Case Study — Triple A Farms

Farm Overview

Located in northwest Arkansas, Ryan and Susan Anglin of Bentonville, Ark., are fourth-generation dairy producers. They milk 300 dairy cows with their two sons, Cody and Casey.

“My mother was born in this house. With our sons, we are the fourth and fifth generations to farm here,” Ryan Anglin said. “I began dairying with only 17 cows in 1972. Today, we’re milking 300 twice a day. During those early years, my parents helped some on the dairy, but Mom worked in town and Dad carried the mail back then. So, at 17 years old, I learned how to do things one step at a time.”

In 1976, Ryan and his parents formed the partnership, Triple A Farms. The farm, which employs eight full-time staff members, includes a Holstein and Ayrshire dairy herd and a commercial beef grazing operation. Today, the herd annually produces approximately 4.56 million pounds of milk in the double-eight herringbone parlor where they are milked twice daily.

The Anglins are highly involved in their community and industry. Among his leadership responsibilities, Ryan serves as chairman of the National Dairy Promotion and Research Board for the producer-led dairy checkoff.

While dairy farming is a passion, the family knows change — of some kind — is likely in the future. The Anglins’ farm is located across the street from a 1,200-unit housing development.

While the economic conditions for residential new builds have temporarily stalled out, the rural landscape has changed and curbs and cul-de-sacs have been established. Because neighboring land is zoned residential, within the next few years the Anglins anticipate change — a possible relocation or dramatically altering their business. Consequently, any improvements or operational modifications are based on a five- to six-year payback and a very short return on investment.

Triple A Farms: Farm Smart to Serve as a Decision-making Tool

Like their pioneering ancestors, Ryan and Susan Anglin of Triple A Farms understand the importance of change and flexibility in agribusiness. It’s a philosophy that has kept them in dairy farming during the past decade of unprecedented urban growth for the small community of Bentonville — today, home to retail and food luminaries like Walmart, Tyson Foods, Armour Swift Eckrich, Blue Bunny, Best Maid Products and more.

Farm Realities and Testing Conditions

On the Anglin dairy, the Farm Smart™ model was tested under unique conditions. With rising farm input costs and skyrocketing area land values, the Anglins carefully weigh every major decision to improve or modify their farm against return on investment, a short payback period, environmental impact, effect on urban neighbors and future value of buildings and land.

With urban encroachment at an all-time high in their area, the Anglins understand that the local economy is the primary driver about decisions they make on their dairy farm. For instance, they have “no plans to expand” at their present location.

In addition, Triple A Farms maintains a pasture-based management philosophy for both dairy and beef cattle. Consequently, the Farm Smart tool was challenged to address grazing and pasture needs as well as northwest Arkansas’ typographic and geographic factors for crop and forage production. The farm is permitted by the Arkansas Department of Environmental Quality to apply cow manure as fertilizer for the production of crops used for feed, which includes corn for corn silage, sorghum and Bermuda grass and fescue for hay. Due to the farm’s close proximity to urban neighbors, the Anglins carefully weigh community perception against production practices for crop and livestock, nutrient management, conservation and land application.

“We look at cause and effect or cost and income — that is the bottom line. Where we are sitting, our farm decisions are affected by completely different circumstances than producers just 15 miles west of us,” Ryan said. “Putting up a building for agriculture is not the thing to do. If it doesn’t have wheels on it or is not mobile, we probably don’t do it. However, improvements for taking care of the livestock, soil or structures like fencing makes sense … just because the land is worth so much more than the buildings for agricultural use. We look at things differently. Instead of laying down cement, we put down gravel and build feed bunks that can be moved.”

He noted that if Farm Smart could help him to make better choices, it would be a primary tool for use with those who help to influence his long-term dairying solutions including the bank, cooperative extension, the University of Arkansas and other dairy producers.

“I pretty much look at things on my own. If it involves an investment, I rely on my banker. The county extension office and other dairy farmers would be my No. 1 resources; however, at my age, I’m one of the older farmers remaining, and I’m the one people come to for advice,” Ryan noted.
Key Learnings

Data Collection

For Farm Smart to generate the kind of results required by dairy producers, Susan and Ryan Anglin recognized, up front, that quality data from the farm would be necessary. According to Susan, supplying information was not difficult with little personal time invested. Most information was captured on other farm reports. Susan, however, noted that if producers would be expected to input their own data, the final Farm Smart tool would need to be “as simple and as user-friendly as possible” or dairy producers would have neither the time nor the inclination to use it.

Data sources vital to the Anglins included utility and propane bills, Dairy Herd Improvement records, Cooperative Extension and Natural Resource Conservation Service reports, and nutritionist records. “As an example, we use a nutritionist to help us with rations,” Ryan said. “He knows the livestock and can match it to what we should be feeding — not for maximum production but for minimal cost. We don’t produce (forage) for production (yield), we produce for margin.”

Data Sources and Soil Testing Concerns

The Anglins expressed a growing concern among producers about the future availability of low-cost soil testing service and data. Currently, the farm’s soil is tested through the Natural Resources Conservation Service (NRCS) soil lab, but many states are shutting down these facilities due to federal budget issues. Increasingly, these state-mandated, uniform testing procedures — once traditionally provided by NRCS — will move to the private sector, adding significant (additional) cost to producers.

