Science Societies

Soil riddles: April 2026

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March 30, 2026



AI-generated image courtesy of ChatGPT.

Think you know soils? Test your knowledge in our new series, “Soil Riddles.”

If you are the first to guess the correct soil series name and its geographical location correctly, we'll publish your name along with the answer in an upcoming issue.

Amazing soils are all around us. We see some quite often while others only on special occasions or during a once in a lifetime trip. My wife, daughter, and I love to travel and have had the opportunity to visit some bizarrely interesting soils. My wife and I are both soil scientists and know very well how excited soil scientists get when trying to identify a soil from a photo or even just a partial core.

In that spirit, I thought it would be fun for some of you to test your soils knowledge. Each month, I will share a new riddle in *CSA News*. If you are the first to guess the correct **soil series name** and its **geographical location**, I will publish your name along with the answer in an upcoming issue. Email your answers to me at adaigh2@UNL.edu (send message) with the subject line "*Soil Riddles April 2026.*"

Soil Riddle 1

In highlands where limestone sleeps below,

On uplands and terraces where old waters flow,

A silty mantle draped from windblown days,
Over cherty colluvium in weathered arrays.

My Ap is brown where the plow has turned,

A BE transition where roots have learned.

In Bt the clays begin to show,
Silty clay loam where illuviation's slow.

But deeper still, a hardened floor,

My 2Btx fragipan is brittle to the core.

Seventy percent firm, with prisms so wide,
Gray seams and vesicles where water must hide.

Iron depletions in light gray hues,

Yellowish red masses where oxygen renews.

Then 3Bt arrives with chert galore,
Extremely gravelly clay to the bedrock floor.

Fine-silty I stand, siliceous and true,

A Typic Fragiudult with old, eroded plateau view.

Hardwoods and prairies once claimed my ground,
Now pastures, but orchards where apples where once found.

Established long ago in a midsouth state,
But these highlands I call home sealed my fate.

What is my series name, and where do I form?

Last month's winners

Congratulations to **Ann Tan** and **Rachel Owen**, who were the first to answer both riddles correctly for March 2026!

All three soils were located on the Big Island of Hawaii:

- Kaalualu Series at the southern most point of the Big Island.
- Lanapohaku Series along the side of Mauna Kea.
- Hanalei Series inside a famous Taro farming valley on the northern coast, which is sometimes called the Valley of the Kings.

Ann is a NRCS Soil Survey Office Leader. "I work on the soil survey in the Pacific Island Area, which includes the state of Hawaii, territories of America Samoa, Guam, and the Commonwealth of the Northern Mariana Islands, and the Freely Associated States," she says. "It's a fun job and I get to work on a wide variety of soils!"

Rachel is CEO of the RKO Consulting Group. She's an agronomist, strategy and policy consultant, and an Iowa State soil judging alumni.



Ann Tan (left) and Rachel Owen.

Soil Riddle 2

My cousin above has silty grace,

But I wear chert fragments on my face.

On ridgetops I reign, forty percent or more,
Angular limestone pieces from an ancient floor.

Dark grayish brown in A so thin,

Then E horizon where leaching begins.

My Bw builds structure, weak and fine,
Sixty percent gravel in extremely skeletal line.

Then 2Btx arrives, my fragic domain,

Seventy percent brittle, where water meets strain.

Gray streaks hold roots in vertical seams,
Iron and manganese in black-coated dreams.

Below in 3Bt, the variegated show,

Yellowish red and strong brown aglow.

Eighty percent weathered chert fills the space,
A loamy-skeletal, glossic embrace.

Siliceous mineralogy, mesic and deep,

A Glossic Fragiudult where the ridges sweep.

Oaks and hickories mark where I stay,
Red, black, post, and blackjack hold sway.

What is my series name, and on which slopes do I lie?

Soil Riddle 3

Where prairies stretch flat on terraces wide,

On benches and flats where old waters reside,

Eolian silts and alluvium combined,

To build my profile, layer by layer aligned.

I'm scatter along several state lines,
But for this riddle I’m by my other two cousins' side.

My Ap is dark grayish brown and soft,

Silt loam structure, granular aloft.

Then E horizon, pale and wan,
An albic layer before the storm began.

Abrupt the change at fifteen inches deep,

Where 2Btg clays in prisms creep.

Sixty percent clay, extremely hard and firm,
Very dark grayish brown where the films confirm.

Lithologic breaks mark my layered past,

3Btg horizons with E tongues amassed.

Clay films on faces, silt coats in pores,
Glossic expressions on prismatic floors.

Episaturation perches above the clay,

From January through May, the water holds sway.

Yellowish brown iron in irregular form,
Manganese concretions weather the storm.

Fine, mixed, active, thermic I stand,

A Typic Albaqualf on the prairie's flat bottomland.

Tall grasses once swayed where cattle now graze,

Named for a nation, ancient and still here today.

What is my series name, and where do I form?

Email answer(s)

More soil riddles

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