News Releases/ Media Relations

NEWS OF AGRIBUSINESS

ProAct registered for field crop use

Eden Bioscience Corporation, which develops, manufactures and markets innovative, natural protein-based products for improving crop production and plant health, has announced it has received unconditional registration from the U.S. Environmental Protection Agency for ProAct, a new generation of foliar-applied harpin protein designed to increase field crop yields.

The company plans to register ProAct in all states except California for use during the 2005 season.

"Eden Bioscience specifically developed the next generation harpin protein used in ProAct to enhance yield in row crops such as corn, cotton, and rice. In 2002, in-house laboratory tests demonstrated that ProAct had the potential to deliver growth performance at application rates substantially below our first generation harpin protein used in Messenger.

"In 2003, ProAct was field tested by independent scientists in replicated trials to determine actual crop performance at various application rates and timings. In those trials, ProAct delivered an average yield increase of 9 percent in cotton and 8 percent in corn at application rates containing one-sixth the active ingredient used in Messenger.

"In 2004, Eden Bioscience sponsored a broad range of both commercial field trials and replicated trials conducted by independent crop scientists and consultants under an Experimental Use Permit issued by the EPA. In over 20 commercial and replicated cotton trials conducted by leading independent cotton experts, ProAct provided increased yields across all tested application rates and timings.

"In cotton, we believe the one ounce per acre application rate will provide the most attractive return on investment for growers with an average yield increase of 11 percent when applied with glyphosate herbicide and 9 percent when applied after glyphosate," said Rhett Atkins, president and chief executive officer.

"In 11 replicated corn trials conducted by leading independent corn experts, ProAct increased yields on average by 8 bushels per acre at the one-half ounce per acre rate when applied with the first application of glyphosate herbicide. We believe the economic benefit to growers is favorable in both crops.

"Using the data from cotton trials, at a yield of 800 pounds, a cotton price of $0.50 per pound, and our target grower price of approximately $6 per ounce, this would calculate into a profit increase of about $38 an acre for an approximate $6 investment.

"Using the data from corn trials, at an average corn price of $2 per bushel, this would calculate into a profit increase of about $13 an acre for an approximately $3 investment."

"We concentrated our 2004 EUP program in cotton and corn because of the size of the market in these crops. In addition to validating ProAct performance in the field, one of our main objectives was to demonstrate the results of using ProAct in conjunction with existing foliar sprays so there would be no extra application costs.

"In both cotton and corn, positive yield increases were seen when ProAct was applied along with the crop's first application of glyphosate herbicide on tolerant varieties and hybrids. We will test and expect ProAct to produce similar results when used with most other post-emergence herbicide programs, though ProAct also may be applied with insecticides, fungicides, or alone," Atkins said. "Last year, we also tested ProAct in 3 replicated rice trials conducted by leading independent rice experts and found that ProAct produced an average yield increase of 6 bushels per acre at the one-half ounce application rate.

"Using an average price of $3 per bushel, this would calculate into a profit increase of about $15 an acre for approximately a $3 investment. We will continue to research the most effective ways to use ProAct in other field crops in 2005."

Corn growers will be trying ProAct on their fields this summer as part of a special ProAct Partnership Program co-sponsored by Eden Bioscience and the National Corn Growers Association (NCGA). In the Partnership Program, NCGA members will be using ProAct on trial plots of about 20 acres each. They will monitor yield increases and other beneficial results from ProAct treatments.

The program also will provide further information on ProAct performance in a variety of post-emergence weed management systems, growing conditions, and tillage systems across the Corn Belt. NCGA members also qualify for a $1 per ounce discount on ProAct.

In Cotton, ProAct can be teamed with N-Hibit Seed Treatment, which is another harpin product introduced by Eden Bioscience this year and granted full EPA registration last year.

N-Hibit is designed to reduce nematode egg production and feeding stress by activating the cotton plant's natural self-defense and growth systems.

Research conducted at the University of Arkansas found that N-Hibit reduced root knot nematode eggs per dry root weight by 55 percent. This data and other related research findings were presented at the Beltwide Cotton Conferences earlier this year.

"N-Hibit helps the crop get off to a better start during the critical germination period, and ProAct applied with a post-emergence herbicide at the next important stage of development increases yield," Atkins noted.

Harpin proteins are produced by disease causing bacteria that attack plants, and most plants have developed early warning receptor molecules that detect harpin proteins. When a Harp-N-Tek product is applied to a plant, the receptors respond as though being attacked, even in the absence of disease pressure.

The plants activate their self-defense and growth systems. ProAct produces yield increases by turning on these responses, which result in improved crop vigor, stamina and health — all factors in yield.

Harpin proteins do not enter the seed or plant. They bind with the plant's external harpin protein receptors. Once they've done that and turned on the plant's internal signals, the harpin proteins harmlessly disintegrate, leaving no detectable residue.

ProAct and other Harp-N-Tek products are easy to apply, have an excellent safety profile, the shortest re-entry interval allowed, and leave no residuals in the soil or plants.

For more information about ProAct or N-Hibit Seed Treatment, contact your local agri-retailer or visit the company's Web Site at www.edenbio.com, or call the Eden Bioscience customer service line at 1-888-879-2420.

Bt stacks require IRM review Bumper gets

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