An Art and a Science

Contract Processing Mission: To Please Customers

"The customer says, ‘We have a product, dry it for us.’ We ask them about their specifications, the process they require and the end result they want to achieve. We look at properties of the product, processing and food safety issues and then determine if a test run of the product makes sense,” explains Rick Rame, Le Sueur Contract Drying Plant Manager.

Products produced at the drying plants include: soy sauces, artificial sweeteners, starches, butter powders, cheese powders, caramel color, buttermilk blends, malts, maltodextrins, whey-derived proteins, dietary supplements, natural and artificial flavorings, and coffee creamers.

“The ultimate goal is to say yes, we can deliver the product and we'll do it and do it right and deliver it consistently time and again. Achieving this combines the science of how the drying process works physically and the art of how to approach each step to achieve optimum results,” Rame says.

“We're very successful – it takes a lot of experience. It's an art. I'm at the point where I can take a handful of powder (from a product) and figure out how to make it at our plant,” explains Mike Noethlich, Lake Norden Plant Manager.

Lake Norden operates Davisco's only dryer with the capability of spray-cooking starch and agglomerating it in one step, explains Noethlich. "Agglomeration is the process where a powder when mixed with water turns into a solution instantly. The agglomerated starches are used as ingredients in many different processed food products. The process produces a value-added product – not just a powder,” he explains.
A Drying Evolution

“In the late 80’s when traditional dairy product ingredients became less economically feasible to process in our systems, spray-drying capacities became available in huge amounts,” says Martin Davis. “We were innovative in that we looked at different opportunities in spray drying.”

“We were the first to produce a soy sauce product in 1989-90,” Davis says. “The customer base and productivity have increased another 25-30 percent during the last 10 years,” says Jim Sullivan, past Le Sueur plant manager. “We were able to meet customer’s needs by being very versatile,” says Sullivan. The customers own products dried at the plant and pay a fee per pound for a service for added value. This provided much needed cash in the 80’s, a time when the economics of making dairy powders changed industry wide.

“Why were we successful? Our people out-worked other people doing the same thing. We were willing to do anything for our customers. That’s always our theme at Davisco, ‘Get it done,’” says Davis.

The same extra effort and attention to quality assures continued success for the Contract Processing Division.
Lake Norden

The dryer at Davisco’s Lake Norden location was installed in 1984. Mike Noethlich started two years later bagging powder, eventually becoming Plant Manager. “Our goal is to bring on new customers, new products and grow the business,” says Noethlich, who is experienced in new product testing and development.

“The challenge is to minimize dryer downtime and optimize the size and scope of the production facility,” says Noethlich.

The drying plant includes 88 employees, many who’ve worked at the plant for 5-10 years. Lake Norden is the sole manufacturer of several products with unique specifications that other companies have been unable to match. Once new products come online, Davisco constantly works to optimize the production process and gain efficiencies.

LeSueur

LeSueur operates with 60 employees who work in the lab, production, shipping, receiving, maintenance and quality assurance. One dryer is dedicated to custom processing and a second to Davisco whey protein products. Most of the custom products are ingredients; a few are finished food products. LeSueur works with many long-term customers and schedules a diverse variety of products during any given month.

“The logistical planning involved can be pretty complex,” says Rame.

Nicollet

Nicollet has 18 employees operating two dryers. They produce whey protein products derived from Davisco’s Le Sueur Cheese Plant. They make, bag and ship BiPRO and WPC 34% HF each month, says Jim Kretsch, Nicollet Plant Manager.
**Hill Top Dairy Benefits from Open Communication with Nutrition Consultant**

“Feed is the largest expense on a dairy and you have to watch it. It is tied to cow performance,” says Mike Guggisberg, general manager of Hill Top Dairy, Elkon, SD. He and independent dairy nutritionist, Dr. Ken Schulte of Dairy Production Services, Millbank, SD, have been working together to achieve goals on the dairy for two years.

When everything hums along well with good feed quality and top cow care, the 1,500-cow dairy runs over a 90-lb. per cow per day production level with a 200,000 somatic cell count, explains Guggisberg. “We have expectations of good production at a reasonable cost. We want cows to have reasonable longevity, with good feet and legs and that is related to nutrition.”

Schulte, paid on a per head per month basis, is part of the dairy’s core management. He became a full-time dairy nutritionist in 1997, after 30 years of practicing veterinary medicine on Midwest dairies. “The best way to make progress on the dairy is to think and plan way ahead,” says Schulte. “Open communication is critical. However, it’s important to avoid antagonistic or confrontational attitudes. I think pointed questions and high expectations are good if they’re done in the right spirit.”

