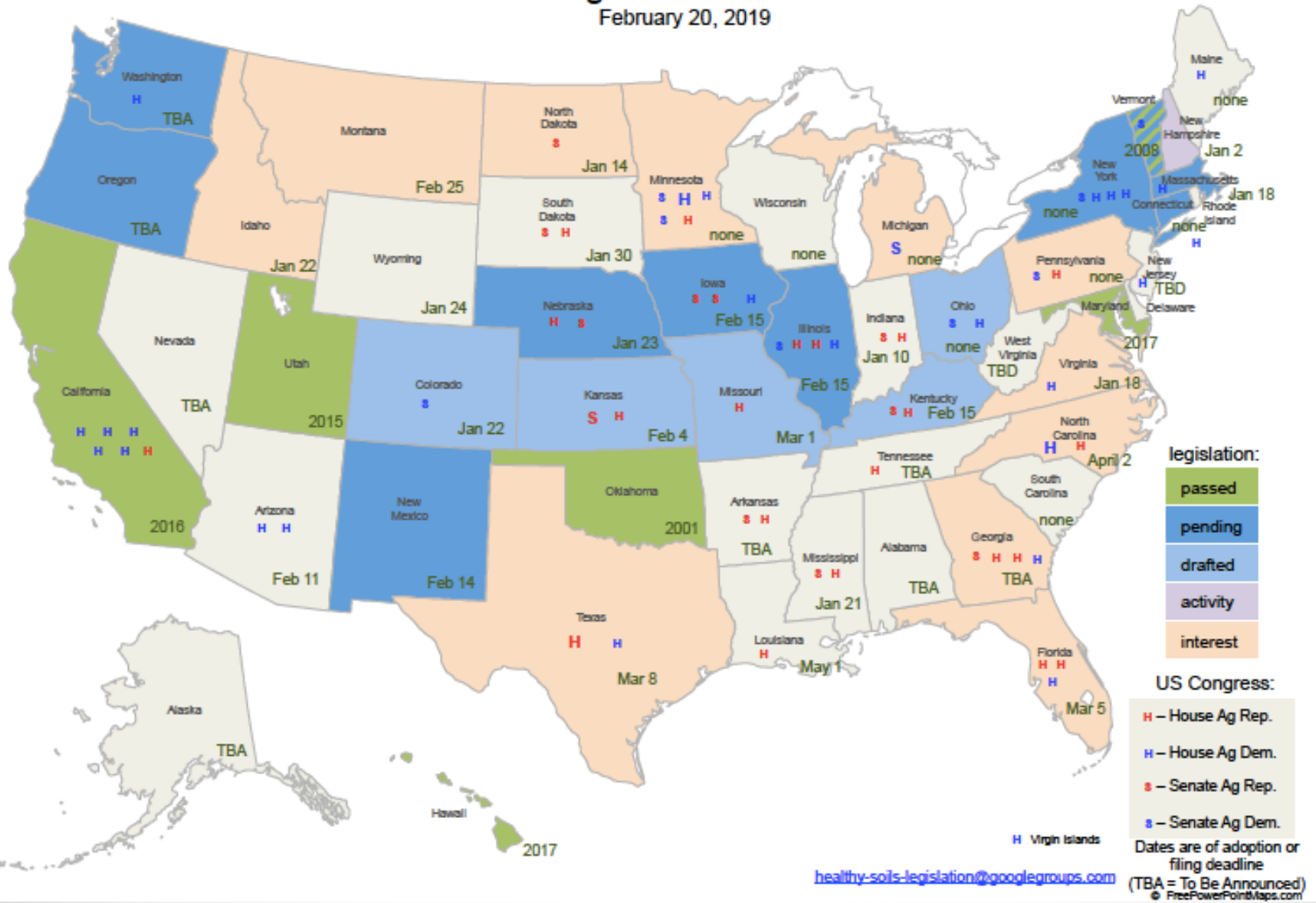


The Soil Will Save Us



Healthy Soils legislative status

February 20, 2019



healthy-soils-legislation@googlegroups.com

