

Adermatt

Healthy Food & Healthy Environment, for all – STARTS WITH YOU

Biologicals in Growing

February, 2023 – Mark Hutton



Biologicals in Agriculture – Why ?

- **Consumer Demands can no longer be ignored**
 - **Food with a lower impact on the environment, human health and social well being, at an affordable cost**
 - **Higher quality food – more discerning.**
 - **Food Traceability**



Biologicals in Agriculture – Why ?

- **Build a Root Disease Free, Resilient Plant**
 - **Increased Nutrient uptake**
 - **Supports Disease free plants/seedling**
 - **Better Root Architecture**
 - **Resilient plant, better able to withstand planting stress**

Biologicals in Agriculture – Why ?

- **Perception shift on ROI**
 - AHA – not as expensive as perceived and they work !!
- **Forecast for Biological solutions sales are:**
 - Now: 13% per annum vs 3% for conventional inputs
 - Future prediction: In 10 years biological sales will equal that of conventional chemical sales
- **Resistance Management to safeguard chemistry.**

There is an increased understanding of Biologicals and the value they add to the grower. With that comes improved confidence in quality solutions. While many have been disillusioned by using fly by night solutions, key players with integrity and scientific rigour, continue to improve their reputation as leaders in the biological space.

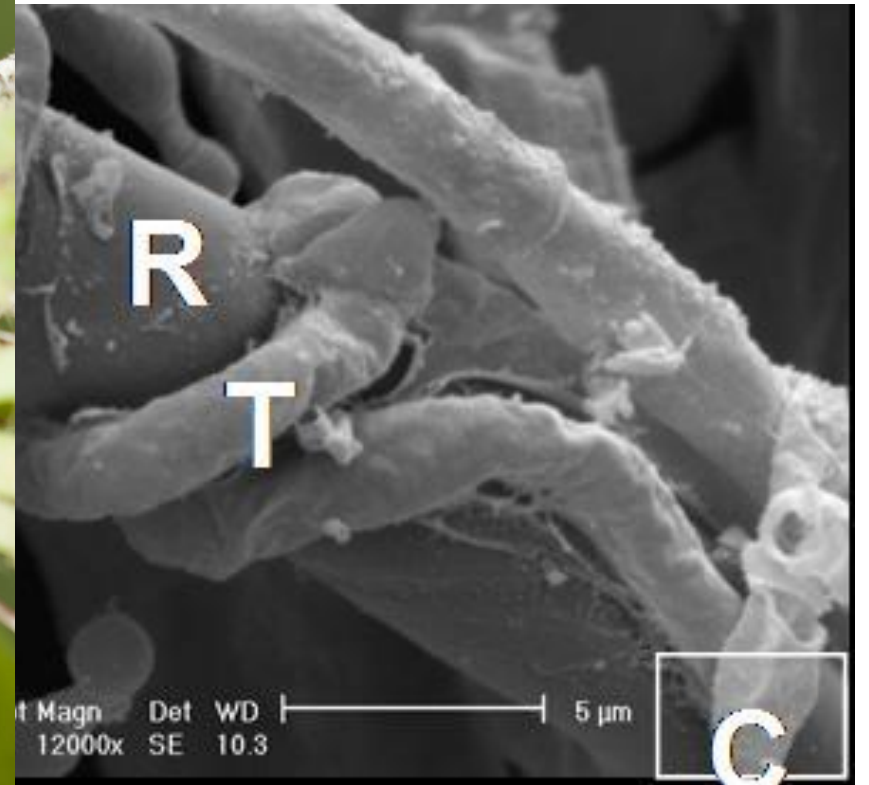
What is Biological Control?



Biological Control is the control of pest or disease by the introduction of a natural enemy or predator, in it's new habitat.

