



Agriculture

Arclin®
Performance Applied

Chemistries for Agriculture

ENGINEERED PERFORMANCE

$$m_1 v_1 + m_2 v_2 = m_3 v_3$$
$$p_1 + p_2 = p_3$$



A man wearing a light-colored baseball cap, a short-sleeved button-down shirt, and jeans stands in a field of tall, golden wheat. He is looking towards a dramatic, cloudy sky at sunset or sunrise. The sky is filled with dark, swirling clouds, and a large, dark, ink-like splash is visible in the upper left corner. The overall mood is one of contemplation and resilience.

**ARCLIN IS ENGINEERING PERFORMANCE —
TO ENHANCE YIELD, PROTECT AND CONSERVE
RESOURCES, AND MAXIMIZE YOUR INVESTMENT.**

Arclin has long been a leader in engineering chemistry-based products that address challenges — and opportunity — in a variety of industries, from building products to energy and more. Today, we're bringing that technology to the creation of agricultural applications that solve complex performance, operational and environmental challenges.

Arclin's suite of agriculture products — fertilizers, inhibitors and more — create greener crops, protect environmental resources, increase yields and maximize investment. **Where green meets green... meets green.**

The agriculture industry is increasingly challenged to do more — and to do it better, faster and cleaner. Producers today look for innovative products and sophisticated science applications to help them fine-tune crop fertilization to maximize crop yields and the use of resources.

Arclin's slow-release fertilizers, urease and nitrification inhibitors, and dust control products are designed to do just that — and more. Our products help enhance yields and produce healthier crops. They're also engineered to control costs and improve efficiencies, ensure regulatory compliance and protect the environment.

AGRICULTURAL APPLICATIONS

NitroGain®

Slow-Release Nitrogen Fertilizers (Liquid)

Available in customized blends, including:

26-0-0

28-0-0

30-0-0

32-0-0

Urease Inhibitor

Nitrification Inhibitor

DustCap® *Dust Suppression & Freeze Control*



Arclin's agricultural products are E-Gen designated.



The *Ingredients* of **Green®**

All of Arclin's agricultural products bear our proprietary E-Gen® designation, granted only to those products that are expressly engineered to meet or exceed existing product performance standards while reducing manufacturing and downstream environmental impact.

NitroGain®

NitroGain products are E-Gen-designated for slowing the release of nitrogen into the soil, thus reducing waste and runoff — protecting groundwater, rivers and streams.

DustCap®

DustCap dust suppression and freeze control products are manufactured with water-based, biodegradable liquids — safe and non-toxic.

SLOW-RELEASE NITROGEN FERTILIZERS

NitroGain®

Nitrogen is an essential element for healthy plant growth — and one of the least stable. While soil will hold on to many nutrients, nitrogen readily leaches away. Applying large amounts of nitrogen fertilizer is costly and inefficient, and excess runoff of nitrogen can degrade the natural environment of streams, rivers and groundwater.

NitroGain® fertilizer contains slow-release triazone, a complex chain form of urea. This unique chemistry provides a strong chemical bond that's hard to break down, so it takes soil microbes 8 to 12 weeks to slowly release nitrogen to plants over time.

That means more nutrients for the crops, fewer applications of fertilizer required and less nitrogen runoff into ground and surface water.

NitroGain fertilizers lead the industry in performance and stability:

- Soil microbes require longer to mineralize triazone into ammonium and nitrate, ensuring slow release rate and better yields
- 75 pounds of NitroGain can replace as many as 100 pounds of typical nitrogen fertilizer in most applications
- Can be applied directly to foliage and blossoms at higher rates than traditional urea — without burning
- Low salt index, low biuret

Arclin's NitroGain fertilizers remain stable in storage for up to two years.

NitroGain®

Arclin's suite of NitroGain products are ideal for

- Turf grass
- Citrus
- Wheat
- Corn
- Cotton
- Soybeans
- Specialty crops – including nut trees, avocados, raspberries, strawberries, tomatoes



