

BACTERIAL LEAF STREAK



For many years, I have tended to gloss over the finer points of cereal leaf disease identification. More than once, I have told producers not to get hung up on identifying particular leaf diseases; the list of fungal pathogens we deal with in Alberta is relatively short, and our fungicides are generally very effective on them. So I have always maintained that if you see a lot of disease lesions on the lower leaves go ahead and spray to protect the flag leaf and head, especially if the crop in question is barley or CPS wheat. However, two or three years ago, I started seeing a few examples of disease that do not respond to this tried and true management practice. That's because this disease is a little different. Bacterial Leaf Stripe is not the result of a fungal infection, but just like the name says, it's caused by bacteria. As such it does not respond to the application of a fungicide. The same bacteria, (*Xanthomonas translucens*) can also cause a disease on the glumes, known as Black Chaff.

Traditionally, Bacterial Leaf Stripe has been considered a problem limited to irrigated land, but since 20/20 Seed Labs Inc. started offering testing for *Xanthomonas translucens*, they have found it to be much more pervasive than expected. While the bacteria tends to be a non-issue at the low levels normally found in dryland farming, it can cause significant trouble if given the right conditions. Currently, 20/20 Seed Labs is working with producers to determine what levels are necessary to cause an economic impact. If you think you have a problem with the disease, I suggest you give them a call for further information.

In the meantime, if you have a "subpar" result with your cereal fungicide on a field next year, here are a couple of things to look for to let you know if you are dealing with a bacterial infection rather than a much more common fungal disease.



Early on, look for “water soaked” streaks on the leaves, rather than the more typical small lesions we see on the leaves with fungal infections. The other unique feature of this bacterial infection is that the leaves will actually start to ooze small droplets as the bacteria gains a foothold.

While I would rate the chance of Bacterial Leaf stripe causing issues in East Central Alberta as low, that doesn't mean it is non-existent. So for now it's just one more thing to put on that growing “watch list” of possible future problems!



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