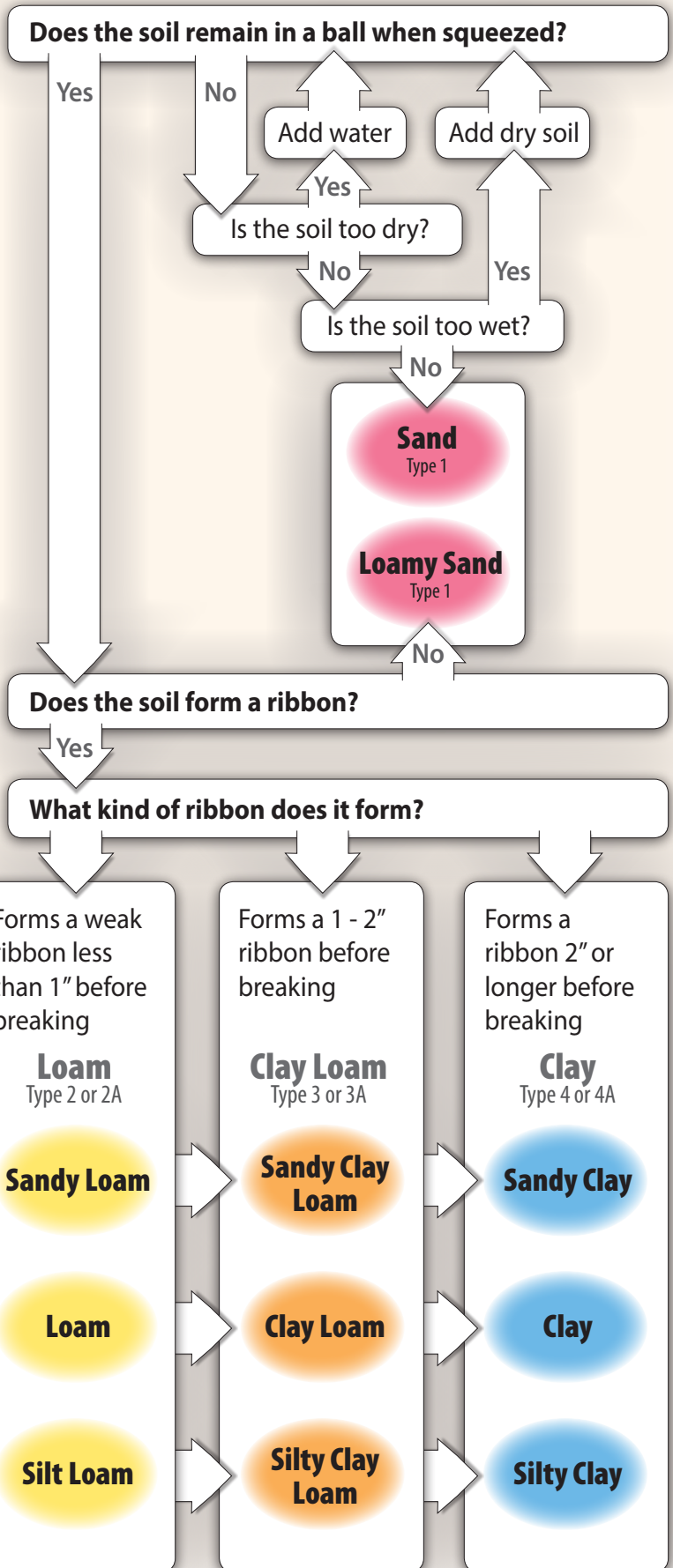# Soil Texture by Feel

Place soil in palm of hand. Add water drop-wise and knead the soil into a smooth and plastic consistency, like moist putty.

Place ball of soil between thumb and forefinger, gently pushing the soil between with the thumb, squeezing it upward into a ribbon. Form a ribbon of uniform thickness and width. Allow ribbon to emerge and extend over the forefinger, breaking from its own weight.

Moisten pinch of soil in palm and rub with forefinger.

Does the soil remain in a ball when squeezed?

Yes | No

Add water | Add dry soil

Yes

Is the soil too dry?

No | Yes

Is the soil too wet?

No

Sand
Type 1

Loamy Sand
Type 1

No

Does the soil form a ribbon?

Yes

What kind of ribbon does it form?

Forms a weak ribbon less than 1" before breaking	Forms a 1 - 2" ribbon before breaking	Forms a ribbon 2" or longer before breaking
Loam Type 2 or 2A	**Clay Loam** Type 3 or 3A	**Clay** Type 4 or 4A

Does it fell very gritty? — Yes → **Sandy Loam** → **Sandy Clay Loam** → **Sandy Clay**

Does it feel equally gritty and smooth? — Yes → **Loam** → **Clay Loam** → **Clay**

Does it feel very smooth? — Yes → **Silt Loam** → **Silty Clay Loam** → **Silty Clay**

If platy structure then soil type 5

Long-term Acceptance Rates

Soil Type, Texture, Structure and Percolation Rate Range					Corresponding Long Term Acceptance Rate (LTAR) *in gallons per day per sq. ft.*				
Soil Type	USDA Soil Texture	USDA Soil Structure-Shape	USDA Soil Structure-Grade	Percolation Rate (MPI)	Treatment Level 1	Treatment Level 2	Treatment Level 2N	Treatment Level 3	Treatment Level 3N
0	Soil Type 1 with more than 35% rock >2 mm / Soil Types 2-5 with more than 50% rock (>2 mm)	--	Single Grain	<5	1.0 (minimum 3' deep unlined sand filter required 2)	1.0 (minimum 2-foot deep unlined sand filter required 2)			
1	Sand Loamy Sand	--	Single Grain	5-15	0.80	1.25	1.25	1.40	1.40
2	Sandy Loam Loam Silt Loam	Prismatic Blocky Granular	Moderate Strong	16-25	0.60	0.90	0.90	1.00	1.00
2A	Sandy Loam Loam Silt Loam	Prismatic Blocky Granular None	Weak Massive	26-40	0.50	0.70	0.70	0.80	0.80
3	Sandy Clay Loam Clay Loam Silty Clay Loam	Prismatic Blocky Granular	Moderate Strong	41-60	0.35	0.50	0.50	0.60	0.60
3A	Sandy Clay Loam Clay Loam Silty Clay Loam	Prismatic Blocky Granular None	Weak Massive	61-75	0.30	0.40	0.40	0.50	0.50
4	Sandy Clay Clay Silty Clay	Prismatic Blocky Granular	Moderate Strong	76-90	0.20	0.30	0.30	0.30	0.30
4A	Sandy Clay Clay Silty Clay	Prismatic Blocky Granular None	Weak Massive	91-120	0.15	0.20	0.20	0.20	0.20
5	Soil Types 2-4A	Platy	Weak Moderate Strong	121+	0.10	0.15	0.15	0.15	0.15

Based on CDPHE WQCC Regulation 43 Table 10.1 Soil Treatment Area Long-term Acceptance Rates by Soil Texture, Soil Structure, Percolation Rate and Treatment Level

Textural Triangle