




Acceleron® Seed Applied Solutions offerings

We have included this information to allow you to learn more about the Acceleron® portfolio and to gain knowledge that will allow for better conversations between you and your seed customers.

All offerings of Acceleron Seed Applied Solutions for soybeans will include three fungicides to provide broad protection of common seedling diseases while helping soybean farmers to maximize profitability on their soybean acres. When your customers ask for Acceleron Seed Applied Solutions on their soybeans, you will be providing them with premium fungicide seed treatments offered exclusively through qualified Acceleron treating sites.

If your customers desire a defense against early-season insects, they can choose to include **Acceleron IX-409 Insecticide Seed Treatment** for protection from bean leaf beetle, aphids and seed corn maggot.

 OFFERINGS	FUNGICIDES 	INSECTICIDES 
	Protection against <i>Pythium</i> , early season <i>Phytophthora</i> , <i>Rhizoctonia solani</i> and <i>Fusarium</i> with an exclusive combination of fungicides and more rapid and increased emergence of seedlings under certain cold conditions.	Protection from pests including bean leaf beetles, early season soybean aphids and seedcorn maggots.
BASIC	✓	
STANDARD	✓	✓
+ ADDITIONAL OFFERINGS Bio-Enhancers: TagTeam® LCO XC Inoculant and Optimize® XC Inoculant Dry Seed Finisher: Acceleron® E-007 SAT Nematicide and SDS Protection: ILeVO®		

FOR SOYBEANS, EACH ACCELERON® SEED APPLIED SOLUTIONS OFFERING is a combination of separate individually registered products containing the active ingredients: **BASIC** Offering: metalaxyl, fluxapyroxad, and pyraclostrobin. **STANDARD** Offering: metalaxyl, fluxapyroxad, pyraclostrobin, and imidacloprid.

The distribution, sale, or use of an unregistered pesticide is a violation of federal and/or state law and is strictly prohibited.
Not all products are approved in all states.

More Coverage from Unpredictable Threats

The Acceleron® Seed Applied Solutions portfolio delivers coverage on four fronts to help protect soybeans against unpredictable threats.

	MODES OF ACTION					ENHANCEMENT PRODUCT
	<i>Pythium</i>	Early Season <i>Phytophthora</i>	<i>Rhizoctonia solani</i>	<i>Fusarium</i>	Insecticides	Dry Seed Finisher
	1 Metalaxyl	1 Metalaxyl	2 Pyraclostrobin Fluxapyroxad	2 Pyraclostrobin Fluxapyroxad	78gm ai/100kg seed Imidacloprid	Acceleron® E-007 SAT Growers Choice
CLARIVA® Elite Beans	1 Mefenoxam	1 Mefenoxam	2 Fludioxonil Sedaxane	1 Fludioxonil	50gm ai/100kg seed Thiamethoxam	⊘
INTEGO® SUITE Soybeans	2 Metalaxyl Ethaboxam	2 Metalaxyl Ethaboxam	1 Ipconazole	1 Ipconazole	50gm ai/100kg seed Clothianidin	⊘

Early-Season Pests

Pests that attack during the first 30 days after planting may impact early-season vigor and stand establishment. These early pests can impact yield potential.

NEMATODES



DESCRIPTION

- Nematodes are microscopic, worm-like organisms with over 4,000 species known to be parasitic to plants.
- Parasitic nematodes typically feed on the exterior (ectoparasites) or interior (endoparasites) of plant roots.
- Nematodes, life cycles have multiple stages, beginning with the egg stage, then four juvenile stages (J1-J4), followed by the adult stages. Depending on the spaces and environmental conditions, the life cycle of a nematode can be completed in 3 to 4 weeks.

DAMAGE

- Crop damage typically results from root damage from feeding and reallocation of resources from plant tissues to the nematode.
- Nematodes can also provide openings for other pathogens to enter and cause disease.



BEAN LEAF BEETLE



DESCRIPTION

- Adults are 1/4 inch in length.
- They vary in color from red, orange, yellow or tan.
- Beetles always have a black triangle at the base of the forewings, but the spots and stripes are variable.

