# Cereal Update: Aphids and Pythium

We have found aphids in barley and wheat in fields planted ***without Vizor Plus*** seed treatment. Aphids transmit barley yellow dwarf virus (BYDV) and lower plant vigor: one species of aphid actually kills the plant. Data from Virginia Tech showed a ***33% yield reduction if aphids are allowed to feed in the fall and vector BYDV.***

If aphids are present, they need to be controlled. We have been successful using 1.6 ozs. /acre of Karate® at this stage for about three weeks of protection. ***This application will also protect against Hessian fly***. Harmony Extra® and Banvel® (dicamba) can be added to this application if weeds are present and need to be controlled.

## Pythium

We are observing pythium root rot in wheat fields that did not receive Renwood Farms' ***Vizor*** seed treatment. *Pythium* root rot has gone largely unnoticed because it affects the overall root health and does not cause distinctive plant symptoms.

Because *Pythium* damages root tips, branch roots and the fine root hairs, the plant stress has often been mistakenly attributed to low nutrient availability, cold soils or other environmental factors.

Barley plants showing pythium damage: plant on right has highest infection

Besides root damage, *Pythium* fungi can also reduce stands by attacking the seed as it is germinating, causing seed decay or seedling blights before or immediately after emergence. Winter wheat seedlings weakened by *Pythium* can result in greater loss of tillers and slower renewed growth in the spring.

The photo below shows how pythium can range in infection levels from less than 20% (plants on left) to 75% (plants on right).

With heavy plant infection levels, **the first one to three tillers may be skipped because of plant stress**, resulting in lower yields, as first tillers are the highest yield producing tillers.

*Pythium* root rot has been shown to limit wheat yields regardless of the tillage system used. However, since the fungus is favored as a pathogen by cool damp soils and it benefits from crop residue as a food source, *Pythium* control is especially important in no-till systems. The harshest penalty with *Pythium*, like all root diseases, is that there is nothing we can do once the infection occurs.

Pythium damage to wheat in April: note how the root hairs are completely gone.

At Renwood Farms, we are focused on limiting pythium damage to wheat and barley. The ***Vizor*** family of cereal seed treatments contains ***three times more*** than is found in competitive seed treatment products of the one compound labeled for this disease. This compound is one of the three fungicides used in the ***Vizor*** family of cereal seed treatments to limit root damage in your cereal crops.

**Check our web site for more information:**

**http://www.renwoodseed.com**