

Now offering our own  
uniquely formulated  
starter blend:

**CROP CHOICE**

LANDOIL® | SOIL BOOST PLUS® | CROP CHOICE® STARTER FERTILIZER | FOLIAR OPP® | NUTRIENT RECYCLING PROGRAM | 2075-SRN® & MAX72-SRN® | SOIL CAL® | AERWAY®

When you choose SOIL Service, Inc., to take care of your nutrient needs, you choose a complete program. Agronomists are available for consultation, and a complete soil test, including micronutrients, is provided. Recommendations for your individual field are also a part of the program. Delivery comes from local dealers.



**SOIL**  
**Service, Inc.**  
Custom Approaches to Soil Management

## SOIL SERVICE LIQUID FERTILIZER PRODUCTS ...

- Feed your crops, not the soil.
- Provide immediately available nutrients in seed-safe, usable ion form.
- Won't salt out or change form over time.
- Remain in an aqueous solution regardless of age.
- Are non-corrosive on equipment.
- Are certified for quality. Each batch is analyzed for quality-control before shipment.



## A COMPLETE LINEUP OF LIQUID FERTILIZER SOLUTIONS

Our versatile liquid fertilizer program begins with our own Crop Choice® starter fertilizer, then builds nutrient availability throughout the growing season with either a Foliar Opp® or slow release nitrogen application. We also offer chelated micronutrients and Sugar E-Boost® for specialized crop needs.

### PLANT NUTRIENT REQUIREMENTS FOR A 180 BU./ACRE CORN CROP

NUTRIENT	FIRST 25 DAYS		SECOND 25 DAYS	
	%	lbs./acre	%	lbs./acre
Nitrogen (N)	8	19	35	84
Phosphate (P <sub>2</sub> O <sub>5</sub> )	4	4	27	27
Potash (K <sub>2</sub> O)	9	22	44	104

*Nutrients taken up by corn in 25 day periods after emergence.*

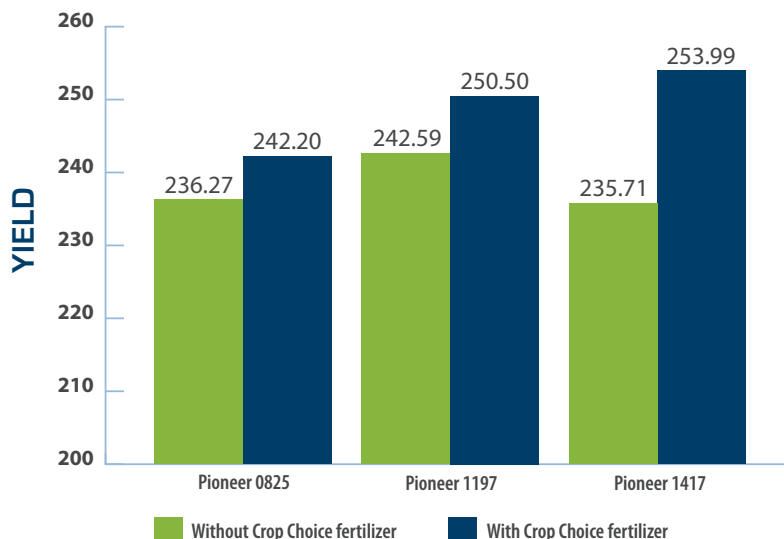
## CROP CHOICE® STARTS CROPS OFF STRONG

Starter fertilizer is a crucial part of the soil fertility program, especially if you aim to take advantage of the benefits of planting earlier in the growing season. An in-furrow boost when soils are cold and wet ensures seeds have direct access to the nutrients they need during the most critical growth stage—before the sixth leaf, when maximum corn ear size is determined.

At SOIL Service, we recommend our carefully developed Crop Choice starter fertilizer brand of products because it is 100% orthophosphate, so it is 100% available to your crops—unlike the brands sold by many of our competitors. Crop Choice starter fertilizer:

- Is seed-safe for in-furrow placement at our recommended rates.
- Has the potential to benefit corn (grasses), soybeans (legumes), and virtually all other crops.
- Allows for a lower application rate than broadcast and 2×2 placement.
- Has a low impurity level, low viscosity, and low salt content.
- Is non-corrosive because of its low salt content and high level of purity.
- Contains potassium, another nutrient that benefits young plants.

