

PRO- AG

Attachment A

Business Plan

Executive Summary:

Technology and precision application is the future of the Agricultural industry. Ference Agronomy LLC is passionate in providing this technology to the local producers across central Nebraska. We currently provide this service drone application and camera imagery, but with the adoption rate increasing we are in need of additions. This past year we covered over 3,500 acres of crop ground with application of fertilizer, pesticides, and cover crops. We experimented treating cedar trees and invasive species on pasture ground in the area. With the help of this grant, We will be reaching 6,000 acres of crop ground treated and 1000 acres of pasture ground. Ference Agronomy LLC, would be able to double its acres with addition of funds from this grant. We think that drones in agriculture will have two major business models. The common one is one drone is shared by farmers and is covering 4000 acres a year. The second business model is a commercial applicator having 6-8 drones and covering 10000 - 15000 acres. We are trying to make the second model possible and be the framework for other agriculturists across the state.

Project Proposal:

Ference Agronomy is looking at adding two DJI t40 drones to the fleet of drone applications. These drones will be used for application on crop and pasture ground for years to come. This addition would make Ference agronomy go from 50 acres an hour to 130 acres an hour. We will be able to increase our efficiency by 160 percent. During the fungicide and insecticide season, it is important to get applications in a 2-3 week window. If it isn't in this time producer could be wasting money on products. Temperature is a huge part in the effectiveness of products. The increased efficiency will allow our applications to be done in a timely fashion for the producers. This project will also provide 2 part time jobs for interns during the summer months, and allow me to pay higher wages because of the additional acres being applied over each hour.

Timeline:

The timeline below is in correlation to the receiving of this grant. So the day after would be after getting notification that Ference Agronomy received the grant. Also since I have received all of the legal permits and certificates my timeline is streamlined.

Day 1: Get the match funding for the project.

Day 2: Order 2 T40 Drones from Voliant Drones in Nebraska.

Day 10:

1. Receive the drones and start registering them to the FAA, and Nebraska Department of Agriculture.

2. Start prepping the drones for applications on the operation and ordering other key items (generators, bulking handling facilities, and additional propellers/ parts)

Once I get approval from the FAA and Nebraska Department of Agriculture (usually 30 days) I will get the drones ready for application.

If I receive the grant by April - I will be able to cover acres for pastures. I would figure 500 acres for the spring application. Then in the growing year application of 1250 per drone minimum. I project an additional 3000 acres of application. The max acre potential could be 5000 acres based on flying conditions during the summer.

With the drones, I will be able to put them in the action within 30 days of purchasing them. So the money from the grant will be making an impact within 30 days after receiving notice of application.

Sustainability:

The experience Ference Agronomy LLC has had with sustainability with drones here is a plan of how we continue to get economic and agronomic benefit for producers in central Nebraska. The legal side of the application business will be sustained by Owner Johnny Ference to make sure legally the drone can apply. Workers Ference Agronomy will have at least 2 other interns or Full time help to make sure this drone is in the air for at least 5 years hoping for 10 years. Those workers will be trained and pass a 107 flight exam, and managers will complete aerial commercial applicators license. Ference Agronomy LLC will be in full responsibility of keeping the permit of the 137 exemption and Ference Agronomy LLC will replace all consumables for the drones. Every two weeks or every 1000 acres, go through the drones to find potential problems with the drone applicator. Every Fall Replace all lines and test all major hardware to make sure it is ready for the next season. If the drone would land unexpectedly, all damage will be replaced and the drone will continue to apply after being worked on.

Budget

Cost

2 DJI Drones with Batteries, Spreaders, and accessory for agriculture application -	61,000
Generators for batteries	2,100
Plumbing for application	1,500

Total- 65,600

Funding	
Pro Ag Grant - 55 % of the Drone cost	33,550
Ference Agronomy LLC.	32,050

Total-	65,600
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If we received this grant, Ference agronomy has the funds to match the proposal above.

Financial Projects

This is the projects for Year 1 both drone minimum acres

Income

Grant	\$ 33550
Acres covered by the drones 3,000 acres X 12 dollars an acre=	\$ 36000
Product Sale with application	6000
Total Income	75, 550

Expenses (With drone paid off all in one year)

2 DJI Drones with Batteries, Spreaders, and accessory for agriculture application -	61,000
Generators for batteries	2,100
Plumbing for application	1,500
Labor	7,000
Training	500
Consumables	1,000
Fuel	1, 500
Insurance	4,000
Potential interest	3,250
Total Expenses	81,850

Gross : \$ - 6,295 with the drones being paid off in the first year.

Gross with extend to a 3 year note (Drone to 11,666 for 3 years interest at 3,250 a year) :

Income: 75,550
 Expenses: 32,516
 Gross: 42,984

Gross not considering Grant within numbers.

Income: 42,000
 Expenses: 42,984
 Gross: -984

Another consideration is the assumption we are only spraying fungicide and insecticide for 3 weeks. Not other jobs for pastures and other crops. If we hit 4000 additional acres and 500 pasture numbers are below.

Income: 58,500

Expenses: 44,546 (increase in fuel and labor)

Gross: 13,954

Four year Income and Expense With loan paid off Minum acres

Income: 42,000

Expenses: 14,000

Gross: 28,000

Cost benefit analysis:

The Financial impact in the short term would be to breakeven and to a little loss to pay off the overhead cost. After the third year you can gross 28,000 a year paying all expenses, with that being said assuming minimum acres being sprayed on time a year. I personally believe as a business you assume the worst and work towards the best. In the best situation you are getting 6,000 acres covered and this has been replicated for many drone pilots in the midwest. Short term you could be making 30,000 while paying the loan. Then 43,000 in the fourth year. These numbers promote the local economy in the area and provide a service for producers in the area! With this grant, Ference Agronomy has the potential to increase its workforce and develop a deeper agronomic management system. The financial benefit from this grant could potentially generate \$176,000 over a 5 year span. The economic gain in a 10 year life would be 391,000 for the operation to better service the farmers in the central Nebraska area.