Also, they questioned the “10 percent reduction” target listed in the Farm Smart tool for nitrogen and phosphorus. Ryan said that many dairy producers are concerned that phosphorus and nitrogen threshold targets, and the way they are stated, could trigger a fresh round of accusations against agriculture in the future. This could create an element of producer distrust during the data collection process for Farm Smart.

“I guess I have a question regarding the way we are talking about the reduced use of nitrogen fertilizer,” Susan said. “Is that the way it’s going to be stated from now on, because I think that’s misleading … I have that concern because we’re in this (climate) where consumers think that everything we do is wrong. I think we need to protect ourselves (by setting the stage) that we’re trying to be more efficient and use better practices, not just reduce (use).”

Ryan agreed, noting that “it sends up a big red flag” for dairy producers across the industry.

Farm Smart Functionality

Throughout their review session, the Anglins provided suggestions for strengthening, streamlining and making Farm Smart more accessible for dairy producer use.

1. **Scalable** — The precision agriculture tenets of Farm Smart must be scalable to a dairy farm’s production practices. So many factors including geography, environment, land conditions and economics affect the size, structure and dairy management practices used by dairy producers. For instance, Ryan said that Arkansas farms are typically based on smaller land plots — which is vastly different than dairy operations in the West. “The large farm technologies are not available to farms in Arkansas,” Ryan said. “… The Farm Smart tool must be responsive to economies of farm production relative to geographic areas. For instance, plots of land in Arkansas may only be 10 acres as opposed to section fields in South Dakota that are 10,000 acres. Also, a smaller farmer will innately ‘know’ their fields, where a larger farmer with large-scale fields relies on precision agricultural tools to accumulate the data.”

2. **Simple and Fast** — Farm Smart needs to be reasonably simple to use. Time is at a premium for producers like Ryan Anglin, who wear many hats on the farm. “Time is golden. I do a lot of physical work. I drive the tractor. I breed cows. I’m pulling calves at midnight,” said Anglin. “It (Farm Smart) must be fast and easy. For producers like me to invest our time, it has to show a return on investment in a way that doesn’t take a lot of time. Otherwise, you will lose them (producers).”
3. **Financial and Economic** — Farm Smart must be used, primarily, as a financial tool that provides a direct interface between the farm’s P&L and financial and operational variables. Regarding the use and value of Farm Smart, Ryan said the tool could serve as a vitally important decision-making tool for dairy farms of all sizes and scale. “At its core, the Farm Smart tool must be absolutely economic-driven,” Ryan said. “It becomes useful in that it connects the P&L information with the economic variables that most impact return on investment. What’s interesting is this program looks at inputs as variables. Right now, producers are managing P&L based on bills. This links the two.”

4. **Graphic Interface** — To assist busy, on-the-go dairy producers, Farm Smart results must be easy to interpret. Graphs and graphics will aid dairy producers in quickly understanding data and results and applying them to the decision-making process.

5. **Mobile Access** — Telephone access would be helpful. While computers and the Internet are important to business management of the dairy farm, Ryan suggested that smartphones have become the dairy producer’s daily communication tool and information channel. Not impeded by slow Internet and questionable satellite connections, cellphones and mobile devices are functional, quick, easy to use and pocketable. Because producers rely on the cellphone as a daily management tool, Farm Smart could provide a toll-free, dial-in call center or smartphone systems and technologies to make data, results and interactive applications available in real time to dairy producers.

### Perception of Value

**Decision-making** — Ultimately, dairy producers who invest their time and energy in Farm Smart will want to use the tool to help them make big-picture decisions that go far beyond greenhouse gas emissions, nitrogen and phosphorus thresholds, environmental impacts, cow conversion of energy to milk, and other operational and production efficiencies.

“For instance, I want to be able to know if going back to 100 cows and agritourism would be more profitable and be better on impacts than expanding to a larger farm model,” Anglin said.

**Benchmarking** — Because geographic and climate conditions play such a huge role in dairy farming, Ryan also values the Farm Smart benchmarking component that allows him to compare his farm’s carbon footprint against other farms regionally and nationally. There are 20 variables from a farm that affect greenhouse gas levels grouped into four major categories — production, feeding, energy and manure. With the online Farm Smart tool, dairy producers will be able to see their farm versus peers within their region.

“Benchmarking carries value. That is why I really like programs like the DFA Gold Standard, because I can pull it up on my phone and compare my farm with other farms — my size, my type and my style. And that one (program comparison) is across the country,” Ryan said.

**Educational Opportunities** — The Anglins added that producers will face a learning curve with Farm Smart. Outreach to third-party experts, who work with and provide services to dairy producers, will help to accelerate adoption and use of the Farm Smart tool.

The greatest opportunity will be to train producers on the tool, so it is relevant.

According to the Anglins, in order for it to be useful to the producer, Farm Smart needs to help them to form their decisions. There needs to be a drop-down box or new tab that says, “here are your options,” and recommendations will have to be regional, not national.

“Arkansas farms are not Arizona farms,” Anglin said.