

Attachment G. Project Impact

As of right now our operation is not up to the standards we should be utilizing in terms of technology. With how fast technology is advancing, we are going to be left behind if we do not make a change now. However, with how expensive new upgrades can be, we struggle to make technology a priority when there is always equipment to be fixed. By having money to put towards new monitors, it will set us up for years to come. We are a young, eager couple that wants to save money, increase our soil fertility, and be stewards of our land. One way we can do this is by keeping up with today's technology. With our new technology we can manage our tractors better, we can write and send prescriptions quicker to the monitors, we are able to analyze and merge data from different monitors, and overall we can manage our day to day tasks from the comfort of our office.

Every year there are less and less farmers in the world with an increasing population reliant on this smaller number. Having new monitors is one large step into making sure we are as efficient as we can be to help fill this void. With section control we are also able to hopefully convert landlords into using management zones to make their fertilizer applications, seeding, and strip-till. Doing this can minimize stress on our crops, soil fertility, save us money through applying lower seeding rates and lower fertilizer rates on parts of the field that do not require it. This will open our door to more autonomous activities and increase our need and desire for more technology to further improve our farm.

We can measure this through time we save by not having to wait for prescriptions to download via flash drive. We can save time by watching planting progress and harvest through the monitor and being able to remote in. At the end of the year we can measure our success by the amount of data we receive and the lack of partial data we normally receive having tractors with different monitors.

We are asking for support with monitors that will affect our cropping system. However, we do rent our land out to cattlemen in the winter for the use of corn stalks and milo and wheat stubble. If we cannot efficiently get a field of corn in, that's a loss for our potential renters. Economically, upgrading our monitors may be a huge upfront expense, but over a period of years and being able to variable rate our technology, we should have a savings in fertilizer and seed expense. We are hoping to see healthier soils because we can now look at our soil samples and make a prescription based on something like cation exchange capacity to figure out if we are pushing our fields too much in certain zones.

Through different precision ag technologies we do monitor our water usage through a soil moisture probe but that does not tie in with our updated monitors. Depending on the year our monitors will serve two planters, three combines, and our sprayer. This equipment will be spread out over a fifty mile radius covering farms south of Clinton to north of Hay Springs. We have approximately seventy fields on average per year that will utilize the upgraded monitors.