

New BASF Kixor herbicide technology receives EPA approval



Four new products powered by Kixor designed to offer superior broadleaf weed control in a wide range of crops

RESEARCH TRIANGLE PARK, NC, September 15, 2009 – BASF announced today the Environmental Protection Agency (EPA) registration of a new active ingredient, **Kixor**® herbicide, for use on a wide range of crops and effective on more than 70 broadleaf weeds. Starting this fall, four formulations **Powered by Kixor herbicide** — **Sharpen**™ herbicide, **OpTill**™ herbicide, **Integrity**™ herbicide and **Treevix**™ herbicide — will be available to help growers tackle today's weed control challenges in their fields.

"**Kixor** is a new herbicide technology specifically designed to address pressing weed concerns of today and tomorrow," said Nevin McDougall, Group Vice President of BASF North America Crop Protection. "At a time when few new herbicides are being brought to market, BASF has remained steadfast in our commitment to bringing new solutions to growers to help them manage their fields and realize a higher return on the acre. The result is a breakthrough herbicide technology that gives growers a powerful tool in the fight against glyphosate resistance."

Kixor's unique chemistry is specifically designed to solve growers' toughest broadleaf weed control challenges across a wide range of crops. It inhibits a key step in chlorophyll biosynthesis, called protoporphyrinogen IX oxidase (PPO), resulting in fast, effective control of broadleaf weeds.

"From our discovery of the **Kixor** molecule to the delivery of the **Kixor** family of products to market, BASF is invested in providing new solutions to help growers meet increasing global demands and get the most out of every acre," said Paul Rea, Director of BASF U.S. Crop Business.

About Kixor herbicide technology

The **Kixor** discovery team started with a class of chemistry called the benzoisothiazoles, potent herbicides but with only soil activity and little crop selectivity. Opening the isothiazole ring and optimizing the resulting side chain was key to creating this new breed of PPO inhibitor that possesses high levels of soil and foliar activity on a broad spectrum of broadleaf weeds and tolerance across a wide range of crops.

- >> **Kixor** is the only herbicide technology in the pyrimidinedione class of chemistry that will be available in the North American market;
- >> **Kixor** is labeled for use on a wide range of crops, including corn, grain sorghum, soybeans, cereals, cotton, pulses, sunflower (desiccation), citrus, pome fruit and nut trees and for fallow and post-harvest use;
- >> **Kixor** provides broad-spectrum control on more than 70 tough broadleaf weeds, including those that have become more tolerant of glyphosate, such as common lambsquarters, marehail, Russian thistle, waterhemp, common ragweed and giant ragweed;
- >> **Kixor** has shown in approximately 1,700 field trials to deliver superior burndown and soil residual activity during 10 years of research and development.

"Time and time again during our field trials, **Kixor** demonstrated a unique ability to give growers the rapid burndown and residual qualities they need to eliminate weed competition, grow healthy crops and improve yield," said Dan Westberg, Ph.D., Technical Market Manager, BASF.

About Sharpen herbicide (powered by Kixor herbicide technology)

Sharpen herbicide, powered by **Kixor**, tackles tough broadleaf weeds in a number of crops, including cereals, corn, cotton, fallow, grain sorghum, pulses, soybeans and sunflower (desiccation). Field and row crop research

has shown that **Sharpen** provides excellent burndown control when applied preplant and preemergence. **Sharpen** can also be used for sunflower desiccation or fallow and postharvest treatments. In field trials, **Sharpen** controlled weeds three to five times faster than 2,4-D or glyphosate. **Sharpen** also offers preplant interval flexibility, which provides growers with fast, flexible burndown of broadleaf weeds across a wide range of crops, saving growers time and providing them with added confidence that broadleaf weeds are controlled.

About OpTill herbicide (powered by Kixor herbicide technology)

OpTill herbicide is a combination of **Kixor** herbicide plus imazethapyr. This product offers fast, complete burndown plus residual weed control in soybeans, chickpeas and peas when applied preplant through preemergence. **OpTill** controlled weeds three to five times faster than 2,4-D or glyphosate in field trials. It also offers preplant interval flexibility. **OpTill** combines fast burndown and residual weed control to allow better timing for in-crop glyphosate applications, so growers save time and money.

About Integrity herbicide (powered by Kixor herbicide technology)

Integrity herbicide is **Kixor** herbicide plus dimethenamid-p, which together create a broad-spectrum herbicide for weed control in corn. **Integrity** offers growers the power and complete control they need on a broad spectrum of grass and broadleaf weeds. It has fewer use restrictions than atrazine, provides ease of handling with its low use rate and offers burndown and residual control, all in one product. **Integrity** provides complete freedom for growers — taking care of the yield-robbing broadleaf weeds and grass with one efficient product.

About Treevix herbicide (powered by Kixor herbicide technology)

Designed for directed, postemergence applications in bearing and nonbearing tree crops (citrus fruit, pome fruit and nut trees), **Treevix** herbicide offers targeted, fast and complete burndown of the toughest broadleaf weeds. **Treevix** controls weeds fast and acts as a complement to glyphosate for broad-spectrum control of more than 60 broadleaf weeds. While tough on weeds, **Treevix** is a tree-safe, non-volatile herbicide. **Treevix** is formulated for easy tank-mixing with other herbicides to provide a complete, flexible weed-control program, so growers and pest-control advisers can manage broadleaf weeds in their orchards for better long-term profitability.

“As glyphosate-resistant weeds continue to appear in fields across the nation, BASF is proud to be a leader in providing cutting-edge chemistries to arm growers with the tools they need to meet the growing demand for food, biofuels and clothing in this booming population,” said Westberg.

BASF will produce **Kixor** exclusively at its Hannibal, Missouri, plant for worldwide distribution. Growers can place preorders for the 2010 growing season with retailers beginning in the fourth quarter of this year. **Kixor** herbicide received regulatory approval in Nicaragua, Argentina and Chile earlier this year, with approval expected in Canada and Australia in the near future.

For more information or to learn about **Kixor**, please visit www.kixorherbicide.com. For information on the rest of the BASF portfolio of products or to find contact information for your local BASF business representative, visit www.agproducts.basf.us.

About the Crop Protection Division

With sales of €3.4 billion in 2008, BASF's Crop Protection division is a leader in crop protection and a strong partner to the farming industry, providing well-established and innovative fungicides, insecticides and herbicides. Farmers use these products and services to improve crop yields and crop quality. Other uses include public health, structural/urban pest control, turf and ornamental plants, vegetation management and forestry. BASF aims to turn knowledge rapidly into market success. The vision of BASF's Crop Protection division is to be the world's leading innovator, optimizing agricultural production, improving nutrition and thus enhancing the quality of life for a growing world population. Further information can be found on the Web at www.agro.basf.com.

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Always read and follow label directions.

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