

News Column

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## WHEAT STREAK MOSAIC VIRUS

It was 45 years ago when my dad taught me about the Wheat Streak Mosaic Virus. We were in the hills southeast of Speed, Kansas, harvesting wheat with a neighbor, on a farm our neighbor rented. We worked together. They had combines and we had trucks.

I could tell when we pulled into the field that some of the wheat was absolutely pathetic, and I wanted to know why. I was 13 years old at the time, old enough to understand the concept of volunteer wheat spreading a disease to the planted wheat right beside it. Dad told me “how”, but it was a few years later before I really started asking “why?”.

Fast forward four years and I had been in that same field four years in a row,....and seen the same damage,... four years in a row. By now I was 17 years old, and had turned into a mini version of my dad (sort of).

Dad was outspoken enough that he might have straight up asked the neighbor why he kept letting this happen year after year. I was a little more careful. Instead, I just asked my dad, with a degree of amazement in my voice, “WHY DO THEY KEEP DOING THIS?”

In those days, and in that part of the state, a wheat-fallow cropping system was fairly common. So, they grew wheat on half the field one year and fallowed the other half. The problem was with the fallow.

Like some other farmers in the neighborhood, fallow to them meant to harvest wheat at the end of June and not do anything else to that field until the following spring. Then they would

spend the summer keeping it clean until wheat planting in September. The fallow period was actually 14 to 15 months long, with nothing done to the field the first nine months.

If you understand the Wheat Streak Mosaic Virus, the problem is obvious. Volunteer wheat would start growing in the fallow ground soon after harvest. Curl mites – already carrying the Wheat Streak Mosaic Virus – would survive on the volunteer wheat and infect new volunteer wheat. Then, curl mites would live through the summer on the untouched volunteer, eventually infecting the newly planted wheat in the fall.

It was a disaster! Every year, the wheat right next to the “fallow” ground would be awful. Then, the wheat would gradually get better the farther we got from the source of the infection. It was a big field, so the far side would produce normal yields.

Wheat Streak Mosaic was a serious problem in western Kansas last year, probably because there was more volunteer wheat than usual and farmers had become complacent about controlling it. Since they hadn't seen much Wheat Streak Mosaic Virus in recent years, they apparently forgot how much damage it can cause.

In Riley County we see a few infected fields each year, usually next to volunteer wheat that someone wanted to pasture, thinking it was free feed. Volunteer wheat can be cheap feed, but if it is within 1/2 mile of a field that will be planted to wheat, it will be far from FREE.

Volunteer wheat in double-crop soybeans can be a problem you might not think about. For much of the summer double-crop beans can appear clean, but there might be just enough volunteer to harbor curl mites. Then, with August rains, more volunteer wheat can get started and a serious Wheat Streak Mosaic Virus infection can develop in those bean fields. The virus doesn't affect the beans, but it is there waiting to infect newly planted wheat nearby.

To stop the spread of the Wheat Streak Mosaic Virus, volunteer wheat needs to be killed

and completely dead for two weeks before wheat planting. That's the amount of time needed to starve curl mites, killing them, so they can't carry the virus to newly planted fields.

Now is the time to take action. Let's all be good neighbors and control our volunteer wheat.

If you have questions, you can reach me at the Riley County Extension Office at 785/537-6350. Or, you can send e-mail to [gmcclure@ksu.edu](mailto:gmcclure@ksu.edu).

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