**SOIL Service, Inc. Research**  
Pioneer Test Plots 0825, 1197, and 1417  
With and Without Crop Choice® Fertilizer



## SUCCESSFUL FOLIAR FEEDING INVOLVES ...

### TIMING

- In soybeans: third to fifth trifoliolate stage with possible second application at R3 stage.
- In corn: V4 or V5 stage with possible second application at tasseling.

### TECHNIQUE

- Small spray droplets are preferred.
- Add one pint SOIL BOOST PLUS® per acre to adjust pH of water and enhance absorption and translocation.
- Add Landoil® as your spreader/sticker to help hold products to the leaf, improving coverage and penetration.
- Minimum spray mix of 5–10 gallons per acre is preferred.

## FOLIAR FEEDING MAINTAINS NUTRIENT BALANCE

Foliar feeding has become more and more popular among producers who want to maximize yields—lack of availability of micronutrients like zinc, manganese, sulfur, and boron can have a negative yield impact. If a tissue test reveals any deficiencies, we recommend an in-crop, in-season application of Foliar Opp® and slow release nitrogen.

Foliar Opp is our tested orthophosphate potassium liquid fertilizer plus a trace element package. We have developed two versions of this product based on the unique needs of grass and legume crops. Foliar Opp Corn and Foliar Opp Beans each have a specific blend of micronutrients to help plants maintain proper nutrient balance. Our Foliar Opp products efficiently feed both soybeans for increased pod set and corn for improved ear set and size. You can expect an increase in both yield and quality in beans, corn, alfalfa, wheat, pasture, and all other crops.

Foliar Opp application is simple: a one-pass solution with a low application rate of 2–3 GPA. It is non-corrosive on equipment and is safe for Roundup® tank mixing. This product is available in bulk and a convenient 275-gallon mini-bulk tank.

The potassium in Foliar Opp may also increase the effectiveness of starter fertilizer. Ask your SOIL Service sales representative for more information.

**FOLIAR OPP**  
Corn

**FOLIAR OPP**  
Beans

## SLOW RELEASE NITROGEN

Max72-SRN® is easy to handle, non-corrosive on equipment, and safe to apply with other chemicals and fertilizers, saving you time.

**Max72-SRN**

Containing the maximum percentage of slow release nitrogen available on the market—72 percent—our Max72-SRN product is a non-burning solution for use on

row crops, turf, vegetables, and fruit. At a rate of one gallon per acre, it offers more than three times the slow release nitrogen of many competing products. Tests have shown Max72-SRN remains available to crops for up to six weeks in the soil and three to four weeks on the leaves.

Foliar feeding Max72-SRN minimizes N loss and coats leaves, lasting for weeks while the plant tissue absorbs it. Its staying power makes it an ideal delivery partner for both crop protection chemicals and glyphosate herbicides, keeping these products on the crop or the weed for a longer period of time.

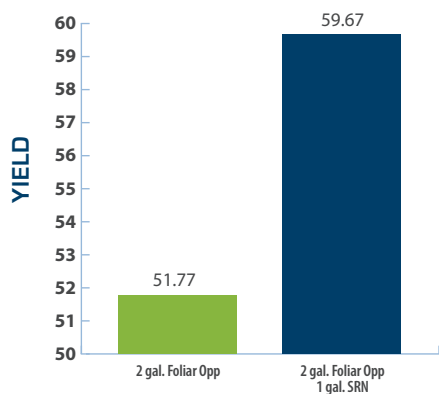
2075-SRN® offers maximum nitrogen with sulfur and potassium.

**2075-SRN**

When crops need a nutrient boost during the growing season—especially if they have been put under stress from heavy rains, wind, or hail—2075-SRN is SOIL Service, Inc.'s solution.

A clear liquid fertilizer using our high-performing Max72-SRN as a foundation, 2075-SRN delivers nitrogen, sulfur, and potassium for crops to absorb virtually any time during the growing season. It can be applied as a foliar spray or via an irrigation system and mixes well with herbicides and fungicides.

