

Biologicals Decision Support

Red Flags & Questions to Ask Before Buying: Beyond Price & Yield Claims

ASK YOURSELF: DO I KNOW WHAT'S LIMITING MY YIELDS?

Do I know what's holding back my yields right now?

A yield bump is a valid goal, but if you don't know what's currently limiting you, you won't know if the biological helped or not. Common gaps biologicals can actually address: nitrogen efficiency in corn, phosphorus availability in low-P soils, specific soil disease pressure, or depleted microbial activity after years of heavy chemistry.

Have I dealt with the basics — pH, drainage, fertility?

Biologicals won't overcome a drainage problem or a severe pH imbalance. Fix limiting factors first. That investment often pencils out better.

Is this a biostimulant or mycorrhizal product? How are my P levels?

Mycorrhizal application response is often reduced in high-P soils. This doesn't apply the same way to nitrogen-fixing inoculants on legumes, which work regardless. Know what type of product you're evaluating.

ASK THE SALESPERSON: WHAT IS THIS PRODUCT?

Is this a live product or not?

Live microbial products can die in a hot trailer or past their expiration date. Non-living biostimulants are more stable. These are fundamentally different- handling, storage, and performance expectations all change.

▶ Vague “store cool” instructions with no expiration date.

What does it actually do in my soil or on my plant?

Seek a plain-language answer: fixes nitrogen, unlocks phosphorus, suppresses a specific pathogen, stimulates root growth. If they can't say it simply, that's a problem.

▶ “Improves plant health,” “activates soil biology,” “does everything.”

ASK THE SALESPERSON: WHAT IS THIS PRODUCT? (CONT.)

Will it work with my seed treatment, herbicide, or fertilizer program?

Many biologicals are sensitive to fungicide seed treatments and common herbicides. Depending on the product and chemistry, mixing incompatibles can reduce efficacy or kill live organisms entirely. Ask for specific compatibility data, not general assurance.

- ▶ Hasn't tested compatibility with your specific inputs or doesn't know.

Do I need any special equipment or extra steps to apply this?

Some products need separate tanks, specific mixing order, or tight timing windows. Know before you buy.

- ▶ Significant new equipment/labor required, no application support

ASK THE SALESPERSON: WHERE'S THE PROOF?

Was this tested in a commercial field, or just a lab?

Products routinely perform in the lab and fail in the field. Look for multi-year, multi-location field data, not greenhouse results.

- ▶ Only lab or greenhouse data, field trials run only by the company.

→ *Has it been tested in soils or conditions like mine?*

- ▶ All trial locations are far from your geography or on different soils.

→ *Can I see the full trial results — not just the wins?*

Any product has good results somewhere. All in — how often did it work, how often didn't it, and by how much?

- ▶ Only best-case numbers shared. No data from trials where it failed

→ *Has a university or extension service tested this independently?*

Company data and independent data can differ significantly. Your extension office is a good gut-check.

- ▶ No university or independent trial data exists at all.

ASK THE SALESPERSON: WHO ELSE IS USING IT?

Can you connect me to farmers nearby I can call?

Peer experience from someone farming similar ground beats any brochure. A confident company will have references.

▶ No local references, or only national testimonials & no contact info

→ *Can my agronomist/extension agent find independent intel on this product?*

If your advisors can't find any independent data or have never heard anything about it, that's a signal worth taking seriously.

How old is this company, can I reach someone if something goes wrong?

The biologicals market has seen a lot of companies with big claims and short lifespans. You want someone who'll answer the phone in August.

▶ New company, no track record, no local technical support.

→ *If it doesn't work, what happens?*

▶ No guarantee and no independent data to compensate for that.

ASK YOURSELF: DOES THE MATH WORK?

How many bushels do I need to break even at today's price?

Products run \$5–\$22+/acre. Do the math explicitly: divide the cost per acre by your commodity price to get your break-even yield gain. A \$10/acre product at \$4.50/bu corn needs a 2.2 bu/ac gain just to break even. For \$11.25/bu beans a \$15/acre product needs 1.3 bu/ac gain — every acre, every year. If trial data doesn't consistently support that, beware.

Do I want to run a strip trial before going all-in?

The only way to know if something works on YOUR farm is treated vs. untreated in the same field. One year of your own data is worth a lot.

→ *Am I changing only one thing this season so I can tell what worked?*

If you switch varieties, change fertility, and add a biological in the same year, you won't know what moved the needle.

▶ Company discourages or makes it hard to set up your own comparison.

BOTTOM LINE

Good companies are upfront about what their product does, where it's been tested, and who's using it. If a salesperson can't clearly answer the questions above, that's your answer. Start with a strip trial and let your data decide.

