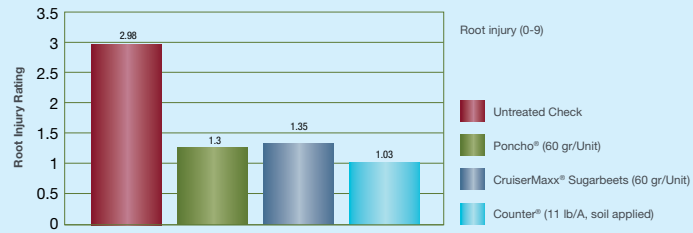




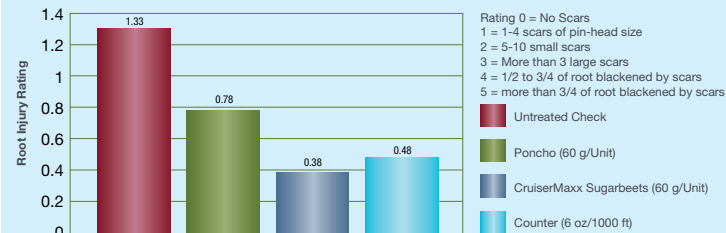
SUGARBEET ROOT MAGGOT

- Sugarbeet root maggots feed on the roots between mid June through July
- Injury has the most impact during warm, dry weather
- Sugarbeet root maggots feed on succulent roots and cause plants to wilt and become stunted
- Their feeding scrapes the root surface and may provide entry points for soil-borne pathogens
- Heavy injury can result in severed tap roots, causing plants to die during dry periods

SUGARBEET ROOT MAGGOT STUDIES – BAKER, MN, 2007



SUGARBEET SEED TREATMENT ROOT MAGGOT STUDIES - MORRIL, NE

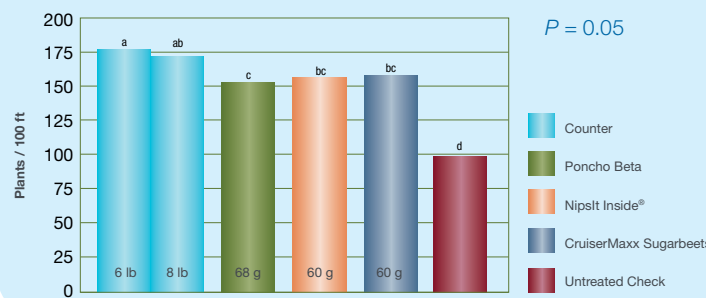


SPRINGTAILS (Order: Collembola)

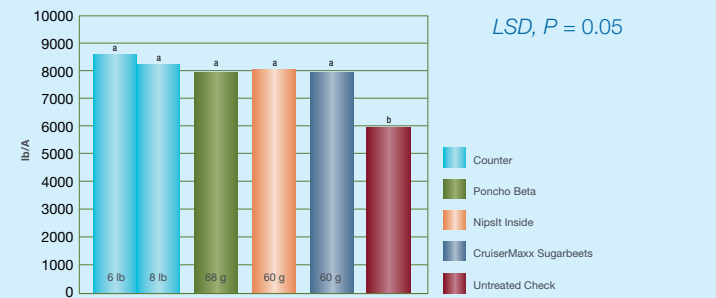
Annually cause major sugarbeet yield losses in North America.

- Subterranean (entire life below soil surface)
- Semi-aquatic
- Small (0.8 to 2.4 mm long)
- Problematic if cold and wet weather occurs after planting (slow development makes plants susceptible to attack)

SPRINGTAIL CONTROL SURVIVING PLANTS (2006-2008)



SPRINGTAIL CONTROL SUCROSE YIELD (2006-2008)

