

# Optimizing Nitrogen Performance to Gain Advantages

## BETTER THAN UREA ALONE

Urea has been applied for decades, because it provides quick green-up. However, up to 40% of the applied nitrogen can be lost within days, due to leaching, denitrification, runoff and volatilization. As a result, multiple applications are needed.

By amending this valued resource with a coating, reacting it with other components or adding inhibitors, Koch Turf & Ornamental has developed enhanced efficiency fertilizers (EEFs) that maximize nutrient uptake and minimize loss. This advantage, along with extended longevities and fewer applications to consistently deliver needed nutrition, saves time, money and optimizes labor. Compared to the potential challenges of applying just urea, the EEFs listed here are a better solution — and — a better way to fertilize.

# Enhanced Efficiency Fertilizer PORTFOLIO

## CONTROLLED-RELEASE

**CONTROLLED-RELEASE** fertilizers protect nitrogen inside a durable coating. This polymer precisely meters nutrient release based primarily on soil temperature, making nitrogen available when the plant can use it.



## SLOW-RELEASE

**POLYMER-COATED SULFUR-COATED UREA (PCSCU)** fertilizers are economical, medium longevity products that rely on a dual coating of both a polymer and sulfur to control nutrient release.



**REACTED FERTILIZERS** store nitrogen in a chain that requires microbial activity to initiate its release. The release rate is related to chain length, making nitrogen available to the plant over a longer period of time without additional applications.



## STABILIZED NITROGEN

**STABILIZED NITROGEN** fertilizers contain a urease inhibitor that temporarily prevents naturally occurring urease from breaking down urea, and a nitrification inhibitor to slow the conversion of ammonium to nitrate. Loss by volatilization is reduced, and fertilizer remains in the positively charged ammonium form longer, interacting with the soil, to enhance availability for plant uptake.



DURATION CR®, the DURATION CR logo, POLYON®, the POLYON logo, NITROFORM®, the NITROFORM logo, NUTRALENE®, the NUTRALENE logo, XCU®, the XCU logo, NITAMIN®, the NITAMIN logo, UMAXX®, the UMAXX logo, UFLEXX®, the UFLEXX logo, HYDREXX® and the HYDREXX logo are trademarks of Koch Agronomic Services, LLC. Koch and the Koch logo are trademarks of Koch Industries, Inc. ©2016 Koch Agronomic Services, LLC T&O-16-12169.