



Hi All,

The USDA has developed a series of soil health posters to promote soil health, shown below and throughout this post.

Cheers

Brian



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[http://usda-nrcs.tumblr.com/private/97679169925/tumblr\\_nc0kw39zSB1ridb70](http://usda-nrcs.tumblr.com/private/97679169925/tumblr_nc0kw39zSB1ridb70)

# New model includes critical plant-soil interaction processes in climate assessments

11 Nov 2014



Projections for net carbon loss due to root-soil interactions, shown in blue, were strongest in temperate North America, Western Europe, Southeast Asia and Southern Africa. Credit: Benjamin N. Sulman - Indiana University

A new climate change modeling tool developed by scientists at Indiana University, Princeton University and the National Oceanographic and Atmospheric Administration finds that carbon dioxide removal from the atmosphere owing to greater plant growth from rising CO<sub>2</sub> levels will be partially offset by changes in the activity of soil microbes that derive their energy from plant root growth.

Read more at: <http://phys.org/news/2014-11-biologists-collaborate-refine-climate-tools.html#jCp>

# Researchers give unstable soils a carpeting

4 Nov 2014



Fibre reinforced clay. Credit: Lam Nguyen

A new, more environmentally-friendly practice for soil strengthening, using recycled carpet, could see the construction industry substantially decrease its

carbon footprint thanks to research from the UTS Centre for Built Infrastructure Research.

Read more at: <http://phys.org/news/2014-11-unstable-soils-carpeting.html#jCp>

## Soil care reaps yield gold for wheat crop

Tuesday 4 November 2014 11:54

Luke Casswell

Two record-yielding wheat years in the past three show that farm manager James Faulds is getting more than a few things right – and looking after his soils is one of them.



He has invested heavily in repairing an old drainage system and added a network of mole drains to improve his soils workability and reduce standing water in his crops.

This has been the basis of his careful soil management, which extends to adding organic matter, isolating field traffic to the tramlines and cleaning out ditches.

<http://www.fwi.co.uk/arable/soil-care-reaps-yield-gold-for-wheat-crop.htm>

## How to Build a Resilient Food System with Shenggen Fan, IFPRI



<https://www.youtube.com/watch?v=kBFqNz63kal>



# Watch the Soil Health Video: The roots shall set you free: Scientists discover the “liberating” power of cover crop

The roots shall set you free:  
Scientists discover the “liberating” power of cover crop



When Dr. Joel Gruver and his research team at Western Illinois University precision-planted cover crops, they discovered something remarkable. Not only did the radish cover crops scavenge nutrients from the soil, they “liberated” a surprising amount, as well.

Learn more about the nutrient-scavenging AND liberating power of these cover crops in the latest episode of NRCS’ *The Science of Soil Health*. [Click here](https://www.youtube.com/watch?v=06N63U-RAI0) to watch the three-minute video. **It’s science you can really dig!**  
<https://www.youtube.com/watch?v=06N63U-RAI0>

## Soil is a most wonderful thing

**Jim Hurley**

**Published** 04/11/2014 | 00:00



(Stock photo)

While some people often denigrate it by calling it mud or clay, or worse still, dirt or muck, soil is a most wonderful material. It blankets the countryside. It supports our natural heritage. It is the basis for all agriculture and horticulture. We build our houses on it and work it in our gardens, window boxes and flower pots. Biologically, it is an ecosystem in its own right teeming with mini-beasts. <http://www.wexfordpeople.ie/lifestyle/soil-is-a-most-wonderful-thing-30716811.html>

## **New Coal Seam Gas plan unveiled, NSW Government pledges to consult communities over land release**

By state political reporter [Sarah Gerathy](#), Sue Daniel and Kylie Williams  
Updated Thu at 1:22pm Thu 13 Nov 2014, 1:22pm



**Photo:** [The NSW Government says its new plan will improve standards and regulation for CSG. \(AAP: Dean Lewins\)](#)

The New South Wales Government says its new gas plan will reset the areas open to coal seam gas (CSG) activity and compensate affected landholders and communities.

