

2022 FFA Data Interpretation Test

1. A soil test comes back as 30.6% sand, 49.4 silt, and 20% clay. What texture class would this fall into? (see texture triangle—image 1)
 - A.) Silt Loam
 - B.) Clay Loam
 - C.) Loam
 - D.) Sandy Clay Loam
 - E.) Silty Clay Loam

2. The Smith's acquired some soil they put into their raised garden bed. However, when they found out it was too cloddy and undesirable for growing vegetables, they did a soil test to get a soil/clay/sand composition. The test results came back as clay with a composition of 41 percent clay, 25 percent sand and 34 percent silt. What is the minimum percent of sand needed to change the composition to a loam? (image 1)
 - A.) 36%
 - B.) 15%
 - C.) 5%
 - D.) 20%
 - E.) 18%

3. According to web soil survey, the Bono silty clay map unit could have some restrictions for corn and soybean production. Based on the description, which of these would not be one of those restrictions? (image 2)
 - A.) Ponding
 - B.) Clodding
 - C.) Water Erosion
 - D.) Restricted permeability
 - E.) Wetness

4. What condition would cause this map unit to not have a prime farmland class rating? (image 2)
 - A.) Flooding
 - B.) Slope
 - C.) Erosion
 - D.) Undrained
 - E.) Drained

5. What could be some of the limitations for putting a house with a basement on the Bono silty clay map unit? (image 2)
- A.) Shrink-swell
 - B.) Ponding
 - C.) Depth to Saturated Zone
 - D.) Flooding
 - E.) A, B, and C
6. What could be some of the limitations for putting a house without a basement on the Bono silty clay map unit? (image 2)
- A.) Depth to restrictive layer
 - B.) Shrink-swell
 - C.) Flooding
 - D.) High Winds
 - E.) B and C
7. In reviewing the associated table and water feature description, which of these is part of the frequently flooded definition? (image 3)
- A.) Chance of flooding occurs more than 50% in all months in any year
 - B.) Chance of flooding occurs at 50% in any year
 - C.) Chance of flooding occurs between 25 to 50% in any year
 - D.) Chance of flooding occurs more than 50% in any year
 - E.) Flooding always occurs under normal weather conditions
8. In the associated table, what is part of the Hydrologic Group D definition? (image 3)
- A.) Soils that have a moderate rate of water transmission
 - B.) Soils that consist chiefly of clays that have high shrink-swell potential
 - C.) Soils that have a high rate of water transmission
 - D.) Soils that are moderately well drained
 - E.) Soils that have a slow infiltration rate when thoroughly wet

9. There are 2 kinds of water tables mentioned in the table? What makes up part of the perched water table definition? (image 3)
- A.) Free water is restricted from moving downward in the soil by a restrictive feature.
 - B.) There is a wet layer of soil underneath another wet layer.
 - C.) A saturated zone that last for less than a month.
 - D.) A water table present in all horizons from its upper boundary to below 2 meters.
 - E.) None of the above.
10. Surface runoff classes are based on (image 3):
- A.) Climate
 - B.) Slope
 - C.) Vegetative Cover
 - D.) A & B
 - E.) All of the Above
11. For the associated table, "Hazard of Erosion and Suitability for Roads on Forestland", what do the numbers mean in the value column next to the Rating class and limiting features column? (image 4)
- A.) No important meaning
 - B.) Severity of the Individual limitations
 - C.) A value of 1.00 has no limitation
 - D.) A value of 0.00 has the most negative limitation
 - E.) None of the Above
12. Reviewing the Birds soil within the BgeAW map unit, which limiting feature under "Suitability for roads (natural surface)" would have the greatest potential limitation for this interpretation? (image 4)
- A.) Low strength
 - B.) Dusty
 - C.) Ponding
 - D.) Flooding
 - E.) C & D

13. In the suitability for roads (natural surface) column, what is a characteristic of Moderately suited? (image 4)
- A.) 2 or more soil properties are less than desirable
 - B.) A good performance can be expected
 - C.) 1 or more soil properties are less than desirable
 - D.) No maintenance is needed
 - E.) 1 or more properties are unfavorable for the specified kind of roads
14. According to the associated document (Dynamic Soil Properties Response to Biochar), which dynamic soil properties is not associated with soil health? (image 5)
- A.) Water Holding Capacity
 - B.) Soil Texture
 - C.) pH
 - D.) Cation Exchange Capacity
 - E.) Organic Matter Content
15. What factors would cause a soil to be unsuited for a response to biochar? (image 5)
- A.) Too wet
 - B.) Flooded
 - C.) Ponded
 - D.) Too Steeply Sloping
 - E.) All of the Above
16. In review of the chart and map, which map unit has an excellent response to biochar? (image 5)
- A.) MupA
 - B.) MwzAU
 - C.) OacB
 - D.) MhaA
 - E.) AbhAN

17. Why is the ChD map unit Very Limited in its rating for local roads and streets? (image 6)
- A.) Frost Action
 - B.) Depth to Saturated Zone
 - C.) Low Strength
 - D.) Slope
 - E.) Shrink-swell
18. Which soil is rated Not Limited for local roads and streets? (image 6)
- A.) ChB
 - B.) Br
 - C.) BaA
 - D.) Ad
 - E.) SeB
19. How many acres within this AOI is Not limited for local roads and streets? (image 6)
- A.) 3.3
 - B.) 14.0
 - C.) 138.5
 - D.) 71.4
 - E.) 34.6
20. Which soil horizon would most likely have the highest pH? (document 1)
- A.) Ap
 - B.) 2Bt3
 - C.) Bt1
 - D.) 2BCt
 - E.) BE