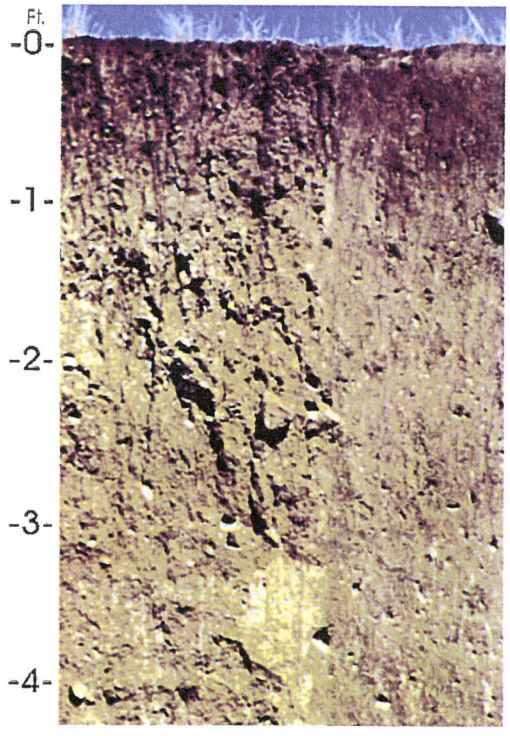
EXHIBIT #1
DATE 03/24/15
SB 176

SCOBEY -- MONTANA STATE SOIL



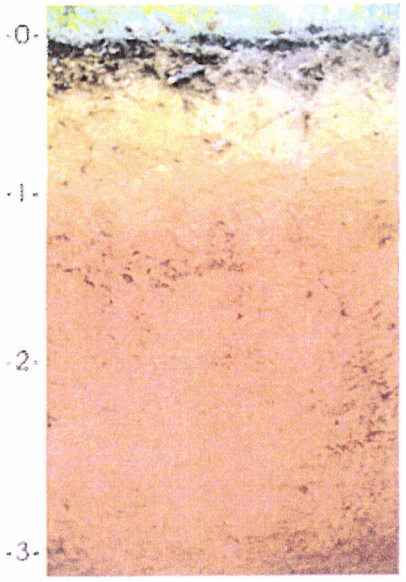
Scobey Soil Profile
Surface layer: very dark grayish brown clay loam
Subsurface layer: dark brown clay
Subsoil: dark grayish brown clay loam

The Scobey series consists of very deep, well drained soils on till plains, hills, and moraines in the north-central part of Montana. These soils occur on more than **1.4 million acres** They are among the most productive soils in Montana's Golden Triangle, an area known for its ideal climatic conditions for growing wheat of exceptionally high quality. The three points of the Golden Triangle are Havre, Conrad, and Great Falls. The main crops grown on Scobey soils are spring and winter varieties of nonirrigated wheat.

These soils formed in glacial till and under prairie vegetation. The average annual precipitation is about 12 inches. The average annual air temperature is about 43 degrees F. The frost-free period is about 115 days.

These soils are named for the town of Scobey, in northeast Montana. The series was established in 1928.

USDA NRCS
Natural Resources Conservation Service

State	State soil	Image	Year adopted as official state symbol (if any)
Alabama	Bama		1997[2]
Alaska	Tanana		
Arizona	Casa Grande		
Arkansas	Stuttgart		1997
California	San Joaquin		1997
Colorado	Seitz		
Connecticut	Windsor		*proposed*[3]
Delaware	Greenwich		2000
Florida	Myakka		1989

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J POMNICHOWSKI

APPROVED BY SENATOR

Students propose state soil

Elementary students across Montana campaign to name an official state soil

Bozeman's Longfellow Elementary leads effort to recognize Montana agriculture and environment.

Fourth graders at Longfellow Elementary have launched a statewide effort to designate an official state soil, highlighting the importance of agriculture and the environment to the Treasure State.

Students, working with soil scientists, have nominated northern Montana's Scobey soil as the state's official soil.

Agriculture is integral to Montana's economy, bringing in $4.7 billion in revenue last year. Legislatures in 21 other states have recognized the important role soil plays in their economy and the environment - but not Montana, one of the few states with a rich agricultural tradition to not have a state soil.

The Scobey soil, with roots in the ice age, is unique to the state and excellent for growing Montana's famous hard red winter wheat, a crop with a global reputation for high quality.

State symbols recognize natural treasures. Our soil is an important resource for Montana. Students believe it deserves recognition.

