Limus®
The best urea protection for optimal plant nutrition
Limus®, a urease inhibitor developed and patented by BASF, has been developed using the latest research and technology. It is the most effective urease inhibitor worldwide both in terms of its active ingredient efficacy and formulation stability. What sets Limus® apart is the combination of its two active ingredients, which complement and strengthen each other synergistically. A patented new formulation enables efficient application and offers more flexibility with regard to storage, mixing with urea-based fertilizers and fertilizer application.

**Benefits**

**Greater yield through better use efficiency**

Limus® has two urease inhibitors that together are more effective on the range of soil urease enzymes than a single inhibitor. Greater urea protection leads to improved nitrogen availability during critical crop-growth stages for more consistent yields.

**Improved Environmental Outcomes**

Ammonia volatilization is responsible for off-site effects like smog, eutrophication, and ecosystem changes, which is why emerging regulations worldwide seek to limit ammonia emissions from urea-based fertilizers. Limus® blocks urease activity to prevent ammonia release into the atmosphere.

**Better Farm Management**

Limus® helps provide a long planning horizon independent from weather conditions. Added protection from volatilization loss means improved nitrogen application flexibility. This provides improved significant opportunity for efficiency and flexibility in growers’ nitrogen-management programs.

**Improved Storage and Transportation**

Limus® brings solutions to those in the fertilizer market who face operational challenges in the transportation, application, storage and handling of urea-based fertilizers. The Limus® formulation’s stability and urea protection provide a longer storage time and greater transportation flexibility under a wide range of temperature and humidity conditions.

**The Limus® mode of action**

Limus® blocks urease activity in the soil. Urease is an extracellular enzyme produced by plants and microbes. It enters the soil through secretion or when plants and microbes die and decompose. Urease has an active site that can bind urea and hydrolyze it to ammonia and carbon dioxide. When ammonia and carbon dioxide leave the active site, it is available to hydrolyze another urea molecule continuously.

Limus® blocks urea from binding to the enzyme, which prevents urea hydrolysis and reduces ammonia formation.

**For more information visit Limus® on www.agro.basf.com**

**The characteristics of urease enzymes vary based on origin and soil properties. Limus® is a composition of two different urease inhibitors that combined are more effective than a single inhibitor.**

**Ammonia volatilization after 48 hours (left-hand standard urea, right-hand Limus® treated urea)**

**Comparison of UI formulations — stability on urea after 4 weeks storage at 40 °C in the lab**

**Mode of action of urease inhibitors**

**How Limus® works**

**The Limus® formulation’s stability and urea protection provide a longer storage time and greater transportation flexibility under a wide range of temperature and humidity conditions.**