|  |  |  |  |
| --- | --- | --- | --- |
| Contestant I.D. |  | | |
| Site No. |  | | |
| No. of Horizons |  | | |
| Describe to a depth of | |  | cm | |
| Nail in the third horizon at | |  | cm | |
|  | |  |  | |



2021 Region IV Collegiate Soil Judging

Hosted by WTAMU

Canyon, Texas

I. \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

II. \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

III. \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

IV. \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

V. \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

Total : \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

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|  | **I. Soil Morphology** | | | | | | | | |  | | |  | |  |  |
| **Horizonation** | | | | **Boundary** | | **Texture** | | | | **Color** | | | **Structure** | | **Moist Consist.** | **Eff.** | | **Matrix Conc.** | **Score** |
| Pre-fix (2) | Mas-ter  *(3)* | Sub.  *(2)* | No.  *(2)* | Lower  Depth (cm)  *(3)* | Dist  *(2)* | Clay films (2) | Clay%  *(2)* | CF Mod  *(2)* | Class  *(4)* | Hue  *(2)* | Value  *(2)* | Chr-oma  *(2)* | Grade  *(2)* | Shape  *(2)* | *(2)* | *(2)* | | *(2)* | Poss-ible  *(40)* |
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| **II. Soil Hydrology and Profile Characteristics** | | | | | | |  |  | | | | |  | | | | | **Part II Score: \_\_\_\_\_\_\_** | | | | | | |
| **Hydraulic Conductivity** *(10)* | | | | | **Effective Soil Depth** *(5)* | | | | | **Water Retention Difference** *(5)* | | | | | | | | | **Soil Wetness Class** *(5)* | | | | | |
| Surface *(5)*  \_\_\_\_ High  \_\_\_\_ Moderate  \_\_\_\_ Low | Limiting Layer *(5)*  \_\_\_\_ High  \_\_\_\_ Moderate  \_\_\_\_ Low | | | | \_\_\_\_ Very shallow (< 25 cm)  \_\_\_\_ Shallow (25 to 49.99 cm)  \_\_\_\_ Moderately deep (50 to 99.99 cm)  \_\_\_\_ Deep (100 to 149.99 cm)  \_\_\_\_ Very deep (≥ 150 cm) | | | | | \_\_\_\_\_ Very low (< 7.50 cm)  \_\_\_\_\_ Low (7.50 to 14.99 cm)  \_\_\_\_\_ Medium (15 to 22.49 cm)  \_\_\_\_\_ High (22.5 to 29.99 cm)  \_\_\_\_\_ Very high (≥ 30 cm) | | | | | | | | | \_\_\_\_ Very shallow (< 25 cm)  \_\_\_\_ Shallow (25 to 49.99 cm)  \_\_\_\_ Moderately deep (50 to 99.99 cm)  \_\_\_\_ Deep (100 to 149.99 cm)  \_\_\_\_ Very deep (≥ 150 cm) | | | | | |
|  | | | | | | | | |  | |  | | | | |  | | | | | | | | | |
| **III. Site Characteristics** | | | | | | | | |  | |  | | | | | **Part III Score: \_\_\_\_\_\_\_** | | | | | | | | | |
| **Parent Material** *(5 each)* | | | | **Site Position** *(5 each)* | | | | | | | **Slope Gradient** *(5)* | | | | | **Surface Runoff** *(5)* | | | | | **Erosion Potential** *(5)* | |
