

PLANNING YOUR NUTRIENTS AND DESIGNING YOUR PROCESS.

WHAT'S IN A PLAN, REALLY?

1 Every year farm operators across the state make decisions on how to achieve that viability. Understanding their fields to maximize every acre is central to those plans. In reality, by maximizing every acre's potential, every operator is creating a nutrient management plan.

In 2019, there were approximately 56,649 Indiana farming operations.¹ While each farm operation has their own process, viability is a core driver for all.

The Indiana Agriculture Nutrient Alliance (IANA) was established to keep Indiana at the forefront of proactive nutrient management and soil health practices that improve farm viability and, ultimately, reduce nutrient loss to water. As part of these efforts, IANA works with public and private partners to encourage plans for nutrient management — to match our goals.

While a nutrient management plan can sound daunting, it really comes down to a few key items:

- Assessing fields
- Determining soil needs
- Determining crop needs
- Applying what is needed, where and when it is needed
- Keeping records

“Conservation and return on investment go hand in hand when you look at it. That’s where my biggest focus has been in the last four or five years: How can I manage my inputs better?” — *Jamie Bultemeier, Farmer and Agronomist*

HOW ONE HOOSIER FARMER PLANS

2 Jamie Bultemeier, along with his wife, Traci, operate a grain and livestock operation in northeast Indiana. The pair are both agronomists as well. The Bultemeiers utilize soil mapping, each other, and other agronomists and farmers in their area to make decisions about nutrient use. Reviewing historical data is also a big part of this. “Rather than trying to estimate the yield I am going to get, I look at what I did get last year. I use that to determine my fertility level and fertility rates. And the past two years, I took it one step further and used yield maps to determine how much to replace.”

Balancing needs for the farm, needs for the crop and the needs for the field-specific soils, the Bultemeiers make decisions with ROI in mind. Correlating nutrient use to ROI is what drives their fertility program, for both this cropping season and for the long run. “I don’t want to put nutrients or fertilizer on my field that I don’t get benefit from. Today, I soil sample once per crop rotation. I don’t follow the typical 3-4 years. I want to know as quickly as possible if my program is working. Pulling samples every two years allows me to re-evaluate my program sooner and reach my fertility goals.”



HOW ANOTHER HOOSIER FARMER PLANS

3 Not far away in Decatur, Indiana, is Gene Witte's farm. Witte works with his independent crop consultant to test his soils every four years. Using a grid zone, soil maps are created and merged across every acre each spring. "The cycle stays consistent regardless of soil moisture," Witte said. "If you pull them consistently, every time, then your results become more comparative and mean more. You don't have those outlier variables."

Similar to the Bultemeiers, Witte plants his crops based on a crop rotation and what his needs are. With a corn, wheat, and bean rotation, the crop amount is determined based on what his needs are for the year — more straw for livestock equals more wheat; better pricing on a crop, like beans, more beans are planted. Being a no-till farmer, Witte has found that when the weather is drier, his fields are able to stay healthier and greener a little longer, thus helping him achieve a higher return on investment.

“I approach my ROI by pairing yield data with soil tests to calculate removal of nutrients, and how much I have to put back to maintain my soil fertility.” — *Gene Witte, Farmer*

A PLAN IS A PLAN IS A PLAN

4 Each operation has their own way of managing nutrients — different rotations of soil sampling, different ways of looking at the economics, and different ways to assess crop needs. The one thing that each farm has in common is the necessity of having a plan and putting it into action. Assessing soil types, soil needs, crop needs and production goals maximizes input choice, use and return on investment.

While your plan may seem a little less than formal right now, writing down how and why you're making nutrient decisions is the first place to start. "It's important to collect a database of information. I maintain that database using Ag Leader and John Deere, an APEX system, to store monitor data and import all my soil data from my crop consultant. I also have hard print outs in a binder that I can refer back to," said Witte.

"Everyone has a different way of doing it. I couldn't find a template that worked for our operation, so I just sat down and started writing: How do I soil sample? How often? Which nutrient recommendations do I use? When do I apply fertilizer? I keep all of this in a three-ring binder, and also have it on my laptop," said Bultemeier.

Want to get started, but need a little help? Contact the Indiana Agriculture Nutrient Alliance or an agronomist in your area.

LET'S SUMMARIZE

What one farmer does: (Bultemeier)

- Historical data + yield maps to determine nutrient needs
- Soil sample every two years to evaluate program, reach goals sooner
- Rotate crops based on needs for livestock
- Keeps records in 3-ring binder + digitally

What another farmer does: (Witte)

- Works with crop consultant, soil samples every 4 years in spring
- Crop rotation based on needs for livestock and commodity pricing
- Calculates nutrients using yield data and soil test results
- Utilizes database software to document + 3-ring binder

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The Indiana Agriculture Nutrient Alliance (IANA) is dedicated to keeping Indiana at the forefront of proactive nutrient management and soil health practices that improve farm viability and, ultimately, reduce nutrient loss to water. Aggressive nutrient reduction targets have been set nationally in waterways Indiana's croplands drain to, like the Gulf of Mexico and Western Lake Erie Basin. Across the state, a large number of public and private sector agencies and organizations are working toward the same goal — reducing nutrient loss and improving water quality. IANA focuses on bridging multi-partner efforts to create practical, cohesive and significant impact across Indiana.

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