The Government has accepted all the recommendations of a report by NSW Chief Scientist Mary O'Kane into the CSG industry, which found the industry was not more dangerous or damaging than other industries.

The Government said a new strategic framework would be brought in to determine appropriate areas to extract gas, taking into consideration economic, environmental and social factors. <http://www.abc.net.au/news/2014-11-13/new-csg-plan-for-nsw-pledge-to-consult-over-land-release/5887728>

## **NSW MP speaks his mind on coal seam gas**

Elloise Farrow-Smith

Updated Wed at 12:48pm Wed 12 Nov 2014, 12:48pm



[Photo: Ballina MP Don Page says no to CSG](#)

The state member for Ballina has formally farewelled his electorate and taken a parting shot at the coal seam gas industry.

Last night Don Page gave his final speech before the NSW parliament, using the time to reflect on almost 27 years in public office.

He retires at next year's state election in March.

The National Party member told parliament he feels strongly that coal seam gas (CSG) is not compatible with the interests of his electorate. <http://www.abc.net.au/news/2014-11-12/don-page-final-csg-speech/5884912>

## NSW to buyback coal seam gas licences

PUBLISHED: 13 Nov 2014 11:12:17 | UPDATED: 13 Nov 2014 11:15:49 PRINT EDITION: 13 Nov 2014

NSW has offered to cut royalties and buy back existing licences to compensate coal seam gas companies disadvantaged by tough new environmental standards.

[http://www.afr.com/p/national/nsw\\_to\\_buyback\\_coal\\_seam\\_gas\\_licences\\_8K7Sd14Xw0DiOJcguySRjM](http://www.afr.com/p/national/nsw_to_buyback_coal_seam_gas_licences_8K7Sd14Xw0DiOJcguySRjM)

## NSW cancels coal seam gas exploration applications

- by: *Mark Coultan*
- From: [The Australian](#)
- 13 November 2014 10:40AM

[Mark Coultan](#)



State Political Correspondent  
Sydney

**THE NSW Government will cancel all existing exploration applications for coal seam gas, and instead introduce a new system where the government tenders out specific areas believed to contain gas resources.**

At the moment 60 per cent of the state is covered by exploration licences applications, often in areas where there is no known gas. Under the new policy, exploration areas will be confined to 15 per cent of the state.

Under the existing system, areas are identified by proponents. Some of the areas under licence include national parks, which will be excluded from the new system.

<http://www.theaustralian.com.au/business/mining-energy/nsw-cancels-coal-seam-gas-exploration-applications/story-e6fmg9df-1227121542921>

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<http://openlearning.une.edu.au/OzSoils/index.php?start=struc#top>

## Explore Nature in NSW with the Nature Near Me App



Our new app will help you explore and share our unique and wonderful nature places.

Visit old growth forest, rainforest, woodlands, grasslands, great spots to see animals, interesting geology, marine sites, whale watching locations, great views, rivers, wetlands and more. <http://www.environment.nsw.gov.au/naturenearme/index.htm>

# New Report on Australia's Great Artesian Basin



GAB

Report\_Final0511201

## Gloucester residents rally in support of mining

Posted Sat at 6:08am Sat 15 Nov 2014, 6:08am



[Photo: Gloucester residents will rally today in support of mining \(AGL\)](#)

A group of Gloucester residents, who support the development of mining and coal seam gas, will hold a rally today to show recent protests do not reflect the views of everyone in the town.

AGL has approval to drill and frack 110 coal seam gas wells in the first stage of its operations planned for Gloucester, and began test fracking last month.

Kylie Cole from the 'Gloucester Supports Mining' group said many local people want to acknowledge the benefits the mining industry has brought to the Gloucester region.

