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### **Soybean Seed Treatments – Will They Work?**

It's always a bit of a tricky 'balance' when we get spring moisture like we did across NEK last week. We want (need...) it to help with emergence but if it leads to emergence issues (crusting, etc...), sometimes we'd just as soon the plant emerge before moisture arrives.

Sometimes the plant doesn't emerge, or emerges looking rough, requiring a deep dive into potential causes. Compaction, residue levels, cold stress, etc... all must be considered. So, too, does the possibility of a soybean seedling disease.

Most of our soybean seed is treated with some level of a seed treatment and they work well – so much so we often take them for granted. Still, understanding what that treatment is – and what it will combat – is an important part of diagnosing emergence issues when they are attributed to disease. For example, metalaxyl and mefenoxam have activity against diseases like Pythium or Phytophthora – but not Rhizoctonia or Fusarium. Even within products, differences exist in how well they provide protection. Sometimes that's due to active ingredient. Sometimes it's due to rate (fields with a history of Phytophthora will require higher treatment rates). Knowing what we have for a treatment can tell us a lot about what issues might potentially be ahead of us.

If you've used a top end seed treatment and still have issues, what's next? Resistance is a common concern in the agriculture product protection arena, with weeds in particular commonly exhibiting resistance. While resistance to seedling disease products can occur, it has been rare. That doesn't mean it can't occur, just that it's likely not the first thing we should look at.

What maybe should be more at the front of our mind is our expectation of what a seed treatment can do. Most of the time, treatments provide excellent results – to the point we take them for granted. They do have limitations, however. For example: seed treatments only protect seeds and seedlings for (give or take depending on product and rate...) approximately three weeks after planting. If environmental conditions conducive to disease don't arrive until after the protection period has lapsed, we may be past our protection window and at least some disease pressure is to be expected (particularly on a susceptible variety).

As with any crop protection chemical, an integrated management approach is always the best option. For fields with a history of soybean seedling disease issues, consider additional measures to help such as improving drainage, planting resistant cultivars, or planting time management to reduce factors contributing to disease pressure (compaction, heavy rains, etc...).

If seedling disease issues do arise and you're in need of troubleshooting help, drop me a line. The K-State Plant Disease Diagnostic Laboratory can test samples for multiple soybean seedling diseases to pinpoint exactly what might be going on so you can manage accordingly.