SOIL Service, Inc. Research  
Foliar Opp® Comparison With and Without SRN



## SUGAR E-BOOST

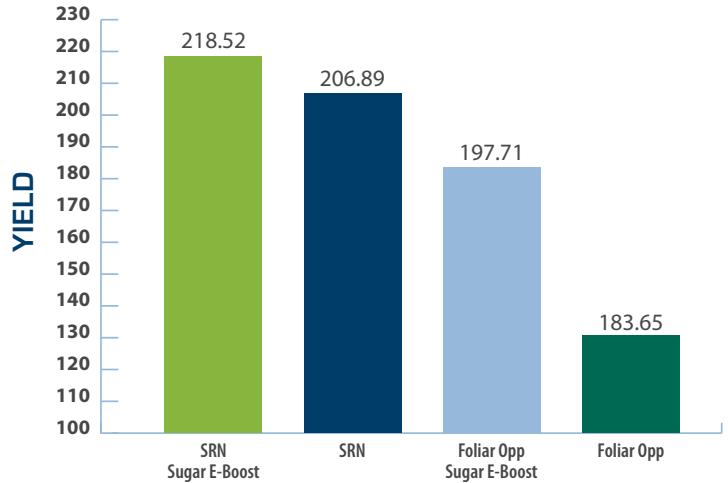


Sugar E-Boost is a natural liquid that provides energy to speed beneficial bacterial activity in the soil and for plants. Effective for foliar and soil applications, Sugar E-Boost can be applied at planting, as a side-dress or transplant, foliar fed, or fertigated. Use of Sugar E-Boost aids in the development of stronger, healthier plants and can contribute to increased yields. When used with fertilizers and/or herbicides, Sugar E-Boost helps ensure plant nutrients are made available to growing crops.

This product doesn't freeze or crystallize, has no chlorides, and has good storage properties. Sugar E-Boost is for use on all crops and is compatible with most herbicides, insecticides, and fungicides.

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**SOIL Service, Inc. Research**  
2015 & 2016 Average of SRN and Foliar Opp®  
With and Without Sugar E-Boost®



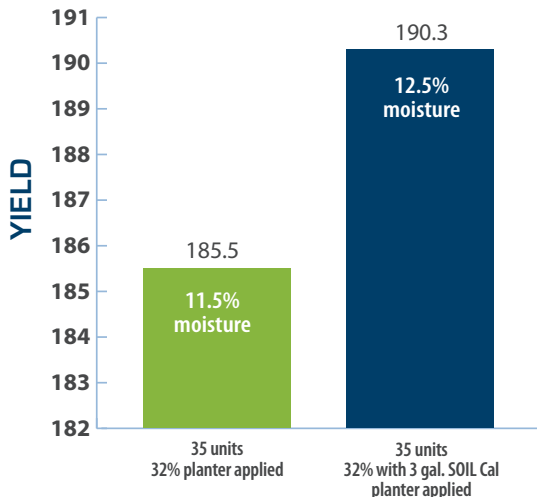
## NUTRIENT RECYCLING PROGRAM

Our Nutrient Recycling Program (NRP) features four components: SOIL Cal®, Sugar E-Boost®, Nutrapathic Soil Restore, and Liquid Bacteria Concentrate. NRP will:

- Speed crop residue breakdown and recycle crop residue nutrients.
- Stabilize nitrogen when applied with or prior to nitrogen application.
- Enhance nutrient uptake and efficiency, allowing a reduction in broadcast NPK application rates.
- Provide readily available calcium and release calcium from soil limestone.
- Provide energy and carbohydrates for beneficial soil microbes—fungi and bacteria.
- Increase water infiltration and water retention in your soil profile.
- Increase root mass, enhance water absorption, and encourage deep roots, building drought tolerance. More roots equal more nutrient absorption, increasing yield and quality.



**SOIL Service, Inc. Research**  
Nitrogen Rate Plot with SOIL Cal  
Double K Research, Nauvoo, IL



## SOIL CAL



If you apply liquid nitrogen in the form of 28% or 32%, you should be using SOIL Cal. SOIL Cal can increase your profits by ensuring you get the most you can out of your nitrogen. An excellent nitrogen stabilizer, SOIL Cal mixes readily with these nitrogen formulations and will help keep nitrogen stable in your soil profile.