Sacramento Valley



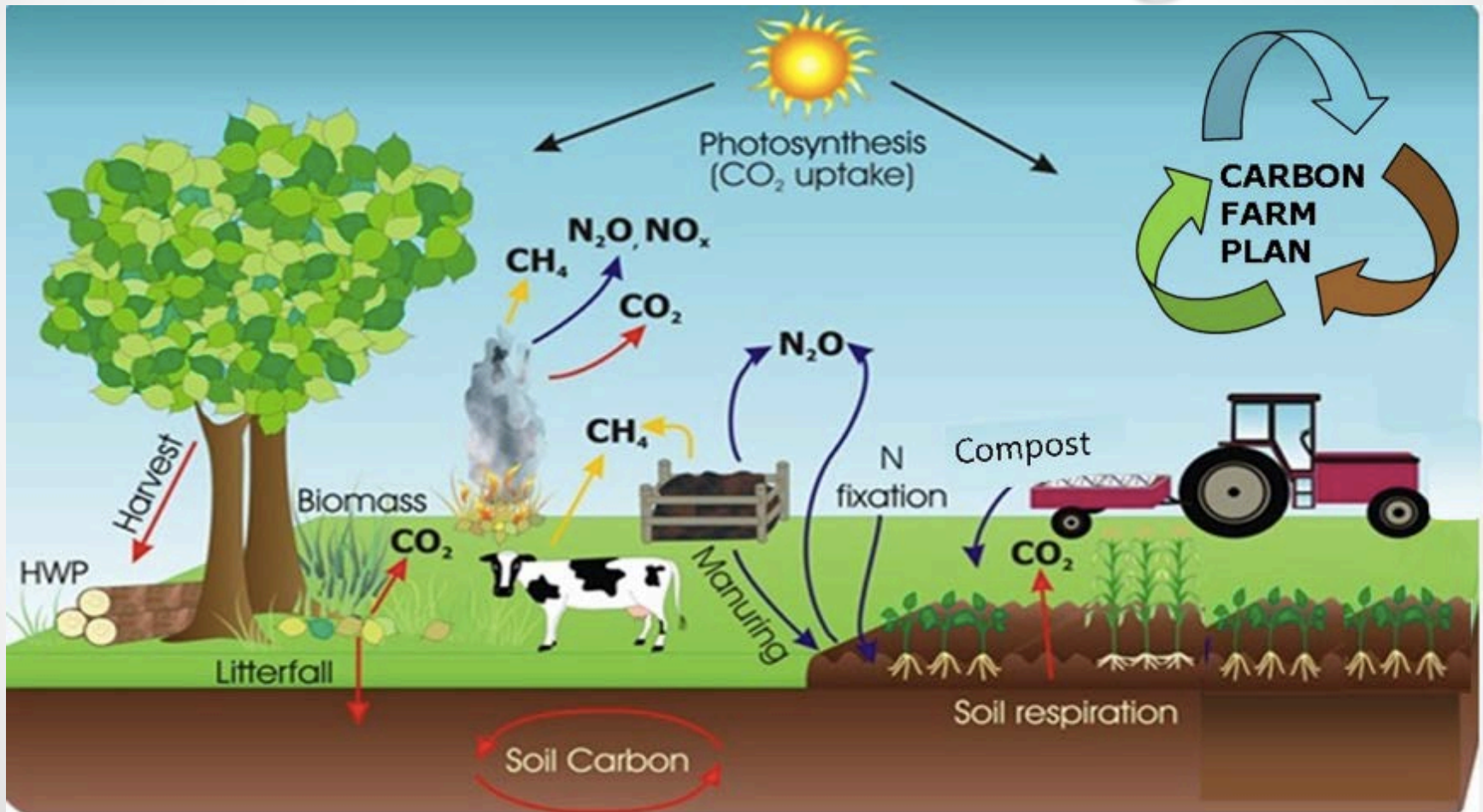
Sheep grazing organic almond orchard



Chef Parker Bosley



Carbon Farming



300,000,000,000,000,000,000,000
stars!



