

GAO
Accountability · Integrity · Reliability

Highlights

Highlights of [GAO-06-337](#), a report to the Ranking Democratic Member, Committee on Agriculture, Nutrition, and Forestry, U.S. Senate

Why GAO Did This Study

In 2005, U.S. agriculture faced potentially devastating losses from Asian Soybean Rust (ASR), a fungal disease that spreads airborne spores. Fungicides approved by the Environmental Protection Agency (EPA) can protect against ASR. In 2005, growers in 31 states planted about 72.2 million soybean acres worth about \$17 billion. While favorable weather conditions limited losses due to ASR, it still threatens the soybean industry. In May 2005, GAO described the U.S. Department of Agriculture's (USDA) efforts to prepare for ASR's entry, (*Agriculture Production: USDA's Preparation for Asian Soybean Rust*, GAO-05-668R). This report examines (1) USDA's strategy to minimize ASR's effects in 2005 and the lessons learned to improve future efforts and (2) USDA, EPA, and others' efforts to develop, test, and license fungicides for ASR and to identify and breed soybeans that tolerate it.

What GAO Recommends

GAO recommends that the Secretary of Agriculture provide additional guidance on the monitoring, testing, and reporting on the incidence of ASR and develop a detailed action plan describing how USDA plans to manage the ASR program in 2006 to maintain the level of coordination, cooperation, and national priority achieved in 2005. In commenting on a draft of this report, USDA stated that the recommendations reflect its ongoing efforts with states to combat the disease.

www.gao.gov/cgi-bin/getrpt?GAO-06-337.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Daniel Bertoni at (202) 512-3841 or bertonid@gao.gov.

AGRICULTURE PRODUCTION

USDA Needs to Build on 2005 Experience to Minimize the Effects of Asian Soybean Rust in the Future

What GAO Found

USDA developed and implemented a framework—with federal and state agencies, land grant universities, and industry—that effectively focused national attention on ASR in 2005 and helped growers make informed fungicide decisions. The framework was effective in several ways. For example, sentinel plots—about 2,500 square feet of soybeans or other host plants planted early in the growing season in the 31 soybean-producing states—provided early warning of ASR. Officials in 23 of 25 states GAO surveyed reported that this effort was effective. Researchers could also promptly identify and report on the incidence and severity of the disease on a USDA Web site, alerting officials and growers to ASR's spread. Going forward, however, differences in how researchers monitor, test, and report on the disease could lead to incomplete or inaccurate data and detract from the value of future prediction models. For example, models to forecast ASR's spread partly rely on states' observations of sentinel plots. USDA asked states to report results weekly, but updates ranged from 4 reports, in total, during the growing season in one state to 162 reports in another state. Inconsistencies also occurred in the designation and placement of plots and in the testing of samples for ASR. Further, changes to the successful management approach employed by USDA in 2005 raise questions about how the program will perform in 2006. For 2006, most operational responsibility for ASR will shift from USDA headquarters to a land grant university. GAO is concerned that USDA's lack of a detailed action plan describing how program responsibilities will be assumed and managed in 2006 could limit the effectiveness of ASR management for this year.

EPA, USDA, and others increased the number of fungicides growers can use to combat ASR while efforts continue to develop ASR-tolerant soybeans. As of December 2005, EPA had approved 20 fungicides for treating ASR on soybeans, including 12 that had emergency exemptions. According to officials in the nine states where ASR was confirmed in 2005, growers had access to fungicides. USDA, universities, and private companies are also developing ASR-tolerant soybeans and have identified 800 possible lines of resistant soybeans, out of a total of 16,000 lines. USDA estimates it may take 5 to 9 years to develop commercially available ASR-tolerant soybeans.

Soybean Plants Treated with Fungicides Next to ASR-infected Plants



Source: Rural Development Center, Tifton Campus, University of Georgia.