Students are learning about the important role soils play in Montana's agricultural and environmental heritage

Dr. Tony Hartshorn of Montana State University helps Longfellow students become soil science experts.

Contact Longfellow School:

Debbie Nelson, Kristin Sigler – teachers
406-522-6150
Debbie.Nelson@bsd7.org
Kristin.Sigler@bsd7.org
MontanaSoil.weebly.com

Why Scobey Soil?

The Scobey soil is unique to Montana and very good for growing wheat.

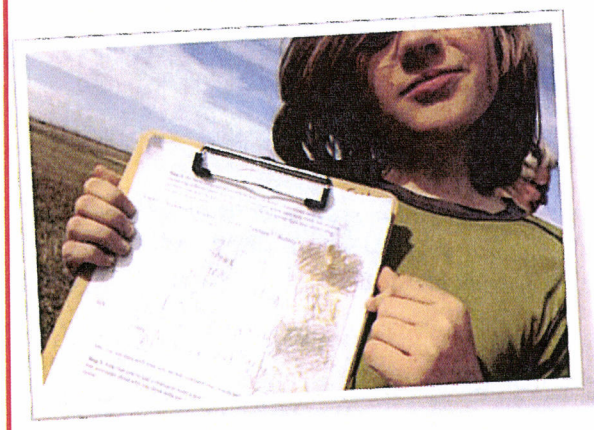
Scobey is found where ice sheets once were. About 12,000 years ago, glaciers carrying silt from Canada scraped up Montana's underlying shale. The resulting fine-textured soil holds moisture extremely well. Grasslands growing for thousands of years created a rich topsoil.

Today, Montana's wheat crop's is worth almost $1.6 billion annually; about 75 percent gets exported to Asia.

Students have history with symbols

In 1908 school children launched a state tree campaign, voting among the fir, larch, cottonwood and pine. Ponderosa Pine won handily, but not until 1949 did the Montana Legislature make it official.

In 1982 school children again voted, this time to make the Grizzly Bear the state mammal. In 1985, Livingston Middle School led the effort to name a state fossil, the Maisaura.



Interesting soil facts

1. It can take 500 years to make one inch of topsoil.
2. A tablespoon of soil has more living organisms than there are people on Earth right now!
3. As earthworms plow through soil they eat some of it, and their poop - called castings - improves soil health.
4. The United States has 70,000 different kinds of soil.

For more information

Contact the students' state soil advisors
Sen. JP Pomnichowski (bill sponsor):
pomnicho@montanadsl.net; (406) 587-7846
MSU Emeritus Prof. Jerry Nielsen:
nielsenmontana@aol.com; (406) 587-8643

Sources for facts and figures on this sheet:
Montana 2013 Agricultural Statistics, U.S. Environmental Protection Agency, Natural Resources Conservation Service, Montana Fish Wildlife and Parks

Senate Bill 176 hearing
3 Feb 2015

25 proponents, 0 opponents
34 co-sponsors

52 fourth-graders from
Longfellow Elementary School
Bozeman, MT

PROPONENT
OPPONENT
INFORMATIONAL
WITNESS

Testimony supporting **SB 176**, designating the Scobey Series, as Montana's Official State Soil. Offered at the Senate Agriculture, Livestock and Irrigation Committee hearing. State Capital, Helena, February 3, 2015.

Senator Brown, members of the Committee,

I am Gerald Nielsen from Bozeman, retired from MSU after teaching Soil Science for 45 years, and now co-owner of Bitterroot Turf Farm near Corvallis.

State symbols call attention to state treasures. Twenty-one states have designated a soil as a state symbol. I hope Montana will too.

Let me introduce to you, the Scobey Soil Series, "the star" of this hearing, represented here as a vertical slice or monolith taken from a Scobey clay loam at the Ag. Research Center near Conrad. Scobey is one of some thirteen hundred soils in Montana; an old-timer, named and mapped in the 1920s. A companion monolith, was seen by millions, first at the Smithsonian in Washington D.C., and is now traveling to museums in other states. Another monolith traveled to the International Soil Museum in the Netherlands. This monolith resides at MSU with 30 others representing the variety of Montana's soil treasures.

scientific name of Scobey soils

Scobey soil has a scientific name, like many state symbols. The Grizzly Bear is *Ursus arctos horribilis*. Scobey is a fine, smectitic, frigid, Aridic Argiustolls. See **Section 1**, near the end of SB176. (This book describes how Scobey, and soils worldwide, are classified.)