6 foot roots





Fungi and bacteria



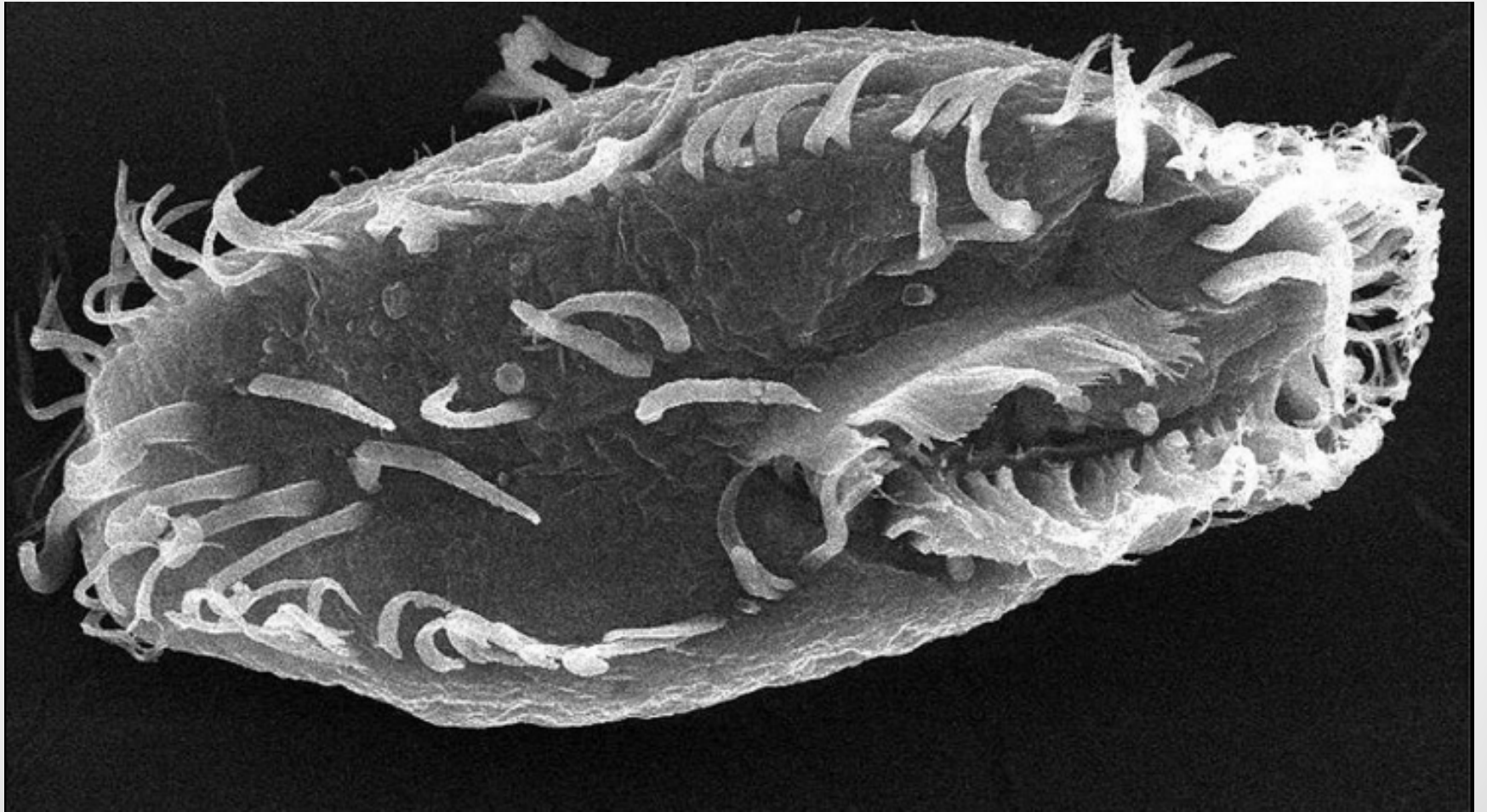