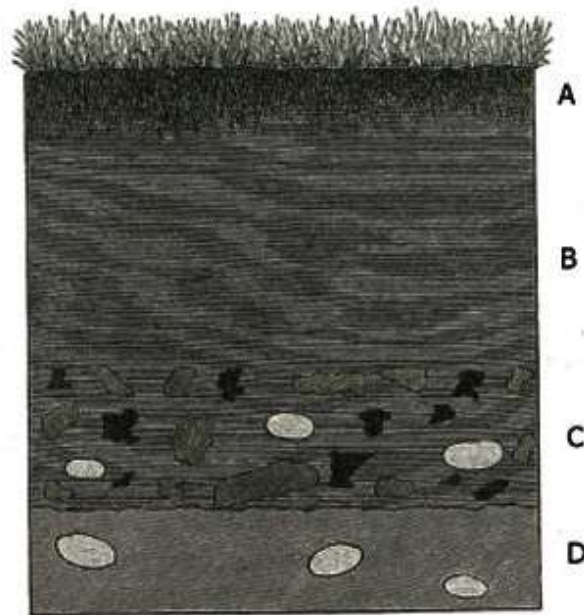
<http://www.abc.net.au/news/2014-11-15/gloucester-residents-rally-in-support-of-mining/5892282>

# Soil Science: Selected Historical Highlights in Celebration of the Upcoming International Year of Soils

Eric C. Brevik

Author Affiliations

Next year has been designated the [International Year of Soils](#). In anticipation of this important year for soils, I thought it might be appropriate to reflect back on some of the accomplishments and highlights of our discipline, which have been many. Some of the biggest names in science history have worked on soils issues. Francis Bacon and Robert Boyle worked on plant nutrition from soil, and Leonardo da Vinci conducted experiments in nutrient cycling (Brevik and Hartemink, 2010). Charles Darwin was a leading figure in establishing soil biology as a subfield through his study of earthworms (Berthelin et al., 2006) and worked on the concept of the soil profile (Fig. 1) (Brevik and Hartemink, 2010). From the establishment of detailed soil surveys to medical advances, technological improvements, engagement in environmental issues, and combining soils knowledge with that of complementary fields, soil scientists have had a profound impact on our society. The following article will offer up a few highlights from those accomplishments.



**Fig. 1.**

A diagram from Darwin's 1881 book showing an 18-cm thick topsoil of "...a waste swampy land that was enclosed, drained, ploughed, harrowed, and thickly covered in the year 1822 with burnt marl and cinders." It was then sown with grass and used as pasture.

<https://www.soils.org/publications/sh/articles/55/6/sh2014-55-6-gc>



# Long LIVE the SOIL

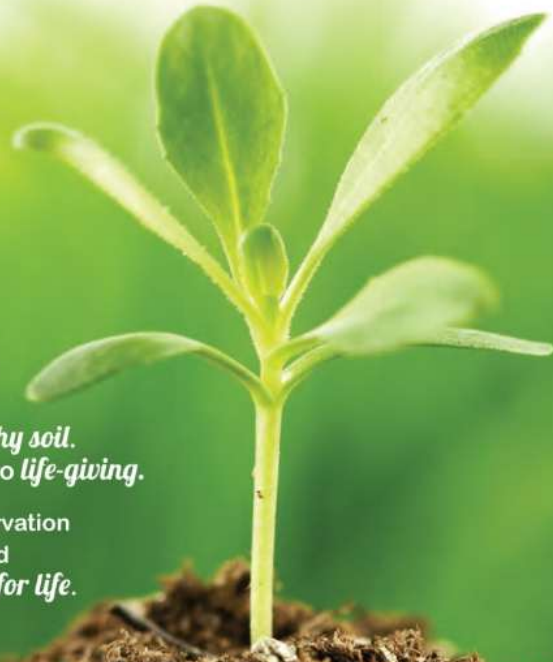
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## Soil advice for dairy farmers to improve forage

Monday 2 December 2013 6:31

Gemma Claxton

Dairy farmers are being urged to dig a hole every month to get to know their soils and unlock the potential for healthy, nutrient-dense forage.