-oll

Reading this long name backward, right to left, the "-oll" indicates the taxonomic order called Mollisols, one of 12 soil orders encompassing all soils of the world. Scobey is a Mollisol, with deep, dark-colored, fertile topsoil, enriched by prairie grass roots for thousands of year, home to more microbes and creatures in a square yard than there are people on earth.

-ust
Argi
Aridic
frigid
smectitic
fine

The "ust" means Scobey dries out during the growing season. "Argi-" tells us that water has moved clay downward, accumulating in the subsoil. "Aridic" means, dryer than typical Agriustolls. Scobey's average temperature is "frigid", less than 47 F. Scobey's dominant clay type is smectite (like bentonite), great for holding water in a drought. "Fine" means 35 to 60% clay in the subsoil.

What a marvelous, fascinating soil!

As **Official State Soil**, Scobey would call attention to Montana's treasured soil resources, to be noted on publications, maps and web sites. Here are example soil symbol photographs and web site presentations. (copies distributed). These are starting points, for educating students -- for all of us.

I hope you will see Scobey as Official State Soil, displayed in the Capital, as a beautiful photograph. Why not have a Scobey monolith in this building; with a forest soil from Yaak and a range soil from Alzada?

Please support SB176.

STEVE DAINES
MONTANA

SUITE SR-1
RUSSELL SENATE OFFICE BUILDING
WASHINGTON, DC 20510
(202) 224-2651

United States Senate

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ENERGY AND NATURAL RESOURCES
INDIAN AFFAIRS

Go Longfellow!
I attended
K-4 there from
1967-1972.
-Steve

Longfellow Elementary School 4th Grade Students
c/o Debbie Nelson and Kristen Sigler
516 South Tracy Avenue
Bozeman, MT 59715

Dear 4th Grade Students of Longfellow Elementary School,

As a Longfellow Elementary alumnus, I am excited by your hard work and dedication to the task of establishing Scobey Soil as the official state soil of Montana. Since 2015 is the International Year of the Soil, this is a great time to honor Montana's soil resources.

Students, just like you, have been researching and promoting state symbols in Montana for over 100 years and have made recommendations that led to the designation of our state tree (the Ponderosa Pine), our state mammal (the Grizzly Bear), and our state fossil (the Maisaura).

Since Scobey soil is unique to this state, it has an important place in Montana's history as well as a vital role in the many wheat farming communities in the Golden Triangle. I even believe my great-great-grandmother, Karine Dyrud, farmed Scobey Soils near Conrad on the Hi-Line in the late 1800s.

I would like to thank your teachers, Debbie Nelson and Kristen Sigler, for their hard work, commitment, and dedication to you, their students, and to this project. Their efforts have a significant impact on this task and mean a great deal to the community.

Congratulations to each of you on your hard work and involvement to this project. I hope it serves as inspiration for future projects throughout your time as students and beyond. I know you have inspired me and I will be sure to contact my State Representative, Matthew Monforton, and ask him to support legislation to establish Scobey Soil as the official State Soil of Montana.

Sincerely,

Steve Daines
U.S. Senator

JON TESTER
MONTANA

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HOMELAND SECURITY AND
GOVERNMENTAL AFFAIRS

United States Senate

SENATE HART BUILDING
SUITE 724
WASHINGTON, DC 20510
202-224-2644

MONTANA TOLL FREE NUMBER
1-866-554-4403

INTERNET:
http://tester.senate.gov/contact

January 12, 2015

Debbie Nelson and Kristin Sigler
Longfellow Elementary School
516 South Tracy
Bozeman, MT 59715

Dear Ms. Nelson, Ms. Sigler and students,

Congratulations and thank you for your hard work researching and concluding that the Scobey Soil Series should be declared the state's official state soil. I write in full support of the declaration.

Montana has a state bird, animal and flower. As a farmer, I think it's high time that Montana's rich soil is recognized, too.

Proposing a bill to the legislature and following it through the legislative process is an exciting and valuable experience. I am very proud of you for taking this on and seeing it through.

Good luck on your legislation. Please let me know if I can be of any additional assistance.

Sincerely,

Jon Tester
United States Senator

CC: Senator JP Pomnichowski
Montana Senate
P O Box 200500
Helena, MT 59620-0550

January 23, 2015

Senate Ag Committee

Montana Legislature

Helena, MT 59601

Dear Committee,

I am writing this letter **in support** of the bill entitled, "An Act Designating The Scobey Soil Series As Montana's Official State Soil".