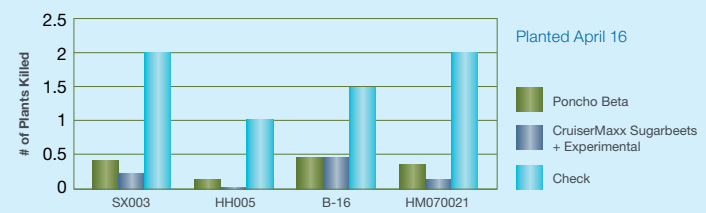


WIREWORMS

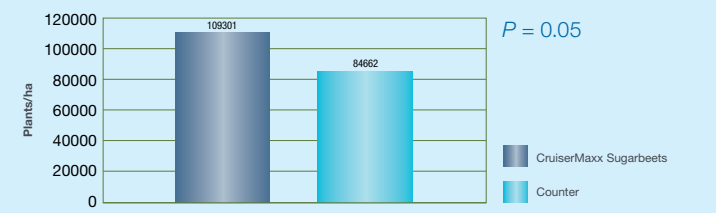
Wireworm larvae are sporadic but serious pests in sugarbeets, feeding on the germinating seed and/or the developing root, working below the soil surface, attacking and killing the seedlings, and causing stand reduction. Under a heavy infestation, bare spots may appear in fields, making reseeding necessary. Wireworm infestations are more likely to develop where grasses, including grain crops, are growing or were grown in the previous year.

CruiserMaxx Sugarbeets seed treatment combination provides the first protection needed to establish a young seedling. However, crop rotation, cultural methods and other crop protection methods are necessary to provide a comprehensive program to prevent wireworm damage in sugarbeets.

PROTECTION AGAINST WIREWORMS – (KIMBERELY, ID)



PROTECTION AGAINST WIREWORMS SURVIVING SUGARBEET PLANTS



CruiserMaxx® Sugarbeets, the first insecticide/fungicide seed treatment combination for use on sugarbeets, is the latest in a long line of innovative seed treatment offerings from Syngenta Seed Care. Featuring Cruiser® seed treatment insecticide, combined with Maxim® 4FS and Apron XL® seed-delivered fungicides, CruiserMaxx Sugarbeets offers growers convenient protection against both early-season diseases and insects.

Disease protection guards against early-season seedling diseases such as *Pythium* and *Rhizoctonia*, while insect protection includes activity against sugarbeet leaf hopper, sugarbeet root maggot, springtails and wireworms. The combination of separate products provides a convenient solution for growers to increase vigor, improve stand establishment and increase yield potential by protecting the plant before the seeds even germinate.

Syngenta is committed to the healthy growth of your crop—today and in the future. After all, we have more than 100 years of experience in the sugarbeet industry beginning with our Syngenta Seed-Hilleshög division, and we are dedicated to offering top-of-the-line products and seed treatments to help growers achieve high-quality yield. With solutions like CruiserMaxx Sugarbeets, our local crop experts, field representatives and industry support, we are working to bring you more vigorous stands and higher beet yields.

CRUISERMAXX SUGARBEETS:

CruiserMaxx Sugarbeets is a combination of the insecticide Cruiser with two different seed treatment fungicides — Apron XL and Maxim 4FS.



INSECTICIDE

- Cruiser 5FS: 60 gm ai/unit
- A unit is 100,000 seeds



FUNGICIDES

- Apron XL: 15 gm ai/100 kg
- Maxim 4FS: 2.5 gm ai/100 kg

DELIVERY: Custom delivered as pellet

We look forward to continuing as proud partners in the advancement, sustainability and success of sugarbeets and the industry's role in fulfilling the increasing global demand for food and energy. For more information please visit: www.SyngentaSeedCare.com



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OVERALL BENEFITS OF CRUISERMAXX SUGARBEETS SEED TREATMENT TECHNOLOGY

- Simple and accurate delivery of desired rate
- Convenience of an all-in-one insect and disease offer
- Up to 70–95 percent reduction in active ingredient per acre
- Complements high value seed and ensures good stand
- Helping every seed to produce a plant
- Integrates well with other methods of crop protection



