

# INTUITY™ FUNGICIDE

**STOP THE ROT**

**SAY NO TO SCLERO**

**OUTDO MILDEW**



## TECHNICAL GUIDE CUCURBITS, ONIONS, LETTUCE AND GREEN BEANS

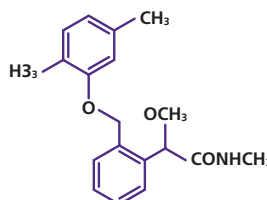
**Intuity™** is now registered for Powdery mildew control in Cucurbits in addition to White rot control and Downy mildew suppression in Onions, and Sclerotinia control in Green beans and Lettuce.

- Active constituent: 250 g/L Mandestrobin
- Group 11 fungicide
- Non scheduled
- SC formulation
- Patented latex formulation

# Mandestrobin

## CHEMICAL STRUCTURE

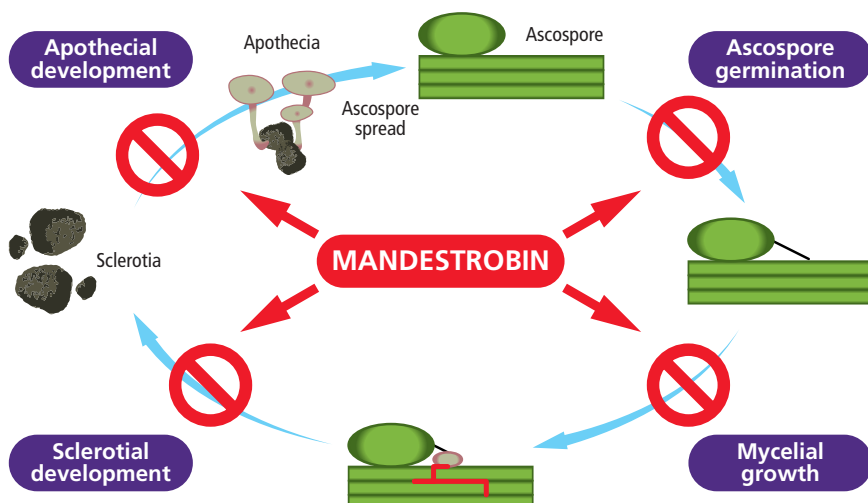
The active ingredient in Intuity is Mandestrobin. Mandestrobin is a novel fungicide from the Strobilurin family which has been commercially developed by Sumitomo Chemical Co. Ltd.



## Mode of action

### SCLEROTINIA

Intuity has an effect on almost all stages of the life cycle of *Sclerotinia sclerotiorum* such as spore germination, mycelial growth, sclerotia production and apothecial development, and effects on *Sclerotinia sclerotiorum* can be expected with various timings in practical situations.



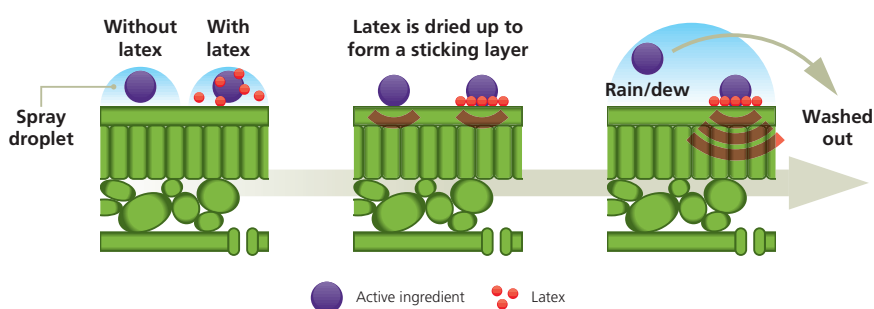
### DOWNY MILDEW

Downy mildew, (*Peronospora destructor*) produces fruiting bodies and spores called sporangia. Intuity works prophylactically and curatively against Downy mildew by inhibiting sporangial and conidial germination.

### POWDERY MILDEW

Intuity inhibits the normal respiration of the Powdery mildew (*Erysiphe cichoracearum*) fungus by binding to the cytochrome, blocking energy supply (ATP) to the fungi's cells, causing its death.

## Patented latex formulation



The patented latex formulation of Intuity has been developed to aid with rainfastness. The 'latex adjuvant' helps to stick the active ingredient onto the plant meaning more of the active ingredient at the point of protection for a longer period.