Bacteria-eating nematode



Tardigrade

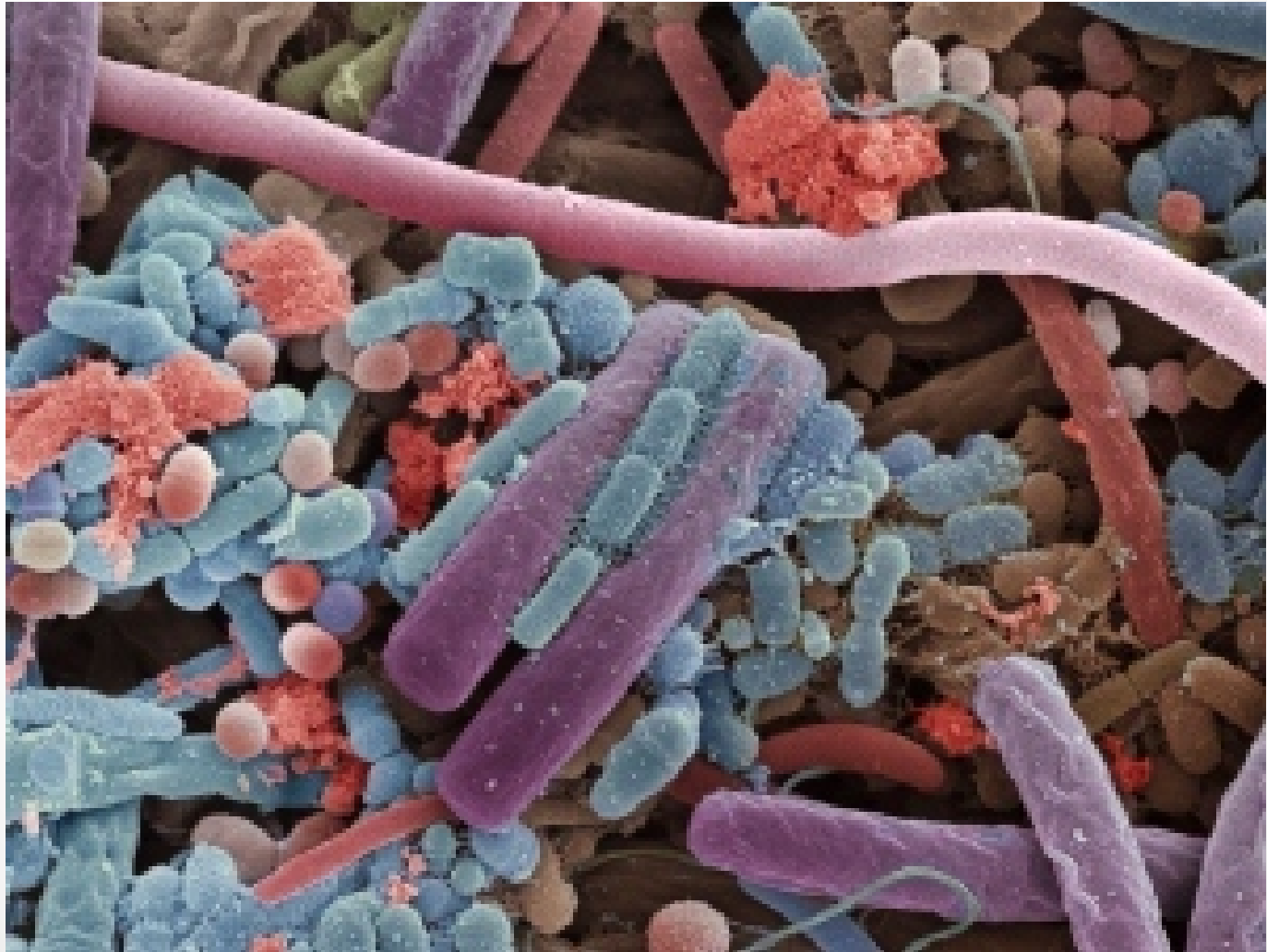


Protozoa





