

Biosystems & Agricultural Engineering Alum Returns to East Lansing to Educate Regional Farmers

By: Kristen Brown



Biosystems & agricultural engineering alum Andrew Wedel returned to East Lansing in mid-November to take part in the Sand-Laden Manure Handling Conference held by [McLanahan Corporation](#).

Wedel's involvement with handling sand-laden dairy manure at Michigan State prepared him for the challenge of designing a successful sand-manure separation system for McLanahan.

While at Michigan State, Wedel was a M.S student then an Agricultural Engineering Specialist. He worked with a team of agricultural engineers and dairy producers developing systems for

handling sand-laden dairy manure. He worked closely with Bill Bickert, professor of biosystems and agricultural engineering and Dana Kirk then an hourly employee and currently a Biosystems & Agricultural Engineering PhD. student, on the project.

"When I go back and think about my experience [at Michigan State], I think of Bill's strong ties with the industry, the ability to work with dairy producers and the shop facilities we had available," said Wedel. Bickert had relationships with local farmers that allowed access to test farms, he said.

Bickert, during his speech at the conference, said Wedel's work with sand separators led to McLanahan's interest in hiring him as a lead engineer.

Wedel is now the manager of McLanahan's Agricultural Machinery Systems Division and contributes to the development, design and sales of sand-laden dairy equipment.

Wedel said his goal is develop manure systems that are a profit center on dairy farms and for McLanahan Corporation to be the single source supplier for manure handling and treatment systems.

The abrasive quality of sand hinders the capability of manure spreading and other activities. Sand-manure separation is important because it reduces the wear on machinery.

"It separates the sand so you can use other systems, such as anaerobic digestion," said Wedel. He also added that it is possible to reuse the sand cutting down on the cost of new bedding.

Sand bedding is common in Michigan due to the vast sand supply and the potential health benefits. Research suggests that using sand instead of organic bedding reduces the risk of bacterial growth and offers comfort and traction to the herd.

The conference was a two day event aimed toward dairy farmers using sand bedding. The first day consisted of speeches given by Bickert, Wedel and other researchers, along with a compilation of first hand accounts and panel discussions.

The second day included a tour to New Flevo Dairy in Adrian, Michigan and Green Meadow Farms in Elsie where McLanahan Sand-Manure Separation Systems are a successful addition to the farm increasing productivity and profit. The conference was an effort to educate regional dairy producers of the potential benefits of sand bedding and the importance of using a sand-manure separator.