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Santa Maria, CA

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FarMore – Expect More

Product Description and Performance

Vegetable Seed Treatment Platform
FarMore, creating a novel Seed Care technology

- The first comprehensive seed-delivered system
- An evolving seed care technology platform containing various seed protection and enhancement technologies
- Enhances performance and value of each seed
Three different fungicides

3 fungicides + insecticide

3 + 2 insecticides with a crop qualifier
Explanation of Active ingredients

- Fungicides
  - Apron XL® – mefenoxam
  - Maxim® 4FS – fludioxonil
  - Dynasty® – azoxystrobin

- Insecticides
  - Cruiser® – thiamethoxam
  - Regard® – spinosad
Mefenoxam (Apron) General Attributes

- Specific Oomycete control: e.g. *Pythium* and downy mildew
- Systemic and is absorbed by the roots and translocated to the rest of the plant.
- Works by preventing mycelial growth
- Part of the FarMore package
- Other brands include: Ridomil.
• Mefenoxam partly penetrates in the seed after application.
• It is also re-distributed in the soil around the seed during germination.
• It is then absorbed by the roots, and redistributed into the plant.
Apron: Stops Spore Production
Mefenoxam stops mycelial growth and spore formation – effectively stopping the disease from progressing.

No treatment, spore production

Mefenoxam treatment, no sporulation
Apron summary

- Systemic fungicide
- Controls many pythium species and downy mildew
- Stops spore production
- One of the active ingredients in FarMore
Fludioxonil (Maxim) General Attributes

- Broad spectrum: Rhizoctonia, Fusarium, Botrytis and others.
- Works by inhibiting protein kinase (PK-III) involved in the regulation of glycerol synthesis
- Persistent in Rhizosphere. Does not readily degrade and is virtually immobile in soil.
- Non-systemic
- Brands include: Cannonball, Scholar, Graduate, and Medallion.
Maxim activity protecting seed/seedling

Seed 1 day

Fludioxonil –Post emergence
Maxim summary

- Non-Systemic fungicide
- Controls *Fusarium*, *Rhizoctonia*, *Botrytis*
- Provides protection around the root zone
- One of the active ingredients in FarMore
Azoxystrobin (Dynasty) General Attributes

• Excellent systemic Rhizoctonia activity.
• Works by inhibiting the mitochondrial respiratory chain and ATP formation.
• Azoxystrobin is absorbed into the hypocotyl offering protection of the seedling at the soil line.
• Some activity for Pythium and Phytophthora species. Not a stand alone solution but in concert with mefenoxam it is helpful.
• Brands include: Quadris, Abound, Heritage and many others!!!
Dynasty summary

• Systemic fungicide
• Provides protections against many seed and seedling diseases such as Rhizoctonia
• Mitochondrial respiration inhibitor
• One of the active ingredients in FarMore
# Disease Protection From FarMore: Leafy

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+++ Strong, ++ acceptable, + Weak
# FarMore Disease Protection: Onions

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+++ Strong, ++ acceptable, + Weak

Classification: Not for Distribution
FarMore F300: Cabbage Under Pythium Pressure

Untreated

FarMore F300

Cabbage Plants Under Pythium Pressure
Insecticide Component: Thiamethoxam (Cruiser) general attributes

- Seed-applied insecticide
- Excellent compatibility with other crop protection products
- Brand names include: Cruiser, Platinum, and Actara
Cruiser Mode of Action

• Interferes with nicotinic acetylcholine receptors in the insect nervous system
• Both contact and ingestion activity
• Feeding stops within hours
• Death occurs quickly, usually within 24-48 hours
Cruiser summary

- Systemic insecticide
- Controls many sucking and chewing pests
- Rapid root uptake
- Excellent residual control
- Low use rates
- Provides protections against many sucking and chewing insect pests such as aphids and whitefly
- One of the active ingredients in FarMore
Spinosad (Regard) general attributes

• Active ingredient description:
  – Spinosad is composed of spinosyns A and D, substances produced by aerobic fermentation of the actinomycete species Saccharopolyspora spinosa.
  – This rare species was found in soil samples from an island in the Caribbean in 1982.
  – Actinomycetes are filamentous bacteria found in the soil that give it a sweet ‘healthy’ smell.

● Brand names include: Entrust and Success
Regard

• How it works:
  – Spinosad is a fast-acting, somewhat broad-spectrum material that acts on the insect primarily through ingestion, or by direct contact
  – It activates the nervous system of the insect, causing loss of muscle control.
  – Continuous activation of motor neurons causes insects to die of exhaustion within 1-2 days.
Regard summary

- Insecticide with limited systemicity
- Active against root pests as a seed treatment
- Biological compound
- OMRI certified
- An ingredient in FarMore FI500
Bringing plant potential to life
Root Health Informational Video (Root Health Informational Video.url)