What is Bio

Untreated strawberry flower
infected with *Botrytis*



Benefits of Biologicals

- **No withholding period or MRLs** can be applied up until harvest, and to manage MRLs for access to export markets
- **Complex and unique mode of action**, excellent resistance management tool, valuable addition to IPM programmes
- **Non-Toxic**, friendly to many beneficials – lady birds, parasitoid wasps, bees, earthworms, birds.
- **Safe for humans** – easy to apply and farm work can continue immediately after spraying
- **Approved for organic use** - EcoCert attested under both NOP and EU regulations



ATTESTATION

for inputs suitable for use in Organic Farming according to (EC) n° 834/2007 & 889/2008 Regulations
Attestation reference: 21B1012A2100n3e -
Number of products: 5

This attestation is issued to the operator below:

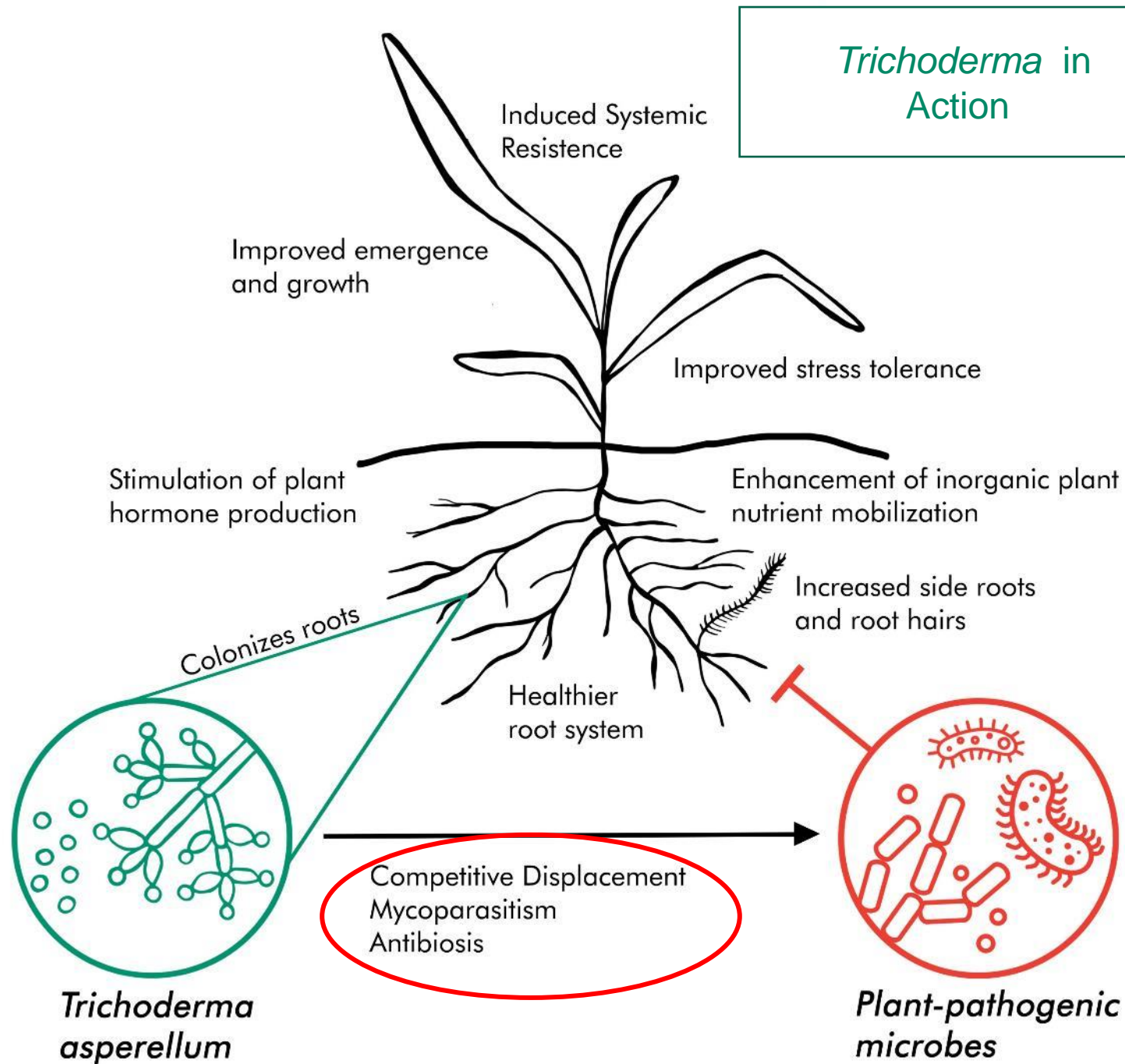
ANDERMATT PHP (PTY) LTD
Strathdean Farm, Gowrie Avenue
Nottingham Road, 3280
SOUTH AFRICA