Human microbiome – the tongue















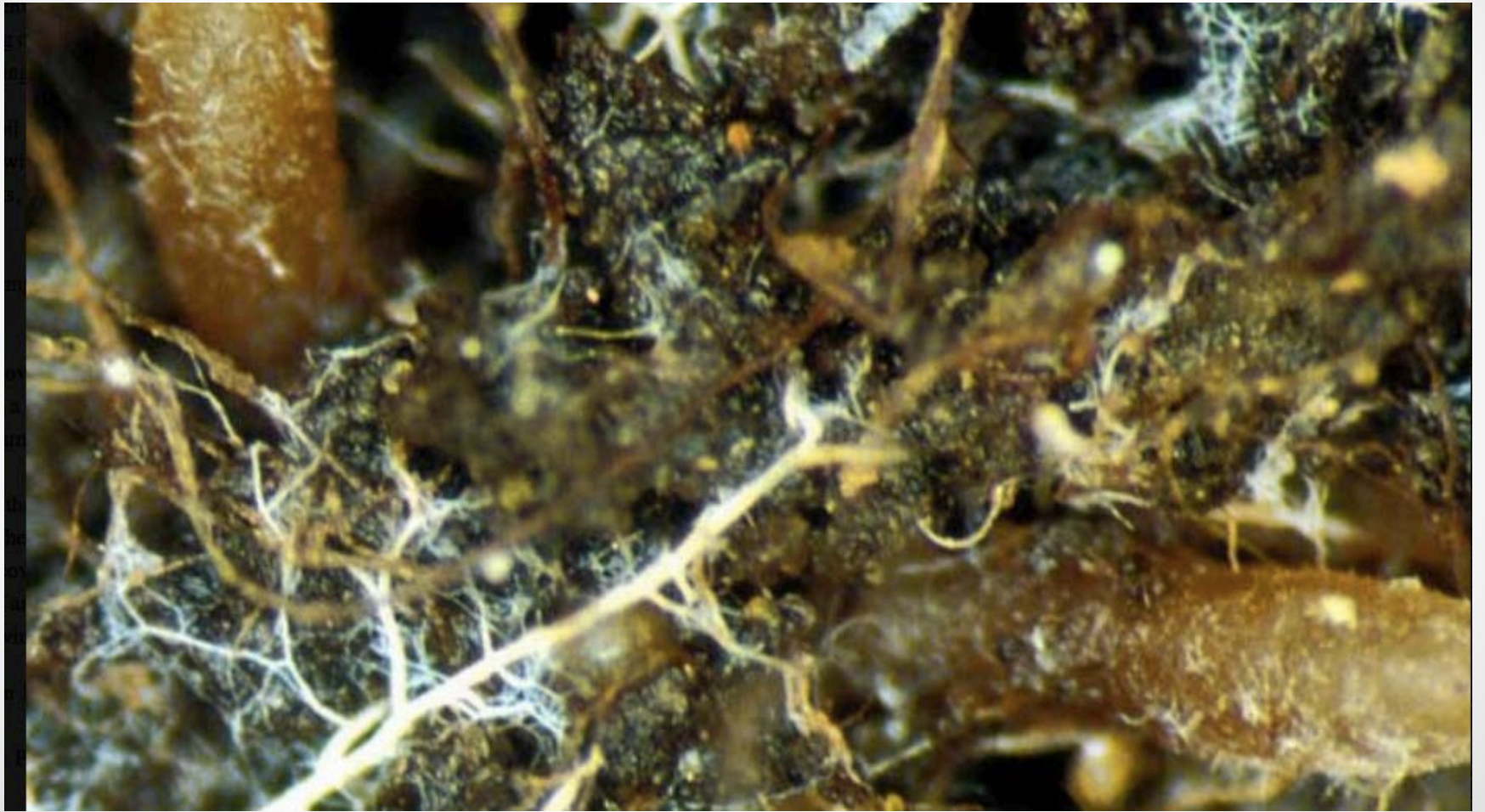
