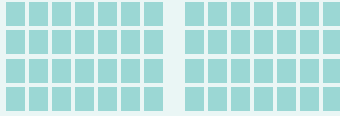


# Length of Control

## Optinyte® Technology (Nitrapyrin) vs. DCD (Dicyandiamide)

Up to 8 Weeks



1-2 weeks



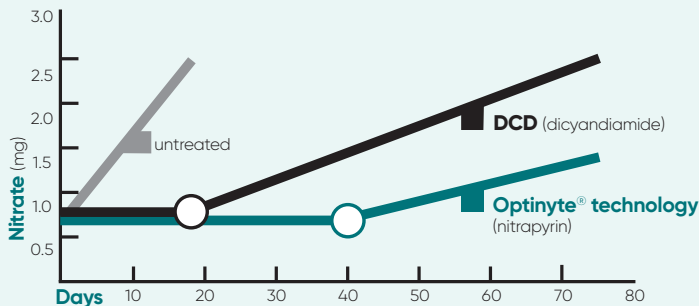
### N-Serve® and Instinct NXTGEN® Nitrogen Stabilizers

Instinct NXTGEN and N-Serve were superior to DCD as a nitrification inhibitor in the Decatur soil, delaying nitrification longer and, once nitrification began, maintaining a slower nitrification rate.

**Source:** Decomposition rate of dicyandiamide and nitrification inhibition | Communications in Soil Science and Plant Analysis

#### Decomposition rate of DCD

Nitrate formation in Decatur soil as affected by DCD and nitrapyrin



In a summary of nitrification inhibitor studies, Optinyte technology (nitrapyrin), the active ingredient in N-Serve and Instinct NXTGEN, was the most effective inhibitor, followed by DCD. The summary also suggested if you need an inhibitor, use the strongest one available.

**Source:** North Dakota State University | R. Jay Goos

Instinct NXTGEN, which has the most extensive history of inclusion in research trials, significantly delayed nitrification up to 84 days and in greater amounts than the other tested products.

**Source:** Corn and Wheat Yields as a Function of Nitrogen Rates and Fertilizer Types or Additive in Three Physiographic Regions of North Carolina | Shelby Renae Rajkovich

### DCD

At 70 F, DCD lasts only approximately 7 to 14 days in the soil. "The rapid decomposition at 71.6 F suggests that DCD might not be a suitable nitrification inhibitor for summer crops."

**Source:** Decomposition rate of dicyandiamide and nitrification inhibition | Communications in Soil Science and Plant Analysis

DCD is not a good inhibitor for early spring or fall.

**Source:** What agronomists need to know about nitrogen enhancers and stabilizers, University of Minnesota Fabián G. Fernández

**"At 70° F, DCD lasts only approximately 7 to 14 days in the soil."**

DCD should be applied when soils are relatively cool to maximize its longevity. This makes DCD products less than ideal for Midwest corn growing states unless extended delayed nitrification is less desirable.

**Source:** The temperature dependence of dicyandiamide (DCD) degradation in soils | Soil Biology and Chemistry

For more information visit [NutrientMaximizers.com](https://www.nutrientmaximizers.com) or contact your local Corteva Agriscience™ territory manager.

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