



# Row-Crop Farmer Unlocks Fertility Using SP-1 Classic Biofertilizer and Saves \$200,000

*"We've come to rely on these products so much, well, it would scare me not to have them," – Derek Davis, Missouri row-crop farmer, referring to his use of DPH Biological's biofertility and soil health solutions for commercial farmers.*

**Farm:** Legacy Ridge Farms, owned and operated by Derek and Lyndsey Davis and their children Gentry and Gage. The Davis family also owns and operates River Valley Ag Exchange, a full-service farm supply for organic and non-GMO growers.

**Location:** Saline County, central Missouri state.

**Acreage and Crops:** 700 acres. Yellow and blue corn, soybeans, wheat and alfalfa.



## Fertilizer Costs Were Eating Away Profit Margin

When Missouri farmer Derek Davis decided to transition his conventional row crop operation to certified organic in 2015, it took only a few years before realizing he needed to rethink his approach to fertility.

Davis, 43, has always been an out-of-the-box thinker, starting at the age of 13 when he secured a \$300,000 farm loan and parlayed an FFA project into his dream to rebuild the family farm. Since then, he has scaled up the family's 100-acre farms, all that was left after the 1980s farm crisis, into a 700-acre operation.

When he had been growing conventionally, maintaining soil fertility hadn't required much thought. "Before we went organic, we'd call the local coop, pull a soil sample and just do whatever they recommended we do. It was easy. But once we went organic, we didn't have that convenience anymore," Davis recalls.

Instead, Davis ended up with the “kitchen sink” approach to fertility in his organic production. Worried about making his yield goals, he was spreading compost, manure and a mix of fertility-boosting products.

“We were definitely throwing a lot of things at the plants,” Davis recalls. But then, crop prices dropped. Davis was forced to find a way to cut his input costs without sacrificing profitability, aka yield.

“My banker said, ‘You know, you only need ‘X amount’ of bushels to make this work. Where can you trim and still make the yield you need?’ It was obvious we needed to be more intentional with whatever we put down,” Davis recalls.

## Going All-In With SP-1 Classic

One product that seemed to be a sure bet was [SP-1 Classic™](#), [DPH Biological’s](#) flagship biofertility solution for organic and conventional growers.

Several years prior, upon advice from his crop consultant, Davis had started applying a conservative foliar application of SP-1, a new practice for his operation. Then his county was hit hard with a persistent drought. Davis noticed that the fields he had applied SP-1 showed less drought stress than neighboring fields.

### SP-1 Classic for Organic and Conventional Farming Operations

SP-1 Classic was initially developed as a fertility solution for organic growers like Davis but has since become one of the top biofertility solutions in the nation for conventional acres, proven in multiple crops and across numerous years.

SP-1 Classic is a complete liquid biofertilizer comprised of a diverse community of microbes, plant-based humus extracts and algae. SP-1 Classic works by unlocking soil fertility already present in native soils and making better use of applied fertilizer, whether it’s organic or chemical-based.

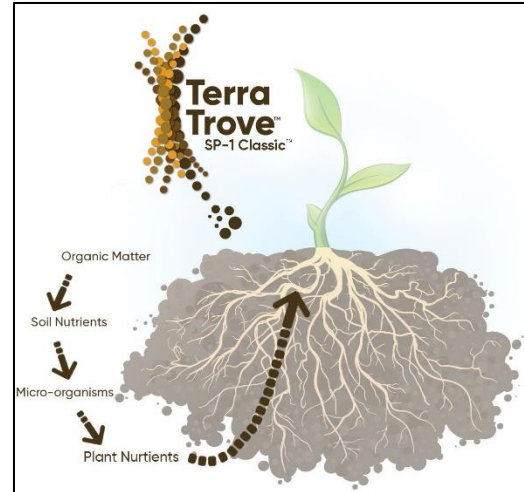
SP-1 Classic is affordable, easy to use and proven through decades of commercial use on millions of acres in both organic and conventional row-crop and specialty crop operations.

