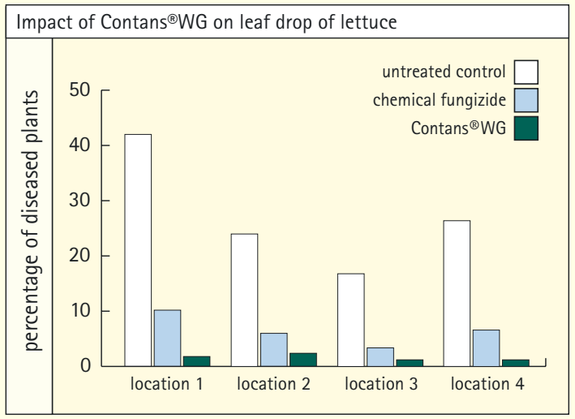
Contans®WG

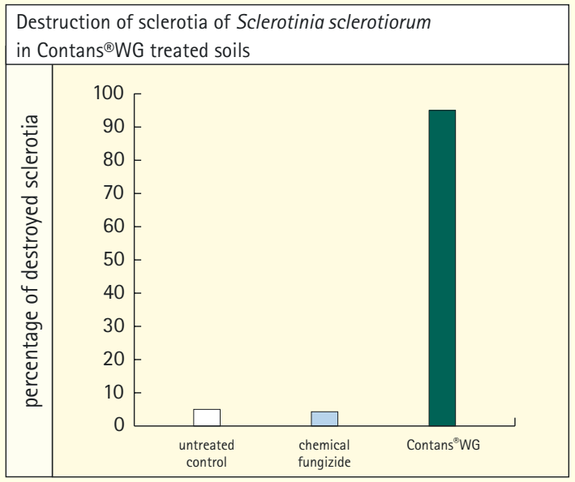
is the newest, safest and most versatile control method available for controlling Sclerotinia diseases.

Contans®WG usage results indicate a significant reduction in the number of remaining viable sclerotia in the treated soil.

Contans®WG protect the plant:



Contans®WG eradicates sclerotia in the soil:



Contans®WG

General Use and Application Guidelines

Contans®WG should be applied at least two months prior to an anticipated Sclerotinia disease outbreak. This will allow the active fungal ingredient to destroy the sclerotia in the soil. For maximum effectiveness, Contans®WG should be applied before or at planting time.
Contans®WG may also be applied after harvest to prevent a new contamination of the soil with sclerotia and to ensure the active agent has time to work before disease occurs on the next crop.
To avoid turning up untreated sclerotia from lower soil layers, treated soil should not be tilled deeper than the treated layer prior to or at planting.

Dissolve the appropriate amount of Contans®WG in water and spray it directly onto the soil surface using conventional equipment. Equipment should be clean and free of any crop chemicals or fertilizers. Following application, Contans®WG must be incorporated into the soil by rotary hoe or other suitable device. Incorporation should be done as thoroughly and evenly as possible.

The rate of application depends of the depth of incorporation:

Depth of incorporation	0 - 10 cm	0 - 20 cm	0 - 30 cm
Greenhouses	4 kg per ha	6 kg per ha	8 kg per ha
Open field	2-4 kg per ha	3-6 kg per ha	4-8 kg per ha

The application rate for a post harvest treatment is 1 to 2 kg/ha

Because Contans®WG contains a living micro-organism, it requires careful handling and storage to maintain potency.
When stored at 4 °C (39 °F), an unopened package of Contans®WG has a shelf life of at least six months. The package should not be left in direct sunlight or where it will be exposed to extreme temperatures or humidity. Contans®WG should be sprayed immediately after the product is mixed with water.

Contans®WG doesn't just protect the plant, it reduces or eliminates the disease causing fungus from treated soil.