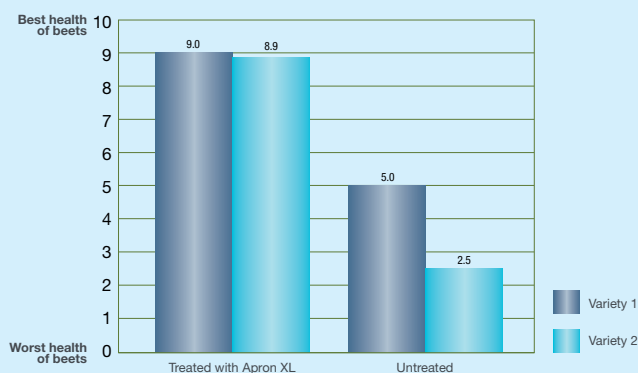
Apron XL® seed treatment fungicide provides effective protection against *Pythium sp.* damping off.

BENEFITS INCLUDE:

- Proven activity – seeds treated with Apron XL show excellent seed safety, crop emergence and crop health
- Adapted to wide range of soils and conditions
- Preserves the high yield potential of the sugarbeet varieties at harvest

Pythium sp. is the most common and widespread pathogen that causes damping off of young sugarbeet seedlings. *Pythium* damage can easily happen to seed that is not protected by a seed treatment fungicide.

PROTECTING SUGARBEETS AGAINST *PYTHIUM* DAMPING-OFF



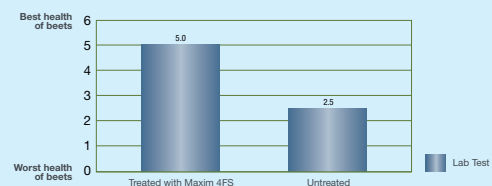
Maxim® 4FS seed treatment fungicide provides unsurpassed protection against seed-borne and soil-borne fungi.

BENEFITS INCLUDE:

- Long-lasting activity at very low use rates
- Extremely effective against *Rhizoctonia*
- Complements existing IPM methods

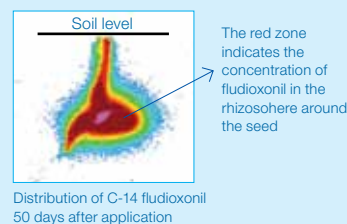
Rhizoctonia is a soil-borne fungus that can cause seed rot but more often causes damping-off or stunting of young sugarbeet plants. *Rhizoctonia sp.* is active over a temperature range from 54° to 95° F but most active around 68° to 80° F. The fungus infects seedlings when soil conditions range from somewhat dry to wet. In wet soils, the pathogen can move from plant to plant, damaging or killing adjacent plants. This is why every seed should be protected with a seed treatment fungicide. Maxim 4FS protects against this pathogen due to its excellent soil binding properties.

PROTECTING SUGARBEETS AGAINST *PYTHIUM* DAMPING-OFF



EXTENDED SOIL BINDING PROPERTY OF MAXIM

Proven long-lasting activity against key diseases



Cruiser® insecticide provides seed-delivered protection from a broad spectrum of seed, soil and foliar chewing and sucking insects such as sugarbeet root maggot, leaf miners, wireworms, root aphids, white grubs, springtails and beet leaf hopper, which may vector curly top virus.

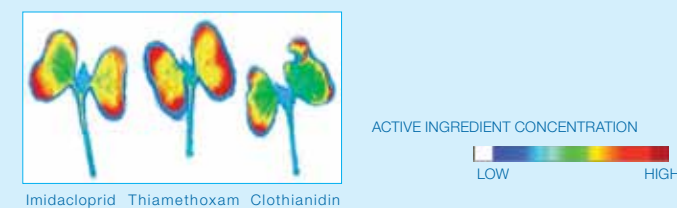
Thiamethoxam, the active ingredient in Cruiser, moves systemically throughout the plant and protects against target pests through contact and stomach activity.

