



Beating the “Big Three” — input costs, water runoff, and compaction

Input costs, such as fertilizer and pest control

With commodity prices so variable—corn and wheat expected to be down, oats and soybeans on the rise—it’s going to be more and more important to maintain as much control as possible over your production costs.

To do that, we recommend:

- **Paying personal attention to weeds, insects and disease.** You may be able to save money by doing your own spraying, scouting for damage instead of blanket-spraying, and planting disease-resistant varieties.
- **Cutting back on seed cost by participating in early-order programs.**
- **Boosting fertilizer efficiency.** Tweaks to your application schedule can cut the nitrogen you use, for example, by 10 to 15%.
- **Changing your rotation.** Continuously planting the same crops can invite problems with disease.
- **Getting help.** Software or crop consulting, although they themselves are input costs, can pay off handsomely in increased efficiency.

Water runoff

Losing soil would be a problem for any farmer, and strategies such as incorporating waterways to reduce soil loss, or planting cover crops to keep the ground in place during the off-season, are helpful.

But reducing runoff in Ohio is even more important, where phosphorous issues have led to a problem with Harmful Algal Blooms (HABs) in recent years.

We suggest adopting different agricultural practices such as controlling irrigation rates, creating a “buffer strip” between your farm and a waterway, diverting runoff to ponds or wetlands, and more.

These can be expensive measures to implement, but recent cooperation efforts between Ohio, Michigan and Ontario have shown that this is a problem government takes seriously—and that you need to, as well.

Compaction

Soil compaction happens when the pore space between soil particles collapses because the particles have been pressed together. It's an issue because compaction affects root depth, soil temperature, bulk density and water infiltration.

If your soil has a platy structure or you're seeing flattened or stubby roots, bad news—you have excess compaction. You're also in line for several problems: lower yields, more erosion, increased runoff, and so on.

To combat it, remember these relatively simple strategies:

- If you can form the soil into a ball and drop it without the ball falling apart, don't work the field.
- Don't drive on your soil when it's wet.
- Try not to drive at all if you don't have to—80% of compaction occurs on the first pass.
- When you do drive, try to reuse the same wheel tracks to minimize the issue.
- Use big wheels and large tires, inflated to only about 8 PSI, to lower pressure on your soil. By spreading out your wheel's footprint, you'll reduce compaction.

If you're seeing extreme compaction, it's already too late. You'll need to consider subsoiling—tillage below 12 inches—to try to bring the soil back to normal. If you're not yet that far gone, there is some evidence that properly managing your soil will encourage compaction to dissipate over several years.

And if compaction isn't yet a huge issue for you, look into conservation tillage and cover cropping as ways of maintaining proper soil density. Both can help when you're fighting compaction (not to mention erosion and runoff).

About PASI

We understand what it's like to farm—because at Precision Agri Services, Inc., we have years of farming experience ourselves. There's no such thing as a “set it and forget it” approach to farming, which is a truth we've learned first-hand.

We use the products we sell, and prove an approach in the field time and again before we recommend it to you. Even then, we'll only make a recommendation if we can be sure it's good for both your profitability and for the environment.

To learn more about how we can help you with your farm, contact us at 419.628.4167.