

members wanted to research the possibility of using the precision technology on pasture by comparing precision economic data to the conventional method of soil sampling.

On April 12, 2004, forty seven samples were pulled, representing 68.32 acres of pasture via using the precision method of soil sampling. On that same day the same 68.32 acres was divided into four boundaries and sampled via the conventional method of sampling. Once the soil sample data was returned from the lab the data was entered into a data base file to build the soil fertility maps for the precision method of application.

When observing the results there was slight variation in soil fertility using both methods of sampling. Sampling fees, nutrient requirements and application fees, were compared when analyzing the economic data of the two sampling methods. The precision agriculture method saved the producer \$ 40.86 over the conventional method of sampling.

Now that the analysis has been compiled the data is much unexpected. There was concern among the participants in the project that producers may not see an economic benefit with a slight to moderate soil fertility variation as sampled by the conventional method of sampling and compared with the precision agriculture method of sampling. When observing the soil fertility maps there were only slight to moderate variations in soil fertility on this particular farm. The participants once felt that there needed to be large variations of soil fertility within a field to make the use of this new technology feasible. The analysis has now shown that the use of precision agriculture technology can be a viable economic benefit for producers who have grasslands as their "high-value crop."