Josephine Scamell, independent adviser for Ground Level Nutrition, said it was important to look at soils on a regular basis.

Speaking at the Soil Association's Soil Symposium earlier this month, Mrs Scamell urged farmers to consider three things; physical soil structure, soil mineral balance and biological content of the soil. "Physically aerate the soil, use minerals to maintain an open structure and avoid killing earthworms with untreated slurry," she said.



<http://www.fwi.co.uk/livestock/soil-advice-for-dairy-farmers-to-improve-forage.htm>

## Cover crop tour highlights many different aspects of cover crops

Recommend 0 Tweet 0 +1 0 Share Print Email



Joe Breker shows some of the radishes in his cover crop planted this fall to those on the Cover Crop Tour.

November 11, 2014 8:36 pm · By DALE HILDEBRANT Farm & Ranch Guide (0) Comments

FORMAN, N.D. - On Oct. 23 about 80 people took part in a cover crop tour in Sargent County. The tour made three stops during the day and a different aspect of cover crops was highlighted at each location.

Grazing cover crops

[http://www.farmandranchguide.com/news/crop/cover-crop-tour-highlights-many-different-aspects-of-cover-crops/article\\_c082e022-6a14-11e4-8b26-d791ed2a4e42.html](http://www.farmandranchguide.com/news/crop/cover-crop-tour-highlights-many-different-aspects-of-cover-crops/article_c082e022-6a14-11e4-8b26-d791ed2a4e42.html)

## Who Should Pay To Fix The World's Salt-Damaged Soils?

28 October 2014 5:59 PM ET  
Alison Bruzek





ii

Farms outside Baghdad as seen from a U.S. Army Blackhawk helicopter. Much of Iraq's soil has a high salt content because of flooding and poor drainage. [Jim Gordon/U.S. Army Corps of Engineers/Flickr](#) **hide caption**

**itoggle caption** [Jim Gordon/U.S. Army Corps of Engineers/Flickr](#)

Imagine losing about 5,000 acres, or 15 average-sized farms in Iowa, every day. That's how much productive farmland has succumbed to salt damage in the last 20 or so years, according to a [paper](#) published Tuesday by a group of international researchers. And, they say, all that degraded land is costing farmers \$27.3 billion a year.

<http://www.npr.org/blogs/thesalt/2014/10/28/359381534/who-should-pay-to-fix-the-worlds-salt-damaged-soils>

*the*  
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*They're growing hope in healthy soil.*

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## Under 'Cover' Farmers documentary passes 100,000 YouTube views

Researcher and filmmaker Buz Kloot's 30-minute documentary, *Under 'cover' farmers of Stanley County*, chronicles the journeys of three North Carolina farmers as they discover and adopt soil health management systems on their farms. Recently, the video passed 100,000 YouTube views. Kloot's video work, including Season One of *The Science of Soil Health* and *Soil Health Lessons in a Minute*, is part of an on-going partnership between NRCS and the University of South Carolina and can be seen in NRCS' [Soil Health Theater](#).



<https://www.youtube.com/watch?v=nWXCLVCJWTU>

## Earth's Soil Is Getting Too Salty for Crops to Grow



Crop irrigation in arid regions, such as California's San Joaquin Valley, can lead to overly salty soils. (Bill & Brigitte Clough/AgStock Images/Corbis)

**Buildup of salts on irrigated land has already degraded an area the size of France and is causing \$27.3 billion annually in lost crops**

By [Sarah Zielinski](#)  
smithsonian.com

28 October 2014



In the upcoming film [Interstellar](#), Earth's soil has become so degraded that [only corn](#) will grow, driving humans to travel through a wormhole in search of a planet with land fertile enough for other crops. In the real world things aren't quite so dire, but degraded soil is a big problem—and one that could be getting worse. According to a new estimate, one factor, the buildup of salt in soil, causes some \$27.3 billion annually in lost crop production.

