

ACF-SR

A Blend of Beneficial Bacteria That Improves Soil and Plant Health

Every handful of soil on earth contains these beneficial bacteria, along with

10,000 to 100,000 other strains.



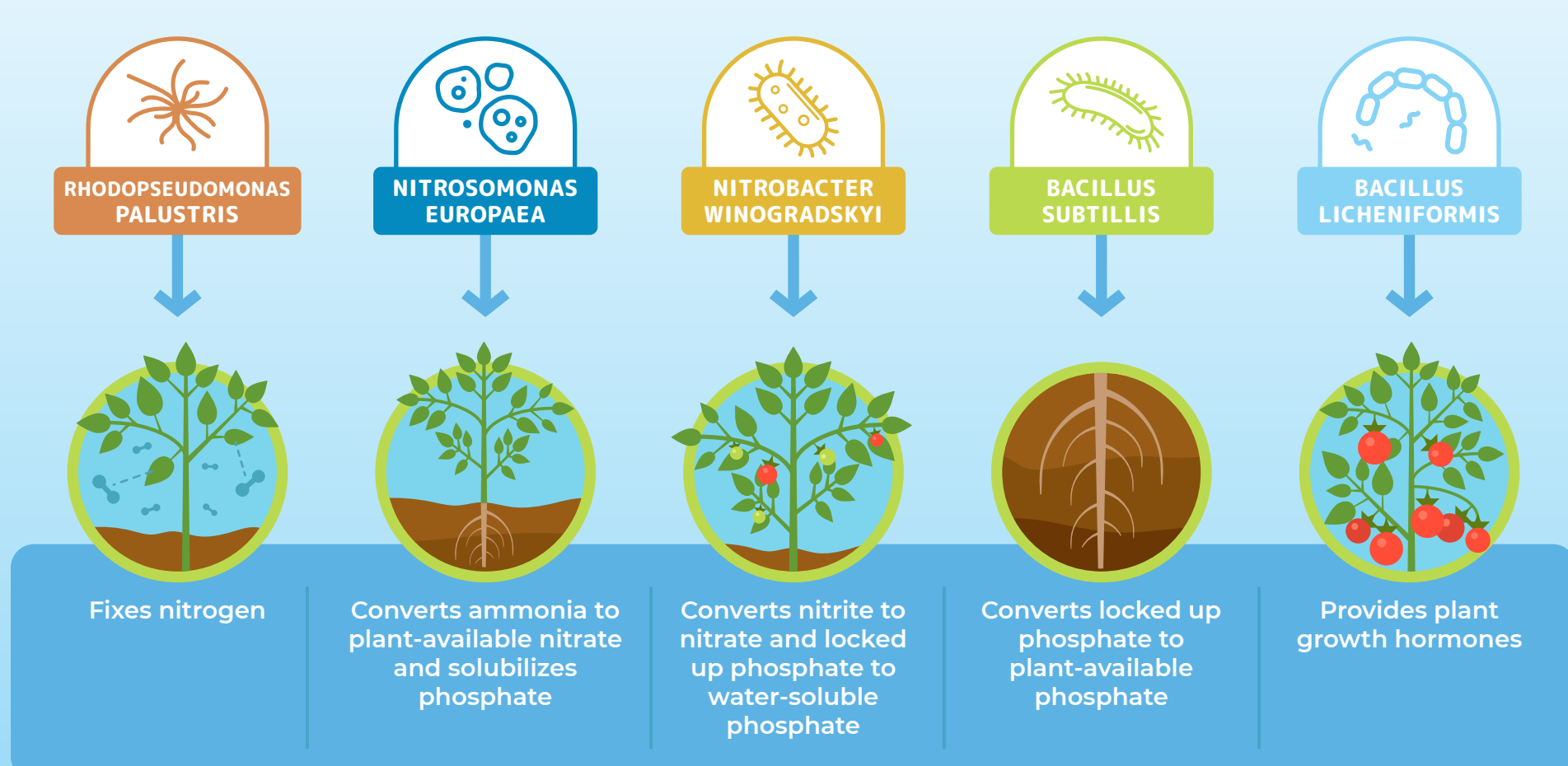
20+ YEARS OF RESEARCH



Over time, we trained five species to perform the most beneficial functions identified for soil & plant health.

Each Bacteria Has a Specific Function

These bacteria have dozens of roles associated with plant health and growth, for example:



MOST IMPORTANTLY...

These bacteria access nutrients from the atmosphere and soil that are otherwise in an **unavailable form** and transform them into a **plant-available form**.

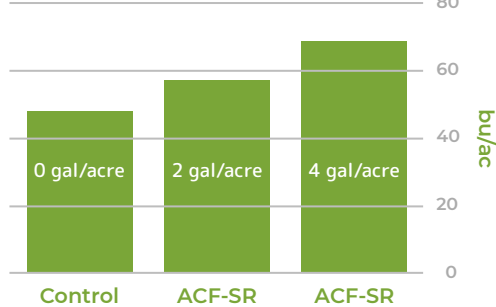
Together, These Bacteria Show Proven Results

The bacteria aid the plants in making more efficient use of existing soil health, fertility, and synthetic fertilizers. Additional benefits that our producers have reported from using our microbes include:

Increased Yields

Years of third party, replicated plot work and field trials have confirmed consistent yield increase on a variety of crops. This has been the primary focus of all our research since the release of the product, as we study the benefits of the bacteria in a range of soil types and climates across North America.

