

# PROJECT IMPACT

## 1. ECONOMIC BENEFIT

- A. The grant will help start a drone spraying business in Kearney County and surrounding areas. We will develop and employ the future of agriculture by seeking young, motivated individuals to join our team. It will immediately provide 1-2 part time job opportunities for support crew members. This will also directly impact our bottom line and help us to be profitable more quickly, allowing the opportunity for accelerated growth and impact in the area. It will affect producers here by allowing them a new service offering that is more precise and technologically advanced than some current. A big savings can come from spot spraying weeds in pasture versus a broad treatment. Say the area treated is 25% of the total acreage of the pasture. That saves several thousands of dollars over treating the whole pasture. Drones will apply chemicals and inputs in more targeted areas, allowing for producers to save money, and reduce the amount of chemical impact to the environment. It is also safer for people in many aspects, especially to the pilots, to have an aircraft unmanned in the event of an incident. New jobs created and saved money on chemical cost will absolutely have a positive impact to the rural area of Nebraska and local businesses. One drone will easily impact 20+ families in the area. We plan to rapidly grow and develop our team and our ability which will only increase the positive impacts.

## 2. CONTINUED ECONOMIC AND TECHNOLOGICAL IMPACTS

- A. We are just at the beginning of where this technology is headed. Soon fields that are actively scouted and mapped with drones before being sprayed with targeted applications will be common place. It's imperative that we start accepting and adapting the available technology today. This will save tens of thousands on chemicals when implemented well. This only increases the positive economic impact to our area. Drones fit really well into helping accelerate regenerative practices as well. With the ability to fly over fields reduces soil impact. We can also treat with biologicals and foliar nutrients which are often more efficient than soil applied. Rising levels of nitrate in the state are a concern for water future, and drones will be a part of the solution to lowering our dependence. Further reducing our impact to the soil and increasing building bio-diversity will be using them for seeding cover crops. This is an area we are greatly excited about. Many growers have not yet fully embraced covers and having a drone service to help them try

acres and different application practices will accelerate adoption. The grant is more than buying a drone, it is an investment into a company that will help advance regenerative practices and thus regenerating our local economies. We can pave the way to a profitable model and help others establish their own spraying/seeding business throughout the state and that would be the ultimate win!

### 3. WATER CONSERVATION FOCUS:

- A. Water conservation and quality protection is imperative to the future of Nebraska residents and absolutely a focus of Ference Agronomy and Ag Above the Line! The single largest possible impact on reducing water contamination and usage is to restore function and vitality to our soil microbial health. A proper functioning soil, not only requires less chemical and pesticide inputs, it infiltrates water much more rapidly, reducing run off contamination potential. For example, some soils are as low as less than 1 inch per hour and highly aggregated soils can take in 8 inches per hour or more. Studies are also indicating that a properly functioning soil will breakdown chemical residues faster, reducing the potential for ground water contamination through leaching. Drones will also reduce our reliance on irrigation, drones can be used to measure crop plant health to help determine irrigation, plus those healthier soils will absorb and hold more rain water. Using drones to be more precise, foliar feed, and apply cover crops to improve soil health is an absolute win for water quality and conservation.