| \_\_\_\_ Alluvium  \_\_\_\_ Colluvium  \_\_\_\_ Residuum  \_\_\_\_ Eolian sand/loam  \_\_\_\_ Loess  \_\_\_\_ Lacustrine | | | | \_\_\_\_ Depression  \_\_\_\_ Dune  \_\_\_\_ Plain  \_\_\_\_ Playa  \_\_\_\_ Playa step  \_\_\_\_ Stream terrace | | | | | \_\_\_\_ Summit  \_\_\_\_ Shoulder  \_\_\_\_ Backslope  \_\_\_\_ Footslope  \_\_\_\_ Toeslope  \_\_\_\_ Floodplain  \_\_\_\_ None | | \_\_\_\_ < 1 %  \_\_\_\_ 1 to 2 %  \_\_\_\_ 3 to 5 %  \_\_\_\_ 6 to 8 %  \_\_\_\_ 9 to 12 % | | | | | \_\_\_\_ Ponded  \_\_\_\_ Very slow  \_\_\_\_ Slow  \_\_\_\_ Medium  \_\_\_\_ Rapid  \_\_\_\_ Very rapid | | | | | \_\_\_\_ Very low  \_\_\_\_ Low  \_\_\_\_ Medium  \_\_\_\_ High  \_\_\_\_ Very high | |
| **IV. Soil Classification** | | | | | | | | |  |  | | **Part IV Score: \_\_\_\_\_\_\_** | | | | | | | | | | | | | |
| **Epipedon** *(5)* | | | **Subsurface Horizons and Features**  *(5 each)* | | | | | | **Order** *(5)* | | **Suborder** *(5)* | | | | **Great Group** *(5)* | | **Particle Size Control Section** | | | | | | |
| \_\_\_\_ Mollic  \_\_\_\_ Umbric  \_\_\_\_ Ochric  \_\_\_\_ None | | | \_\_\_\_ Argillic  \_\_\_\_ Calcic  \_\_\_\_ Cambic  \_\_\_\_ Lithic contact  \_\_\_\_ Natric  \_\_\_\_ Paralithic contact  \_\_\_\_ Petrocalcic  \_\_\_\_ Salic  \_\_\_\_ Slickensides  \_\_\_\_ Vertic properties  \_\_\_\_ None | | | | | | \_\_\_\_ Alfisol  \_\_\_\_ Aridisol  \_\_\_\_ Entisol  \_\_\_\_ Inceptisol  \_\_\_\_ Mollisol  \_\_\_\_ Vertisol | | \_\_\_\_ Arg  \_\_\_\_ Aqu  \_\_\_\_ Camb  \_\_\_\_ Calc  \_\_\_\_ Fluv  \_\_\_\_ Gyps  \_\_\_\_ Orth  \_\_\_\_ Sal  \_\_\_\_ Ust | | | | \_\_\_\_ Argi  \_\_\_\_ Calci  \_\_\_\_ Camb  \_\_\_\_ Endo  \_\_\_\_ Epi  \_\_\_\_ Hapl  \_\_\_\_ Natr  \_\_\_\_ Pale  \_\_\_\_ Ust(i) | | Starting  depth  *(5)* | | | | | Class *(5)*  \_\_ Sandy  \_\_ Loamy  \_\_ Coarse-Loamy  \_\_ Fine-Loamy  \_\_ Coarse-Silty  \_\_ Fine-Silty  \_\_ Clayey  \_\_ Fine  \_\_ Very-Fine | |
| Ending  depth  *(5)* | | | | |
| **V. Interpretations** | | | |  | |  | | | | | | **Part V Score: \_\_\_\_\_\_\_** | | | | | | | | | | | | |
| **Dwellings with Basement** *(5)* | | | | **Septic Tank Absorption Field** *(5)* | | | | | | **Local Roads and Streets** *(5)* | | | | | | | **Suitability for Corn Production** *(5)* | | | | | | |
| \_\_\_\_ Slight  \_\_\_\_ Moderate  \_\_\_\_ Severe  Reason # *(2)*: \_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | \_\_\_\_ Slight  \_\_\_\_ Moderate  \_\_\_\_ Severe  Reason # *(2)*: \_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | \_\_\_\_ Slight  \_\_\_\_ Moderate  \_\_\_\_ Severe  Reason # *(2)*: \_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | | \_\_\_\_ Slight  \_\_\_\_ Moderate  \_\_\_\_ Severe  Reason # *(2)*: \_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | |