

Major Land Resource Area 102A Rolling Till Prairie

Accessed: 05/16/2026

Ecological site keys

RUN-OFF Landscape Positions (upland, normally convex short slopes)

A Dig a hole to a depth of 20 inches

B. Is it organic?

Yes See MLRA Key "Other Landscape Positions"

No Is there a root restricting layer within 10 inches of soil surface?

Yes Very Shallow ... R102AY016SD – Very Shallow

No Is there a root restricting layer within 10-20 inches of soil surface?

Yes Gravel? (greater than 15% by volume)

Yes ... R102AY014SD – Shallow Gravel

No Bedrock (siltstone, sandstone, mudstone, etc)?

Yes Shallow Loamy ... R102AY024SD – Shallow Loamy

No Does the soil effervesce with acid (10% HCL) at or near (within 6 inches) the surface?

Yes Thin Upland ... R102AY012SD – Thin Upland

No See MLRA Key "Normal Landscape Positions"

NORMAL Landscape Positions (Upland, slopes normally linear, except sandy/sands sites can have complex slopes)

A. Dig a hole to a depth of 20 inches

B. Is it Organic?

Yes See MLRA Key "Other Landscape Positions"

No Are there visible salts (including sodium and gypsum) within 16 inches or a claypan of the surface?

Yes Is there a claypan (columnar structure) within 16 inches of the surface?

Yes See MLRA Key "Other Landscape Positions"

No What is the surface and subsoil texture?

C. Clay, Silty Clay (>40% clay) or Loamy Surface with Clayey subsoil

Yes Clayey ... R102AY011SD ... R102AY011SD – Clayey

No Loam, Silt loam, Silty clay loam, Clay loam, Sandy clay loam, very fine sandy loam

Yes Loamy ... R102AY010SD ... R102AY010SD – Loamy

No Sandy loam, Fine sandy loam, Loamy very fine sand

Yes Sandy ... R102AY009SD ... R102AY009SD – Sandy

No Sand, Loamy sand, Loamy fine sand

Yes Sands ... R102AY008SD ... R102AY008SD – Sands

RUN-IN Landscape Positions (Floodplain, Drainageways, etc., except depressions)

A. Dig hole to a depth of 20 inches

B. Is it organic?

Yes See MLRA Key "Other Landscape Positions"

No Observe the soil profile to a depth of 60 inches.

C. Is there evidence of a permanent water table within 0-2 feet of the surface and the site dominated by hydrophytes?

Yes Are there visible salts (including sodium and gypsum) within 16 inches of the surface?

Yes Saline Lowland ... R102AY007SD ... R102AY007SD – Saline Lowland

No Linear Meadow ... R102AY002SD ... R102AY002SD – Linear Meadow

No Is there evidence of a permanent water table within 2 to 5 feet of the surface?

Yes Does the soil effervesce with acid at or near the surface or have visible salt (including sodium and gypsum) crystals within 6 inches?

No Subirrigated ... R102AY003SD ... R102AY003SD – Subirrigated

Yes Salts within 16 inches?

Yes Saline Subirrigated ... R102AY036SD ... R102AY036SD – Saline Subirrigated

No Limy Subirrigated ... R102AY006SD ... R102AY006SD – Limy Subirrigated

No Does water flow into and over/through the site?

No See MLRA Key "Other Landscape Positions"

Yes Does it have a flooding frequency?

Yes Loamy Floodplain ... R102AY040SD ... R102AY040SD – Loamy Floodplain

No What is the surface texture of the soil?

D. Clay, Silty Clay

Yes Clayey Overflow ... R102AY021SD ... R102AY021SD – Clayey Overflow

No Loamy Overflow ... R102AY020SD ... R102AY020SD – Loamy Overflow

OTHER Landscape Positions (Basin, Depression, Run-off and/or Run-in)

A. Dig hole to a depth of 20 inches

B. Is it organic?

Yes Does the soil effervesce with acid (10% HCL) at or near (within 6 inches) the surface?

No Shallow Peatland ... R102AY039SD – Shallow Peatland

Yes Calcareous Fen ... R102AY038SD – Calcareous Fen

No Does the soil have a claypan (columnar structure) within 16 inches?

Yes Is the claypan within 6 inches of the surface

Yes Not in MLRA 102A

No Claypan ... R102AY013SD – Claypan

No Is the area in a basin or closed depression with no outlet?

No Re-think your position and start again!

Yes Does the site pond water for 4 to 8 weeks in the spring or after heavy rain and have high organic matter content?

Yes Wet Meadow ... R102AY004SD – Wet Meadow

No Does the site pond water until early summer and have high organic matter content?

Yes Shallow Marsh ... R102AY001SD – Shallow Marsh

No Does the site pond water year round in most years and have high organic matter content?

Yes Deep Marsh ... R102AY037SD – Deep Marsh