\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***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. With traditional farming practices, several pieces of data are gathered per location at one time.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***one piece***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***True*** 2. Data can be gathered up to 200 times per second using Precision Agriculture.

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***True*** 3. Because observations are taken constantly with Precision Agriculture, it is completely

applicable to the entire operation.

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***False*** 4. Atmospheric data is analyzed for Growing Degree Days and Heat Units.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***historical weather***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***False*** 5. Remote sensing can be done by satellites or physical observation.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***drones***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

***8*** Grid Sampling 6. Planting population, seed depth, seed spacing, etc..

***10*** Zone Sampling 7. Using multiple sources of data together.

***11*** Passive Data 8. Very time consuming and expensive for the operator.

Collection

***6*** Active Data 9. Similar outcomes that occur when an individual decision is made.

Collection

***9*** Trends 10. Fewer soil samples are taken and is less costly for the operator.

***7*** Data Layering 11. Soil temperature, soil moisture, pH, organic matter, etc..

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

12. Some types of data need to be known on a higher level of \_\_\_\_\_\_\_\_\_\_ so sensors are used to provide

more precise rather than general information.

a. availability ***b. granularity***

c. remoteness d. supposition

13. A field boundary is used to identify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on which data will be gathered.

***a. an AOI*** b. a BOAC

c. a POA d. an EPOX

14. A relationship between a piece of data and the result is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

a. compound b. trend

c. sample ***d. correlation***

15. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a program or script that precision equipment uses to apply a specific

amount of something at a specific place in the field.

1. ***prescription***  b. substantiator

c. software d. precision

***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. Compare and contrast 2 specific points related to traditional farming practices vs. precision

agriculture that were NOT previously discussed in this quiz.

***Compare: Data is collected Contrast: Extra time is required for physical observation***

***using traditional farming.***

***Data is recorded instantaneously using Precision***

***Ag***

***Compare: Different sites are observed Contrast: The number of sites is limited due to time***

***constraints using traditional farming.***

***A significantly higher number of sites observed***

***and recorded using Precision Ag.***

***Compare: Both have a degree of Contrast: Accuracy depends upon the viewpoint of the***

***accuracy. observer using traditional farming.***

***The data is accurate to the level of the calibration***

***of the equipment.***

17. Give 2 examples of where data comes from related to production agriculture.

***Websites, remote sensing, digitized historical maps, physical sampling and equipment with sensors,***

***etc.***

18. Digitized ***topographic*** maps are very valuable because landforms change very little over many years

unless there is a major occurrence such as an earthquake or major flood.

19. Name 2 pieces of data that can be identified using soil sampling.

***soil pH, current fertility, fertility needs, ability to hold water, ability to release water, etc***.

20. What tool is used to remove a sample of soil from the ground for testing?

***a soil probe***

21. Name 2 different means of saving and transferring collected data.

***USB Drive, SD Card, transfer directly to PC or iPad with a cable, send it to the cloud using WiFi***

***or cell transmitter, etc.***

22. What is the first step in decision making?

***gather data***

23. Why is it imperative that multiple years of data are available and compared when making decisions?

***So changes due to variables such as weather can be ruled out***

24. Give an example of data that could be layered AND explain what could be determined by your

example.

***Soil type and variable rate irrigation - layering allows the operator to see how much water was***

***delivered to each soil type.***

25. What should the operator do after data has been analyzed, decisions have been made and all

applications of inputs have been made?

***Observe, take note of what happens, keep accurate records, etc. to see if good decision were made.***