# $3.5 million national scab research initiative underway

A $3.5 million national research initiative to solve Fusarium head blight in wheat and barley will soon be underway, involving dozens of crop scientists in 20 states.

Fusarium head blight, commonly called scab, is a fungal disease that attacks wheat and barley. No wheat and barley varieties are immune to the fungus, which is responsible for almost 470 million bushels of wheat lost in the United States from 1991 through 1997, valued between $1.3 billion to $2.6 billion, according to a North Dakota State University study. A toxin that may be produced from scab called deoxynivalenol or DON, can make barley unacceptable for malting and brewing and wheat unacceptable for milling.

A U.S. Wheat and Barley Scab Initiative was formed in March, 1997, by scientists and members of the wheat and barley industry to call national attention to the scab problem. Leaders of the Initiative set national scab research priorities, and asked Congress to fund the scab research agenda with an annual appropriation of $5.2 million. Congress approved authorization for the requested funding, but appropriated only $500,000 toward the research plan in fiscal year 1998.

The $500,000 in funding allowed initial phases of the Scab Initiative to begin. The additional $3 million appropriated in fiscal year 1999, which began October 1, will enable more facets of the Initiative's scab research plan to be activated.

"Obviously, we are pleased that Congress has allocated $3.5 million to fund scab research on a national scale. But we hope Congress will fund the U.S. Scab Initiative at the recommended $5.2 million in fiscal year 2000, to allow the Initiative's research priorities to be adequately addressed," says Tom Anderson, a Barnesville, Minn. farmer and co-chair of the Initiative.

The Initiative's work will be funded by the U.S. Agriculture Department's Agricultural Research Service (ARS), although much of the work will be done at land-grant universities in scab-threatened areas. "In fact, the Initiative represents an unprecedented partnership between ARS, the land-grant universities, and the private sector," says Rick Ward, Michigan State University wheat breeder and Initiative co-chair.

ARS has committed to reviewing the Initiative's scab research recommendations, and distributing funds as soon as possible, possibly before the end of the year, says Ward.

Scientists and industry leaders involved with the Initiative met at Michigan State University in East Lansing, Mich., in October to coordinate their scab research plans. Following are the U.S. Wheat and Barley Scab Initiative's research program areas:

- Variety development and coordinated screening nurseries
- Epidemiology (how scab develops, spreads) and disease management
- Food safety, toxicology, and utilization
- Biotechnology
- Germplasm introduction and evaluation
- Chemical and biological control.

"The way the nation's wheat and barley research scientists have joined together to fight this crop disease is extraordinary," says Ward. "The Initiative is proving that institutional, regional, and disciplinary boundaries can be overcome. However, we're not in this simply to do research. Our aim is to help U.S. wheat and barley producers find solutions to scab as quickly as possible."

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