Cyanobacteria





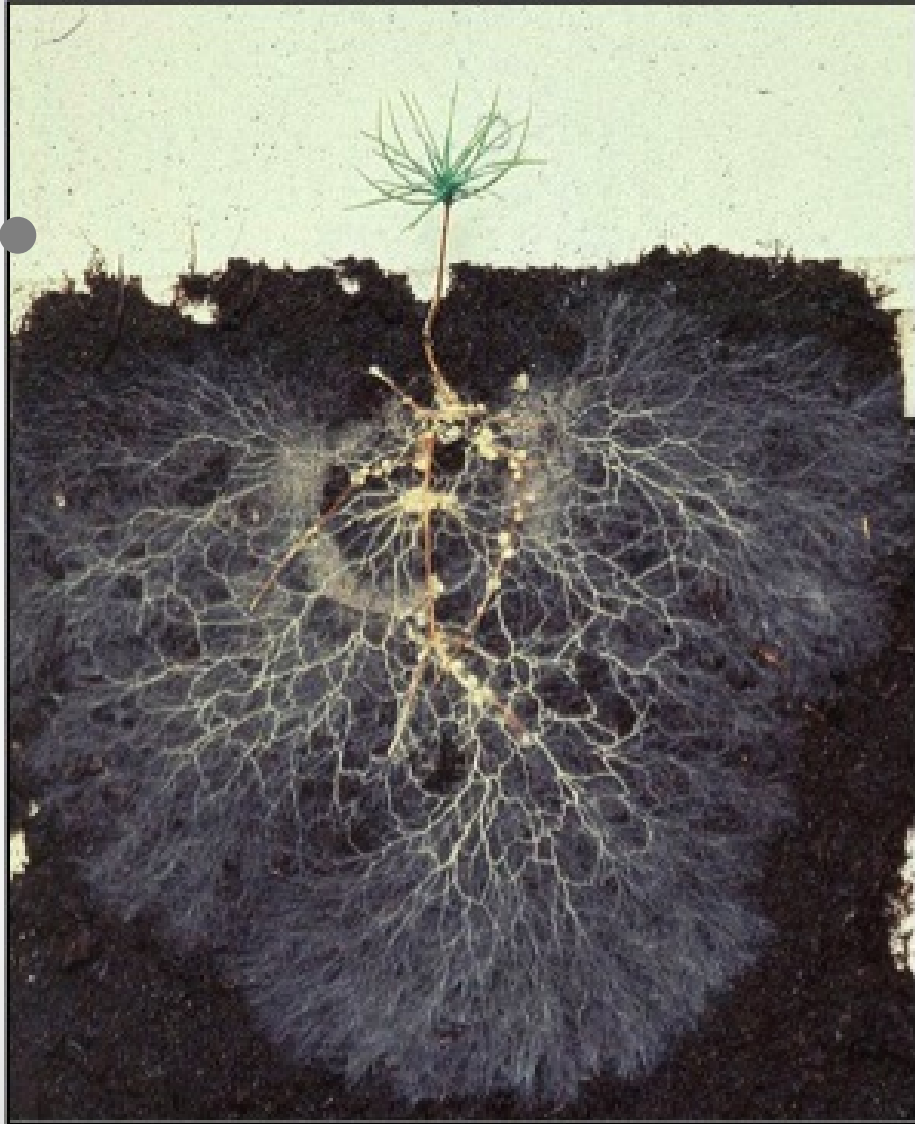
Filled with carbon!