Contans®WG

Fo-EC-01

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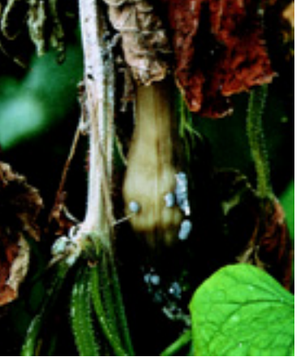
TÜV CERT DIN EN ISO 9002

production and distribution of biological plant protection products is certified according to DIN EN ISO 9002

Contans®WG eradicates
the source of Sclerotinia diseases

prophyta
Biologischer Pflanzenschutz GmbH



Life cycle of Sclerotinia diseases

Contans®WG

ERADICATES SCLEROTINIA ROT BEFORE IT APPEARS AND BREAKS THE CYCLE OF DISEASE

Sclerotinia rot caused by the fungus *Sclerotinia sclerotiorum* is one of the most destructive diseases of plants. It affects over 380 ornamentals, field crops, vegetables and herbs. Contans®WG is a biological fungicide and controls Sclerotinia diseases by attacking the disease-causing fungus in the soil before it can infect a susceptible plant.

Contans®WG is made up of spores of the natural occurring soil fungus *Coniothyrium minitans*.
Once applied and incorporated into the soil, *Coniothyrium minitans* attacks and destroys the black sclerotial bodies (sclerotia), which are the resting survival structures of *Sclerotinia sclerotiorum*, within three months. This action breaks the "cycle of disease" by reducing or eliminating the disease causing fungus from treated soil.

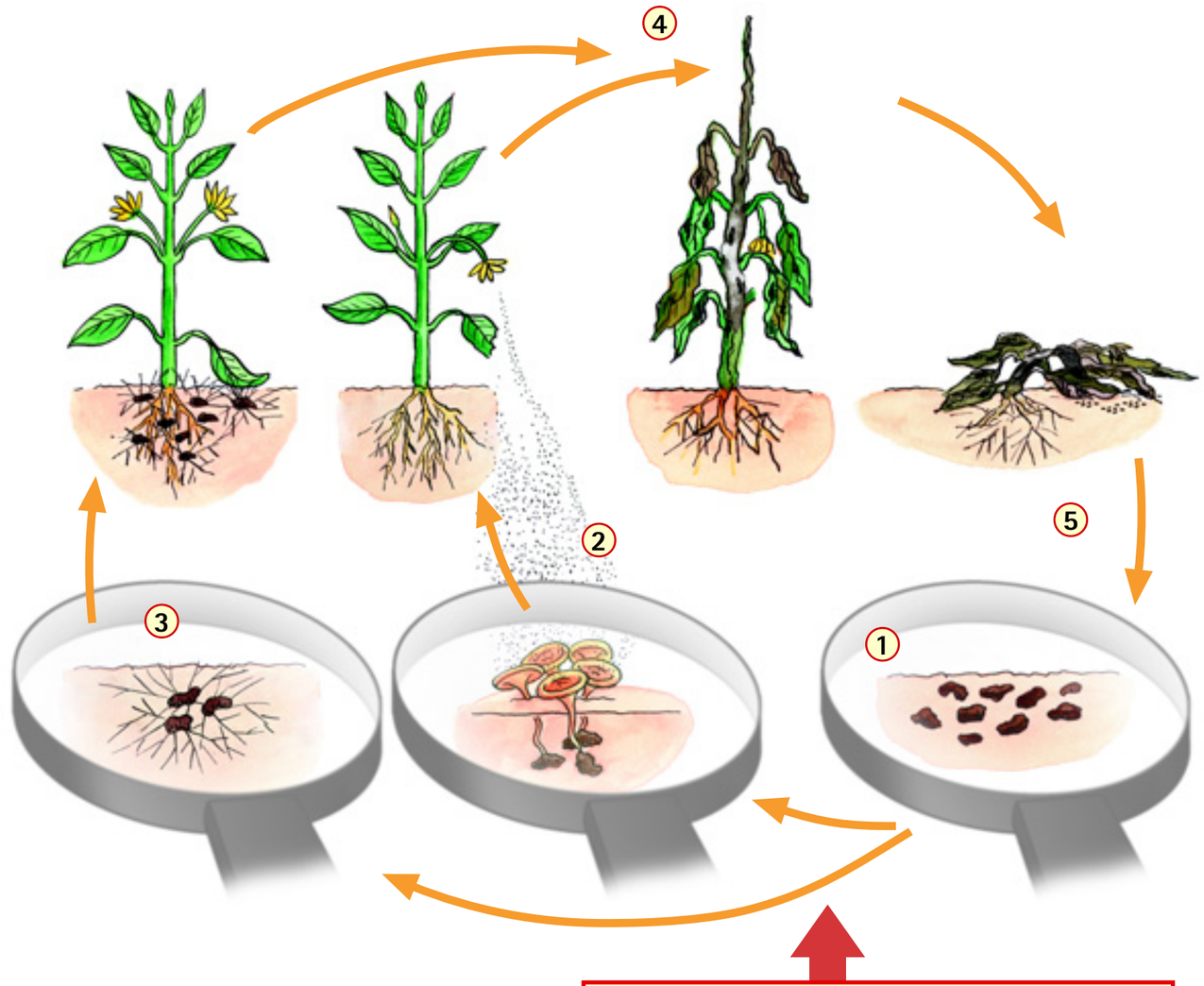
1. The resting survival structures (sclerotia) of *Sclerotinia sclerotiorum* can survive in the soil for several years.

