

Hi All,

A number of CoP members have asked that past editions of the Daily Soils Digest and the Opinion Pieces be posted to the web. This is now a reality. Thanks to Sally McInnes-Clarke for all the hard work in making this happen. Past CoP editions can be found on the NSW Soil Knowledge Network site.

Regards

Brian

CoP editions



Knowledge transfer is a key priority for the NSW SKN and previous editions of the CoP are a valuable resource which the SKN is keen to share with the broader community.

Here is a small but growing list of the CoP missives which have been uploaded to date –

2015 editions

[27 Jan 2015 COP](#)

[27 Jan 2015 DailySoilDigest](#)

[CoP OP 2 Feb 2015](#)

[Cop DSD 2 March 2015](#)

[CoP OP 24 March 2015](#)

[CoP DSD 24 March 2015](#)

[CoP OP 10 April 2015](#)

[CoP DSD 10 April 2015](#)

[CoP DSD 6 May 2015](#)

<http://www.nswskn.com/cop-27-jan-2015/>



New World Soil Charter endorsed by FAO members



The first [World Soil Charter](#) (WSC) was conceived and formulated, negotiated and adopted by the FAO member countries in the 1981 FAO Conference. It was a major normative instrument agreed by member states, and that the Global Soil Partnership (GSP) was duty-bound to promote its principles. The challenges faced by the world have become more evident and severe

in the intervening three decades.

<http://un.org.au/2015/07/16/new-world-soil-charter-endorsed-by-fao-members/>

[Apply now](#)[News](#) [Forms](#) [St](#)
[Packaging shop](#)[Farming](#) | [Food & drink](#) | [Textiles](#) | [Health & beauty](#) | [Catering](#) | [Woodmark](#)[Home](#) — [News](#) — [News and features](#)

Soil Association launches attack on runaway maize: subsidised soil destruction

20 July 2015

The Soil Association is today (20 July 2015) releasing a new report, runaway maize: subsidised soil destruction, exposing shocking evidence that this crop is threatening the future of farming and food security in the UK. Maize is responsible for environmental damage to soils and water, and a rapid change in land use away from food production across the UK – all of which is made possible through double subsidies paid for by the UK taxpayer. The report is part of the Soil Association's national soils campaign.

Maize is one of the most rapidly expanding crops in the UK – up from just 8,000 hectares in England in 1973 to 183,000 hectares in 2014. Most maize is used as silage for animal feed but increasingly maize is being grown as an energy crop for anaerobic digesters (AD) subsidised from public money to produce gas for fuel.

<http://www.sacert.org/news/newsandfeatures/articleid/8114/soil-association-launches-attack-on-runaway-maize-subsidised-soil-destruction>

Gabe Brown: Keys To Building a Healthy Soil



<https://www.youtube.com/watch?v=9yPjoh9YJMK>

Georgia's Soil Survey Completed and Available Online

Soil scientists from across the south eastern region of the U.S. came together recently to celebrate the completion of Georgia's soil survey. With this mapping complete, very few areas of the nation's soils in the 48 contiguous states are not recorded.



<http://usda-nrcs.tumblr.com/post/124007867930#>

Is it bad to have bacteria in soil?

By Soil Science Society of America July 16, 2015 | 12:45 pm EDT



A Ciliophora x 1000.

Photo by Tom Lajtha

In celebration of the International Year of Soil 2015 (IYS), the Soil Science Society of America (SSSA) is coordinating a series of activities throughout the year to educate the public about the importance of soil. July's theme is "Soils Are Living". In SSSA's July 15 Soils Matter blog post, experts explain the positive role soil bacteria play in our daily lives.

According to Mary Stromberger, "there are millions of different types of microbes that live in the soil. Organisms that cause diseases reside in soils. But, those "bad" bacteria live amongst the good bacteria, fungi and other animal life in the soil—which is called biodiversity. This variety of life in soil helps keep things balanced. Thus, most of the time, soil microbes are beneficial to the environment, rather than being a threat." Stromberger is a soil scientist with Colorado State University.

