When Fredrick Oesch founded SwissLane Dairy in Alto, Mich., on 91 acres in 1915, his family farm was “out in the country,” and the concept of being a good community neighbor was one that was often taken for granted.

Four generations later, the operation has grown to more than 2,000 milking cows on over 1,900 acres. In addition, the community of Alto has also grown and now virtually surrounds SwissLane Dairy. As both the community and dairy have grown, so has the need for good relations with neighboring properties.

“That means keeping the odor down and being as environmentally sustainable as possible,” said Matt Oesch, a fourth-generation owner of the dairy, and financial controller of the operation.

To be environmentally responsible and keep cows content and producing, SwissLane uses sand bedding. Sand is a comfortable source of bedding that offers strong traction, stays cool in the summer, and drains moisture easily with minimal bacteria growth. Matt says that from a cost perspective, sand is relatively inexpensive and readily available.

Jeff Oesch, a third-generation owner, helped make the decision to switch from rubber tire and sawdust mattresses to sand bedding. He says content cows produce a greater amount of high-quality milk.

“We saw a big difference when we switched to sand. It’s what our cows like the best and yields the most milk,” Jeff said. SwissLane cows gained roughly eight pounds of milk production after the move to sand bedding. Today, they produce an estimated 90 pounds of milk per cow.

**Challenge**

With thousands of cows to take care of, manure management is a key priority for the dairy.

SwissLane’s manure management plan used a scrape-and-haul system to move sand-laden manure from the barn. Despite the dairy’s best efforts, workers couldn’t successfully remove the majority of sand from the manure, which created significant wear on the equipment.
“We thought we could agitate the sand to remove the manure from it, but that didn’t work so well,” Jeff said. “It’s harder and heavier to move, there’s more of it and it requires more maintenance on our hauling equipment – sand tears up everything.”

The dairy then tried to move the manure into sand-settling basins. The liquids would be removed from the pond via pumps and a hydraulic piston. A wheel loader or skid steer would then be used to scoop out the solids.

This process worked well until the Oesch family learned the challenges of sand-laden manure. Abrasive sand caused increased wear on SwissLane equipment – from the hoses to the valves and nozzles and pretty much everything in between. Sand-laden manure also added weight to the tankers and other equipment, causing problems when the manure was spread on farm fields.

“We had to deep-rip our fields all the time because of the compaction, so we decided we needed to look at some good permanent options,” Jeff said.

**Solution**

To combat this problem, SwissLane turned to McLanahan Corporation. Company representatives took the Oesch team of owners on a tour of dairy operations that used mechanical sand-manure separation systems.

“We felt that the mechanical method got the sand cleaner on the farms we visited, so we decided to go with McLanahan,” Jeff said.

McLanahan engineered a solution for SwissLane using a Sand-Manure Separator in conjunction with channel augers to produce clean, recyclable sand that helps the dairy re-use the dry material for bedding, while also producing a nearly sand-free manure effluent that can be used in the farm’s fields.

Utilizing a McLanahan Sand-Manure Separator, SwissLane is able to capture up to 90 percent of the sand depending on the sand’s size and water quality. “I’m getting a lot of my fine sand back, which is good because the coarse sand could cause foot trouble for the cows,” Jeff said.

“Best of all, no full-time operator is needed to turn the sand-laden manure into clean, recycled sand,” said Matt “This helps us reduce our costs while keeping production high.”

The system also eliminates the need for producers to enter pits or confined spaces to access the settled sand – so workers avoid exposure to harmful manure gases, improving safety.

“Safety is important for not only our cows, but also for all of our workers,” Matt said. “The loads of manure we’re handling now aren’t as heavy as they used to be, and there’s also a benefit in less risk in operating the equipment.”

**Results**

Since the system’s installation, SwissLane spends less time managing the sand-laden manure and has dramatically reduced equipment maintenance costs on their haulers. “We have seen many improvements since we implemented the new system,” said Matt. “We are recycling up to 90 percent of the sand, which cuts back on our need for new sand. Also, there is much less wear and tear on our equipment.”

The McLanahan system delivers the up-time SwissLane requires. Heavy-duty components make up the system, which is engineered with larger tolerances, for less wear during operation, minimizing downtime. “Everything we need from McLanahan has met or exceeded our expectations. It’s a partnership. Our system runs well, with little or no downtime. And if we need anything, one call to McLanahan will generally get the problem solved,” Matt said.

Matt also noted that overall, the dairy’s manure management system is helping alleviate the concerns of neighbors regarding SwissLane’s commitment to environmental sustainability.

“Things continue to change; consolidation is part of our world. Fewer farmers are producing more milk every year and the number of our neighbors is also increasing,” Matt said. “We have to be mindful of the impact we have on them and be deliberate in how we’re approaching those relationships.”

With the success of the Sand-Separation System, SwissLane continues to improve on the environmental sustainability of its operation.

“Our nutrient management system is a major part of the process in reducing our environmental footprint and recycling our resources,” said Matt. “This makes us a better neighbor, and hopefully, that will continue to build goodwill between our dairy and the community.”

mclanahan.com