2. Sclerotia within the top five centimetres of the soil germinate to produce fruiting bodies (apothecia). These apothecia produce and eject spores, which are carried by the wind and settle on non-living or senescent plant parts. If temperature and humidity conditions are right, the spores germinate and infect plants susceptible to Sclerotinia disease. Infection takes place on the leaves, fruits and on stems near the soil line.

3. Additionally, root-infection of susceptible host plants can occur from mycelium originating from eruptive germination of sclerotia in the soil.

4. The infected area of the plant takes on a dark green or water-soaked appearance and then becomes yellow or light in colour. White cottony mycelium may develop and sclerotia subsequently are produced externally on affected plant parts and internally in stem pith cavities. The plant begins to wilt and eventually dies.

5. The black sclerotial bodies reach the soil, where they remain on the surface or become buried as a result of tillage practices, so completing the life-cycle of the fungus.



Contans®WG breaks this cycle of disease
Its active agent *Coniothyrium minitans* attacks and destroys the sclerotia in the soil.

Pictures (from top to bottom):

Examples of infested plants
- cucumber
- beans
- lettuce
- celery
- sunflower

Picture title page:

Economically Important Host Plants Affected by Sclerotinia

Vegetables and Fruits		Agricultural Crops	
Artichoke	Eggplant	Alfalfa	Potato
Asparagus	Endive	Canola	Red clover
Avocado	Fennel	Chives	Safflower
Bean	Kiwi fruit	Dry bean	Soybean
Broccoli	Lettuce	Hemp	Sunflower
Cabbage	Parsley	Lentil	Tobacco
Carrot (in store)	Pea	Oilseed rape	
Celery	Pepper		
Chickpea	Snap bean		
Chicory	Tomato		
Cucumber	Watermelon		

Features of Contans®WG:

- Water dispersible granular formula
- Easy mixing and simple application through conventional spray equipment
- Stable formulation of a naturally-occurring biological control organism
- Contains $1x10^9$ viable spores per gram of the fungus *Coniothyrium minitans.*
- Used as pre-plant treatment or as treatment for harvest residues
- Safe to store, handle and apply

Benefits of Using:

- No adverse effect on the soil or environment
- Plant-compatible biological fungicide
- Reduces or eliminates the disease causing sclerotia from treated soil
- Cost effective
- Repeated use may provide long term protection
- No adverse effect on subsequent crops
- Eradicates the source of Sclerotinia-diseases