

Management of Soybean Rust in Alabama

In the long term, resistant varieties may be the more practical, economical means of managing soybean rust. However, all commercial varieties of soybeans currently available are highly susceptible to the disease. Both public and private soybean breeders are working to identify sources of resistance and to incorporate resistance in soybean varieties suitable for U.S. production.

Soybean rust can be managed with the judicious use of fungicides. Fungicide applications can reduce yield loss, depending on the plant developmental stage, time when soybean rust is detected, and fungicide application method. Several factors will impact your fungicide options. Some fungicides are preventative, meaning they will protect the crop from infection if applied before the disease reaches a field. Other fungicides are curative, meaning they can be applied soon after infection has taken place and still be effective.

Growers in Alabama will have three fungicide groups to work with in 2005:

Chlorothalonils. These products are purely preventative and must be applied prior to a rust infection. Bravo and Echo are currently labeled for use on soybeans in Alabama. Chlorothalonil fungicides offer multiple sites of action; are not absorbed and remain on the leaf surface. They have a longer residual period and a longer pre-harvest interval (42 days) than other available fungicides.

Strobilurins. These chemistries must be applied as a preventative prior to infection. Azoxystrobin (Quadris) and pyraclostrobin (Headline and Pristine) will be available in this group and others are pending Section 18 approval. Strobilurins are absorbed by the soybean leaf and slowly translocate within the plant. Since they have a single-site mode of action, resistance is a concern if the products are overused or misused. Strobilurin fungicides will be restricted to one application per season, unless combined with another active ingredient.

Triazoles. These chemistries range from protective to curative. Curative in this case means the fungicide will kill new rust infections, but it does not mean it will cure infections already in existence. Triazole compounds Laredo, Folicur, Tilt, PropiMax and Bumper should receive section 18 exemptions prior to the growing season. Triazoles are also single-mode-of action materials, but they tend to have short residual periods and move through the plant faster than strobilurins. All triazole products are not created equal. Some have more curative properties than others. Because of rapid absorption, some triazoles move beyond the leaf to other parts of the plant. However, none of the products available are true systemics; basically, they protect the tissue they are deposited on and in some cases do a little more.