# Diseases controlled by Intuity

## POWDERY MILDEW IN CUCURBITS

The first signs of Powdery mildew in Cucurbits are pale yellow leaf spots. White powdery spots can then form on both upper and lower leaf surfaces as well as stems, and quickly expand into large blotches. Large blotches can cover the entire leaf, petiole and stem surfaces.

*Squash crop with significant leaf infection with Powdery mildew showing typical powdery white colonies.*



### Directions for use – Cucurbits

CROP	DISEASE	RATE	CRITICAL COMMENTS
Cucurbits	Powdery mildew	1-1.2 L/ha	Make the first application prior to or at the first sign of disease development. Apply two consecutive sprays of INTUITY Fungicide at appropriate intervals (usually 7-14 days). Use the higher rate under conditions of higher disease pressure or when crops are more than 50% fully grown. Good coverage is important to get good control. Generally, water rates of 300-600 L/ha should be used with the rate increasing as Cucurbit size increases. <b>DO NOT</b> apply more than two consecutive sprays or more than three times per crop. These sprays should be alternated with fungicides from a different mode of action group.

## SCLEROTINIA (WHITE MOULD) IN LETTUCE

White mould in Lettuce, *Sclerotinia* spp. is a distinctive disease that most often affects stems and foliage at the base of Lettuce plants. Affected tissue develops a soft, watery rot and white, cottony mycelium forms on the surface. Hard black sclerotia form on the surface or inside the dead stems.

*Lettuce affected by White rot, clearly showing black sclerotes around the roots.*



### Directions for use – Lettuce

CROP	DISEASE	RATE	CRITICAL COMMENTS
<b>Lettuce</b> Head and leaf varieties – field and protected cropping	White mould/ Lettuce drop ( <i>Sclerotinia</i> spp.)	1.2 L/ha	For Sclerotinia control, begin application prior to disease development, after transplanting, and continue with a 7-14 day interval between sprays. Use a shorter interval when disease pressure is high. Good coverage is important to get good control. Generally, water rates of 300-600 L/ha should be used with the rate increasing as Lettuce size increases. Concentrate spraying is not recommended. <b>DO NOT</b> apply more than two consecutive sprays or more than three times per crop. These sprays should be alternated with fungicides from a different mode of action group.

## SCLEROTINIA (WHITE MOULD) IN GREEN BEANS

Sclerotinia rot (White mould), is one of the major diseases of Green beans in Australia and can cause significant yield losses during the cropping season as well as post-harvest damage. Distinctive symptoms occur including yellowing, water-soaked lesions and collapse bean pods, followed by fluffy white fungal threads studded with black sclerotia.

*Green beans affected by White mould. White 'tufts' are typical and these develop into dark, hard sclerotia that survive for years in the soil.*



### Directions for use – Green beans

CROP	DISEASE	RATE	CRITICAL COMMENTS
<b>Green beans</b>	White mould ( <i>Sclerotinia sclerotiorum</i> )	1.2 L/ha	Apply at 20% flowering then again at full flowering when pods are starting to form. This is generally 7 to 10 days apart. Good coverage is important to get good control. Generally, water rates of 400-500 L/ha should be used. <b>DO NOT</b> apply more than twice per crop. Under conditions of high pressure a third application may be required about 7 days later, but this should be a chemical from a different mode of action group.



## DIRECTIONS FOR USE AND DISEASES CONTROLLED (Continued)

### WHITE ROT (SCLEROTINIA) IN ONIONS

White rot in Onions is caused by the soil borne fungus, *Sclerotium cepivorum*. This disease attacks the below ground parts of Onion plants at any time throughout the season when environmental conditions are favourable. Crops planted in late Autumn to early Winter are most at risk due to cool wet growth conditions favouring the disease. Yield loss can be as high as 100% in the worst circumstances.

*Onions affected by White rot, showing typical splitting.*



#### Directions for use – Bulb onions (White rot)

CROP	DISEASE	RATE	CRITICAL COMMENTS
Bulb onions	White rot ( <i>Sclerotium cepivorum</i> )	1.2 L/ha	Make the first INTUITY application prior to disease development approximately six weeks after planting. Good coverage is important to get good control. Generally, water rates of 300-600 L/ha should be used with the rate increasing as Onion size increases. <b>DO NOT</b> apply more than two consecutive sprays or more than three times per crop. These sprays should be alternated with fungicides from a different mode of action group.