EcoCert SA confirms after inspection that the following products:

PRODUCT NAME	CATEGORY	STATUS
ECO-T	Microorganism pest control	EU 889/2008 allowed
ECO-77	Microorganism pest control	EU 889/2008 allowed
ECO-BB	Microorganism pest control	EU 889/2008 allowed
BB-PROTEC	Microorganism pest control	EU 889/2008 allowed
T-77	Microorganism pest control	EU 889/2008 allowed

are suitable for use in Organic Farming according to
(EC) n° 834/2007 & 889/2008 Regulations

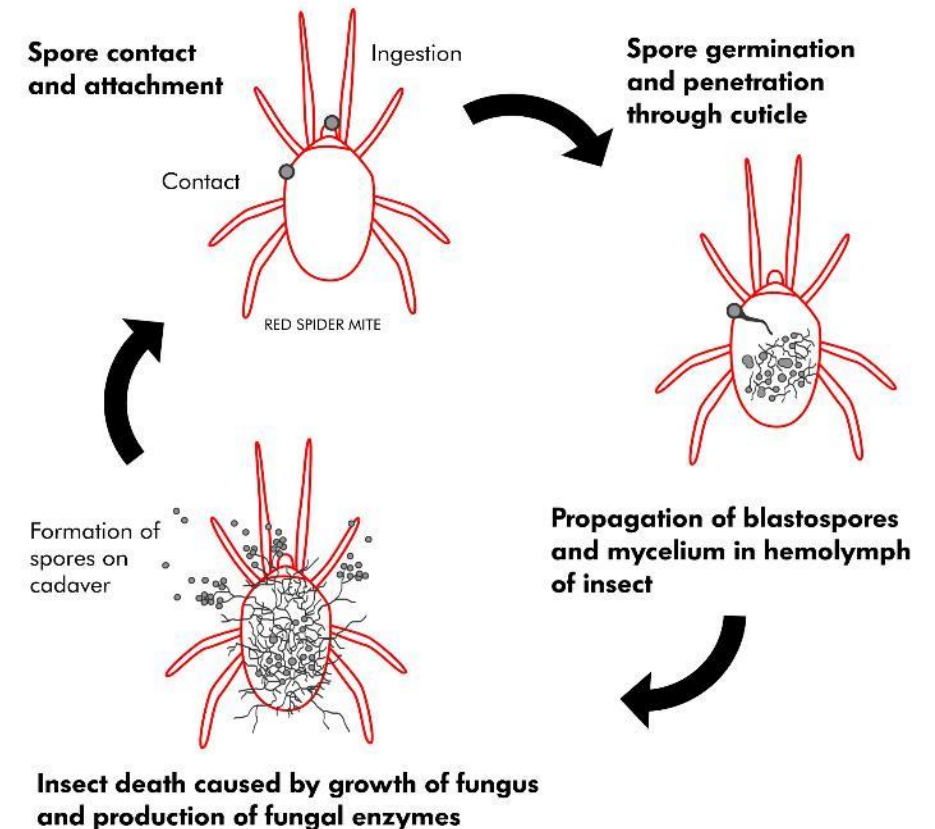
Trichoderma in Action



- 1) Rhizosphere competence and root colonisation;
- 2) Enhanced root development;
- 3) Improved emergence;
- 4 Improved seedling establishment;
- 5) Disease suppression.

