

PRO- AG

Attachment A

Business Plan

Executive Summary:

Implementing water moisture sensors represents a transformative step in optimizing irrigation practices on Jeff Johnson's farm. By leveraging these sensors, Jeff Johnson can accurately monitor soil moisture levels in real-time, enabling precise and targeted irrigation applications. This technology allows Jeff to tailor irrigation schedules based on actual moisture conditions, ensuring that crops receive the optimal amount of water needed for healthy growth while minimizing wastage. With water moisture sensors, Jeff can make data-driven decisions to efficiently manage water resources, ultimately enhancing crop yields, conserving water, and promoting sustainable agricultural practices on his farm.

Project Proposal:

Jeff Johnson intends to utilize grant funding to acquire five soil moisture probes for his farm operation in the upcoming year. The procurement of these probes, each priced at 1,550, represents a strategic investment aimed at optimizing water usage efficiency and fostering sustainable irrigation practices. By strategically situating these probes across his fields, Jeff will continuously monitor soil moisture levels at various depths and locations in real-time. This data will empower him to precisely adjust irrigation schedules based on actual moisture conditions, ensuring crops receive the appropriate water amounts for optimal growth while avoiding wasteful practices. Through this strategic deployment of soil moisture probes, Jeff seeks to minimize water wastage, conserve resources, and enhance overall water management practices on his farm. This initiative not only promises to improve crop yields but also underscores Jeff's dedication to environmental stewardship and sustainable agriculture.

Timeline:

Receive Grant

Day 1 Contact Aquaspy for 5 probes

Make agreement to have them installed by June 5th

Analyze data for every week, and use data for irrigation management. Weekly conversation with agronomists about irrigation based on graphs and software.

Sustainability:

Aquaspy takes pride in its commitment to delivering comprehensive solutions for precision agriculture, including the installation and maintenance of soil moisture probes. With a dedicated team of experts, Aquaspy ensures that each probe is installed with precision and accuracy, tailored to the specific needs of the farm. Additionally, Aquaspy goes beyond installation by providing ongoing support and recommendations to optimize probe performance and extend their lifespan. Through regular maintenance checks and proactive measures, Aquaspy guarantees that the probes remain operational for over 10 years, offering reliable and accurate soil moisture data throughout their lifespan. By entrusting Aquaspy with the installation and maintenance of soil moisture probes, farmers can rest assured that they are equipped with robust technology that enhances their ability to make informed decisions and improve overall crop management practices.

Budget

Cost

Aqua Spy	5	7,750
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Total-

7,750

Financial Projects

Implementing precise irrigation practices can result in substantial cost savings and yield improvements for farmers. By ensuring that irrigation is applied only when necessary and at the optimal timing, farmers can avoid unnecessary water usage,

saving significant amounts of money on water bills. Additionally, applying water at the right time, when crops need it most, can lead to a notable increase in yield potential. Studies have shown that providing crops with the appropriate amount of water at critical growth stages can result in yield increases of up to 10 percent or more. Thus, the judicious application of irrigation not only conserves water resources but also maximizes crop productivity and profitability. By leveraging advanced technologies like soil moisture probes to precisely monitor soil moisture levels and determine irrigation timing, farmers can unlock substantial cost savings and yield enhancements, ultimately contributing to the long-term sustainability and success of their operations.

Cost benefit analysis:

For a crop like corn, which has an average yield potential of 300 bushels per acre, a 10 percent increase could equate to an additional 30 bushels per acre. With current corn prices hovering around \$4.30 per bushel, this could translate to an extra \$129 per acre in revenue. Thus, by adopting precision irrigation practices and leveraging technologies like soil moisture probes to optimize water application, farmers can not only save costs but also enhance their profitability and overall farm sustainability.