### DOWNY MILDEW IN ONIONS

Downy mildew is caused by the fungus-like (Oomycete) organism *Peronospora destructor*, which first infects the leaves and later bulbs of Onions in mild, humid weather in late Spring and Summer. It is worse in cool wet seasons and in wet areas.

Infected leaves turn yellow and die off from the tip downwards. In moist conditions a white, and later purplish mould develops on affected parts of the leaf.

*Onion showing typical Downy mildew symptoms with white and purple discoloration.*



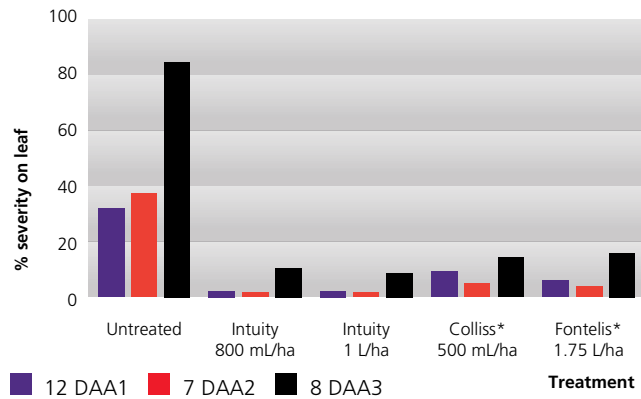
#### Directions for use – Bulb onions (Downy mildew)

CROP	DISEASE	RATE	CRITICAL COMMENTS
Bulb onions	Downy mildew ( <i>Peronospora destructor</i> ) – suppression	1.2 L/ha	INTUITY Fungicide will suppress downy mildew when applied as part of a protectant programme with other effective fungicides having a different mode of action. Application to established downy mildew may not give reliable control. Good coverage is important to get good control. Generally, water rates of 300-600 L/ha should be used with the rate increasing as Onion size increases. <b>DO NOT</b> apply more than two consecutive sprays or more than three times per crop. These sprays should be alternated with fungicides from a different mode of action group.

# Trial results and field testing

## POWDERY MILDEW IN CUCURBITS

### Trial on Powdery mildew in zucchini, Bowen QLD

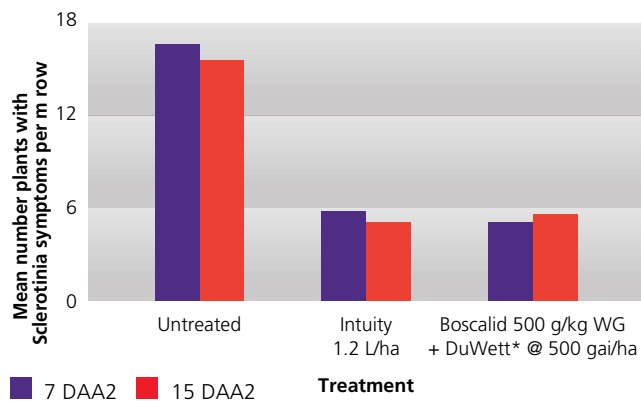


Three sprays (1, 2 and 3) applied commencing at the first sign of Powdery mildew and then at fortnightly intervals. cv. Congo. Applications at 500 L/ha of water.

Intuity treated Zucchini plants clearly show clean stems with no Powdery mildew symptoms versus untreated plants with significant white colonies present.

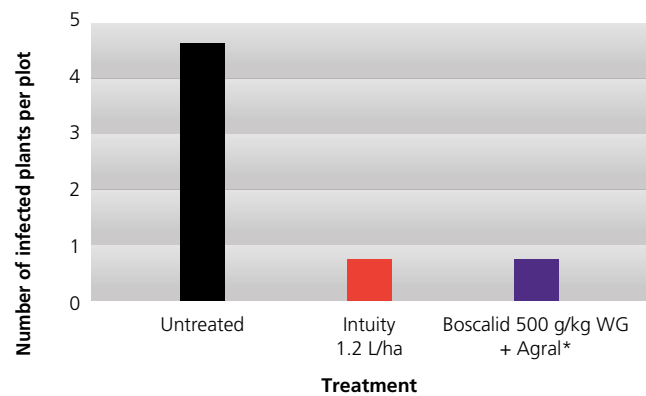
## SCLEROTINIA (WHITE MOULD) IN GREEN BEANS