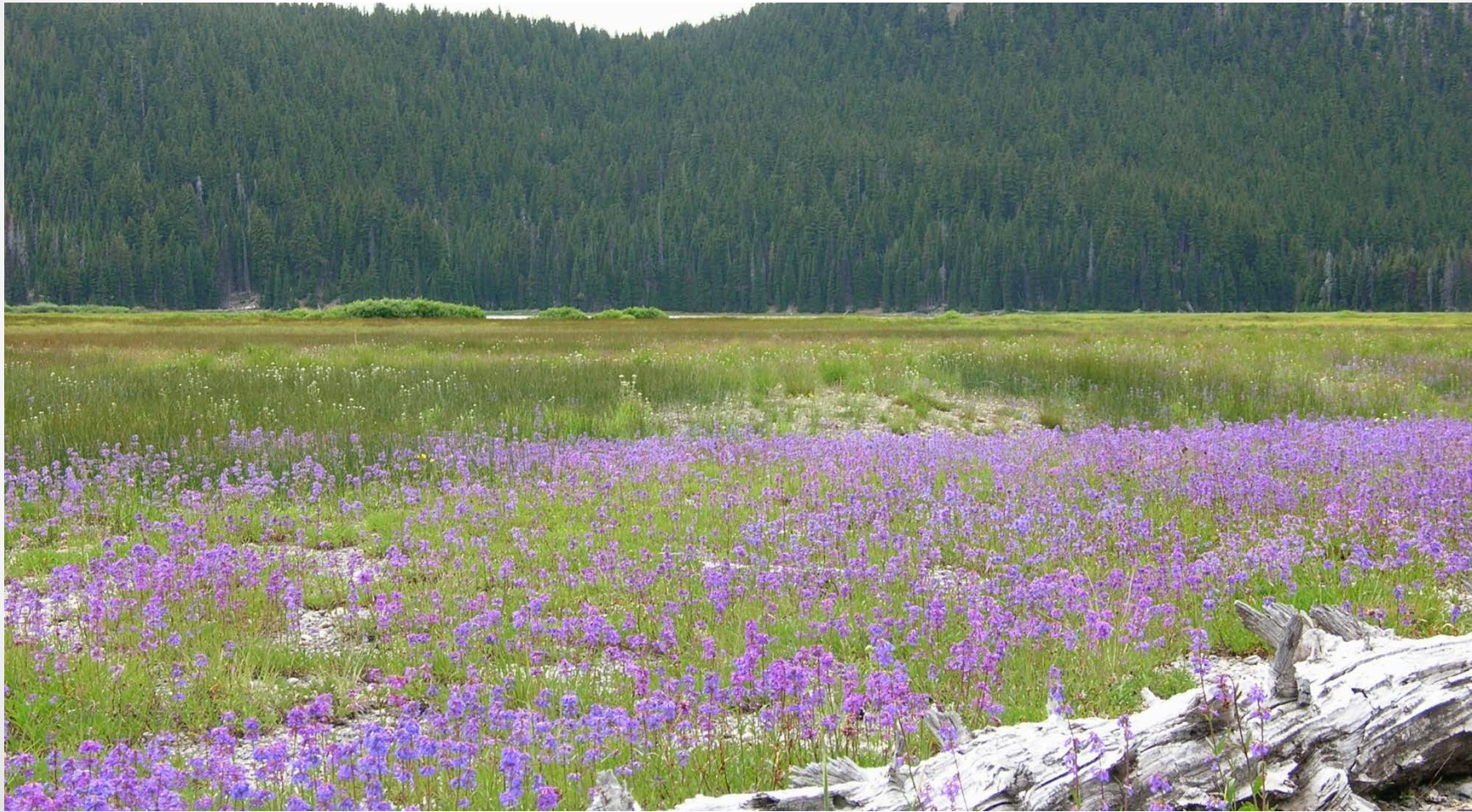




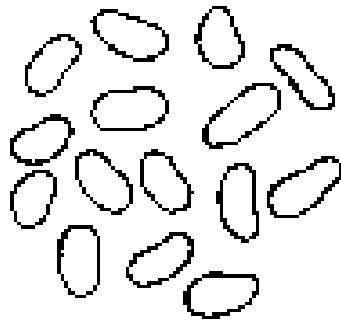




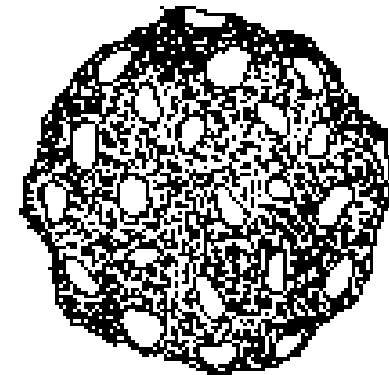
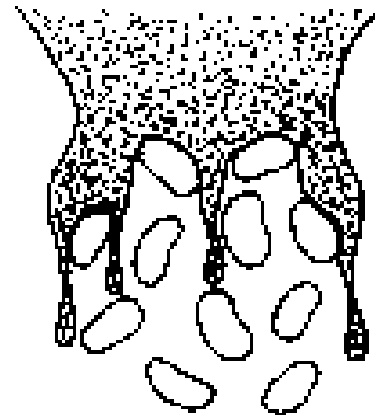




MICROBIAL AND FUNGAL
BYPRODUCTS GLUE
THE PARTICLES TOGETHER



DISPERSED STATE



AGGREGATED STATE

Water retention we can live with...

By improving soil organic matter by just ½ percent on all of the cropland in the Mississippi River, that cropland would store the amount of water that flows over Niagara Falls in...

83 days.



what's underneath

healthy soil has amazing water-retention capacity.



Every

1%

increase in organic matter results in as much as

25,000

gal of available soil water per acre.

Source: Kansas State Extension Agronomy e-Updates, Number 357, July 6, 2012



Want more soil secrets?
Check out www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

Destroying soil structure



Bare soil = carbon loss!



Tillage and runoff





The dead zone

An annually recurring area of low oxygen in the Gulf of Mexico has grown to an area of 8,776 square miles, or about the size of New Jersey.

Source: NOAA

Graphic: Tribune News Service

Photosynthesis



David Johnson







A lush companion crop of ryegrass, buckwheat, oilseed radish, chickling vetch, and dwarf Essex rape enjoys the extra space between 60-inch rows on the Loran Steinlage farm in Iowa.



