Intro to Agriscience
Precision Ag - Lesson 1 Quiz ANSWER KEY

T/F Section – Reach each statement carefully and determine if it is a True (T) statement or a False (F) statement. Place a T or an F on the blank in front of the statement. If the statement is false, write the word or words that would make the statement true in the blank provided.

False 1. Precision Agriculture is a method of farm finance.
management

True 2. When GIS was first introduced, only government and large industries could afford it.

False 3. Mass Flow Sensors were added to Yield Monitors so the location of a crop could be tracked.
GPS

False 4. Meters can track things such as the number of seeds planted, seed skips and the depth of seed.
Sensors

True 5. One bushel of corn weighs 56 pounds.

Matching Section - Match each vocabulary word in the column on the left with its proper definition from the column on the right.

9	Area of Interest	6.	The calculating of a location utilizing 3 or more known locations on the earth's surface.
10	Innovation	7.	The amount of increased income due to an investment.
11	Monitor	8.	The calculating of a location utilizing 3 or more positioning satellites.
7	ROI	9.	A defined area used in a GIS system for analysis.
6	Triangulation	10.	The creative adaptation of new technologies and design to provide a functional solution.
8	Trilateration	11.	A piece of equipment that displays information.

Multiple Choice Section - Reach each question or statement carefully. Circle the correct answer from the choices below each question.

12. Which technology was introduced in the late 1990s, had a slow start because the sky needed to be clear and was very costly?

a. Geographic Information System
b. Global Position System
c. Remote Sensing
d. Yield Monitor

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13. Differences within an area of interest is called _____.

a. discrepancy
b. variability
c. variety
d. diversity

14. Seed, fertilizer, herbicide and irrigation water are examples of _____ used to produce a crop.

a. inputs
b. chemicals
c. compounds
d. expanses

15. A _____ is an example of an UAV.

a. ray of sun
b. GMC Acadia
c. seedling
d. drone

Short Answer/Fill-in-the-Blank Section - Read each statement or question carefully. Fill in the blanks with the correct answers or write the correct response in the space provided below each question.

16. The primary goal of Precision Ag is to identify ***variability*** in the field.

17. Name the 5 components of Precision Agriculture.

GPS Receiver, Sensors, Meters, Monitors, and Software

18. Advanced ***sensors*** allow us to track things and drive our tractors straight while advanced ***meters*** allow us to vary the rate of delivery of seed, fertilizer, pesticides and water "on the run."

19. Explain why is it important for an Agricultural Producer to know the moisture of grain.

If a producer is purchasing grain to feed to livestock, he or she does not want to pay for the extra water if it contains a high amount of moisture. If the producer is selling grain, he or she will want to know how much the income from the crop will be discounted due to the moisture content. Etc.

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20. Give two examples of how Precision Agriculture can be used in animal production.

To determine range condition, to help rotate pastures, act as virtual fences, etc.

21. Precision Ag and management is used to manage ***resources***.

22. What does it mean to manage on a "granular" scale?

It allows you to manage on a smaller, more precise scale to manage its unique characteristics and thereby place inputs accordingly for that portion. Etc.

23. With Precision Ag, operators aim to add the right ***inputs*** at the right ***time*** at the right ***place*** at the right ***rate***.

24. Name one way an Ag producer can increase profitability using Precision Ag.

Add fewer inputs where the field is less productive, apply the most and best product to the most productive area, be more precise with input placement, etc.

25. The concept of one seed in one spot every time is called ***singulation***.

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