As a farmer in this great State, I am pleased to learn of the effort to name a State Soil. After all, it is the soil of this land that sustains us, and the importance of that one resource should not be under-valued. We, stewards, take great care to ensure that the soils of our farms are as productive as possible, and therefore; we undertake this responsibility with dignity and assurance.

The Scobey soil series is well suited for this honor, as it is found in the State's most productive regions, and is suitable for a diverse set of crops.

Please move forward with approving this bill.

Sincerely,

Dean Folkvord

Dean Folkvord, Founder & CEO

10778 Highway 287 • Three Forks, MT • 59752 • wheatmontana.com
Office (406) 285-3614 • Toll Free 1-800-535-2798 • FAX (406) 285-3749

Schafer

Memorandum

January 29, 2015

To: Kristin Sigler, Debbie Nelson and Students
Longfellow School

Copy: Senator Taylor Brown
Montana Senate

J. P. Pomnichowski
Montana House

From: Bill Schafer
Schafer Limited, Bozeman, Montana

Re: Montana Sate Soil

I am writing to support your efforts to ask the Montana Legislature designate the Scobey Clay Loam as Montana's State Soil. I am a soil scientist and have lived and worked in Montana for over 35 years. After earning a Ph.D. in Soil Science at Montana State, I worked for five years as a Soil Scientist with the Montana Extension Service, helping farmers and ranchers across Montana with soil and water management decisions. In 1985, I formed a company to assist the mining and petroleum industries to fulfill their obligations to preserve and protect soil and water resources. Through the business that I formed, I have had the opportunity to work on mining projects all over the world during the last 35 years.

A State Soil represents many things. A soil echoes the local climate, geology, and natural plant communities that it supports. In the case of the Scobey Clay Loam, it reflects the glaciers that once covered northeastern Montana over 10,000 years ago, the short-grass prairie that supported vast herds of bison, and the modest rainfall and cold winters of its namesake town, Scobey. By designating a State Soil, Montana also celebrates its agricultural heritage and affirms a commitment to soil conservation.

I heartily endorse the legislation that would designate Scobey Clay Loam as our State Soil.

William M. Schafer

3018 Colter Ave • Bozeman • MT • 59715 • (406) 587-6100 • bill@schaferlimited.com

Dear Longfellow School forth graders,

This is to support your efforts to designate Scobey soil series as Montana's official state soil.

Anything we can do to increase the awareness and importance of soil information is a plus. Soil information is published in Soil Surveys that are available for nearly all counties/areas in the State of Montana and the United States. This information tells us the potential productivity of a soil (i.e. crops, range or timber) as well as the better places to build our homes, roads, recreational areas, etc. It also shows us where not to try to grow these crops (i.e. salty/saline areas or steep areas) and where not to build or buy our homes (i.e. flood plains).

We use soil information in the Powder River County Soil Survey on our family ranch in eastern Montana each spring to determine the amount of stored water, which added to projected rainfall in May and June is used to calculate projected range production, by soil map units, which translates to animal units and/or stocking rates for the year. Production can range from 300 pounds/acre during a series of dry years to 1500 pounds/acre during a series of wet years on the same soil unit. That information translates to a big difference in animal stocking rates for the year.

Thank you for initiating and supporting this important effort to designate Scobey as Montana's state soil.

Sincerely, Dr. Gordon L. Decker

6700 Springhill Road
Belgrade, MT 59714
(406) 586 3428
gdecker200@gmail.com

Retired State Soil Scientist for Montana
Eastern Montana Rancher

Harold Hunter
1755 Moffit Gulch Road
Bozeman, MT 59715
Phone: 406-587-1628
Fax: 406-587-1628
Email: HHunter355@aol.com

January 30, 2015

To: Fourth Grade Students Longfellow Elementary

Hi! I want you to know I am intimately familiar with the soil you are proposing as the state soil, Scobey. I described it, mapped it and developed interpretations as to its suitability for many different uses while working as a soil scientist on the Glacier County Soil Survey. It was one of my favorite soils in that it contained few hard rocks. Therefore, it was easy to dig. As you know, Scobey has more important characteristics, among them the suitability for growing grass.

Scobey is an important rangeland soil. It is grouped with similar soils into what is called a silty range site which is the Cadillac of range sites. The soil is very productive as rangeland and bluebunch wheatgrass is a very important grass that grows on this soil. Bluebunch wheatgrass was selected as the state grass. So, it seems to me that since the state grass grows on the important soil you have selected, it should be named the state soil.