DRYLAND SPRING WHEAT



Faster Germination

Applying ACF-SR as close to the seed as possible allows for much faster germination. We have observed significant germination improvements when the bacteria are applied as a seed dressing, or in-furrow. This gives the crop a "head start" and can increase days to maturity in many instances.

Quality Increase

We have studied the effects of our bacteria on BRIX levels in fruits and vegetables, but also the effects the bacteria has on the quality of many other crops. With the ability of ACF-SR to generate root development and nutrient solubilization, more sugars and beneficial properties for quality, tend to increase.

Dose	1 mL/m ²	1.5 mL/m ²	3.0 mL/m ²	Control
Brix	8.87	9.02	9.37	8.5

Fertilizer Efficiency

Access what is already in your soil instead of adding more to feed your plant. ACF-SR has 3 nitrifying bacteria that will capture nitrogen from the atmosphere and convert it to a plant available form. It is also extremely efficient at solubilizing phosphorus and potassium. This means you can have less of a reliance on synthetic products and save on your input program.

Deeper, Stronger Root Systems

ACF-SR colonizes the rhizosphere of the root and allows for superior nutrient acquisition. If there's one thing you want to observe in a field treated with our bacteria, it is root development. More root hairs and whiter, longer roots are standard results of using ACF-SR.

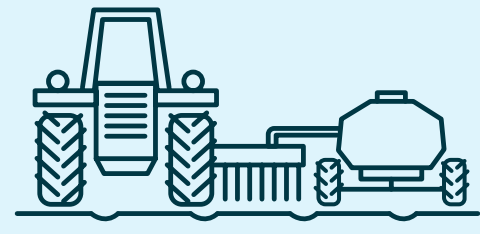
Greater Biomass

Multiple research projects with our function-focused bacteria have proven to yield more biomass in a multitude of crops. This has been a very important function of ACF-SR in forage and feed applications, but also for crops that could use a boost in the stem strength to resist environmental stress.

Resistant to Plant Stress

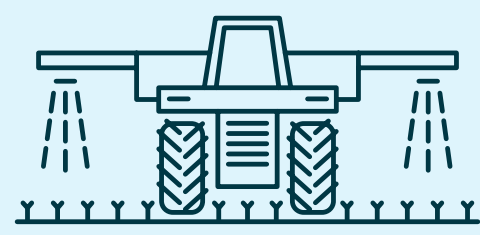
Soil biology, driving root development is the key to not only drought resistance, but really any stress that can be caused to the plant. We like to compare a healthy root system to a healthy immune system in our bodies. Root-colonizing bacteria produce a wide range of enzymes and metabolites that help plants tolerate both biotic and abiotic stresses.

HOW TO USE ACF-SR



In-Furrow

Add ACF-SR as you plant seeds



Foliar Applications

Feed plants by spraying ACF-SR directly on foliage

THE BENEFITS OF USING ACF-SR



Built on 20+ Years of Research



Long-Term Soil Health



Certified Organic



Improved Yields



Guaranteed Minimum Analysis



Reduced Input Costs

SOURCES

- Soil Microbial Diversity in Grasslands and its Importance for Grassland Functioning and Services: https://www.ae-info.org/attach/User/Le_Roux_Xavier/Highlight/Chap17%20CABI%20Le%20Roux.pdf
- Advanced Ag - Microbes for Soil & Crop Health: <https://www.advancedag.ca/technical-discussion>
- How Does Nitrogen Help Plants Grow: <https://www.phoslab.com/how-does-nitrogen-help-plants-grow/>
- Plant Hormones - an overview | ScienceDirect Topics: <https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/plant-hormones>
- How Does Phosphor Help Plants Grow?: <https://www.phoslab.com/how-does-phosphor-help-plants-grow/>
- Advanced Ag - Microbes for Soil & Crop Health: <https://youtu.be/fbqZGIJasA4>
- Beginners guide to ACF-SR: <https://www.advancedag.ca/post/we-hit-a-wall-we-needed-to-change-what-we-were-doing>
- Farmer's First Experience with AAG Biologicals: <https://www.advancedag.ca/post/farmer-s-first-experience-with-aag-biologicals>
- University Strawberry Trial: <https://www.advancedag.ca/post/greenhouse-strawberries>
- Biology for Drought Tolerance: <https://www.advancedag.ca/post/biology-for-drought-tolerance>
- Advanced Ag Hay Trial: <https://www.advancedag.ca/post/2019-hay-trial>
- "Show Me the Data" - Biologicals in Ag: <https://youtu.be/xwNwRZfzwq8>