Soil bacteria are necessary for soil health. The correct bacteria promote
<http://www.agprofessional.com/news/it-bad-have-bacteria-soil>

Natural Resources Conservation Service
United States Department of Agriculture

[Topics](#) [Programs](#)

[About NRCS](#) | [Careers](#) | [National Centers](#) | [State Websites](#)

[Browse By Audience](#) | [A-Z Index](#) | [Advanced Search](#) | [Help](#)

[You are Here: Home / Soils / Soil Health / "Soil Health To-Go" podcasts](#)

[Contact Us](#)

Soils

Soil Health

"Soil Health To-Go" podcasts

Don't have time to sit down at a computer to hear from other farmers, ranchers and researchers about soil health topics? No problem. Load your audio device with these "Soil Health To-Go" podcasts and listen when you're driving in your pickup, tractor or combine.

Stay Connected

[Facebook](#) [Twitter](#) [YouTube](#) [Email](#) [RSS](#)

Soil Health Podcasts

Iowa couple grows food, family, community on organic farm
Andy and Melissa Dunham understand that the health of their soil translates into healthier crops and a more resilient farm.

00:02 02:39

[Download Original File](#)

Organic grower harvests soil health benefits
Organic farmer Roger Lansink says the success or failure of his operation rests squarely on his shoulders. "We can't blame any crop failures on synthetic inputs—because we don't use any," he says.

00:00 10:18

[Download Original File](#)

Powered by diversity and healthy soil, organic farm flourishes
A certified organic operation since 1994, Ron and Maria Vakulskas Kosmann's 700-acre farm near Harlan is home to a remarkable amount of diversity—above and below the ground.

<http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/soils/health/?cid=nrcseprd370020>

Residents reeling from damage to homes due to poor soils; city working on potential fix



Josh Morgan, Journal staff

Joe Engelhardt, 64, sits Wednesday in his two-bedroom apartment, which he had to move into after he and his wife, Kristine, gave up their dream home due to extensive damage from expansive soils. Engelhardt said he will have to rent for the rest of his life after relinquishing his retirement fund to the mortgage company.

http://rapidcityjournal.com/news/local/residents-reeling-from-damage-to-homes-due-to-poor-soils/article_0f6d8660-43e2-57b3-aeb1-c46ff0c42834.html

Federated Farmers: What you should know about cadmium in soils

By Ann Thompson



Testing soil for Cd every five years as part of the soil testing regime for nutrient management is recommended. Photo / Paul Taylor

Understanding what your soil Cd levels are for your farm contributes valuable information that benefits all of New Zealand's primary producers.

Does your farm have a history of long-term phosphate fertiliser application?

If so, Tiered Fertiliser Management System is recommended if you want to understand how to manage soil cadmium (Cd) levels.

http://www.nzherald.co.nz/stratford-press/rural/news/article.cfm?c_id=1503385&objectid=11459243

Lure of fertile soils endangers native bush at Mt Wilson, Mt Irvine, Mt Tomah

8 July 2015, midnight

They are some of the most fertile soils in the Mountains and for many decades have been a magnet for Sydneysiders wanting to create beautiful gardens.



Tall eucalypts with an understorey of tree ferns at Mt Wilson are typical of the ecological system declared endangered.

But land clearing has taken its toll on the volcanic basalt caps of Mts Irvine, Wilson and Tomah, to the point where the NSW scientific committee has just declared the native forests an endangered ecological system.

The committee noted that the forests have been extensively cleared since the early days of white settlement and now only exist in small remnants.

<http://www.bluemountaingazette.com.au/story/3196665/lure-of-fertile-soils-endangers-native-bush-at-mt-wilson-mt-irvine-mt-tomah/>

Sustainable soil management key to curbing climate change and ensuring food security – UN agency



Mountains are critical for the valleys below. Farmers relax in Afghanistan's Bamiyan Valley.
Photo: FAO/Giulio Napolitano

23 June 2015 – Mountain soils are of great importance to ecosystem and food security, according to a newly released United Nations-backed publication, which also highlights technical insights and human activities of a sustainable soil management approach with special attention to mountain peoples.