Improved Soil Structure | Optimized Nutrient Uptake | Improved Vigor & Crop Establishment |  
Lower Fertilizer Use | Better Yields | More Farm Profit

Believing that SP-1 had been the “common denominator” of success amongst everything else he had been trying, Davis took a chance and decided to go all-in with SP-1 Classic the following season. In the spring of 2019, Davis skipped spreading compost and eliminated manure on all but his worst fields, replacing those inputs with an in-furrow program with SP-1 Classic across every field he planted.

*The results surprised even his banker.*

“When we got done that year, holy cow, we’d made more money per acre than we ever had,” Davis recalls. Not only had he cut nearly \$200,000 in input costs, he still maintained his typical crop yields of previous years.



## The Results

Since that fateful season, Davis has continued to increase his use of SP-1 and added additional products from DPH Biological’s TerraTrove™ platform of biofertility solutions.

### What is TerraTrove and How Does It Work?

TerraTrove is a suite of bio-based grower solutions that harness the power of live Plant Growth Promoting Rhizobacteria (PGPR). TerraTrove products, including SP-1 Classic, use a proprietary mix of plant-based humus extract, algae and natural food sources to break down organic matter, cycle nutrients and boost soil fertility.

All TerraTrove products have been intensively field tested, have a long shelf life, can be tank mixed with other products (including synthetic chemistry and fertilizers) and can be field applied in multiple ways.

“We started out with a gallon per pass rate of SP-1. Now I’m doing two to three, depending on the crop and the timing. We just keep seeing increasing results and returns,” Davis says.

### Derek Davis’ Winning Biofertility and Soil Health Regime Using DPH Biologicals TerraTrove Platform

- **Myco Seed Treat**® seed treatment is a blend of bacteria and fungi that supports emerging seedlings and plant growth. Davis uses MST on all his cash crop plantings.
- **SP-1 Classic** is applied in-furrow at planting and foliar, typically twice throughout the growing season. Some growers have also integrated SP-1 into their broadcast weed and feed program.
- **Residue™ Complete** a blend of nutrient-cycling fungal and bacterial microorganisms that facilitates crop residue breakdown after harvest or early spring before planting. Residue breaks down crop stubble, sinking nutrients into the soil while making them available for plant uptake, improving soil

tilth and clearing the path for improved planting conditions in the spring. Davis applies Residue on crop stubble when weather permits.

But the biggest lesson from that year was that he didn't need more fertilizer to succeed. He needed better soil biology, Davis says.

"This experience really made me realize we don't need all the fertilizer the coop says we do. If we pay attention to weed control, the timing of our planting, a little bit of fertilizer and biologicals, we're going to raise crops better," Davis says.

What Davis learned, he says, is that by reducing his input costs, he doesn't have to worry about chasing yield to stay profitable. That's a sure bet when supply chain constraints send input costs skyrocketing but still more money in the pocket when input prices fail.

"Everybody loves that 200 to 300-bushel corn. But if you're raising 300-bushel corn and you're making \$200 an acre, and I'm raising 174-bushel corn, and I'm making \$300 an acre, who's really winning? Forget yield. Focus on profit per acre," Davis says.

Davis is now passing on what he's learned to the growers he and his family support with their local elevator and farm supply company for organic and non-GMO growers, River Valley Ag Exchange (RVAE). Annually they host a field day for local farmers to tour the fields and see the crops they've grown using DPH Biological's biofertility solutions.

"Our approach is, come and look. Walk our fields. See our results. This is what we use. It works," Davis says.

### **Better Pricing, More Test Results**

**SP-1 Classic is an affordable, proven biofertility solution for conventional and organic growers**

Starting in 2022, SP-1 Classic's price was aligned to match conventional starter fertilizer and growers were advised to replace up to half of their starter fertilizer in-furrow for best results. The result? For the same input costs, farmers get a much bigger fertility (plus soil health) boost.

And the tests confirm it. In 2021 third-party commercial trials in 17 locations across the corn belt resulted in a more than 70%-win rate. Growers reported yield increases of up to 18 bu/acre compared to standard management practices and an average yield increase of 5.0 bu/ac.

**To order SP-1 today, visit us at [dphbio.com](http://dphbio.com) or call 1.800.648.7626**