

Volunteer Wheat Control Can Help Protect Yields

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With high wheat prices, producers should pay special attention to every management practice that can increase or protect yields. Controlling volunteer wheat is one such practice, said Jim Shroyer, K-State Research and Extension crop production specialist.

Volunteer wheat that emerges during the summer and is still present when planted wheat emerges creates numerous problems for the crop, Shroyer said. He and extension entomologist, Jeff Whitworth, reviewed some of those potential problems.

* Wheat streak mosaic and associated viruses - Volunteer wheat is often infested with wheat curl mite, which serves as a vector for wheat streak mosaic, High Plains Virus, and triticum mosaic virus. After planted wheat has emerged, the wheat curl mite populations on volunteer wheat can move onto the planted wheat.

* Hessian fly - Hessian fly pupae, also called flaxseed, live through the summer on the stubble and crown of the previous season's wheat crop. The pupae emerge as adults in late summer and early fall, and look for wheat to lay eggs on. If volunteer wheat is close by, the Hessian fly adults will lay eggs on it, thus maintaining their populations in that area and possibly infesting nearby planted wheat with the next generation.

* Barley yellow dwarf - As with the wheat curl mite, greenbugs and bird cherry-oat aphids can infest volunteer wheat during the summer, and move onto planted wheat in the fall. These insects serve as a vector for barley yellow dwarf virus, and spread the disease to nearby fields.

* Russian wheat aphid - This aphid can also infest volunteer wheat during the summer and move onto planted wheat in the fall.

For all of those reasons, all volunteer wheat should be completely killed within a half-mile of wheat fields at least two weeks before planting.

It is important to wait two weeks after the volunteer has died before planting wheat. This will allow enough time for any insects or mites present on the volunteer wheat to leave the area or die before the new wheat emerges.

Where there is a heavy stand of volunteer, some producers may be tempted to leave it and either graze it out or harvest the grain next summer rather than kill it out and plant a new crop this fall. That's not a good idea.

The best option is to control the volunteer, then plant a new crop of wheat two weeks later rather than leave the volunteer for harvest. Producers could gain an extra 20 to 40 bushels or more of yield by planting a new crop of wheat instead of leaving the volunteer for harvest. Not only that, but they would also help their neighbors by helping to reduce the chances of wheat streak mosaic, barley yellow dwarf, Hessian fly, or Russian wheat aphid on their neighbor's wheat as well.