container only. Keep container closed when not in use. This product should be used within two years from the date of manufacture when stored at 4°C. When stored between 4°C and 23°C, this

product should be used within 6 weeks from the date of manufacture. To prevent contamination, store this product away from food and feed.

**DISPOSAL:**

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instruction for any required additional cleaning of the container prior to disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills. Do not contaminate water, food, or feed by storage or disposal.

**GENERAL USE INFORMATION:**

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CONTANS® WG is a water dispersible granule for the suppression/control of *Sclerotinia sclerotiorum* and *Sclerotinia minor* in agricultural soils. CONTANS WG is intended for use as part of an Integrated Pest Management (IPM) system. When used in conjunction with good cultural management practices and as part of a complete disease control program, CONTANS WG suppresses/controls soil infestations of *Sclerotinia sclerotiorum* and *Sclerotinia minor*.

**COMPATIBILITY:** Do not combine CONTANS WG in the spray tank with fungicides or fertilizers. Do not tank mix CONTANS WG with acids, alkalines or any product that attacks organic material.

**INTEGRATED PEST MANAGEMENT (IPM):** Integrate CONTANS WG into an overall disease and pest management strategy. Follow practices known to reduce disease development. Consult local agricultural authorities for specific IPM strategies developed for your crop(s) and location.

**USE RATE DETERMINATION:** Prepare only the amount of spray solution required to treat the measured hectares. The spray solution should be used within 24 hours of being prepared. Accurate spray equipment calibration is essential prior to use.

**PREHARVEST INTERVAL:** CONTANS WG can be applied up to and including the day of harvest.

## **APPLICATION INSTRUCTIONS – Agricultural Use:**

**GENERAL:** Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower/treatment coordinator are responsible for considering all of these factors when making decisions. Where provinces/territories have more stringent regulations, they should be observed.

Carefully read and follow all label directions, use rates and restrictions. CONTANS WG should be applied prior to disease development. For proper application, determine the number of hectares to be treated, the recommended label use rate and select appropriate water volumes.

**GROUND:** Thorough coverage is essential for optimum disease control. To achieve good coverage, use the appropriate spray pressure, liters per hectare, nozzles, nozzle spacing and ground speed. Consult spray nozzle and accessory catalogues for specific information on proper equipment calibration.

**MIXING INSTRUCTIONS:** Determine the volume of water needed to provide thorough coverage of the soil in the treatment area. The amount of water needed will depend on the weather, spray equipment and local experience. Partially fill the spray tank with clean water and begin agitation. Add the specified amount of CONTANS WG to the tank (consult application directions below). Finish filling the tank to the desired volume that provides maximum coverage. Maintain agitation. Do not allow spray mixture to stand overnight or for prolonged periods.

## **DIRECTIONS FOR USE**

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CONTANS WG is applied by spraying the soil surface (or crop residues) and then incorporating the soil surface into the upper soil layer. Thorough spray coverage is needed to provide a uniform deposit of CONTANS WG on the soil. CONTANS ®WG may be applied in conventional spray equipment with quantities of water sufficient to provide thorough coverage of the soil. Maintain agitation continuously while spraying. For tractor-mounted sprayers, use of a spray boom equipped with fan nozzles provides enhanced coverage.

DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, wetlands), estuarine or marine habitats.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters. For guidance contact the Provincial Regulatory Agency.

DO NOT apply by air.

### **Pre-plant - Application**

Apply CONTANS WG at least three months prior to the onset of disease, to allow for the active ingredient to reduce inoculum loads of sclerotia in the soil. For example, apply CONTANS WG in the fall for a spring planting. Once the product has been applied onto the soil, the treated soil surface must be incorporated into the upper soil layer with the use of an appropriate cultivator or other similar equipment. **CONTANS WG should be incorporated as thoroughly and uniformly as possible**, to a depth of 5 to 20 cm. Treated soils should not, however, be plowed before planting the susceptible crop so as to avoid allowing untreated sclerotia from lower soil layers to infect the top soil. The product can also be applied before the field lies fallow or before sowing/planting a non-susceptible crop, provided that the soil is not plowed before planting the susceptible crop so as to avoid allowing untreated sclerotia from lower soil layers to infect the top soil.

CONTANS WG should be applied at least **three months prior to an anticipated Sclerotinia outbreak**.

On crops which are infested directly by mycelium, the application should take place at least 3 months prior to planting (e.g. lettuce).

On host plants (e. g. beans, canola etc.), on which infection occurs from ascospores, the soil can also be treated just before planting, provided that the earliest occurrence of infection is likely 3 months after planting or sowing of the host plants. This means CONTANS WG should be applied at least **three months prior to an anticipated Sclerotinia outbreak**, so as to allow for the active ingredient to destroy the sclerotia in the soil, before the sclerotia are able to produce fruiting bodies, which ultimately eject ascospores.

