2020 NACTA Soil Judging Contest Hays KS
4 Year Division
Hosted by: Fort Hays State University and USDA-NRCS (Kansas)
April 3, 2020

Contestant Number	
Pit Number	
Number of Horizons	
Profile Depth	
Nail Depth	

A. Morphology

Part A Score _____

HORIZONATION				BOUNDARY		TEXTURE				COLOR			STRUCTURE		MOIST CONSIST.	SOIL FEATURES			SCORE
Prefix	Master	Sub.	No	Depth (cm)	Dist.	Rock Frag. Mod.	Class	Sand (%)	Clay (%)	Hue	Value	Chroma	Grade	Type		RMF Conc. (Y/-)	RMF Depl. (Y/-)	Matrix Conc. (Type)	
(2)	(4)	(2)	(2)	(2)	(2)	(2)	(4)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(40)

B. Soil Hydrology and Profile Characteristics

Part B Score _____

Hydraulic Conductivity (5 each)		Effective Soil Depth (5)	Water Retention Diff. (5)	Soil Wetness Class (5)	TOTAL SCORE
Surface Layer	Limiting Layer	cm	cm	cm	
____ High ____ Moderate ____ Low	_____ High _____ Moderate _____ Low	_____ Very Deep (> 150) _____ Deep (100.1- 150) _____ Mod. Deep (50.1- 100) _____ Shallow (25-50) _____ Very Shallow (< 25)	_____ Very Low (< 7.5) _____ Low (7.5-15) _____ Medium (15.1-22.5) _____ High (> 22.5)	_____ Class 1 (> 150) _____ Class 2 (100.1-150) _____ Class 3 (50.1 – 100) _____ Class 4 (25- 50) _____ Class 5 (< 25)	**Part A** _____ **Part B** _____ **Part C** _____ **Part D** _____ **Part E** _____ **Total** _____

C. Site Characteristics

Part C Score _____

Landform (5)	Parent Material (5*)	Slope (5)	Hillslope Profile Position (5)	Surface Runoff (5)
_____ Upland _____ Upland depression _____ Alluvial fan _____ Stream terrace _____ Floodplain _____ Paleoterrace _____ Dunes/Interdunes	_____ Alluvium _____ Colluvium/Pedisediment _____ Eolian Sand/Eolian loam _____ Loess _____ Residuum	____ 0 to 2% ____ 2 to 6% ____ 6 to 9% ____ 9 to 15% ____ 15 to 25% ____ >25%	____ Summit ____ Shoulder ____ Backslope ____ Footslope ____ Toeslope ____ None (gradient <2%)	____ Negligible/Ponded ____ Very Low ____ Low ____ Medium ____ High ____ Very High

D. Soil Classification

Part D Score _____

Epipedon (5)	Diagnostic Subsurface Horizons and Features (5*)	Order (5)
____ Mollic ____ Ochric ____ Umbric ____ None	____ Albic ____ Argillic ____ Cambic ____ Calcic ____ Natric ____ Lithic Contact ____ Paralithic Contact ____ Slickensides ____ Abrupt Textural Change ____ Albic materials ____ Lamellae ____ Lithologic Discontinuities ____ Aquic Conditions ____ None	____ Vertisols ____ Mollisols ____ Alfisols ____ Inceptisols ____ Entisols

E. Site Interpretations

Part E Score _____

Septic Tank Absorption Fields (5)	Dwellings without Basements (5)
____ Suitable ____ Provisionally Suitable ____ Unsuitable	____ Slight ____ Moderate ____ Severe

USDA United States Department of Agriculture