











THE ANDERSONS, INC | TECHNICAL BULLETIN 08

BENEFITS OF SLOW RELEASE NITROGEN

SOIL AND FOLIAR APPLICATION ON ALL TYPES OF CROPS

Applying your entire nitrogen program before planting is not the most ideal use of N. By splitting nitrogen applications, growers have the ability to manage risk before critical growth stages. Nitrogen undergoes volatilization and denitrification throughout the growing season which leads to losses. Consider using Super 72™ or Super 25B™ to reduce these environmental losses and improve efficiency while maximizing yields.

These products may be foliar sprayed or injected through irrigation systems on all crop types to correct nitrogen deficiencies and extend the nitrogen release period for improved efficiency. It may be applied as a concentrate or dilute solution by ground or aerial equipment. Apply with sufficient water for adequate plant coverage, especially during periods of low humidity and high temperatures.



SOIL APPLICATION

Best results can be attained when slow release nitrogen is banded beside or between the rows of crops during planting or side-dressed before maximum nitrogen needs by the crop. The amount of Super 72 to use is dependent on the need of the crop and the amount of slow release nitrogen desired in the fertilizer mix.

SOIL APPLICATION BENEFITS

- N released later in the growing season during time of greatest crop needs.
- May be used alone or blended in any proportion with many other liquid fertilizers.
- Reduced N leaching.
- Fewer nitrous oxide (greenhouse gas) emissions when applied in the soil compared to other N sources

FOLIAR APPLICATION

Continue your fertility program with scheduled foliar applications. Foliar applications of Super 72 or Super 25B can add yield and quality, provide more uniform maturity, and help crops to quickly overcome nitrogen deficiencies.

FOLIAR APPLICATION BENEFITS

- No ammonia volatilization for excellent safety on plant tissues.
- High temperature application possible with low spray volume.
- Adheres to plant leaves for an extended foliar activity.
- Increases nitrogen absorption.
- Improves translocation and remobilization.
- May act as a as a carrier for micronutrients or pesticides.

HOW LONG OF RELEASE WINDOW BEST SUITS MY CROPS' NEEDS

When choosing the release window, growers must consider crop type, growing season and environmental conditions. If PureGrade SRN products are needed later in the growing season, growers should look into applying a SRN with a shorter release window.

PRODUCT	RELEASE WINDOW	ANALYSIS	% SRN
Super 25B™	10-14 days	25-0-0 + 0.5 B	25%
Super 72™	25-30 days	28-0-0	72%



FOR MORE INFORMATION

The Andersons, Inc. 800-831-4815 www.AndersonsPlantNutrient.com Download all technical bulletins at AndersonsPlantNutrient.com



FIELD CROPS

Suggested application rates and time of application for Super 72™ Nitrogen.

CROP	GALLONS/ACRE	TIME OF APPLICATION
Alfalfa	1.0 - 3.0	Apply after each cutting when sufficient foliage is present.
Canola	1.0 - 2.0	Apply just before bolting.
Corn, Field	1.0 - 1.5	12 to 24 inches tall. Tassel emergence. After pollination.
Corn, Seed	1.0 - 1.5	Before detasseling. Repeat after pollination.
Cotton	1.0 - 3.0	Early boll formation and repeat at 14 to 21 day intervals.
Flax	1.5 - 2.5	Early boll development.
Grain Sorghum	1.0 - 1.5	After pollination.
Grass seed production	2.0 - 3.0	Seed head elongation.
Hops	1.0 - 1.5	Before cone development.
Peanuts	1.0 - 1.5	Early bloom. Repeat at 14 to 21 day intervals until pods are filled.
Potatoes	1.5 - 2.5	Tuber initiation. Repeat at 10 to 14 day intervals until maximum tuber development has occurred.
Rice	2.0 - 3.0	Panicle initiation. Repeat if needed.
Small Grains	1.5 - 2.5	Tillering through flag leaf emergence.
Soybeans	1.5 - 2.5	Early pod formation. Repeat in 14 to 21 days.
Sugar Beets	2.0 - 3.0	10 to 12 leaf stage. Repeat at 20-leaf stage.
Sunflower	1.5 - 2.5	When outer seeds start to fill. Repeat in 10 to 14 days.
Tobacco	1.5 - 2.5	Plant bed stage to near maturity as needed to maintain crop growth and quality.
Other field crops	1.0 - 1.5	When sufficient foliage is present or at early fruit set. Slightly higher rates may be necessary.

GROUND APPLICATION Apply with a minimum of 5 gallons of water per acre or more for good coverage.

AERIAL APPLICATION Apply with a minimum of 2 gallons of water per acre or more for good coverage.

CENTER PIVOT AND OTHER SPRINKLER SYSTEMS

Apply 3 to 5 gallons per acre per application every 10 to 14 days as needed.

DRIP IRRIGATION Apply 3 to 5 gallons per acre per application 3 to 6 times during the growing season as needed.

When mixing Super 72 with additional nitrogen or NPK solutions for foliar application use only low biuret urea for nitrogen or PureGrade liquid fertilizers to minimize potential for plant tissue burn.





