



## 2018 Soybean Update: RenPro Seed Treatments

In 2009, Renwood Farms introduced the **RenPro** family of soybean seed treatments. These seed treatments provide soybean seedlings with:

- Protection from fungal pathogens carried on the seed from last season
- Protection from soil fungal pathogens
- Protection from above and below ground insects
- Nutrients that regulate nitrogen uptake and utilization
- Biological microbes to stimulate plant growth and plant defense mechanisms (when ordered)
- Nematode protection (when ordered)

### Fungal pathogens carried on the seed

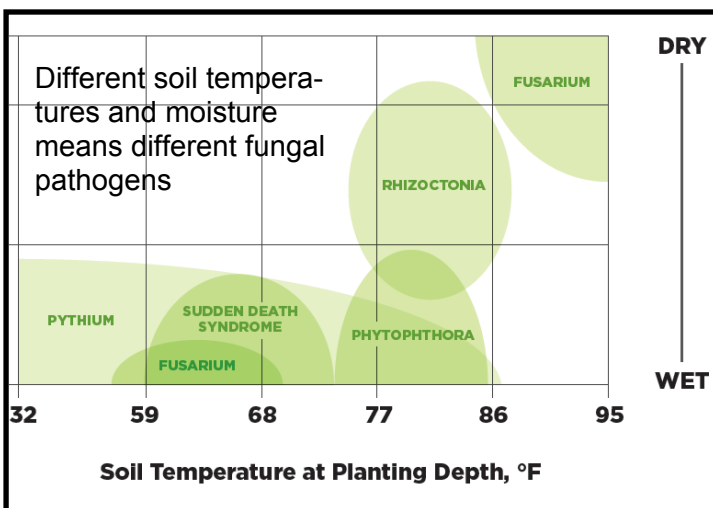
There are fungal pathogens that are carried on seed at harvest then transmitted to the new crop if the seed is not scrubbed clean. The most common seed-borne diseases are pod and stem blight, purple stain and anthracnose. If not cleaned, this seed-borne damage is not noticed until late season or even at harvest. **RenPro** contains two seed cleaners.

### Root fungal pathogens found in soils

The problem with fungal pathogens is that once a stand is established, growers think they are clear as far as fungal infections are concerned. But many fungal root infections don't cause problems until roots start working hard at flowering and pod-fill. It's hard to understand when the combine is running through the beans at harvest that lower-than-expected yield problems could have started at emergence.

There are three main root rot fungal pathogens that lower yields in soybean production: pythium, rhizoctonia and fusarium. The chart shown at upper right displays the impact of soil temperatures and soil moisture on the different fungi. Seed treatments that help in hot soils are critical for double-crop beans.

**RenPro** contains three fungicides to reduce problems in cool and damp soils, problems in warm and damp soils and problems in warm/ hot and dry soils, especially lighter, sandier soils and in double-cropped situations.



2013: Suffolk, VA : Planted July 10, 2013			
Brand	Var.	Treatment	Yield Bu. / acre
USG	75Z38	<b>RenPro Plus rizNate &amp; Votivo</b>	<b>55</b>
USG	75Z38	RenPro Plus	50
USG	75Z38	Untreated	47
Lynchburg Fine Sandy Loam: 70% sand			

This table shows the value of a systems-approach of combining a root-knot nematode resistant variety with RenPro Plus, rizNate inoculant and Votivo seed treatment in a root-knot nematode field.

### Above and below ground insects

Adding an seed insecticide helps fungicides do their job. A key to high yield soybean production is to **avoid any insecticide** application unless specific insect thresholds are reached. *Early spraying means more spraying as beneficial insect populations are reduced.*

**RenPro Plus** contains 1.6 ozs. /140,000 seed unit of Gaucho 600 combined with the **RenPro** seed treatment package. This is twice the insecticide that is available from most other seed treatment products. The goal is to keep the plant clean from insects until late season.



# RenPro Soybean Seed Treatments

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For more information about Renwood Farms Inc., please check our web page at:

<http://www.renwoodseed.com>

Soybeans treated with **RenPro Plus** demonstrate aggressive early growth to shade the ground which reduces weed competition and conserve soil moisture. Quicker shading means less weed spraying which lowers costs.

### Nutrients that regulate nitrogen uptake and utilization

**RenPro** contains molybdenum (moly). Over 80% of soybean plant tissue samples taken in VA and NC had low or deficient moly levels. Moly is essential for nitrogen-producing bacteria nutrition and for plant nitrogen utilization. Plants with low moly levels have fewer pods and fewer three-bean pods. Please note: foliar moly is usually needed to supplement this seed treatment.

### Biological microbes to stimulate and protect

**rizNate®** is an encapsulated seed inoculant providing nitrogen-fixing bacteria plus several other free-living microbes. There are four main components:

- Brady Rhizobia nitrogen-fixing bacteria that provides nitrogen to the plant during the season
- Azotobacter vinelandii (bacteria) that increases soil moly and iron availability to the plant
- Clostridium pasteurianum (bacteria) that provides early nitrogen to the plant
- Mycorrhizae (fungi) that increase nutrient availability, protect against diseases and provide a critical component to help fight nematodes

**rizNate® can be added to all RenPro soybean seed treatments**

### Nematode protection

There are three ways to reduce nematode damage: genetic selection, seed treatments and biological microbes. Most varieties use the identical genetic material to give a variety "nematode resistance". This limits options to rotate the genetic material. Growers still need to select a variety listed either as having resistance to "root-knot" or "soybean cyst" depending on the problem you are trying to address.

2013 Seed Treatment Plot: King William Co. VA	
Variety: USG 74D32R Planted 07/03/13	
Seed Treatment	Bu. /A
<b>RenPro Plus rizNate</b>	<b>51</b>
Untreated	47
Apron/ Max	46

Note that root-knot nematode resistance and soybean cyst nematode resistance are NOT the same and varieties have to be selected for the specific nematode problem.

At Renwood Farms, we have discovered that rotating nematode seed treatments and adding **rizNate®** biological inoculant are key management strategies to reduce nematode populations that lower yields.

Renwood Farms offers three different nematode seed treatments so a grower can rotate treatments. Each treatment has a different mode of action. Selecting a nematode-resistant variety, rotating with a seed nematode treatment and adding **rizNate®** biological inoculant provides a sound strategy to remove nematodes as a limiting factor in your soybean production.

**Seed nematicides can be added to all RenPro soybean seed treatments**

