

# TECHNOTE A NEW UNIQUE MODE OF ACTION FOR DOWNY MILDEW CONTROL

Now registered for use within broccoli, cauliflower, cabbage and brussel sprouts, Amicus® Blue is a unique dual mode-of-action fungicide to aid in the fight against downy mildew (*Hyaloperonospora brassicae*).

Developed by Nufarm Australia, Amicus Blue contains amisulbrom, a new fungicidal active, and the trusted strength of Tri-Base Blue.

Amisulbrom is a new mode of action (group 21) which has protective properties by working in the waxy cuticle of the plant. This is coupled with the surface acting tribasic copper sulphate, giving multi-layered protections against downy mildew. This unique co-formulation enhances disease control while assisting with reducing the risk of fungicidal resistance.

Downy mildew is a major disease for all brassica vegetable crops. The disease is favoured by cool, wet weather; spores are produced overnight, then released early in the morning, where damp leaves assist in the germination and infection of the plants by the fungal spores. Spores can also be spread by wind or rain splash.

Downy mildew can be more of an issue in young plants, so when planting ensure you have clean healthy seedlings, trash from previous crops has broken down or been removed and don't over water. The conditions which favour downy mildew development also favour white blister development, for which Amicus Blue provides excellent protection.

## FEATURES AND BENEFITS

- Excellent preventative activity at low rates at multiple stage of target fungi lifecycle
- Rainfastness with swift absorption into the leaf
- Desorbs from inside the leaf when wet to inhibit fungal infection
- Potent zoospore control, including inhibition of secondary infection
- Stable performance in the field with an excellent crop safety profile
- Available in an easy to measure liquid formulation that blooms easily and remains in suspension
- Zero withholding period when used as directed



Photo 1: Downy mildew (*Hyaloperonospora brassicae*) infection on broccoli leaf. Don, Tas. 2011/12



Photo 2: Amicus Blue treated broccoli leaf 2L/ha. Don, Tas. 2011/12

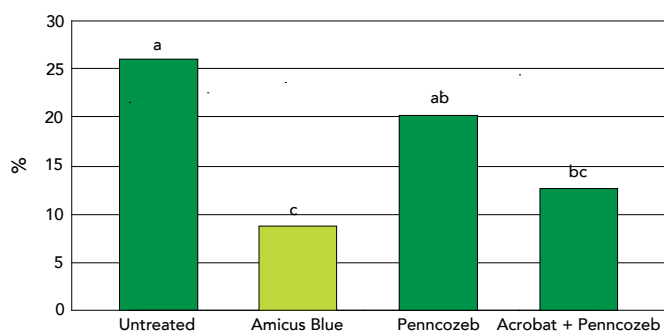
## EFFICACY

Nufarm has developed Amicus Blue in Australian brassica crops through extensive trial work and is very effective against the target fungal diseases. From spring 2010 to summer 2013, Nufarm trialed Amicus Blue in:

- Broccoli crops in Tasmania, Victoria, Western Australia and Queensland
- Brussel sprouts, cabbage, cauliflower and broccoli crops in South Australia, Tasmania, Western Australia and Queensland

Amicus Blue at 2L/ha provided very good control of downy mildew (*Hyaloperonospera brassicae*). When used in an integrated approach prior to a disease event Amicus Blue appeared to have greater efficacy than Penncozeb® and equivalent to that of the industry standard Acrobat®.

## DOWNY MILDEW SEVERITY IN BROCCOLI



## CRITICAL INFORMATION

<b>PRODUCT TYPE</b>	Protective fungicide
<b>ACTIVE INGREDIENTS</b>	180g/L copper and 32g/L amisulbrom
<b>CHEMICAL FAMILY</b>	Group 21, Group M1
<b>REGISTERED USE</b>	Brassica, vegetable crops including broccoli, cauliflower, cabbage and brussels sprouts
<b>USE RATE</b>	2.0L/ha
<b>DISEASES CONTROLLED</b>	White blister ( <i>Albugo candida</i> ), downy mildew ( <i>Hyaloperonospera brassicae</i> )
<b>WITHOLDING PERIOD</b>	Not required when used as directed
<b>RESTRAINTS</b>	Avoid applications to brassica crops when frosts are possible as crop damage may result
<b>PACK SIZES AVAILABLE</b>	20L

## BRASSICA VEGETABLE SPRAY PROGRAM

TIMING	DISEASE	BROCCOLI	CAULIFLOWER	CABBAGE	NOTES
Pre transplant	Club root	Emblem®	Emblem	Emblem	Watered or worked in
Post transplant	White blister, downy mildew, bacterial rots, alternaria	Tri-Base Blue + Penncozeb 750	Tri-Base Blue	Tri-Base Blue	
Rosette development	White blister, downy mildew	Ridomil Gold® <sup>1</sup> Plus	Ridomil Gold Plus	Ridomil Gold Plus	As required on cauliflower and cabbage
Leaf development	Ring spot, black rot, bacterial rots, downy mildew		Barrack Betterstick®, Tri-Base Blue	Barrack Betterstick, Tri-Base Blue	As required on cauliflower and cabbage
Buttoning	White blister, downy mildew	Amicus Blue			Apply 2 x sprays 10 days apart during infection risk periods
Head development	White blister, downy mildew, bacterial rots, alternaria	Amistar® <sup>2</sup> + Tri-Base Blue	Amicus Blue	Amicus Blue	
Head sizing	Alternaria, ring spot, downy mildew, bacterial rots		Penncozeb 750	Penncozeb 750	As required on cauliflower and cabbage
Pre harvest	White blister	Amicus Blue			

For more information on Amicus Blue, visit [nufarm.com.au](http://nufarm.com.au)



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