

## Bee Barrier

By, Pamela Smith

New planting lubricants protect bees from harmful dust.

Honeybees are getting a break. A new technology designed to lower planting dust is showing promise limiting pollinator exposure. Bayer CropScience has developed a new fluency agent aimed at answering concerns associated with the use of talc when planting treated seed.

The use of lubricants, such as talc or graphite, is a standard recommendation by planter equipment manufacturers to help reduce friction and improve planting uniformity. However, dust emissions during planting of seed treated with insecticides and fungicides have been implicated in honeybee death and decline. It's thought foraging bees come in contact with the contaminated talc that lands on pollinating plants.

Bill Hairston, Bayer CropScience director of product development, SeedGrowth, says the new lubricant is made from a type of polyethylene wax that Bayer has previously used in seed-treatment coatings. "It's a dry powder, but unlike talc, it has a waxy nature that causes it to adhere to the seed," Hairston says.

"It has the needed temperature stability and physical characteristics that result in uniform coverage and improved seed flow. It also has the added benefit of limiting the loss of active ingredient from the seed," he says.

Bayer's laboratory testing shows the talc alternative results in an average 90% reduction in total dust and a 60 to 70% reduction of active ingredient compared to talc.

"We placed enough product in the field to test this product on 200,000 acres of corn last year," he adds. "Voluntary feedback from farmers represented approximately 40,000 acres of plantings. So far, growers indicate it is better or equal to the talc or graphite lubricant they were using." Bayer tested the new lubricant as far south as Texas and Mississippi, throughout the Midwest and as far north as Ontario.

"Growers also like the small amount required (1/8th cup per 80,000 seed unit)," Hairston says. Tests have shown it's important to use the recommended rate because too much can reduce corn-planting accuracy. Bayer has also found treatment dust coming off soybeans and cotton to be lower than corn.

Hairston says the waxy lubricant was made available to planter manufacturers for testing this past season. "The feedback we've gotten so far is good, but they'd still like more testing," he says. The lubricant will be available to growers in 2014 from Bayer CropScience representatives. Additional distribution is still being finalized.

## Under The Microscope

Kaleb Hellwig will hold the expertise of plant scientists from around the world in the palm of his hand this spring. The Missouri-based agronomist is one of the BASF Innovation Specialists testing a new diagnostic microscope called Digilab.

Designed to view and identify a wide range of pests and diseases at microscopic levels, Digilab works wirelessly from the field to give realtime diagnosis. If more information is needed, the image can be linked to a BASF global database. More than 2,500 scientists, researchers, sale personnel, growers and other industry sources can virtually help with the identification and treatment recommendations.

“It will be a real advantage for tracking diseases and pests,” Hellwig says. “For example, it will be great for keeping an eye on wheat stripe rust as it comes through Louisiana and Arkansas, and approaches my region of Missouri.” He says privacy issues are on the radar—it’s expected that farmers will report outbreaks by zip code rather than by name.

BASF has been using the virtual diagnostic program in Brazil. Hellwig is one of 40 Innovation Specialists with the responsibility of providing more localized information to U.S. farmers.