Learning Guide 0.0.1 – Getting Started with Precision Agriculture ANSWER KEY

Name_____

Part 1: Vocabulary Matching

Match each term to its correct definition

C Precision Agriculture	A. Shows variation in crop productivity across a field
H Yield Monitor	B. Equipment that applies varying input across a field
E Soil Sampling	C. Technology based farm management using spatial data
F Guidance System	D. Turns off planter or sprayer sections to avoid overlap
B Variable Rate Technology	E. Collecting soil data to analyze nutrient and pH levels
D Section Control	F. Helps operators steer accurately using GPS
G Remote Sensing	G. Uses satellite, drone, or plane imagery for decisions
A Soil/Yield Map	H. Displays live harvest data from specific field areas

Part 2: Fill in the blank

Complete each sentence using a term from the word bank (not all words are used)

Word Bank
Autosteer Satellite 1990s RTK Manual Sustainability 1950s Imagery pH Sprayer

1. _____Satellite_____ imagery allows farmers to detect crop health issues from above

2. Precision agriculture became more common starting in the _____1990s_____

3. Guidance systems that steer the tractor for the operator are called_____Autosteer_____

4. A _____Sprayer_____ is a piece of equipment that applies pesticides or fertilizers.

5. Precision agriculture helps support _____Sustainability_____ by minimizing input waste.

Part 3: Short Answer

1. What is the main difference between traditional farming and precision farming?

   Sample Answer: Traditional farming treats the entire field the same, while precision farming tailors management to different zones based on data

2. Why is understanding variability within a field important for farmers?

   Sample Answer: Understanding variability helps farmers apply the right amount of inputs in the right places, improving efficiency and reducing waste

3. How do soil and yield maps help farmers make better decisions?

   Soil and yield maps help identify trends and underperforming areas, guiding better decisions for inputs and management.