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Economic Model for Investing Small vs. Large Ag Equipment

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Client: Cedar Valley Innovations, Waterloo, IA

Problem Statement

- Producers can have a difficult decision when it comes to purchasing equipment.
- Producers are always looking to minimize costs and maximize efficiency when it comes to their equipment
- In a state that is a big player in the agriculture industry it is important for our produces to produce at the highest efficiency possible

Objectives

- Offer an easy to use program for anyone looking for ways to improve their operation's efficiency
- Create an effective method for producers looing for equipment to meet an ideal efficiency for their operation

Constraints

- Completed before spring planting
- Developed in a spreadsheet
- User friendly and concrete evidence of improvement

Scope

- We will develop a spreadsheet with a series of inputs depending on the equipment size and generate a cost and efficiency output.

Inputs
Field size, Equipment type, Operation

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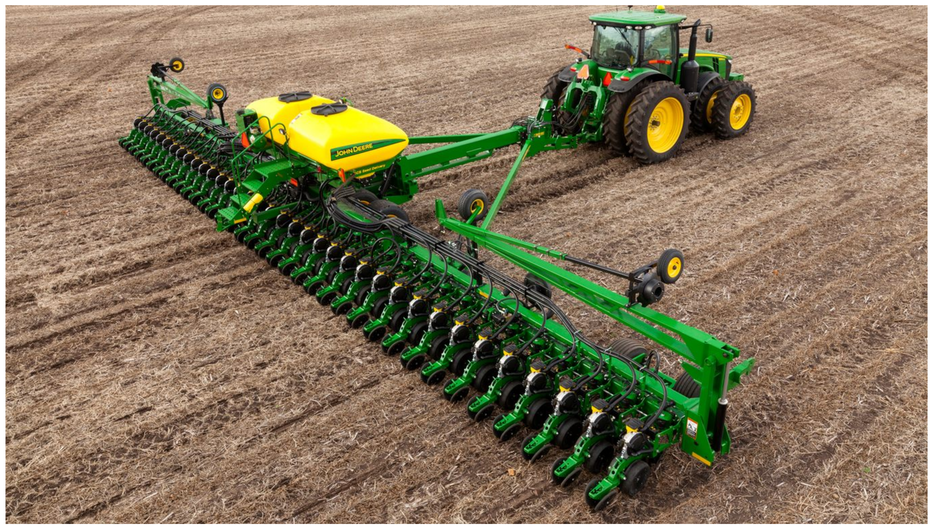
Outputs
Field efficiency vs. Cost of ownership



Methods

- Determine the key inputs for equipment sizing and how they relate to a producer's efficiency
- Creation of an Excel spreadsheet to allow easy access to formulas to determine a producers current and potential efficiencies

Proposed Solutions

- Determine current efficiency for producers looking to improve
- Decide how changes in equipment could improve the efficiency of the operation

Major Outcomes

- This solution will allow producers to save money and improve their efficiency by investing in better equipment decisions

Benefit to Client

- This project will allow the client to give economic advice to their customers regarding equipment purchasing decision.
- More specifically involving the maximization of efficiency and minimization of costs.

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