Hal

Dear Senator or Representative,

Please support SB 176: Designating the Scobey soil series as Montana's official state soil.

I am a native Montanan and registered dietitian nutritionist (RDN) promoting healthy living here in the "Treasure State". I am very happy to see efforts that would recognize one of our most valuable "down-to-earth" resources, Scobey soil, as an official state symbol. No doubt our food production and water supply is only as healthy as the source it comes from namely our land resources...our soil. Supporting this bill is good for the health of all Montanans!

It is time for cooperation in the Montana legislature to recognize the unique qualities of Scobey soils and all that Montana produces and sells from them. Thank you for your support. Montana will join 21 other states in designating a state soil and helping citizens recognize the important role soil plays in our economy, environment, and our public health.

Sincerely,

Barbara Benson, MS, RDN

Bozeman, MT

406-599-4882

bnbenson@gmail.com

SB-176 Comment

JW & Lori Westman Family
PO Box 203
Park City, MT 59063-0203

Dear Senator Brown & Committee Members:

The young Blackfeet hunter, his bow at the ready sits atop his anxious horse, waiting for precisely the right moment to rush the herd of bison with his hunting companions. Success here will help carry his village through the long, cold winter months with nourishing pemmican.

The young farmer and his wife, not long off the ship from Norway, made their way to a new life, to begin farming. After much hard work and worry they look at their newly sprouted wheat plants-hoping the crop will be a good one-this is what will carry them through the long, cold winter. The parallel here, both were ultimately depending on the soil to help nourish them.

The above description gives a brief glimpse into our backgrounds, very proud of them. The examples above are testimony to the value of our precious soil here in Montana. A soil that should; at least be recognized for what it is, nothing more than recognition-neither Republican nor Democrat. **Scobey Soil**, this soil has given so much life to those depending on it throughout time.

Please come together and approve this bill, a bill that many, especially those bright fourth graders at Longfellow Elementary School in Bozeman have worked very hard at. The Westman Family from Park City, MT hopes this committee passes this piece of legislation. **We approve of SB-176**, and want this comment added to the official record. Thanks a bunch for your time.

Respectfully submitted,

JW, Lori, Megan & Dakota Westman
Park City, MT

Soil Education

- Grades K thru 6
- Grades 7 thru 12
- College Level
- NCSS Members

State Soils

Click here to go directly to the list of states.

What is a State Soil?

A state soil is a soil that has special significance to a particular state. Each state in the United States has selected a state soil, twenty of which have been legislatively established. These "Official State Soils" share the same level of distinction as official state flowers and birds. Also, representative soils have been selected for Puerto Rico and the Virgin Islands.

Areas with similar soils are grouped and labeled as soil series because their similar origins, chemical, and physical properties cause the soils to perform similarly for land use purposes. A soil series name generally is derived from a town or landmark in or near the area where the soil was first recognized.

Each series consists of soils having major horizons that are similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the soil profile. A soil profile is the sequence of natural layers, or horizons, in a soil. It extends from the surface downward to unconsolidated material. Most soils have three major horizons, called the surface horizon, the subsoil, and the substratum.

The surface layer has the maximum accumulation of organic matter and is the horizon of maximum leaching of clay minerals and of iron and aluminum oxides. Some soils have a subsurface layer below the surface layer.

The subsoil, which underlies the surface layer or subsurface layer, is the horizon of maximum accumulation of clay minerals, iron and aluminum oxides and other compounds. These compounds may have been leached from the surface layer and redeposited in the subsoil, or may have formed in place. Most likely, they occur as a result of a combination of both of these processes. The subsoil commonly has blocky or prismatic structure and generally is firmer and lighter in color than the surface layer.

The substratum is below the surface layer and subsoil. It consists of material that has been somewhat modified by weathering but is relatively unchanged by soil-forming processes.

