

Fruit Yard - 1

Master Copy  
Paving in Fruit Yard P. 1 OK

2023 NACTA Soils Judging Contest  
2-Year Division Scorecard

Contestant Name	
Contestant Number	
College	
Pit Number	
Number of Horizons	5
Profile Depth	150
Nail Depth	45

Part I. Morphology

HORIZON- ATION	BOUNDARY		COLOR			MOIST CONSIST	TEXTURE		STRUCTURE Type	SOIL FEATURES	SCORE
	Depth (cm)	Dist.	Hue	Value	Chroma		Rock Fragment Modifier	Class			
Master (2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(5)	(5)	(2)	(28)
A	0-5	C	10YR	3	2	FR	-	SL	GR	-	
A	8-25	C	7.5 YR	3	3	FR	-	SL	SBK	-	
B	25-74	G	7.5 YR	3	4	VFK	-	SL	SBK	-	
B	74-104	G	7.5 YR	3	4	VFR	-	LS	SBK	-	
B	104-150	-	7.5 YR	4	4	VFR	-	SL	SBK	-	
A B C E R	Record lower depth in cm.	Abrupt (A) Clear (C) Gradual (G) Diffuse (D) None (-)				Loose (L) Friable (VFR) Friable (FR) Firm (FI) V. Firm (VFI) Ext. Firm (EFI)	None (-) Gravelly (GR) Very Grav. (VGR) Extrem. Grav. (EGR)	S. LS, SL, L, SCL, SC, C, SIC, SICL, CL, SIL, SI	GR SBK ABK PL WEG	PR CO MA SGR	None (-) Concentrations (C) Depletions (D) White (W)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

**Part II – Site and Soil Characteristics**

1) Local Landform (5)

- Upland
- Upland depression
- Alluvial fan
- Stream terrace
- Floodplain
- Foothlope
- Palcoterrace
- Dunes/Interdunes

2) Parent Material (5 pts each correct)

- Alluvium
- Colluvium
- Eolian sand/Eolian loam
- Loess
- Residuum

3) Slope (5)

- Concave
- 0 - < 2%
- 2 - < 5%
- 5 - < 10%
- 10 - < 15%
- 15 - 20%
- > 20%

4) Hillslope Profile Position (5)

- Summit
- Shoulder
- Backslope
- Foothlope
- Toeslope
- None (slope < 2%)

5) Surface Ruoff (5)

- Negligible *Good vegetation cover*
- Very slow
- Slow
- Moderate
- Rapid
- Very rapid

6) Soil Erosion Potential (5)

- Low
- Medium
- High

7) Soil Wetness Class (5)

- Not wet above 150 cm (WD)
- Wet between 50 to 150 cm (MWD)
- Wet between 25 to < 50 cm (SWPD)
- Wet above 25 cm (PD)

8) Effective Soil Depth (5)

- Very shallow (< 25 cm)
- Shallow (25 - < 50 cm)
- Moderately deep (50 - < 100 cm)
- Deep (100 - 150 cm)
- Very deep (> 150 cm)

9) Hydraulic Conductivity - Surface (5)

- Slow
- Moderate
- Rapid

10) Hydraulic Conductivity - Limiting (5)

- Slow
- Moderate
- Rapid

11) Water Retention Difference (5)

- Very low (< 7.5 cm)
- Low (7.5 - < 15 cm)
- Moderate (15 - 22.5 cm)
- High (> 22.5 cm)

**\* Part III – Interpretations**

1) Roadfill (5)

- Good
- Fair
- Poor
- None Feature (5)

2) Septic Tank Absorption Fields (5)

- Good
- Fair
- Poor
- \_\_\_\_\_ Feature (5)

3) Sewage Lagoons (5)

- Good
- Fair
- Poor
- \_\_\_\_\_ Feature (5)

Tie Breaker (Surface)

% clay \_\_\_\_\_ % Sand \_\_\_\_\_

Part II and III Score \_\_\_\_\_

**Total Score** \_\_\_\_\_

2023 NACTA Soils Judging Contest  
2-Year Division Scorecard

Fruit Yard

Contestant Name	
Contestant Number	
College	

Pit Number	2
Number of Horizons	6
Profile Depth	152
Nail Depth	33

Part I. Morphology

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HORIZON- ATION	BOUNDARY		COLOR			MOIST CONSIST	TEXTURE		STRUCTURE	SOIL FEATURES	SCORE
	Depth (cm)	Dist.	Hue	Value	Chroma		Rock Fragment Modifier	Class			
Master											
(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(5)	(5)	(2)	(28)
1. A	0-25	A	10YR	3	2	FR	-	L	PL	-	
2. A	25-33	G	10YR	3	3	FI	-	L	PL	Y	
3. A	33-52	C	10YR	3	3	FR	-	L	SBK	N	
4. B	52-79	G	10YR	4	3	FI	-	L	SBK	N	
5. B	79-134	A	10YR	4	4	FR	-	L	SBK	N	
6. B	134-152	A	2.5Y	6	2	VFI	-	L	MA	Y	
A	Record lower depth in cm.	Abrupt (A) Clear (C) Gradual (G) Diffuse (D) None (-)				Louse (L) V. Friable (VFR) Friable (FR) Firm (FI) V. Firm (VFI) Ext. Firm (EFI)	None (-) Gravelly (GR) Very Grav. (VGR) Extrem. Grav. (EGR)	S. LS. SL. L. SCL. SC. C. SIC. SICL. CL. SIL. SI	GR SBK ABK PL WEG	PR CO MA SGR	None (-) Concentrations (C) Depletions (D) White (W)

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Tie Breaker (Surface)

% clay 12 % Sand \_\_\_\_\_

Part II and III Score \_\_\_\_\_

**Total Score** \_\_\_\_\_

NACTA SOILS CONTEST

4-Year Division

SITE CARD

Pit  
SITE NO. 2

Fruit yard

Describe 6 horizons to a depth of 152 cm.

Blue marker is in the third horizon at 33 cm.

Horizon	pH	% Base Sat.	% Organic C	% CaCO <sub>3</sub>
1.	7.5	60	2	0
2.	7.4	62	2	0
3.	7.2	61	1.5	0
4.	7.2	54	0.4	0
5.	7.2	53	0.1	0
6.	7.3	55	0.1	2%