



Biomangement Solutions



Andermatt
Madumbi



Andermatt Madumbi - Market leaders in Biostimulant and Biomanagement solutions.

Andermatt Madumbi believes in a holistic approach to agriculture, providing integrated solutions from seed to fork. As partners of choice, Andermatt Madumbi delivers the best biorational products, sourced both locally and globally along with expert technical guidance and support.

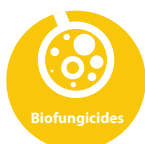


Andermatt Madumbi Sustainability cycle

Biomanagement solutions

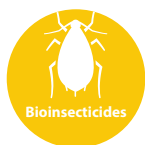
The Biomanagement range consists of crop protection products of which the active ingredients are biorational in origin and efficacy. This range includes fungi, bacteria, baculoviruses and plant extracts.

The Biomanagement range can be further classified as:



Biofungicides

- **Biofungicides**
Naturally occurring microorganisms protecting plant tissue from pathogen attacks



Bioinsecticides

- **Bioinsecticides**
Naturally occurring microorganisms used to control various pests including Baculovirus Solutions



Biobactericides

- **Biobactericides**
Naturally occurring microorganisms protecting plant tissue from bacterial plant pathogen attacks

Biofungicides



Key benefits of biofungicides

- Bacterial and fungal biofungicides are free of synthetic chemistry and are exempt of Maximum Residue Levels (MRLs)
- No withholding period facilitates late season applications when needed
- Biologicals offer unique and often multiple 'modes of action'
- Facilitates chemical resistance management
- Easy and safe to use – contact Andermatt Madumbi to confirm compatibility options
- Non-toxic for beneficials



Amylo-X® / Double-Nickel 55®

A biological fungicide for the prevention and suppression of fungal pathogens on listed crops.

Reg	Available in	Active ingredient	Against	Crop	Concentration	Formulation	Standard dosage
L0051	1 kg	<i>Bacillus amyloliquefaciens</i> (D747)	Powdery and Downy mildew	Cucurbits, Table Grapes	5 x 10 ¹⁰ CFU per gram	Soluble granule	1 - 2 kg/ha



RB BlackOut®

A systemic and contact fungicide for the control of citrus black spot in Citrus.

Reg	Available in	Active ingredient	Against	Crop	Concentration	Formulation	Standard dosage
L10354	20 L	Dipotassium phosphate	Citrus black spot	Citrus	297 g/ L	Soluble liquid	100ml / 100L



Eco-77®

Fungal inoculant for the protection of pruning wounds and suppression of fungal pathogens.

Reg	Available in	Active ingredient	Against	Crop	Concentration	Formulation	Standard dosage
L7495	250 g	<i>Trichoderma atroviride</i>	<i>Eutypa</i> , <i>Botrytis</i>	Grapes, tomato, cucumber, onions	2 x 10 ⁹ spores per gram	Wettable powder	1g / 2L



Eco-T®

A fungal inoculant for the suppression of crop root disease and for enhanced root growth.

Reg	Available in	Active ingredient	Against	Crop	Concentration	Formulation	Standard dosage
L6938	40 g, 250 g and 1 kg	<i>Trichoderma asperellum</i> strain KD	Crop root diseases	All crops	2 x 10 ⁹ spores per gram	Wettable powder	250 - 500 g/ ha



Eco-T® Ezi Flo

A lubricant formulation of *Eco-T®* for use in mechanical planters when planting seed.

Reg	Available in	Active ingredient	Against	Crop	Concentration	Formulation	Standard dosage
L9276	1 kg and 4 kg	<i>Trichoderma asperellum</i> + Talc + Graphite	Crop root diseases	Row crops ie. maize, soya	2 x 10 ⁹ spores per gram	Wettable powder	1g / kg seed

Bioinsecticides

Key benefits of bioinsecticides

- Bioinsecticides are free of synthetic chemistry and are exempt of MRLs
- No withholding period facilitates late season, at harvest applications when needed
- Biologicals offer unique and often multiple 'modes of action'
- Facilitates insecticide resistance management
- Easy and safe to use – contact Andermatt Madumbi to confirm compatibility options
- Non-toxic for beneficials

Andermatt Madumbi's Bioinsecticide Solutions



Eco-Bb®

Insect-pathogenic fungus for the effective reduction of insect and mite pests.



Reg	Available in	Active ingredient	Against	Crop	Concentration	Formulation	Standard dosage
L8469	40 g, 300 g and 1 kg	<i>Beauveria bassiana</i> strain R444	White fly, Red spider mite, <i>Tuta absoluta</i> , Leafminer, FCM, Woolly white fly	Beans, tomatoes, cucumbers, brinjals, potatoes, orchard crops	2 x 10 ⁹ spores per gram	Wettable powder	300 - 1kg / ha

Delfin®

A biological insecticide containing a natural spore-forming bacterium, which produces a protein endotoxin which is specifically toxic to lepidopteran larvae.