<http://www.un.org/apps/news/story.asp?NewsID=51236>

New Generation Appeals to World Leaders: 'Save Our Soils for Us and Our Children!'



Eight year old Meike from the Netherlands holds the "Amsterdam Declaration" while 20-year-old Nyakallo Makgoba asks the delegates to take care of the soil. (PRNewsFoto/Nature & More / Save Our Soils)

AMSTERDAM, 29 June 2015 /PRNewswire/ --

Amsterdam Declaration focuses on need for immediate action to safeguard soils - vital for food supplies - for future generations

"Please look after our planet. Cultivate it, pass it on responsibly, so we may do the same. Please look after the soil." This was the urgent plea, on behalf of the Youth Food Movement and the world's children, of 20-year-old Nyakallo Makgoba at the closing ceremony of the Celebrating Soil! Celebrating Life! conference in Amsterdam last Friday.

<http://www.prnewswire.com/news-releases/new-generation-appeals-to-world-leaders-save-our-soils-for-us-and-our-children-510593601.html>

Allan Savory - Reversing Global Warming while Meeting Human Needs

*Reversing Global Warming While Meeting Human Needs:
An Urgently Needed Land-Based Option*

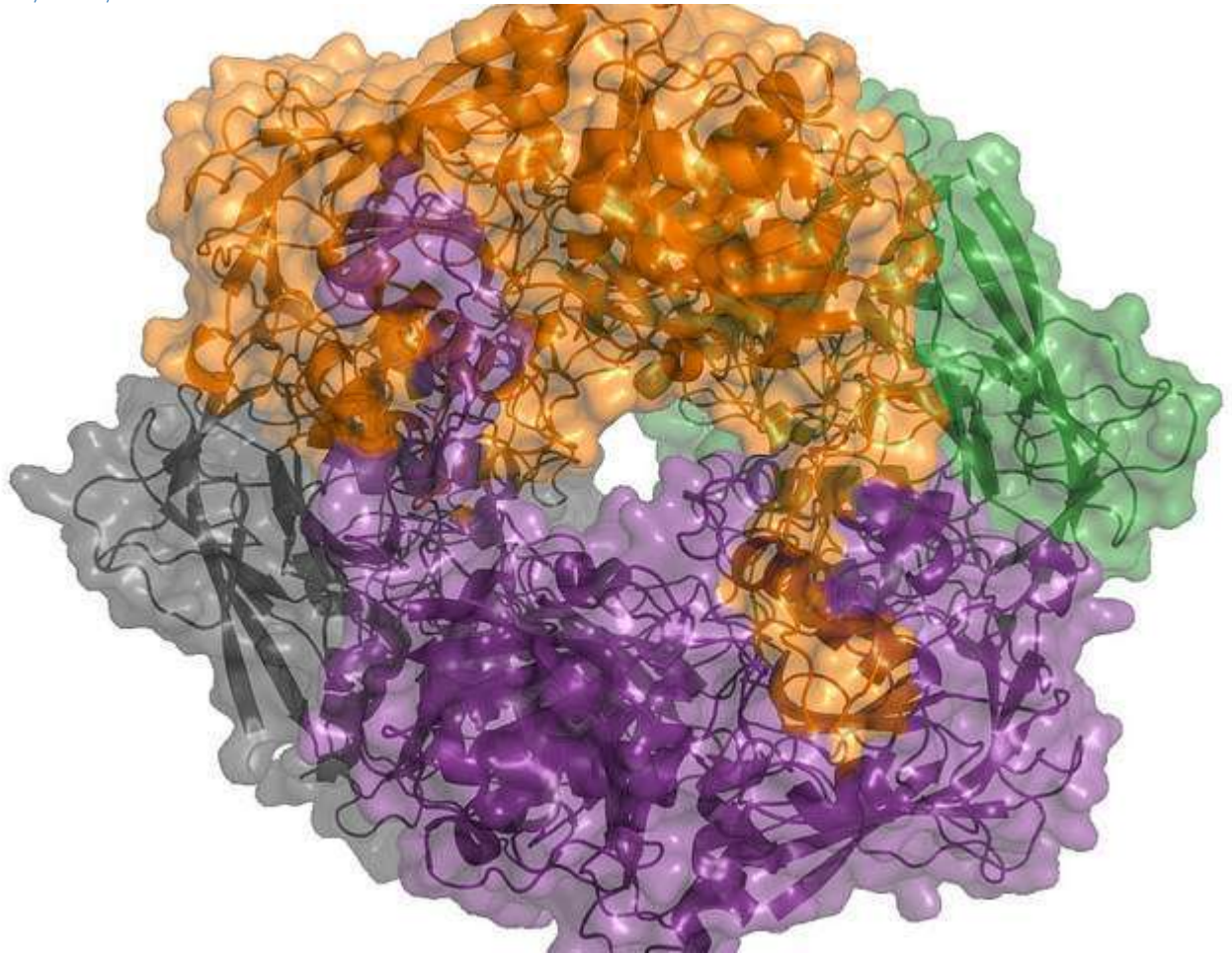
Allan Savory, President, & Co-founder, The Savory Institute