<http://www.smithsonianmag.com/science-nature/earths-soil-getting-too-salty-crops-grow-180953163/?no-ist>

## USDA helps Iraqi war veteran enhance conservation on farm



### USDA helps Iraqi war veteran enhance conservation on farm



*Following the 2014 soybean harvest, Adam Boge knifes nutrients directly into raised ridges that are the signature of his farmland.*

The U.S. Department of Agriculture is helping Iraq War veteran Adam Boge improve technology and other efficiencies in his new farming operation, allowing the Ventura, Iowa farmer to prepare for long-term success in the first full year on his own.

[Learn more.](#)

#### **Additional Resources:**



[Read more conservation success stories.](#)



[Join the #conservation conversation on Twitter.](#)



[Find local USDA services centers.](#)

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<http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/home/?cid=STELPRDB1264104>

## Rice Farmer Helps Migratory Birds, Cleans Water on Texas Coast

Posted by Beverly Moseley, Natural Resources Conservation Service, Texas, on November 13, 2014 at 3:00 PM



Private landowner Taylor Wilcox looks over flooded fallow rice fields on his Chambers County, Texas property. NRCS photo.

When 168,000 gallons of oil was reported to be spilled this spring into Texas' Houston Ship Channel because of a collision between a barge and tanker, it was a reminder of the vulnerability of the Gulf of Mexico's coastal wildlife and habitats.

See more at: <http://blogs.usda.gov/2014/11/13/rice-farmer-helps-migratory-birds-cleans-water-on-texas-coast/#sthash.WU2GntVI.dpuf>

## FAQs on how to get the most from soil testing

As the number of harvested fields climb and the soil sampling season ushers in, I'd like to cover a few Frequently Asked Questions (FAQs) on how to get the most from your soil test.

How often should I soil test?



Most likely you are not testing every field every year. Here are a few tips on how often you should:

- In general, test every 2-4 years.
- Consider testing more often if you have introduced a new crop rotation.
- Test new fields more often to gain an understanding of the soil variability.

What time of year should I be soil sampling?

[http://www.farmandranchguide.com/news/crop/faqs-on-how-to-get-the-most-from-soil-testing/article\\_df11dd32-65ea-11e4-8ab2-d773aaa67e9d.html](http://www.farmandranchguide.com/news/crop/faqs-on-how-to-get-the-most-from-soil-testing/article_df11dd32-65ea-11e4-8ab2-d773aaa67e9d.html)

## Study shows removal of trees makes wetlands wetter

14 Nov 2014 by [Bob Yirka](#)



Little Llangothlin Lagoon, Australia. Clearance of the forest around this wetland after 1840 by European settlers changed it from an ephemeral wetland to a semi-permanent lake. This wetland is a Ramsar-listed wetland. Credit: Craig Woodward

(Phys.org) —A small team of Australian researchers has found that cutting down trees in a wetland area, tends to make the area even wetter. In their paper published in the journal *Science*, the team describes a study they undertook analyzing wetlands in Australia and historical records from other sites around the world to come to their conclusions.

Read more at: <http://phys.org/news/2014-11-trees-wetlands-wetter.html#jCp>

# Soil sampling guidelines to get most out of fertilizer application

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Clain Jones, soil fertility specialist with MSU Extension and the Department of Land Resources and Environment Sciences.

7 hours ago • BY RYAN CROSSINGHAM Farm & Ranch Guide

(0) Comments

Based on extensive research, experts at Montana State University (MSU) have developed soil sampling guidelines to help growers get the most out of their fertilizer application.

Clain Jones, soil fertility specialist with MSU Extension and the Department of Land Resources and Environment Sciences, said that providing a producer and their crop advisor the ability to properly select how much fertilizer has to go down in order to optimize crop yield is the main value of soil testing.

