



Potato and Vegetable Biological Seed Treatment

Soil and Plant Enhancer (SPE-120) with active ingredient *Beauveria bassiana*, is a natural, **symbiotic fungus** that lives in the **soil, roots, stems, and leaves**. SPE-120 grows with the plant!

Conventional seed treatments using neonicotinoids or other synthetic chemicals have a finite amount that can fit on the seed. They become less effective as the plant grows and are not compatible with nature.

SPE-120 blends food grade and certified organic products with *Beauveria bassiana*. Many certifiers have determined compliance with organic standards. Contact your certifier to add SPE-120 to your plan.

Observed Results

Potatoes

- Reports in Colorado and Ohio had over 20 bags/acre yield increase.
- In Colorado, with reducing rhizoctonia, the pickouts were reduced from 23% to 2%.
- Minimal damage from Colorado Potato Beetle (CPB) in Ohio.
- Reports from High Plains growers: increased quality; increased yields relating to limited potato psyllid pressure.

Tomatoes

- Tomatoes treated with SPE-120 and sold into restaurants were noticeably more flavorful.
- Brix score measured 5 points higher than control tomatoes.
- Outdoor plants had limited insect damage.

Customer Comments

- “Organic Sweet corn harvested in August had no earworms” – South Dakota grower
- “No loopers in our cabbage” – South Dakota vegetable grower
- “Cole crops had less cabbage loopers” – Colorado vegetable grower
- “Colorado Potato Beetle (CPB) damage was insignificant after using SPE-120 and this was in a field where we had potatoes for 4 years” – Ohio vegetable grower

Application Rates

For best results, apply as seed treatment or in the seed trench.

Potatoes:

Add .75 - 1.25 oz/ac of SPE-120 as a liquid pop-up or a seed treatment

Vegetable:

Apply 1.00-1.25 oz/ac to all seeds prior to planting in green house or outdoors

Transplants - apply 1 oz/ac to transplant water with optional compatible nutrients

Fruit Trees:

Apply direct to the ground as a spray or drip irrigation from 1.5-2 oz/acre

After first year, reduce by 50%

When seeds were not SPE-120 treated:

Ground, aerial or overhead irrigation application

Drip irrigation - this is the best option since the ingredient, *beauveria bassiana* is relatively light sensitive

Potatoes, tomatoes, onions, cole crops, dry beans, brassicas, strawberries, brambles, fruit trees, vineyards and more

SPE-120 with *Beauveria bassiana* is a **plant symbiont**.

Activity includes:

- Stimulation of immune system
- Restricts plant pathogens from entering the plant.
- Interacts with plant to produce additive biochemicals
- Combines plant resistance to insect feeders for reducing population threat
- Naturally occurs in soil but has been killed off by fungicides and tillage

Reports, trials and research indicate seeds treated with Soil Plant Enhancer (SPE-120) with *Beauveria bassiana* have shown improved performance against:

Potato psyllids
Leaf hoppers
Pea aphids
Green peach aphids
Leaf miner, Mites, white flies
Wheat midge
Spotted wing drosophila in raspberries
Grape colaspis
Wheat stem sawfly
Apple maggot
Onion maggot
Onion thrips
Plum curculio
Pecan weevil
Alfalfa weevil
Clover leaf weevil
Squash borer
Cabbage looper
Armyworm
Corn Ear worm
Pink boll worm
Variegated cutworm
Black cutworm
Webworm
European corn borer
Northern corn root worm beetle
Western corn root worm beetle
Japanese beetle
Colorado potato beetle
Wireworms

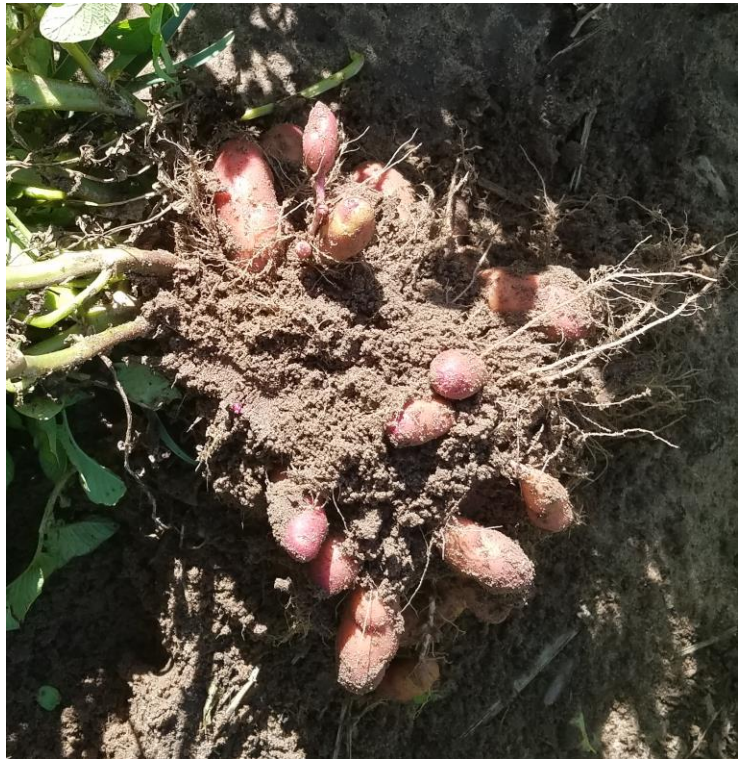
Wheat: Common rust, Fusarium, DON

Rye: Ergot

Potatoes: Rhizoctonia , Anthracnose, Early blight

Soybeans: Stem Canker, Stem Borer, Fusarium root rot, Common rust, Anthracnose

Corn: Fusarium, Goss's wilt, Anthracnose



Organic Fingerling Red, SPE-120 seed treatment at planting.
Taken about 8 weeks before harvest, Dalhart, TX July 2017



Greens and Cole crops SPE-120 treated, picture taken July 2017