January 25, 2013

Friedman School of Nutrition Science and Policy, Tufts University
The Fletcher School, Tufts University
Planet-TECH Associates
Local Flavor, LLC

https://www.youtube.com/watch?v=uEAFTsFH_x4&index=4&list=PLyTKUvSYpCrMAxsQFhvT2AKtPzXWCFCA

Closer look at microorganism provides insight on carbon cycling



The research team reconstructed the crystal structure of BAP, a protein involved in the process by which marine archaea release carbon, to determine how it functioned, as well as its larger role in carbon cycling in marine sediments.

Some of the world's tiniest organisms may have a large impact on climate change. Researchers from the U.S. Department of Energy's Argonne National Laboratory and the University of Tennessee found that microorganisms called archaea living in marine sediments use completely novel enzymes to break down organic matter into carbon dioxide.

Read more at: <http://phys.org/news/2015-07-closer-microorganism-insight-carbon.html#jCp>

The International Year of Soils support recreation

Story

Comments

YouTube (1)

Posted: Sunday, July 12, 2015 12:00 am

By Katie Allen, K-State Research and Extension | 0 comments

At Kansas State University's Rocky Ford Turfgrass Research Center, located north of Manhattan, even the occasional passerby will notice many small plots that showcase a variety of recreational fields. From athletic fields where players would take part in soccer, for example, to a putting green that meets United States Golf Association specifications, K-State Research and Extension turfgrass specialist Jared Hoyle studies all sorts of turfgrass systems.

Hoyle said recreational activities, including those using turfgrass, are an important part of our everyday lives. Whether a person enjoys playing sports on athletic fields or golf courses, walking in parks or boating on lakes, the health of those areas depends on the health of surrounding soils. This relationship fits the most recent theme for the 2015 International Year of Soils: "Soils Support Recreation."



Golf

Whether a person enjoys golf courses, walking in parks, or boating on lakes, the health of those areas depends on the health of surrounding soils. This relationship fits the most recent theme for the 2015 International Year of Soils: "Soils Support Recreation."

http://www.hpi.com/ag_news/the-international-year-of-soils-soils-support-recreation/article_456c81fb-6da9-56fa-83a1-5e11fca000b8.html

