

Short Answer questions

1. What technology is used to monitor animal health, growth, and behavior in precision livestock farming?

Answer: Sensors

2. What is the purpose of Variable Rate Application (VRA) in precision agriculture?

Answer: To apply inputs at different rates across a field

3. What role does GIS play in soil analysis and crop management?

Answer: GIS helps to analyze soil samples & create maps of soil characteristics such as pH, nutrient levels, and texture. This information is essential for creating customized fertilizer plans and identifying areas that may require different management practices.

4. What are the benefits of using GPS technology in precision agriculture?

Answer: The benefits of using GPS technology in precision agriculture include improved accuracy and efficiency in management practices, reduced waste, and increased yields. GPS enables farmers to create detailed field maps, guide machinery with precision, and collect data on crop growth and yield.

5. What challenges do small-scale farmers face in adopting precision agriculture techniques?

Answer: Small-scale farmers face challenges such as the high cost of technology and infrastructure needed for precision agriculture, limited access to information and communication technology, the complexity of operating advanced technologies, and the need for a cost-benefit analysis to evaluate potential returns on investment.

6. What technology helps farmers to create detailed field maps?

Answer: GIS

7. What is the main goal of precision livestock farming?

Answer: To monitor animal health

8. What is a challenge faced by small-scale farmers in adopting precision agriculture?

Answer: Access to advanced technology

9. What is precision agriculture?

Answer: Precision agriculture is a farming management approach that uses technology to improve efficiency, reduce waste, and increase productivity.

10. What is remote sensing?

Answer: Remote sensing involves the use of satellite and aerial imagery to collect data on crop growth, nutrient levels, and other factors that influence yield

Short Notes

1. Write short note on Site-specific management

Answer: Precision agriculture involves the use of site-specific management techniques, where the field is divided into smaller management zones based on soil type, nutrient availability, topography, and other factors. This allows farmers to apply inputs, such as fertilizers and pesticides, only where they are needed, reducing waste and improving efficiency.

Yield monitoring: Yield monitoring involves the use of sensors and other technologies to collect data on crop yield and quality. This data can be used to create yield maps, which can help farmers identify areas of the field that are performing well and areas that need improvement.

2. Describe Crop monitoring and management

Answer: Crop monitoring and management involves the use of sensors, drones, and satellite imagery to monitor crop health, growth, and yield. This data can be used to make informed decisions about crop management, such as adjusting nutrient application rates or applying pesticides only where needed. Crop monitoring can also involve using GPS-enabled tractors or automated robots for planting, harvesting, and other tasks.

Precision livestock farming: Precision agriculture can also be applied to livestock farming. This involves the use of sensors and other technologies to monitor animal health, growth, and behaviour. This data can be used to improve animal management and welfare, optimize feeding and breeding programs, and reduce environmental impacts