

Landon Oldham – Heartland Soil Services

This is Kansas Profile. I'm Ron Wilson, director of the Huck Boyd National Institute for Rural Development at Kansas State University.

If you have a sore foot, you don't want your doctor to treat you for a headache. If you have a stomachache, you don't want your doctor to put a cast on your hand. The treatment should be driven by the precise diagnosis.

Such is the case in modern agriculture as well, where farmers are recognizing that different types or amounts of soil treatments can be applied more precisely exactly where they are needed. Today we'll meet a company which is helping farmers use data to apply their inputs in a more efficient, effective, and environmentally-friendly way. It's today's Kansas Profile.

Landon Oldham is the founder and owner of Heartland Soil Services, headquartered in Cunningham with representatives in several other Kansas towns. Landon grew up at Cunningham, working for multiple farmers in the region. He met Vicki in grade school and they would eventually marry. He earned a degree in agribusiness at K-State.

During and after college, he worked for a Missouri company installing precision agriculture equipment. "It seemed to me that there was a missing link," Landon said. "Farmers needed more data in order to use those systems to their full potential," he said. He saw how more information would help farmers use this equipment more effectively and thought there might be a business opportunity there.

"It was the end of 2009," Landon said. "My wife was eight months pregnant with our first child and we had signed a contract on a house. I told her my idea and she said, 'Yes, it could work.' I said, 'Well, I hope it does, because I quit my job today,'" Landon said.

It was a leap of faith, but that was the beginning of Heartland Soil Services. Today, Heartland Soil Services specializes in soil sampling, yield mapping, imagery, irrigation management tools, variable rate seeding and fertilizer prescriptions, and end-of-season data analysis. Such data is useful for precision agriculture, which among other things means applying precise amounts of field inputs only where and in the amounts needed. In previous decades, farmers might apply blanket amounts of fertilizer to their fields. Heartland Soil Services gathers the data to enable farmers to adjust their field applications according to nature's needs. The process begins with testing soil samples from a field.

"Unless you test, it's just a guess" is a Heartland Soil Services motto. The soil tests indicate what nutrients are needed where. "Our field technician will physically drive the boundary of a field, lay out a grid map, and pull (soil) core samples for testing," Landon said. The samples are tested in a lab and the results are entered into the Heartland Soil Services software system.

"From that, we create a soil surface nutrient analysis and product recommendation," Landon said. "Those recommendations are specific to that crop, that field, that grower, and that acre," he said. This covers both major and micro-nutrient needs. Furthermore, this information can be loaded onto a thumb drive that can be plugged into the equipment so that inputs can be applied at variable rates as needed in the field.

When their system was first developed in 2013, the data files were too large for practical use. "We built our own file storage and transfer system," Landon said. Now, Heartland Soil Services offers several services including DataFarm, which allows producers or co-

ops to download files into a tractor or to control a spreader or sprayer. “The data is accessible on a cell phone,” Landon said.

Heartland Soil Services works with USDA’s Natural Resources Conservation Service on a program called FarmComp. This program compiles and formats data which farmers need to submit in order to comply with soil and water conservation programs.

All this creates a modern, high-tech way of farming that is good for the producer and the environment. It’s great to find this innovative business in a rural community such as Cunningham, population 454 people. Now, that’s rural.

For more information, see www.heartlandsoilservices.com.

We commend Landon Oldham and all the people of Heartland Soil Services for making a difference with their innovative, high-tech approach to farming. Can their system help a farmer and the environment? Precisely.

For the Huck Boyd National Institute for Rural Development, this is Ron Wilson with Kansas Profile.