BENEFITS INCLUDE:

- Convenient early-season insect protection
- Saves time at planting
- Works in variable weather conditions
- Helps increase stand, uniformity and vigor, and protects yield potential

WHY CRUISER IS EFFECTIVE AGAINST BEET LEAF HOPPER

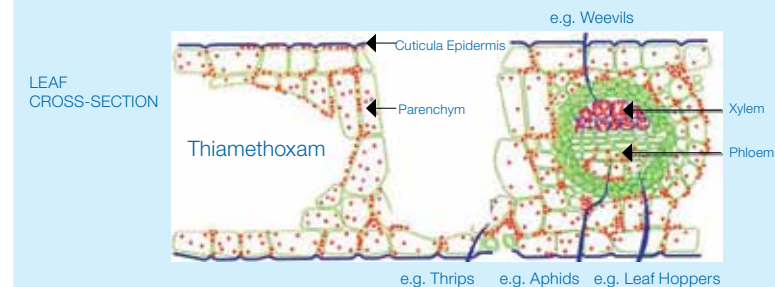
Cruiser's (Thiamethoxam) properties and systemic mode of action – move well inside a young sugarbeet plant and re-distributes



Thiamethoxam controls insects through contact and stomach activity:

- Target site - the nervous system
=> Nicotinic acetylcholine receptor
- Mortality occurs 24 to 48 hours after exposure
- No cross resistance with other chemistries

THIAMETHOXAM PROPERTIES AGAINST FOLIAR-FEEDING INSECTS



Thiamethoxam activity against leaf feeding and sucking pests due to optimal distribution



BEET LEAF HOPPER (*Circulifer tenellus*)

- Adults and nymphs cause damage to plants
- Piercing and sucking mouth parts
- Phloem feeder
- Vector of beet curly top virus in sugarbeets
- Over-winter in winter annuals
- Migrate long distance
- Alternate hosts are potato and tomato

SUGARBEET CURLY TOP PROTECTION

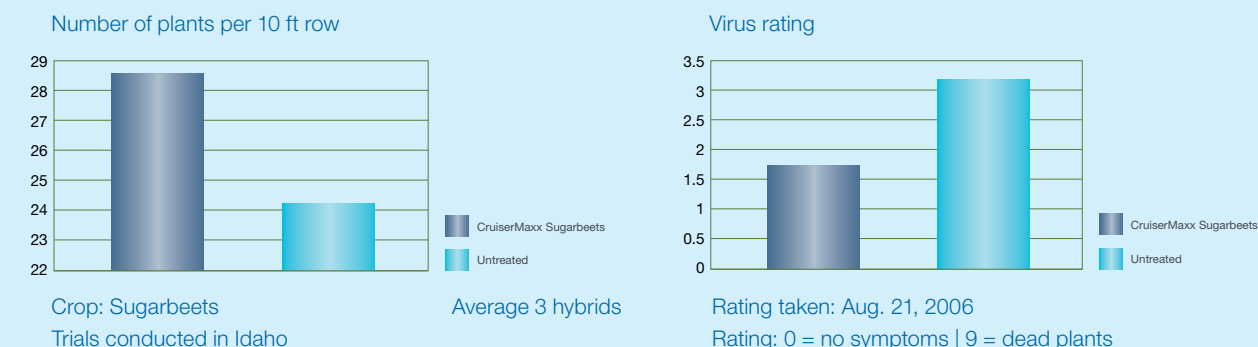


No Treatment CruiserMaxx® Sugarbeets

CRUISERMAXX SUGARBEETS PERFORMANCE PROTECTION AGAINST BEET LEAF HOPPER AND CURLY TOP VIRUS



CRUISERMAXX SUGARBEETS SEED TREATMENT COMBINATION ACTIVITY AGAINST BEET LEAF HOPPERS (*C. tenellus*)



PROTECTING AGAINST SUGARBEET CURLY TOP IN IDAHO