DAMAGE

- Early-season injury occurs when adults feed on young soybean plants from emergence to development of first trifoliate (V1).

SOYBEAN APHIDS



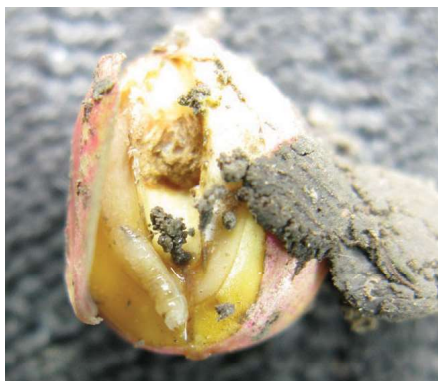
DESCRIPTION

- Wingless aphids are $\frac{1}{16}$ inch in length and light green to pale yellow and have two dark cornicles (tail pipes) near the end of the abdomen.
- Winged aphids are $\frac{1}{8}$ inch in length and have a dark brown head. Cornicles are black.

DAMAGE

- Damage occurs through direct feeding on plant tissue. Aphids remove plant sap, which causes leaves to discolor and wilt.
- Early-season damage will occur only if beans are planted late and aphids arrive early. Aphids usually do not infest fields until mid to late June.

SEEDCORN MAGGOT



DESCRIPTION

- Larvae are $\frac{1}{4}$ inch in length, legless and white to yellow in color.
- Only the first-generation larvae are problematic on corn.
- The adult is a fly that resembles a house fly but is smaller in size.

DAMAGE

- Larvae feed on newly planted corn seeds either prior to germination or soon after germination. Feeding results in responses ranging from delayed development to plant death.

Early-Season Diseases

PYTHIUM



DESCRIPTION

Seed decay, damping off or seedling blight, root rot caused by *Pythium* spp.

SYMPTOMS

- Seeds appear rotted; infected seedlings are rotted.
- Older seedlings are yellow and stunted.

CONDITIONS

- Cool wet soils prior and after planting.
- Usually occurs in low and wet spots in field.

PHYTOPHTHORA

DESCRIPTION

Seed decay, damping off or seedling blight, root and stem rot caused by *Phytophthora sojae*.

SYMPTOMS

- With early infection, seeds appear rotted; infected seedlings rotted and easily pulled from soil.
- With later infection, roots rotted and lower stems have brown lesions that develop from the soil line.

CONDITIONS

- Occurs in wet, waterlogged soils and compacted or heavy soils, especially after planting.
- Periods of wet weather followed by dry, warm weather; optimum for disease.

RHIZOCTONIA



DESCRIPTION

Damping off or seedling blight, and root and stem rot caused by *Rhizoctonia solani*.

SYMPTOMS

- With early infection, infected seedlings rotted and easily pulled from soil.
- With later infection, infected seedlings have reddish brown lesions on the stem at or just below the soil line.

CONDITIONS

- Usually occurs with cool, wet weather followed by hot, dry conditions.

SUDDEN DEATH SYNDROME (SDS)



DESCRIPTION

Caused by the soil borne fungus, *Fusarium virguliforme*

SYMPTOMS

- Initial symptoms of SDS are chlorotic mottling and crinkling of leaves. Leaf tissue between major veins turns yellow, then brown as it dies. Entire leaflets may shrivel and die and, in severe cases, leaflets drop off, leaving petioles attached. Splitting the stem and taproot of an SDS-infected plant will reveal tan to light brown streaks in the cortical tissue while the pith tissue remains white or slightly cream-colored.

CONDITIONS

- Soybean plants have a higher risk for SDS infection when planted into cool, wet soils and low-lying areas, and when soybean cyst nematodes are present.



Contact Info

Acceleron® Operations Team

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Online: AcceleronSAS.com

mymonsanto.com

Or contact your local **SeedGrowth™ Advisor**

Incident Response: In case of an emergency endangering life or property involving these products, call collect day or night: **1-314-694-4000**.

Performance may vary from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields.

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