SOIL Cal is one of four components in our Nutrient Recycling Program, a program that stimulates natural biological life in the soil to break down the stalks and stubble left in the fall. The longer the microbes have to work on the crop residue, the more nutrients are released for next year's crop. The biological activity keeps the soil bacteria and fungi in a healthy balance, which is good for your crop's potential yield and has been shown to greatly improve overall plant health.

# SPRAY SURFACTANTS ...

Reduce the surface tension between the spray droplet or pesticide and the leaf surface when added to fertilizer. Your chemicals cover more surface, stay there longer, and penetrate better.

## LANDOIL®

Landoil is a premium product used as a replacement for crop oil and non-ionic surfactants. We have done extensive research to ensure we provide the optimum adjuvant system to maximize the effectiveness of your chemicals.



- **Support local growers.** Landoil is a soybean oil-based spray surfactant made from soybeans grown right here in the Midwest—not from petroleum from the Middle East.
- **Spread and stick better.** Spray with Landoil and you'll find your chemicals not only cover the surface you are spraying, but also stay there until the chemicals penetrate the plants. Landoil is a tremendous spreader and sticker.
- **Penetrate better.** Landoil's excellent penetration and translocation capabilities mean that you'll hit your target and, as with glyphosate, move the chemicals throughout the plant.
- **Limit drift.** Landoil's drift-control properties mean you will get more of your pesticide on target, saving you both time and money.
- **Rain fast.** Landoil helps chemicals stick to the leaf, often within 20 minutes, so they are less susceptible to washing off.
- **Use with SOIL BOOST PLUS®.** See below.

**SOIL Service, Inc. Research**  
Roundup Rate With Landoil and SOIL BOOST PLUS  
Garden City, MO

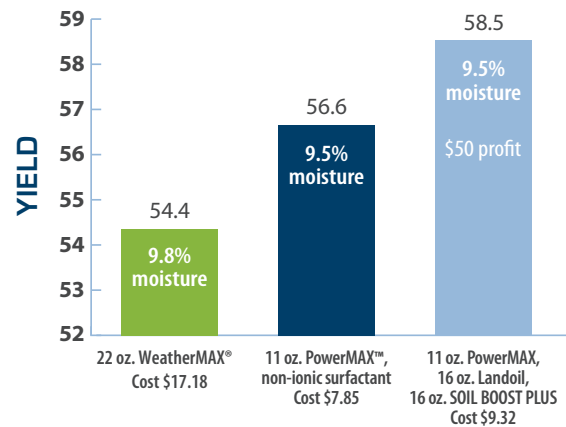


Chart shows average of the replications. Willcross RR2446N beans planted June 1 at 150,000 seeds per acre. Harvested Nov. 4. Half-rate of PowerMAX with Landoil and SOIL BOOST PLUS increased yield 4.1 bu. per acre and increased profit over \$50.00 per acre.

## SOIL BOOST PLUS®—BETTER THAN AMS

If you are looking for an easy-to-use, cost-effective alternative to ammonium sulfate (AMS), look no further. SOIL BOOST PLUS provides two key benefits in one product. Alternatives may provide one benefit or the other, but few do both.

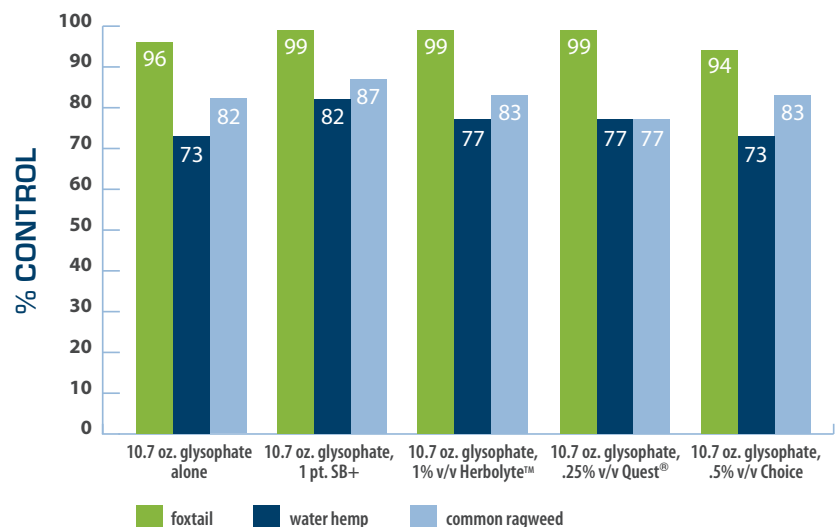
- It ensures pesticides such as glyphosate perform as intended by tying up hard-water minerals.
- It lowers the pH of your solution to 5 so it is readily absorbed into plant leaves.