Schulte believes a consultant can motivate change and encourage improvements. “But ultimately, the dairy farmer sets the goals for his dairy,” he says. “A consultant needs to be used in his area of expertise.” Rather than making excessive ration changes, a consultant’s time is better spent de-bottlenecking to find the dairy’s limiting factors, he says.

“This dairy hasn’t gone through nutritionists like some others have. Ken’s veterinary background is a big asset,” says Guggisberg. “You have to put all your trust and confidence in your consultant. That’s tough sometimes. A nutritionist has to be aware that you have other ideas, as in other products available to you.” Guggisberg strives to make good economic decisions based on Schulte’s advice.

“Economics is how we evaluate the ration changes,” says Guggisberg. “When forage quality changes or a new product or commodity is added to the ration, Guggisberg, Schulte and the dairy’s feeder talk it over together. Schulte comes to the dairy bi-weekly and spends 2-3 hours per visit. At that time, he evaluates feed quality, checks cow health and pH levels in close-up cows and works with the dairy’s personnel to fix problem areas. He makes ration changes based on feed changes, helps design and bid the protein mix and has just started to handle heifer ration formulation for the dairy.

Guggisberg appreciates that Schulte is an independent consultant (not employed by a feed company) and that he is both punctual and honest. “If he doesn’t know the answer, he will find it,” he says. “Initiating change is most difficult. People sometimes don’t believe in or see the need to make the change,” says Schulte. “Making improvements is a process. Dairying is daily attention to detail. If you take care of detail, the big things get done,” he says. “A lot of things can be fixed without spending money, such as re-grouping pre-fresh or fresh cows to reduce over-crowding.”

“If a problem is serious enough, it has to be talked out. There’s a danger of not approaching a subject. Some things aren’t easy for either side to talk about. People are receptive if requests are reasonable. If you hire consultants, take their advice. It’s a two-way street,” says Schulte.

“Consultants need to be sensitive to where the dairy itself would like to go,” says Schulte. “If dairies aren’t successful, we aren’t either. Most places I find a cooperative spirit.”

---

**CHECK THESE WEB SITES FOR FURTHER INFORMATION ON DAIRY CATTLE NUTRITION AND FEEDING.**

- [www.extension.umn.edu](http://www.extension.umn.edu)
- [www.aged.calpoly.edu/AgEd410/Presentations/PowerPoint.html](http://www.aged.calpoly.edu/AgEd410/Presentations/PowerPoint.html)
- [www.dairy.osu.edu/resource/feed.html](http://www.dairy.osu.edu/resource/feed.html)
- [www.uwex.edu/ces/forage](http://www.uwex.edu/ces/forage)
- [www.dairynutrient.wisc.edu](http://www.dairynutrient.wisc.edu)
We believe the success of dairying depends on an awareness of the forces at work in the marketplace and our ability to take control together.

For Scarrow Dairy Farms, Hard Work Yields Growth

“Family, church and hard work.” That’s the business philosophy of Scarrow Dairy Farms according to Jim Scarrow, who together with his late wife, Christine, started the operation 2 miles south of Wendell, ID, in 1980. Each of the couple’s four sons, James, Jr., Jerry, Stacey and Mark were involved in the operation as they grew up.

Jim worked in the builder/contractor business when he and Christine remodeled her father’s barn from a flat barn into a double-4 herringbone parlor. They built the stalls by hand, mortgaged their house and bought 40 cows. Soon after, the neighbor’s bull infected the herd with Bangs and 25 cows were condemned and sold. Undaunted, the Scarrows replaced them with heifers paid for at half their cost through a Bangs government program.

“Hard work and doing things ourselves allowed us to get started,” says Scarrow. “Our family was willing to work our fannies off... nobody went anywhere for eight years!” Jim continued in the building business during those early years, milking in the morning with a son, while Christine and all the boys milked in the evenings until he returned from work and helped them finish.

By 1988 the herd had grown to 100 cows. Jim ended his contracting work and began to manage the dairy full time. They expanded over the years, adding cows and many acres of land to the operation. The parlor at their original dairy was remodeled from a double-4 to a double-8, and then to a double-16 and a double-22 in 1996. “We never missed a milking. We poured all of the concrete walls and floors and milked twice a day,” says Scarrow.

Today Scarrow Dairy Farms includes 3,200 milking cows, plus steers and heifers and 4,560 acres. Besides the original dairy, there is a double-12 milking parlor for fresh and sick cows on a dairy across the road and a third dairy with a double-40 milking center. Cows are housed in open lots with windbreaks, except for shades for fresh and sick pens. The Scarrows grow part of the feed for the dairy and raise potatoes, apples, beans, beets, hay, corn and triticale. The employee base is at 60, with 75-80 during apple harvest.