Healthy soils, healthy vines the aim

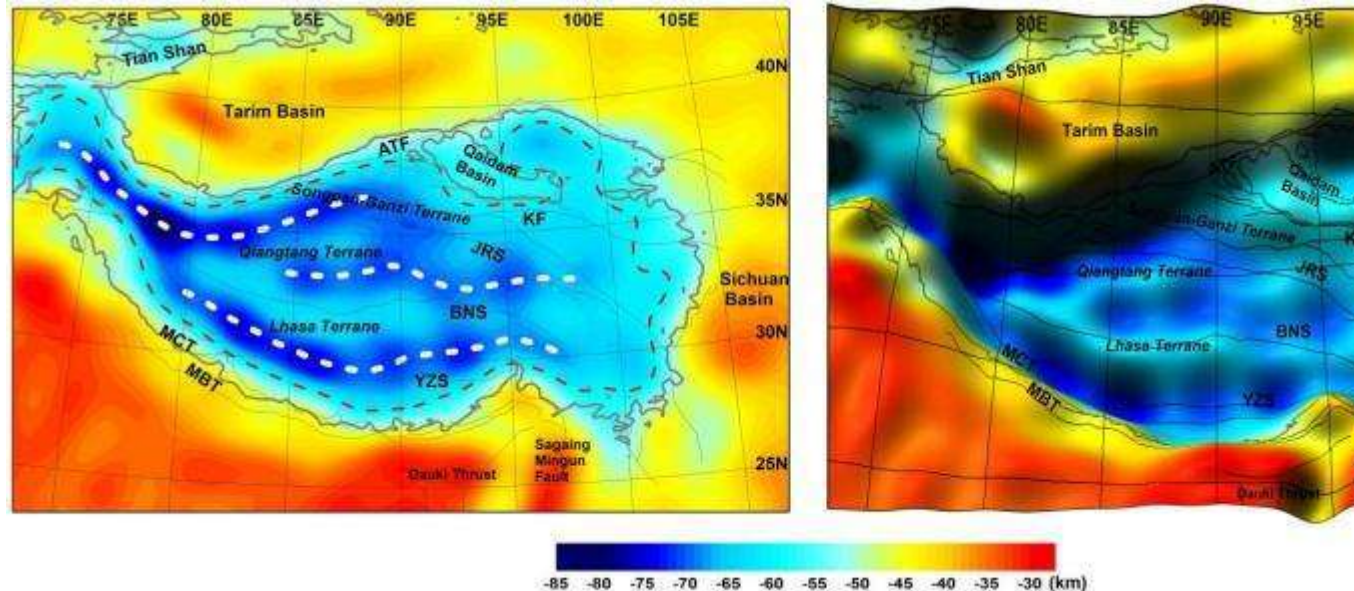
There are some who think Organics is a character in the Asterix comic strip; others have visions of long-haired hippies wearing kaftans and Porridge sandals. The reality, however, is somewhat different.

The International Federation of Organic Agriculture Movements (Ifoam) defines organic agriculture as follows: "At its heart, organic viticulture avoids using synthetic chemical herbicides, pesticides or fertilisers. This requires a significant 'hands on' approach with forward thinking to pre-empt what might eventuate. It aims to create an environment with healthy soils and vines using natural treatments and vectors to control disease and pests.

<http://www.odt.co.nz/lifestyle/food-wine/wine-reviews/348328/healthy-soils-healthy-vines-aim>

Satellites peer into rock 50 miles beneath Tibetan Plateau

21 July 2015



Topography (left) and a shaded relief map (right) of the rock deep beneath the Tibetan Plateau are shown. Color indicates kilometers below Earth's surface. Credit: Younghong Shin of the Korea Institute of Geosciences and Mineral Resource, The Ohio State University.

The analysis, published in the journal *Scientific Reports*, offers some of the clearest views ever obtained of rock moving up to 50 miles below the plateau, in the lowest layer of Earth's crust.

Read more at: <http://phys.org/news/2015-07-satellites-peer-miles-beneath-tibetan.html#jCp>

Down And Dirty: Teachers Learn About Soil

8 July 2015



The University of Florida IFAS Soil Science Department offered a one-day, Teach the Teacher International Year of Soil Workshop for educators Tuesday at the West Florida Research and Education Centre in Jay. Teachers were able to learn about soils and how to relate the information back to their students. The workshop covered topics including Soils and Civilizations, What is a Soil, Water Retention and Movement in Soil, Soil is Living, and Soil Protects the Environment.

<http://www.northescambia.com/2015/07/down-and-dirty-teachers-learn-about-soil>

Experts: Dry soils will impede drought recovery

Published: 23 June 2015 8:31PM

Dry soils would impede the refilling of reservoirs even if snow is abundant in the coming winter, experts say.

The ongoing drought has highlighted the need for increased water supplies in Oregon, but low soil moisture poses a major impediment to water storage, experts say.

Even if Oregon experiences healthy precipitation and snowfall in the future, it will take years to refill some reservoirs because water will first be absorbed by the thirsty soil, experts say.

