

The Importance of Federal Funding to Support the ipmPIPE

Situation: The ipmPIPE is a dynamic, real-time information collection and management system that has proven invaluable to soybean growers in managing the threat of a new and devastating disease threat, Soybean Rust (SBR). Initial funding to develop ipmPIPE was primarily by USDA with funds from ARS, APHIS and CSREES. The Risk Management Agency (RMA) provided support from 2005 – 2007, but RMA can no longer fund ipmPIPE so the program faces collapse. Attempts to provide stable funding as part of the Agriculture Appropriations bill have so far been unsuccessful. ***Therefore, please support funding for ipmPIPE as detailed in the President's requested increase of \$4,447,000 for the Food and Agriculture Defense Initiative to keep the ipmPIPE from crumbling and continue the benefit to American farmers, taxpayers, consumers and the environment for years to come.***

History: The ipmPIPE (Integrated Pest Management - Pest Information Platform for Extension and Education) was developed in response to the threat of the disease Soybean Rust, which originated in Asia and has devastated soybean crops as it moved first across Asia, Australia, Africa, then through Brazil and the rest of South America; finally arriving in North America in late 2004.

How ipmPIPE works: A saving grace for the US grower is that SBR requires live host plant tissue on which to survive through the winter, so each year as freezing temperatures occur the rust pathogen is pushed back to Florida, the Gulf Coast states, and Mexico – south of the freeze line. During the growing season soybeans and other hosts of the disease are routinely monitored for disease, and this information is integrated with climate data (to predict when and where the disease might move) and crop growth stage data (because the crop is less susceptible to damage at certain stages) to help experts predict where and when rust will move and whether a fungicide treatment is called for. This information and recommendations are presented to growers via a public website (<http://sbr.ipmPIPE.org/>).

Impact: In 2005, the first growing season following the SBR introduction, growers across the soybean belt were prepared to apply fungicide protection to a vast number of acres. The ipmPIPE provided the knowledge that allowed most of them to leave sprayers in the barn and fungicides in the jug. A USDA-ERS study showed a benefit of up to \$299 million nationally. Similar savings can be claimed for each year since. In the Gulf Coast states (LA, MS, AL, GA, FL, TX) producers have benefitted from advice about when to look and when to spray. National soybean planting for 2008 is 74.8 million acres (1.6 million in North Carolina, alone) with an estimated value of \$36.4 billion to the US economy. ERS estimates that the value of net economic losses could range from \$200 million to \$2 billion *annually*. When (not *if*) the disease moves into the Midwest, the warning provided by the ipmPIPE will be invaluable.

Potential: The ipmPIPE concept clearly applies in many other situations. Researchers have suggested this approach to solve the devastating Colony Collapse Disorder of honeybees as well as for important insect pests of corn. Already it is used for soybean aphid and for several insect pests and diseases of dry beans, lentils and other legumes across the country. We have initiated ipmPIPE components to deal with important pest of cucurbits (cucumbers, melons, pumpkins) and of pecans. Similar approaches are being used to combat human diseases in Africa. Potential applications of the ipmPIPE approach are limitless.

Nation-wide collaboration: Core support for the ipmPIPE from the Federal budget leverages the use of considerable support from other sources. Over the last three years the United Soybean Board and the North Central Soybean Research Program (NCSRP) have provided more than \$1 million for critical field monitoring. Land Grant Universities supply in-kind support and expertise. Many state governments and state-level grower organizations have provided similar support and promise to continue to do so, but that support will have nothing to stand on without a core program that provides coordination and a standardized information technology program.

Please support funding for ipmPIPE as detailed in the ***President's requested increase of \$4,447,000 for the Food and Agriculture Defense Initiative*** will keep the ipmPIPE from collapsing and benefit American farmers, taxpayers, consumers and the environment for years to come.