The family and employees pulled together when Christine was ill with a brain tumor in 1996 and passed away in 1998. “She was the angel of the family,” says Jim.

Jim, Mark and Stacey now handle the dairy and crop operations. Stacey also manages Hidden Cove Heifer Ranch owned by the Scarrows. Jerry is a financial investor and James, Jr. is a minister, and works on all excavation and general farm duties as needed.

“The only reason we can do it is because we have good family and good employees,” says Scarrow. “We don’t try to have a line between us and our employees. We try to be fair and treat them like we’d like to be treated. Our herdsman has been here for 14 years.”

The Scarrows face any difficulty with a proactive, can-do attitude. An example is their response to waste and odor challenges faced by dairy producers in the Magic Valley because of simultaneous urban encroachment and dairy expansion. “We deal pretty well with the local department of agriculture. We keep an open relationship with them and if there’s a problem, do everything we can to fix it,” says Mark.

“Communication is one of the most important things there is. I don’t do it as well as I should,” admits Jim. “Somebody has to be the boss and make decisions. They won’t make all the family happy, but they have to accept it. We have minimal trouble.”

The Scarrows face any difficulty with a proactive, can-do attitude. An example is their response to waste and odor challenges faced by dairy producers in the Magic Valley because of simultaneous urban encroachment and dairy expansion. “We deal pretty well with the local department of agriculture. We keep an open relationship with them and if there’s a problem, do everything we can to fix it,” says Mark.

“Communication is one of the most important things there is. I don’t do it as well as I should,” admits Jim. “Somebody has to be the boss and make decisions. They won’t make all the family happy, but they have to accept it. We have minimal trouble.”

The Scarrows work very hard together on their dairy operation. That’s how they have fun. The next chapter in the family’s book of business growth will soon be written. They have purchased a site to build a new dairy center 150 miles to the west in the Treasure Valley. At 1,100-foot lower elevation, the wind and weather will be kinder to cows and people. The site sits on 1,350 acres of land and is permitted for 17,474 animal units.

“It’s a beautiful place for a dairy. And there is potential for more opportunity for grandkids.” Scarrow’s advice: “Don’t be afraid to take chances if you want to grow.”

The Scarrow Family: Trish and Mark, Jim, Jr. (wife RaVonna, not pictured), Jim, Stacey (wife Ellen, not pictured)
A big thanks to our drying plant employees

Lake Norden Food Ingredients (back row, l to r)
Sheri Kahnke, Lab Manager; Kari Seppanen, Lab Technician; Laura Rosinski, Lab Technician; Lana Foss, Lab Technician; Sherri Timperley, Lab Technician; Barb Schaefer, Lab Technician

(front row, l to r)
Glenda West, Lab Technician; Cindy Williams, Lab Technician

Lake Norden Food Ingredients (l to r)
Candy Gallisath, Quality Assurance Technician; Stacy Mueller, Quality Assurance Technician; Polly VanderWal, Quality Assurance Manager

Lake Norden Food Ingredients (back row, l to r)
Rick Rame, Plant Manager, LSFI; Kasey Steffensen, Dryer Operator, LNFI; Jeff Roberts, Foreman and Leo Anchondo, Packaging, LNFI; Scott Mueller, Director, Contract Processing, and Jim Kretsch, Plant Manager, NFI

Lake Norden Food Ingredients (front row, l to r)
Cindy Williams, Lab Technician, LNFI

Lake Norden Food Ingredients (l to r)
Mike Forbush, Warehouseman; Ryan Nielsen, Dryer Packager; Milburn “Earl” Poe, Dryer Packager; Travis Riter, Dryer Packager

Lake Norden Food Ingredients (back row, l to r)
Mike Forbush, Warehouseman; Stacy Mueller, Quality Assurance Technician; Polly VanderWal, Quality Assurance Manager

Lake Norden Food Ingredients (front row, l to r)
Shane Duffy, Dryer Packager; Ryan Nielsen, Dryer Packager; Milburn “Earl” Poe, Dryer Packager; Travis Riter, Dryer Packager

Lake Norden Food Ingredients (l to r)
Shane Duffy, Dryer Packager; Ryan Nielsen, Dryer Packager; Milburn “Earl” Poe, Dryer Packager; Travis Riter, Dryer Packager

Wayne Hendryckes, Packager, LNFI

Lake Norden Food Ingredients = LNFI
Le Sueur Food Ingredients = LSFI
Nicollet Food Ingredients = NFI