VEGETABLE AND GARDEN FRUITS

Suggested application rates and time of application for Super 72™ Nitrogen.

CROP	GALLONS/ACRE	TIME OF APPLICATION
Asparagus	1.5 - 2.5	At mid-fern development and repeat at 14 to 21 day intervals.
Beans, Green & Lima	1.0 - 1.5	At early flowering and repeat in 7 to 10 days.
Broccoli, Brussels Sprouts, Cabbage & Cauliflower	1.5 - 2.5	Prior to head formation and repeat in 10 to 14 days.
Carrots	1.0 - 1.5	When plants are 3 to 6 inches tall, repeat at three-week intervals or as required.
Celery	1.0 - 1.5	When plants are 8 to 12 inches tall and repeat at 10 to 14 day intervals.
Corn, Sweet	1.0 - 1.5	When plants are 12 to 24 inches tall, then at tassel emergence and repeat after pollination.
Cucumber, Melons & Squash	1.5 - 2.5	Early flowering and repeat at 10 to 14 day intervals.
Kale	1.5 - 2.5	When sufficient foliage is present.
Lentils	1.0 - 1.5	Early flowering. Repeat at 10 to 14 day intervals.
Lettuce	1.0 - 1.5	After thinning, then at early head formation. Repeat at 10 to 14 day intervals.
Okra	1.0 - 1.5	Bud stage. Repeat at 10 to 14 day intervals.
Onion and Garlic	1.5 - 2.5	Mid-set development. Repeat at 14 to 21 day intervals.
Peas	1.5 - 2.5	Early flowering. Repeat in 10 to 14 days.
Peppers	1.5 - 2.5	Early fruit set. Repeat at 10 to 14 day intervals.
Spinach	1.5 - 2.5	When sufficient foliage is present and repeat at 10 to 14 day intervals.
Tomatoes, Process & fresh	1.5 - 2.5	At full bloom. Repeat at 10 to 14 day intervals.
Other vegetable crops	1.0 - 1.5	When sufficient foliage is present or at early fruit set. Higher rates may be necessary.

Apply with a minimum of 10 gallons of water per acre or more for good coverage.

AERIAL APPLICATION

Apply with a minimum of 4 gallons of water per acre or more for good coverage.

Beginning at the 3rd to 4th leaf stage, apply 2 to 5 gallons per acre per application every 10 to 14 days.

DRIP IRRIGATION

Apply 2 to 5 gallons per acre per application 3 to 6 times during the growing season.

When mixing Super 72 with additional nitrogen or NPK solutions for foliar application use only low biuret urea for nitrogen or PureGrade liquid fertilizers for best results and crop safety.





FRUITS, BERRIES, NUTS & EVERGREEN TREES

Suggested application rates and time of application for Super 72™ Nitrogen.

CROP	GALLONS/ACRE	TIME OF APPLICATION
Almond, Filbert, Pecans and Walnuts	1.5 - 2.5	At full leaf. Repeat at early nut expansion.
Apples	1.0 - 1.5	Begin at first full leaf and repeat at early fruit color.
Blueberry	1.0 - 1.5	Early fruit set and repeat at early fruit color.
Caneberries	1.0 - 1.5	Prior to fruit set.
Cherries, Peaches, Pears & Plums	1.0 - 1.5	Prior to fruit set.
Citrus	1.5 - 2.5	Early bloom. Repeat after fruit set.
Winter rate	4.0 - 10.0	Apply in mid-January and repeat as required.
Cranberry	1.0 - 1.5	Hook stage. Repeat after fruit set.
Grapes, Table	1.0 - 1.5	Prior to fruit set.
Grapes, Raisin	1.0 - 1.5	When sufficient foliage is present. Repeat as needed.
Grapes, Wine	1.0 - 1.5	When sufficient foliage is present. Repeat as needed.
Olives	1.0 - 1.5	Early fruit development. Repeat as needed.
Strawberries	1.0 - 1.5	Early flowering and repeat every 14 days through harvest. Initiate fall application when new growth reaches 3 inches in height.
Other fruit or nut crops	1.0 - 1.5	When sufficient foliage is present or at early fruit set. Higher rates may be necessary.

EVERGREEN TREES

FOLIAR 1.0 to 1.5 gallons per acre as needed or at 14 to 21 day intervals.

Apply with a minimum of 5 gallons of water per acre or more for good coverage.

APPLICATION Apply with a minimum of 2 gallons of water per acre or more for good coverage.

SPRINKLER IRRIGATION Apply 2 to 4 gallons per acre per application every 10 to 14 days or as needed.

DRIP IRRIGATION Apply 2 to 4 gallons per acre per application 3 to 6 times during the growing season

CONCENTRATE OR Super 72 nitrogen may be applied in a concentrate spray (50 to 100 gallons of water) or dilute spray (200 to **DILUTE SPRAY** 400 gallons of water).

When mixing Super 72 with additional nitrogen or NPK solutions for foliar application use only low biuret urea for nitrogen or PureGrade liquid fertilizers for best results and crop safety.