The problem is tap water often contains levels of magnesium, calcium, and iron, which can increase the pH of the water in your solution to over 7. Calcium ties up glyphosate, and an elevated pH inhibits absorption.

SOIL BOOST PLUS contains some AMS and a pH-lowering ester to drop the pH of your water to about 5. Adding just one pint per acre controls the pH, eliminating the need for a pH tester. SOIL BOOST PLUS also contains proprietary buffering, penetration, and translocation agents to significantly boost the penetration and movement of most pesticides in the target plants.



**SOIL Service, Inc. Research**  
Hard H<sub>2</sub>O Study - 250 Grains of Hardness  
Southern Illinois University





Close-Coupled Tandem AerWay



Valmar 55 Series seeder on a 20' AerWay and Salford Double Rolling Harrow

## AERWAY®

To help you manage crop residue and combat soil compaction, we recommend using AerWay advanced soil aeration systems. AerWay tools work to improve soil health through vertical tillage in several ways:

- Improving residue management by maintaining and incorporating residue to build soils and improve tilth.
- Preparing soil for next spring, allowing moisture to penetrate better and improve water efficiency, which creates warmer and drier soil in the spring.
- Capturing and holding moisture, ensuring that moisture is absorbed, stored, and available for drier periods next year, providing soil increased benefit from winter's frosts.
- Protecting from erosion by leaving most crop residue on or near the soil surface, anchoring soil in place.

SOIL Service also rents and sells a wide selection of used AerWays.

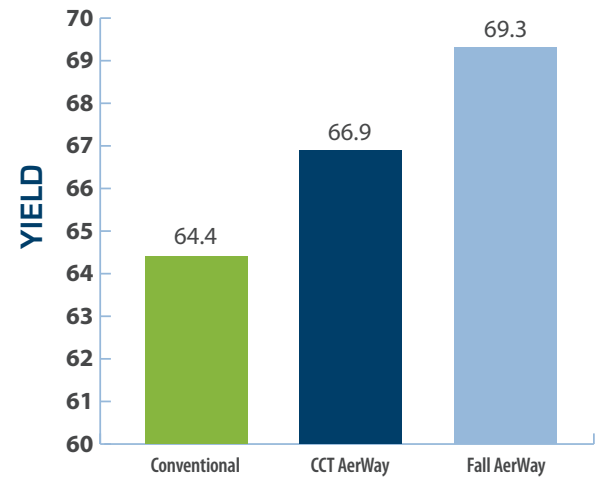
### Standard AerWay Folding or Straight Frame

A single roller system features four patented Shattertines® per row with unique angles and offsets. Fine-tune the vertical tillage choices for minimum disruption or aggressive soil movement, residue mixing, and additional warming.

### Close-Coupled Tandem AerWay Folding or Straight Frame

Overlapping tandem rollers aggressively attack residue while loosening, warming, and drying your soils—all in one pass. The CCT uses two overlapping tined rollers with three tines per row, giving you more pockets and fractures per acre.

SOIL Service, Inc. Research  
2016 Conventional, CCT, and Fall AerWay®



### Salford Valmar 55 Series seeder

Precise and adaptable, the Salford Valmar 55 Series seeder can be mounted onto any size AerWay to quickly and accurately seed cover crops or overseed pastures in one pass.

SOIL Service, Inc., completes extensive testing with all our products at our warehouse and research farm near Niota, Illinois. We are dedicated to selling and developing an extensive line of soil additives that give us the ability to facilitate improved crop performance for all our customers' unique needs.



## CONTACT SOIL SERVICE

Office, Warehouse,  
and Research Farm

2576 N County Road 1600 E.  
Niota, IL 62358

Phone: (217) 755-4400 or (888) 313-2360

[www.soilserviceinc.com](http://www.soilserviceinc.com)