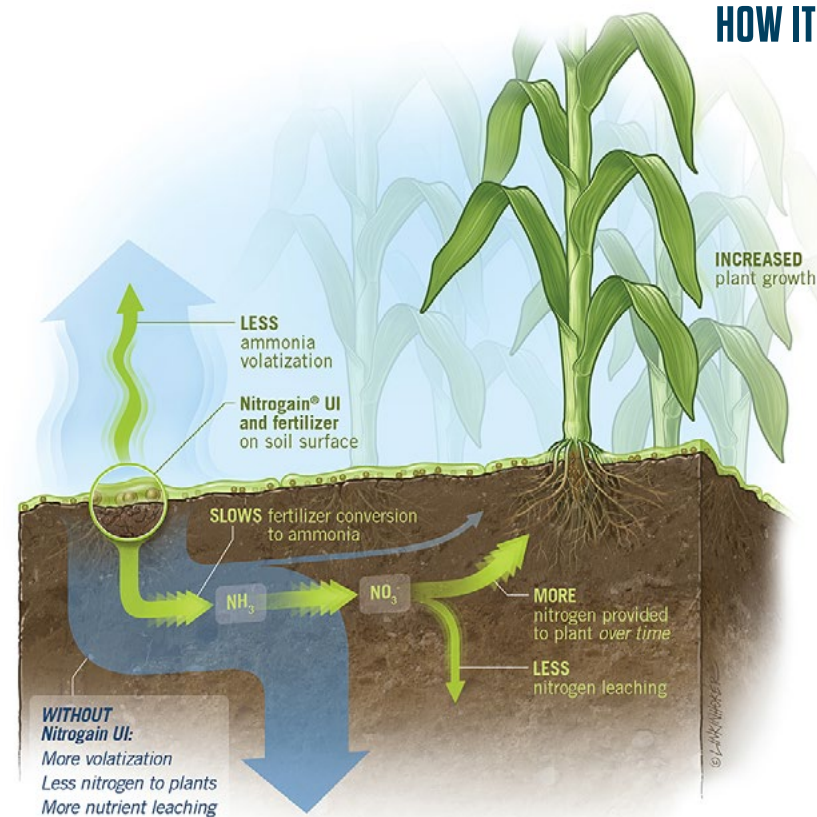
NITROGAIN® UI / UREASE INHIBITOR

Blended with urea-based fertilizers, Arclin's Nitrogain® UI urease inhibitor reduces nitrogen loss by hindering the conversion of nitrogen to ammonia and carbon dioxide. That can increase crop health and boost yields by keeping more nitrogen in the soil for longer. It also reduces costs by making more efficient use of fertilizers.

Nitrogain® UI is based on n-butyl triphosphoric triamide, or NBPT, technology that significantly improves nitrogen efficiency. Other benefits:

- Flexible, it can be used to coat urea granules or mixed with urea ammonium nitrate systems
- Its low toxicity makes it safer to use than other commercially available UIs
- Can be applied directly to foliage and blossoms at higher rates than traditional urea — without burning
- Low salt index, low biuret

HOW IT WORKS



NITROGAIN® NI / NITRIFICATION INHIBITOR

Arclin's Nitrogain® NI nitrification inhibitor reduces loss of nitrogen through nitrate leaching and denitrification. Adding Nitrogain NI to urea-based fertilizers keeps more nitrogen in the soil for longer, which improves crop health and boosts yields. By improving nitrogen efficiency, Nitrogain NI also reduces costs by making more efficient use of fertilizers.

Nitrogain® NI is based on dicyandiamide(DCD) technology that significantly improves nitrogen efficiency. Other benefits:

- Compatible with any nitrogen-consuming crops, including row crops, specialty crops, pastures and sod farms
- Can be applied in pre-plant, pre-emergence, side-dress, top-dress or other post-planting applications
- Ammonium ion-specific formulation ideal for treating fertilizers containing ammonium ion (NH_4^+) or fertilizers that may form ammonium ion during application

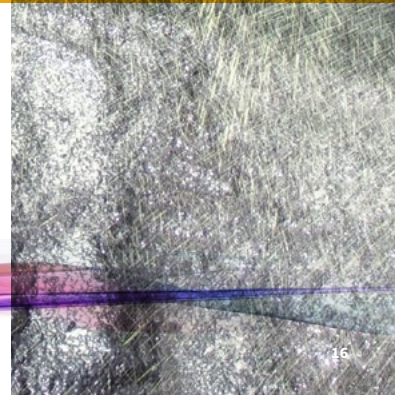


Agriculture is rooted in soil. When soil dries out, freezes and thaws, it can become a real hazard. Diminished visibility on roads from clouds of dust, slippery surfaces during cold weather, mud and slush when the frozen ground thaws...it all adds up to risks for people, equipment and animals, alike.

Arclin's DustCap® helps keep the ground from freezing, helps it thaw more quickly, and keeps down the dust on roads and all around the farm.

Benefits of Arclin's DustCap dust suppression and freeze control products:

- A sprayable biodegradable liquid, it is environmentally friendly, water-based and cost-effective
- Won't corrode application equipment or vehicles that drive on treated surfaces
- Improves the integrity of surfaces with repeated use



Arclin's technical expertise and creative approach to product development enable us to develop chemistry applications that create opportunity for a wide variety of industries:

BUILDING & CONSTRUCTION

DECORATIVE & FLOORING SURFACES

AGRICULTURE

ENERGY & MINING

TRANSPORTATION

INTERMEDIATES & ADDITIVES

SPECIALTY MATERIALS



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A CHEMISTRY + APPLICATIONS COMPANY