

Wheat Seed Treatments

Starting Good Means Finishing Good

In the very crazy-hectic world of farming, wheat seed treatments usually fall pretty far down the list of grower concerns. Growers tend to trust suppliers and expect advisors to keep up with changes in a rapidly changing world.

But...winters are warmer, springs are wetter, technology is moving, prices are swinging and the only thing that hasn't changed is the need to make a profit on the farm to survive and grow.

In the meantime, some suppliers reduce prices for inputs to entice buyers but many times the only way to reduce prices is to cut rates of the very ingredients needed to protect the crop to improve yields. Seed treatments fall under this category.

Cutting rates on seed treatment ingredients will always lead to bigger problems. That's what Renwood Farms saw in 2012 and that's what we see today. So in 2012, Renwood Farms introduced **Vizor™**, a "new" seed treatment for wheat in the Mid-Atlantic and Southeast. There are not any "new" chemicals in **Vizor™**. What was new then and remains now is the unique combination of chemical compounds and the rates of these compounds

Vizor™ seed treatments are designed to stop the diseases associated with both warm and cool soil temperatures. Seed treatments other than **Vizor™** are useful to protect in cool or cold soils only. Of the 7.7 million acre average of soft red winter wheat planted in the US, only 28% is planted in the south (Maryland to Arkansas via Mississippi). Southern soft winter wheat accounts for less than 4% of the total US wheat market so planting in warm soils isn't even on the radar of major chemical companies.

Vizor™ stops diseases longer. **Vizor™** provides 200 days of protection compared to only 35 days for other seed treatments. That's because of the different active ingredients that were chosen. Wheat needs this protection as it can stay warm until Thanksgiving.

Rains in May almost guarantee that some seed will carry small amounts of scab. Seed-borne scab was a significant contributor to the disaster that was the 2010 Virginia wheat harvest.



February 2017: Pythium infection in wheat where low rates of metalaxyl were used. Note the lack of fine roots hairs and "rat-tail" effect of pythium. Labeled rates range from 24 ppm to 131 ppm. **Vizor™** has 112 ppm. Most seed treatments only supply 24 ppm.

Vizor™ contains thiabendazole, the only compound that protects against seed-borne scab. The three-way combination of fungicides and the higher rates used provides a wheat grower with the highest level of pathogen protection available on the market today.

Growers can use seed insecticides to prevent aphids, Hessian fly and soil insect damage but **it's the rate that measures performance**.

Vizor Plus™ and **Vizor 5Z™** provides Gaucho 600 at 937 ppm to provide protection all fall. Adding a seed insecticide at the proper rate added 4.3 bu. / acre in NCSU trials. The problem is that Gaucho is labeled from 500 ppm to 1500 ppm. Most suppliers chose the minimum rate so protection runs out quickly. N.C. State tests demonstrated that the **Vizor Plus™** wheat seed treatment package was the only treatment that provided the highest yields (8 bu. /acre) but also increased yields every year in a three-year study.

Since 2014, Renwood Farms has offered zinc on seed. Zinc is needed as an essential element, but it also stimulates soil microbes to release more nutrients to the plant and provide plant health benefits.



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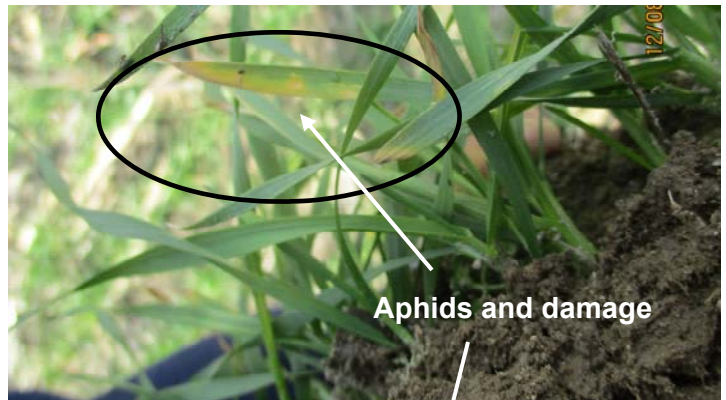
Zinc increases crop yields. In 2013, adding zinc to **RenPro Plus™** increased yields by 16 bu. /acre in Renwood Farms seed production as the added zinc increased plant manganese levels. Manganese deficiency is a limiting factor in wheat on many fields. Most soils have sufficient manganese for plant growth; making it available is the key. Zinc stimulates the soil microbes that release soil manganese for root uptake. Except for the most extreme situations (ex: high soil pH), seed applied zinc will provide enough manganese to limit foliar applications in-season.

Zinc provides plant health benefits. Zinc seed treatments reduces sharp eyespot fungal infections where poultry litter is utilized in a crop rotation or with direct applications prior to planting wheat.

The table below shows 2017 results comparing a popular wheat seed treatment to **Vizor 5Z™** wheat seed treatment. It is the combination of compounds and the rates that make the five bushel difference.

That's the **Vizor™** story from Renwood Farms. It's really simple; use specific compounds to solve local problems at rates that allow these compounds to do their job. It's just another way that Renwood Farms is dedicated to lowering your costs, solving real production problems and increasing your crop yields.

2017 Seed Treatment Trials: USG 3458	# Fields	Acres	Yield Bu. / acre
Vizor 5Z	2.0	46.2	85.4
Cruiser Max Vibrance with Zinc	3.0	56.4	80.7



Top photo: aphids attacking wheat in December and infecting wheat with Barley Yellow Dwarf Virus (shown in bottom photo in April) where low rates of Gaucho seed insecticide were used. Labeled rates range from 500 to 1500 ppm. Much seed is sold as "treated" but only has 500 ppm. Renwood Farms applies 937 ppm based on recommendations from VA Tech and NC State.