### Trial on Sclerotinia in Green beans Wivenhoe QLD



## SCLEROTINIA (WHITE MOULD) IN LETTUCE

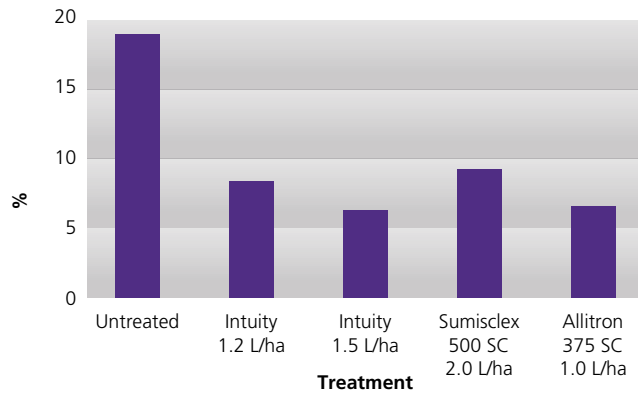
### Control of Sclerotinia in Lettuce Bacchus Marsh VIC (9 DAA5)



**TRIAL RESULTS AND FIELD TESTING  
(Continued)**

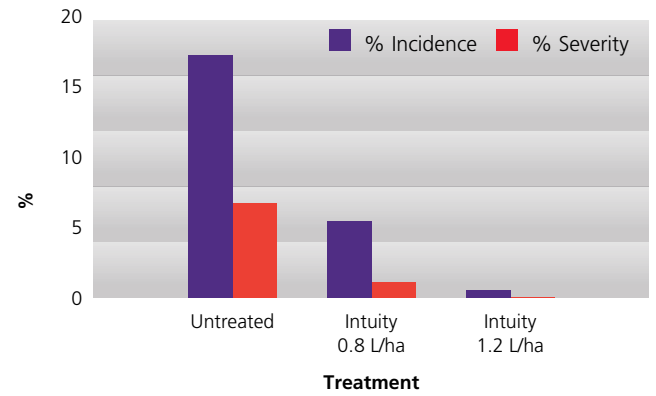
**SCLEROTINA (WHITE ROT) IN ONIONS**

**% Onion bulbs affected by White rot  
Kindred Tasmania (43 DAA3)**



**DOWNY MILDEW IN ONIONS**

**Onion Downy mildew Control  
Waiuku NZ (4 DAA4)**



*Wilting plant due to splitting of basal plate from white rot disease 23 DAA3.*



*Downy mildew infection in untreated plants.*





## Application

### RESTRAINTS

**DO NOT** apply by aircraft.

### WITHHOLDING PERIODS

**Cucurbits:** **DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION**

**Green beans:** **DO NOT HARVEST GRAZE OR CUT TREATED AREAS FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.**

**Lettuce:** **DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.**

**Bulb onions:** **DO NOT HARVEST FOR 30 DAYS AFTER APPLICATION.**

### TRADE ADVICE

Treated crops for export to particular destinations outside Australia may require a longer interval before harvest to comply with residue standards of importing countries. Please contact your industry body, exporter or Sumitomo Chemical Australia before using **INTUITY FUNGICIDE** on export Onions.

### SPRAY APPLICATION

**DO NOT** apply more than two foliar sprays per season for Green beans.

**DO NOT** apply more than two consecutive sprays or more than three times per crop for Cucurbits, Lettuce and Bulb onions.

**DO NOT** apply with spray droplets smaller than a MEDIUM spray droplet size category when applying through a boom sprayer.

### Rainfast

**DO NOT** apply if rainfall is expected within 2 hours of application.

### Water rates and coverage

Good coverage is important.

Set up and operate the sprayer to achieve even coverage throughout the crop canopy.

Water rates of 300-600 L/ha should be used with the water rate increasing as the crop size increases, for Green beans use a minimum of 400 L/ha of water.

### WETTING AGENT

The addition of a non-ionic surfactant may improve efficacy.

**INTUITY**<sup>™</sup>  
**FUNGICIDE**



# INTUITY™ FUNGICIDE

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*Scan here to see more  
information about  
Intuity Fungicide*

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