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January 2005 Flooding, Saturated Soils, and the Wheat Crop

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Wheat throughout Indiana may be partially or completely covered with water from the flooding that is occurring across most of the state. Normally, very little wheat is planted between the levees and the river with the majority of the wheat planted on the rolling higher areas. Therefore, we would not expect a large acreage of wheat to have been impacted by the flooding. The current flooding is some of the worst that has occurred in the past 50 or more years in some parts of Indiana. However, the media has raised the question of flood damage to the wheat crop. We could not find any references to flood damage to wheat, therefore we will give you our opinion.

As the temperatures cool in the late fall, the rate of growth of the wheat plant slows until it reaches dormancy about mid December. Wheat that is either dormant or growing very slowly can withstand flooding for a much longer period of time than wheat that is actively growing. If actively growing wheat is covered with water for a period of three days or more, after it breaks dormancy in the spring, it will probably be lost. On the other hand, we have seen wheat that is dormant survive very nicely for more than a week when covered with water during January and February. We would expect some damage if the water remains over the plants for more than a week.

Wheat that is not flooded is likely in soils that are saturated or nearly saturated. Soggy soils may lead to winter heaving. Heaving occurs when saturated soil goes through freezing and thawing cycles, and the alternate swelling and shrinking of the soil mass pushes young plants out of the ground. Much of Indiana's wheat crop was late planted and thus plants are relatively small making them more susceptible to heaving than larger plants with more robust root systems.

At this time there is nothing that can be done to help the wheat crop survive either of these situations, short of removal of the water. Therefore, we would suggest waiting until the wheat breaks dormancy and starts to grow in late February or March to determine if the crop is worth top dressing and saving for grain or if it should be abandoned.

Before abandoning or destroying the wheat crop, check with your local USDA-FSA office.

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