NORTH
DAKOTA

PROFILES IN soil health

Gabe Brown

Bismarck, North Dakota

5,000 acres

Crops: Corn, wheat, sunflowers, alfalfa, oats,
triticale, hairy vetch and peas

Planting: All No-till

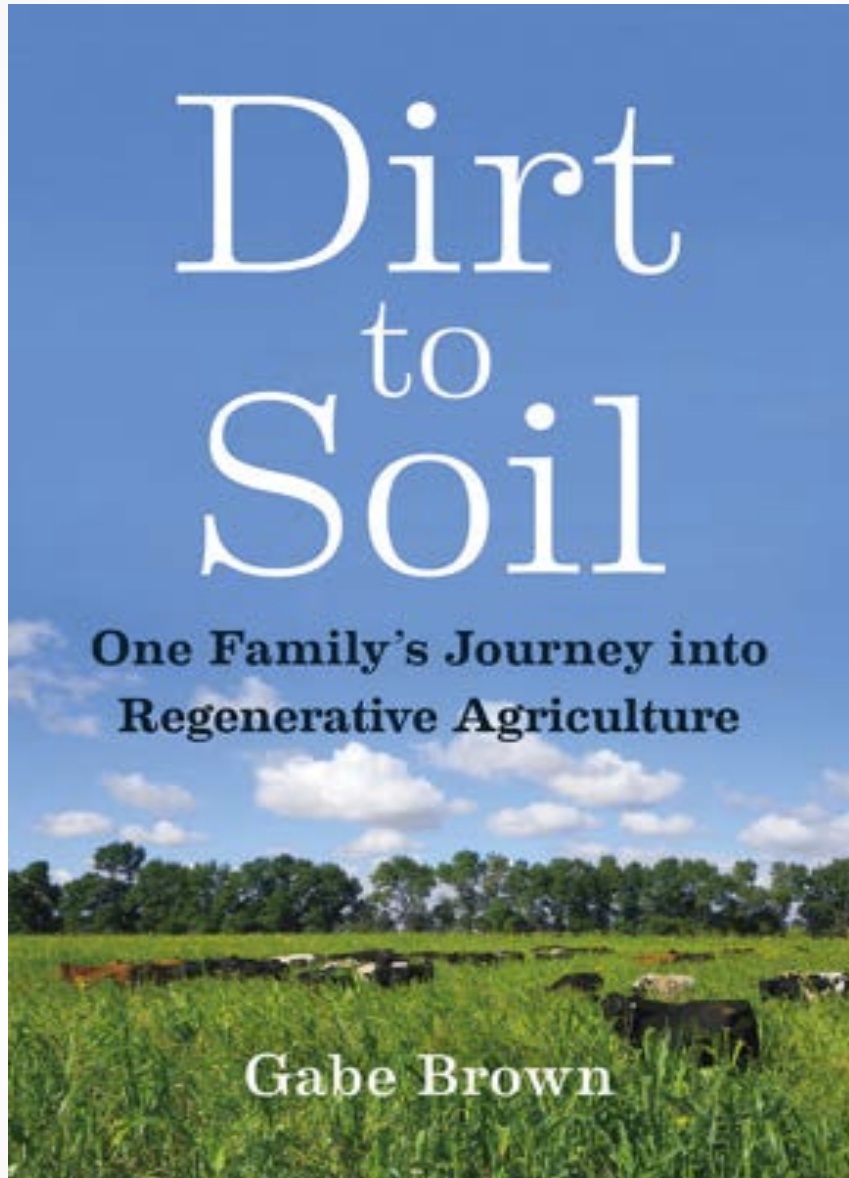
Covers: Cocktail mixes with 20-25 different
plant species.

unlock the
SECRETS
IN THE
SOIL

Dirt to Soil

**One Family's Journey into
Regenerative Agriculture**

Gabe Brown





Cover crops







Gabe Brown's results

--27 more bushels of corn per acre than county average

--spends only \$1.25 per bushel, vs \$3.50

--organic matter in soil risen from 1.7% to 5.3%

--water infiltration has gone from 1/2 inch per hour to 15 inches per hour





Bark mulch & Roundup





In Timeline Photos



Like

Comment

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Options

Send in Messenger