Reg	Available in	Active ingredient	Against	Crop	Concentration	Formulation	Standard dosage
L9761	40 g and 1 kg	<i>Bacillus thuringiensis</i> (kurstaki)	African bollworm, Tomato leaf miner	Lettuce, Tomato, Pepper, Eggplant, Potato	32 00 IU/mg	Wettable granule	500g - 1kg/ ha

Andermatt Madumbi's biobactericide solutions



AmyProtec® 42

A biological bactericide for the reduction of *Erwinia* spp. causing bacterial soft rot and black leg on potatoes.



Reg	Available in	Active ingredient	Against	Crop	Concentration	Formulation	Standard dosage
L10665	1 kg	<i>Bacillus amyloliquefaciens</i> (FZB42)	<i>Erwinia</i> spp. causing bacterial soft rot and black leg	Potatoes	min 2.5 x 10 ¹⁰ spores per ml	Soluble liquid	500ml/ha

Bioinsecticides - Baculovirus Solutions

Andermatt Madumbi is a member of the Andermatt Group. Andermatt are global leaders in Baculovirus production with 30 years experience in development, formulation and production of virus products. Baculovirus solutions are a unique category within bio-insecticides. Baculoviruses offer highly specific pest control, targeting only one insect pest – usually in the larval stage.

Baculoviruses are naturally occurring pathogens of certain insects, mainly lepidopteran species. They need to be ingested by the larvae to start the infection cycle.

Key benefits of Baculovirus Solutions:

- Efficient population and damage control
- Excellent resistance management tool
- High compatibility with other products
- Non-toxic for beneficials, no MRL, min. withholding period and re-entry interval
- Good rainfastness

Andermatt Madumbi's baculovirus solutions



Bolldex[®]

For the biological reduction of African Bollworm larvae on all crops.

Reg	Available in	Active ingredient	Against	Crop	Concentration	Formulation	Standard dosage
L8895	500 ml	<i>Helicoverpa armigera</i> Nucleopolyhedrovirus	African bollworm	All crops	7.5 x 10 ¹² CFU occlusion bodies / L	Soluble liquid	200ml / ha



Cryptex[®]

For the biological reduction of False Codling Moth (FCM) larvae.

Reg	Available in	Active ingredient	Against	Crop	Concentration	Formulation	Standard dosage
L8037	500 ml	<i>Cryptophleia leucotreta</i> Granulovirus	False Codling Moth larvae	Wide crop range	7.5 x 10 ¹² CFU occlusion bodies / L	Soluble liquid	3.3ml / 100L



Madex[®]

For the biological reduction of Codling Moth larvae on apples and pears.

Reg	Available in	Active ingredient	Against	Crop	Concentration	Formulation	Standard dosage
L7950	1 kg and 4 kg	<i>Cydia pomonella</i> Granulovirus	Codling moth larvae	Apples and Pears	3 x 10 ¹⁰ occlusion bodies/ L	Soluble liquid	100ml / ha

Biologicals in IPM programs

Critical to the success of biological solutions is the expert technical guidance and practical 'in the field' application support. Andermatt Madumbi Biospecialists are located in different geographical regions across South Africa to offer expertise, tailored as needed to support each climatic region and crop. Andermatt Madumbi partners with recognised agricultural distributors throughout South Africa. Our Biospecialists offer support and product training to these teams, their technical advisors and regularly accompany them onto the farms of commercial and private growers.

Biological solutions are deserving of more recognition in the growers 'IPM tool kit'. The inclusion of biologicals into existing grower IPM programs is a key focus area for the team. Join Andermatt Madumbi in leading the change to growing healthier food for all.

Quality Control

All Andermatt Madumbi products are registered by DALRRD (Department of Agriculture, Land Reform and Rural Development), they are tried, trusted and scientifically proven to deliver results, but more importantly, have a proven track record 'on farm'.

Andermatt Madumbi is a founding member of SABO (South African Bioproducts Organisation) established in 2013 to improve and regulate the development, ethics and science of all bioproducts in the market.

All Andermatt Madumbi Products are registered by the Department of Agriculture, Act 36 of 1947. Comprehensive product registration details available on www.andermatt.co.za

All Andermatt Madumbi products are registered under Act 36 of 1947. Bolldex® Reg. No. L8895; Cryptex® Reg. No. L8037; Delfin® No. L9761; Double Nickel 55® Reg No. L10053; Madex® Reg. No. L7950 - Madumbi Sustainable Agriculture (Pty) Ltd. Eco-77® Reg. No. L7945; Eco-Bb® Reg. No. L8469; Eco-T® Reg. No. L6938; Eco-T Ezi-Flo® Reg. No. L9276, - Plant Health Products (Pty) Ltd. [®]Blackout® Reg. Nr. L10354. River Bioscience (Pty) Ltd. Posbus 20388, Humewood, 6013. Reg. No. 2003/022759/07.