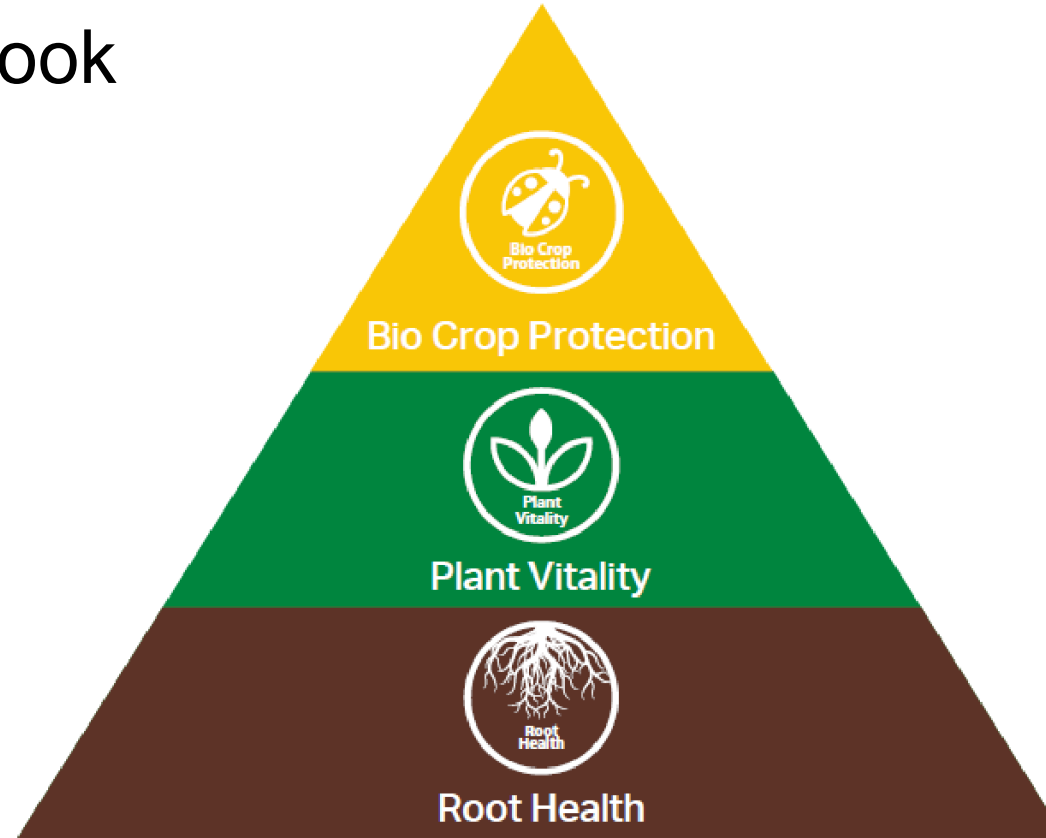
Mode of Action of

- Direct penetration of cuticle
- Ingestion of spores while feeding
- Effects all life stages of most target organisms
- Time to death depends on the pest, life stage and environmental conditions:
 - Small soft bodied pests (e.g. red spider mite) 3 – 5 days to death;
 - Large harder bodied pests (e.g. stinkbug) 7 – 14 days to death
- Alters feeding behaviour before death



How do we produce healthy food ?

What does **Healthy Food** look like to you ?



Healthy Food and Healthy Environment, for all.

STARTS WITH YOU.

While it can start with an intentional move away from synthetic or chemical products to softer and safer solutions, what's really required is a complete change in MINDSET.

Each and every one of us has a role to play in being part of the SOLUTION and your choices do matter.





Thank you
Any Questions ?