[http://www.farmandranchguide.com/news/crop/soil-sampling-guidelines-to-get-most-out-of-fertilizer-application/article\\_fb09e64e-6b6f-11e4-9cbd-ff9892f4adc1.html](http://www.farmandranchguide.com/news/crop/soil-sampling-guidelines-to-get-most-out-of-fertilizer-application/article_fb09e64e-6b6f-11e4-9cbd-ff9892f4adc1.html)

## ESA image: Sahara desert, Algeria

14 Nov 2014

Credit: JAXA/ESA

This satellite image was captured over southeastern Algeria in the heart of the Sahara desert.



Read more at: <http://phys.org/news/2014-11-esa-image-sahara-algeria.html#jCp>

## **Latin American and Caribbean soils, integrated in atlas**

In a global context marked by growing food demand and a population estimated to reach 9,100 million by 2050, the soils of Latin America and the Caribbean face a great challenge, despite accumulating more than half of the 576 million hectares of productive land in the region with advanced degradation processes. Thus, in order to understand and integrate these soils, INTA researchers from Argentina took part in the making of the first Soils Atlas of Latin America and the Caribbean.

<http://www.freshplaza.com/article/129473/Latin-American-and-Caribbean-soils,-integrated-in-atlas>

# Lava flow at Hawaii trash transfer station stops

15 Nov 2014



In this Nov. 13, 2014 photo provided by the U.S. Geological Survey, lava flow from the Kilauea Volcano that began on June 27 surrounds an outer fence to the Pahoa transfer station in Pahoa, Hawaii. The county says the breakouts don't pose an immediate threat to area residents. (AP Photo/U.S. Geological Survey)

Read more at: <http://phys.org/news/2014-11-lava-hawaii-trash-station.html#jCp>

## Lava threatens Hawaii community of Pahoa on the Big Island

The Associated Press Posted: 1 Nov 2014 7:45 PM ET Last Updated: Nov 01, 2014 7:45 PM ET



Lava flow burns vegetation near the town of Pahoa on the Big Island of Hawaii. The Kilauea volcano's lava is making a slow crawl toward a major road and threatens to isolate the



community. (U.S. Geological Survey/Associated Press)

<http://www.cbc.ca/news/world/kilauea-volcano-lava-stalls-but-50-homes-ready-to-evacuate-1.2821026>

## Turtles disappearing from Murray-Darling river system as foxes destroy nests

Updated Wed at 8:58am Wed 12 Nov 2014, 8:58am



**Photo:** [Due to foxes, hatchlings of freshwater turtles are becoming rarer. \(ABC News\)](#)

A zoology expert says Australia's freshwater turtle population in the Murray-Darling river system is in crisis and has almost disappeared in parts.

Dr Ricky Spencer, a senior biology lecturer at the University of Western Sydney, said foxes were destroying most of the turtle nests as they sought food.

<http://www.abc.net.au/news/2014-11-12/turtles-crisis-in-murray-darling-foxes-destroy-nests/5884438>

## PhD-project in soil science: 'Mechanistic understanding of soil functions by submicron scale analyses with NanoSIMS'

We offer a 3-year PhD-position at the Chair of Soil Science of the Technische Universität München ([www.tum.de](http://www.tum.de) / [www.soil-science.com](http://www.soil-science.com)) within a DFG-funded project. The group of Prof. Ingrid Kögel-Knabner is located at Freising-Weihenstephan, nearby Munich in southern Bavaria. The announced position includes a salary according to TV-L E13 (65%), corresponding to the German TV-L system (Tarifvertrag für den Öffentlichen Dienst der Länder). The anticipated starting date is January or February 2015.

[http://www.eag.eu.com/wp-content/uploads/2014/10/2710\\_PhD\\_Ausschreibung.pdf](http://www.eag.eu.com/wp-content/uploads/2014/10/2710_PhD_Ausschreibung.pdf)



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**Never does nature say one thing and wisdom another. ~*Juvenal, Satires***