Representative and State Soils

Alabama - Bama (PDF; 398 KB)

Alaska - Tanana (PDF; 634 KB)

Arizona - Casa Grande (PDF; 391 KB)

Arkansas - Stuttgart (PDF; 74 KB)

California - San Joaquin (PDF; 136 KB)

Colorado - Seitz (PDF; 101 KB)

Connecticut - Windsor (PDF; 104 KB)

Delaware - Greenwich (PDF; 364 KB)

District of Columbia - Sunnyside (PDF; 975 KB)

Florida - Myakka (PDF; 89 KB)

Georgia - Tifton (PDF; 89 KB)

Hawaii - Hilo (PDF; 74 KB)

Idaho - Threebear (PDF; 94 KB)

Illinois - Drummer (PDF; 69 KB)

Indiana - Miami (PDF; 86 KB)

Iowa - Tama (PDF; 403 KB)

Kansas - Harney (PDF; 68 KB)

Kentucky - Crider (PDF; 75 KB)

Louisiana - Ruston (PDF; 102 KB)

Maine - Chesuncook (PDF; 87 KB)

Maryland - Sassafras (PDF; 85 KB)

Nebraska - Holdrege (PDF; 341 KB)

Nevada - Orovada (PDF; 102 KB)

New Hampshire - Marlow (PDF; 87 KB)

New Jersey - Downer (PDF; 96 KB)

New Mexico - Penistaja (PDF; 129 KB)

New York - Honeoye (PDF; 91 KB)

North Carolina - Cecil (PDF; 338 KB)

North Dakota - Williams (PDF; 85 KB)

Ohio - Miamian (PDF; 91 KB)

Oklahoma - Port (PDF; 394 KB)

Oregon - Jory (PDF; 329 KB)

Pennsylvania - Hazleton (PDF; 93 KB)

Puerto Rico - Bayamon (PDF; 88 KB)

Rhode Island - Narragansett (PDF; 192 KB)

South Carolina - Lynchburg (PDF; 361 KB)

South Dakota - Houdek (PDF; 87 KB)

Tennessee - Dickson (PDF; 97 KB)

Texas - Houston Black (PDF; 398 KB)

Utah - Mivida (PDF; 91 KB)

Vermont - Tunbridge (PDF; 315 KB)

Virgin Islands - Victory (PDF; 97 KB)

Massachusetts - Paxton (PDF; 87 KB)

Michigan - Kalkaska (PDF; 81 KB)

Minnesota - Lester (PDF; 123 KB)

Mississippi - Natchez (PDF; 90 KB)

Missouri - Menfro (PDF; 83 KB)

Montana - Scobey (PDF; 376 KB)

Virginia - Pamunkey (PDF; 115 KB)

Washington - Tokul (PDF; 123 KB)

West Virginia - Monongahela (PDF; 86 KB)

Wisconsin - Antigo (PDF; 385 KB)

Wyoming - Forkwood (PDF; 129 KB)

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Web: http://www.usda.gov

USDA Joins Global Partners to Kick Off International Year of Soils in 2015

USDA Office of Communications sent this bulletin at 12/05/2014 01:30 PM EST

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Press Release

Release No. 0264.14

Contact:
Office of Communications (202)720-4623

USDA Joins Global Partners to Kick Off International Year of Soils in 2015

WASHINGTON, Dec. 5, 2014 – Today, USDA joins nations from across the globe to kick off the International Year of Soils, an effort to highlight the importance of soil in everyday life. Under Secretary for Natural Resources and Environment Robert Bonnie will address members of the 68th United Nations General Assembly, which designated 2015 for the yearlong celebration.

"We are excited to be working with the United Nations to help raise awareness and promote the importance of conservation of our soil resources," Bonnie said. "USDA is embracing this unique opportunity to tell the world about the importance of soil conservation and how we've worked with private landowners since 1935 to protect and improve this priceless natural resource."

UN's Food and Agriculture Organization spearheaded the global International Year of Soils campaign within

the framework of the Global Soil Partnership. The year of awareness aims to increase understanding of the importance of soil for food security and essential ecosystem functions. Soils play a crucial role in food security, hunger eradication, climate change adaptation, poverty reduction and sustainable development.

Bonnie is one of several leaders who will address the assembly today, on World Soil Day, about the importance of soil. USDA's Natural Resources Conservation Service (NRCS) – America's agency for soil conservation, classification and studies – plans to make the year a memorable one.

NRCS works hand-in-hand with producers through technical and financial assistance programs and services to help ensure their success. The agency was born amid the Dust Bowl era of the 1930s, the nation's largest environmental disaster caused by over cultivation, drought and record-breaking temperatures.

"NRCS conservationists work with America's farmers and ranchers to take care of the soil, ensuring agricultural operations are sustainable for many years to come," NRCS Chief Jason Weller said.

For more information on International Year of Soils, visit www.nrcs.usda.gov/.

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