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Farmers Adoption of Precision Farming in Agriculture

Ashokreddy Pathakota
Pittsburg State University

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Adoption of farmers in implementing Precision farming in agriculture.

Ashokreddy Pathakota
Pittsburg State University

Abstract
To give detailed study about how farmers adopt precision farming in agriculture to get the revenue more profitable with using modern technology to grow crops in the organic manner. Farmers can improve crop yields and assist decisions about the correct selection of crop based on the soil, pesticides, and irrigation process. In this study farmers with 20 or more acres of land taken to complete the survey because precision farming can be done successfully in more acres of land. Precision farming can reduce reduction of the use of more inputs to the yields and labor thus reduce costs and can also make the efficiency in the use of water and the quality of the product can be increased. Precision farming can be used with GPS technology to automatic use of the machines in the field. The main goal of precision farming is to define a decision-making system for whole farm management with optimizing returns on inputs while using resources. Precision agriculture can use tools such as tractors, combines, sprayers and planters. To collect the data, I'm using the Pearson correlation coefficient using R and scatter plots using Excel to show the graph of the crop yields in the last 5 years with increased in revenue.

Methodology:
The methodology of the study is the aim of seeking the adoption of farmers in South India influenced with the implementation of precision farming allows farmers to deliver exactly what a plant needs, selection of right pesticides and cultivation of farms in agriculture. The goal of this study is to identify the relationship between farmer's adoption (Independent) and the implementation of precision farming(dependent) in agriculture revenue in South India using a quantitative approach, the method using for this study is correlation and for calculating the data using Pearson correlation coefficient using R and Scatter graphs using Excel. The research will be collecting data by surveying100 farmers who cultivating the farm with 15 to 20 acres of land in five different South India states. The use of precision farming, farmers can precisely provide the proper quantity of material at the right time for a crop. It is more environmentally friendly because it improves chemical, and fertilizer use efficiency and helps prevent excessive usage. In South India farmers using precision farming for the selection of crops with which soil needs to grow a particular field, proper use of fertilizers, and use automatic machines to cultivate the fields in a proper way. Using precision farming farmers can have high productivity of the agriculture revenue. If farmers don't use precision farming, they may lose how to select a correct crop to cultivate for good production and they may lose some money with the seeds and fertilizers. This study also helps people to know more about technology and who don't use precision farming can learn the benefits how it is important for agriculture revenue. Farmers who precision farming may invest more money for the equipment but save in the form of labor charges.

India Precision Agriculture Market

India Precision Agriculture Market Size, By Country, By Value, 2019-2029F
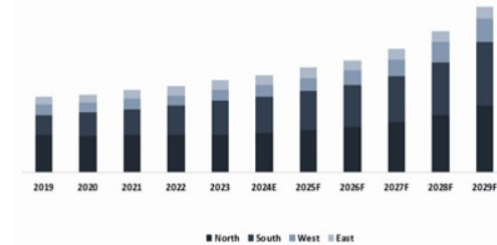
■ North ■ South ■ West ■ East

Project questions
1.What is the impact of farmer's adoption on the implementation of precision farming in agriculture revenue in South India?
2. How is the impact of adoption of farmers in South India influenced with the implementation of precision farming in agriculture revenue?

Assumptions
The use of Precision farming farmers can increase yields and increase their profits. Precision farming can help farmers to reduce crop inputs such as fertilizer, water, seeds. Precision farming technology can prevent excessive use of chemicals and nutrients in a field. For taking the survey, participants are eligible who is having 15 to 20 acres of land. Participants will know about the potential benefits of using precision farming.

Limitations:
Farmers with limited support or access to finance may find the purchase of costs of the newest technologies to be expensive. This study will be known to South Indian states only. This study is limited to know use about precision farming. For using precision farming farmers need to know some certain level pf technological knowledge. Some rural areas have some network problems with proper power supply

Results:
- Increased land productivity
- Greater water productivity
- Accessibility for the poor
- Environmental friendliness
- Increased pest and disease resistance
- Increased tolerance of abiotic stresses
- Higher rice quality
- Increased profitability

Conclusion:
Overall, this study will analyze how farmers use precision farming in agriculture to develop higher productivity in crop yields, less chemical pesticides for the farming , and higher income revenue from crops in south India. The farmers use precision farming tool to analyze the data that automatic machines will be used in the fields from higher profitability. South India is major production crops for rice, paddy, mirchi and cotton to generate higher revenue in South India.