### **Postharvest - Application**

Apply CONTANS WG to harvest residues. Once the product has been applied, the treated residues must be incorporated into the upper soil layer. A postharvest treatment of the soil and harvest residues with CONTANS WG prevents a new contamination of the soil with sclerotia and reduces the contamination of the soil step

by step. **Regular use of CONTANS WG in successive years within a long-term management strategy will improve disease control.**

## **CROP SPECIFIC USE DIRECTIONS**

### **FOR SUPPRESSION OF *S. SCLEROTIORUM* AND/OR *S. MINOR* WHERE LETTUCE, SNAP BEANS, CARROTS, CABBAGE, TOMATO, PEPPER, EGGPLANT OR CELERY WILL BE PLANTED**

Apply CONTANS WG at a rate of 2 to 4 kg per hectare to the soil prior to or at planting or at time of transplant.

CONTANS WG may also be applied to plant debris that remains in the field after harvest, prior to replant of a susceptible crop. If incorporation will displace the soil greater than five centimeters, increase the application rate to 3 to 6 kg per hectare.

**CONTANS WG should be applied at least three months prior to the typical onset of Sclerotinia disease.**

**Regular treatments** of CONTANS WG within the rotation on the harvest residues of susceptible crops prior to the next soil treatment with a rate of 2 kg per hectare (2 kg/ha in short vegetable rotations within a year) will also reduce inoculum loads of sclerotia in the soil.

### **FOR SUPPRESSION OF *S. SCLEROTIORUM* WHERE WINTER CANOLA, SPRING CANOLA, SUNFLOWER, SAFFLOWER, DRY EDIBLE BEANS, SOYBEANS AND ALFALFA\* WILL BE PLANTED**

Apply CONTANS WG to the soil at a rate of 1 to 2 kg per hectare at or prior to planting. When applied correctly, CONTANS WG will reduce inoculum loads of sclerotia in the soil. CONTANS WG may also be applied in the fall to treat the soil prior to spring planting of a susceptible crop. Treated soils should not be disturbed to avoid bringing untreated sclerotia from lower soil layers to the top soil layer. If the equipment used will incorporate CONTANS WG to a depth greater than five centimeters, the application rate should be increased to 2-4 kg per hectare. **CONTANS WG should be applied at least three months prior to the typical onset of Sclerotinia disease.**

\*For established alfalfa: repeat the treatment in autumn after the last cut.

**Regular treatments** of CONTANS WG within the rotation on the harvest residues of susceptible crops prior to the next soil treatment with a rate of 0.5 to 1 kg per hectare will also reduce inoculum loads of sclerotia in the soil.

## **ORNAMENTAL PLANTS (CUT FLOWERS)**

Apply CONTANS WG at a rate of 4 kg per hectare at or prior to planting. When applied correctly, CONTANS WG will reduce inoculum loads of sclerotia in the soil. CONTANS WG may also be applied prior to the previous (non-susceptible) crop or on harvest residues of a Sclerotinia attacked susceptible crop in the rotation. Treated soils should not be disturbed to avoid bringing untreated sclerotia from lower soil layers to the top soil layer. If incorporation will displace the soil greater than ten centimeters, increase

the application rate to 6 kg per hectare. **CONTANS WG should be applied at least three months prior to the typical onset of Sclerotinia disease.**

**FOR control of *S. sclerotiorum* in cut flowers grown in single-span greenhouse soil beds including chrysanthemum, salvia, snapdragon, dahlia, delphinium, zinnia, lily, celosia, and lisianthus.**

**FOR suppression of *S. sclerotiorum* in field-grown cut flowers including chrysanthemum, tulip, hydrangea, peony, stock, sunflower, sweet pea, African daisy, phlox, foxglove, dahlia, delphinium, zinnia, lily, Bachelor's button, lupine, veronica, and calendula.**

**Regular treatments** of CONTANS WG within the rotation on the harvest residues of susceptible crops prior to the next soil treatment with a rate of 0.5 to 2 kg per hectare (2 kg/ha in short rotations) will also reduce inoculum loads of sclerotia in the soil. In rotations where a susceptible crop is directly following a susceptible crop, only one treatment at a full rate (4 kg/ha) is necessary (post harvest timing = pre planting timing).

Not all species and varieties/cultivars of ornamental plants grown for cut flowers have been tested for efficacy or phytotoxicity. Users should conduct small-scale tests under local conditions prior to wide-scale use.

CONTANS WG is a registered trademark of Bayer.

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