“That’s the first place it’s going to go,” said Margaret Matter, water resource specialist with the Oregon Department of Agriculture. “Once you get the soils resaturated, there’s nowhere for water to go but down the channel.”

<http://www.capitalpress.com/Oregon/20150623/experts-dry-soils-will-impede-drought-recovery>

Tips to building healthy soil: A scientist's down-to-earth approach



1 / 5

Pull up the quick-growing buckwheat cover crop by the roots and use it to mulch a new summer planting. It will protect new seedlings, while building organic matter as it decomposes, says Elizabeth Murphy, a soil scientist and author of "Building Soil: A Down-to-Earth Approach" (Cool Springs Press, 2015). She shares her experience as a former agricultural extension agent, soil science researcher, and passionate gardener to help people bring soils to life. She will speak July 26 at People's Food Coop in Portland; July 30 at Powell's Books and August 3 at Southern Oregon Research and Extension Center in Central Point. Photo by Crystal Liepa Photography

Janet Eastman | [The Oregonian/OregonLive](#)

Tips to building healthy soil: A scientist's down-to-earth approach



By **Homes & Gardens of the Northwest staff**

on 23 June 2015 at 8:00 AM, updated June 23, 2015 at 10:50 AM

It's true that we reap what we sow in the garden. It is also true that the more we reap, the more we need to give back to the soil.

Natural gardens capture sunlight and water to grow a lush, verdant paradise in our backyards. Underneath it all, this process is driven by a living, breathing soil.

Microorganisms, fungi, worms and other critters

http://www.oregonlive.com/hg/index.ssf/2015/06/soil_scientist_elizabeth_murph.html

Secrets of dolerite sills

20 July 2015 by Grant Cawthorn



The exploitation of mineral deposits always creates debates around economic necessity versus environmental preservation. Fracking for gas in the Karoo region of South Africa is currently vigorously debated. This article is not about fracking, but it does touch on aspects of gas retention or loss in the Karoo rocks. It also highlights the potential for other mineral deposits in the same area. <http://phys.org/news/2015-07-secrets-dolerite-sills.html>

Hunter Lovins - Holistic Management rebuilds community, economy and ecology




Hunter Lovins
Founder and President
Natural Capital Solutions

<https://www.youtube.com/watch?v=B-NjCLcBcp8>

Agreement recognises Australia's satellite imagery

18 June 2015

Geoscience Australia and the U.S. Geological Survey (USGS)  have signed an agreement to establish a comprehensive new partnership to maximise land remote sensing data that can help to address issues of national and international significance.

Dr Chris Pigram, Geoscience Australia's Chief Executive Officer, welcomed the agreement explaining that the new partnership elevates an already strong relationship to a new level, and will see both organisations harness their respective skillsets to further unlock the deep understanding of our planet that the Landsat programme provides.

A key element of the partnership involves a major upgrade to Geoscience Australia's will see the station play a much more significant role in the international Landsat group

http://www.ga.gov.au/news-events/news/latest-news/agreement-recognises-australias-expertise-in-satellite-imagery?utm_source=email-july2015&utm_medium=highlights&utm_content=imagery-news180615&utm_campaign=ga-news#.VZ3jEF8k9zq.email

Technicians test soil nitrate levels in fields using new technology



McPherson Crop Management

Submitted

his summer's testing has been completed by Field Technician Randy Depuydt and Interns Ryan Sieberg and Max Oberle. Submitted photo.

JANESVILLE, Minn. – Crop consultants have a new tool for helping growers get more in-season fertility data.

The new 360 SoilScan machine offers soil nitrate readings right in the field.

http://www.minnesotafarmguide.com/news/crop/technicians-test-soil-nitrate-levels-in-fields-using-new-technology/article_f881825c-22b1-11e5-afde-a7143f397658.html

Major crustal boundaries of Australia

Citation

Geoscience Australia provides most of its products for free under a Creative Commons Attribution 4.0 International Licence. We only require that you reference the use of our data or information using the following citation:

Korsch, R.J. & Doublier, M.P., 2015. *Major crustal boundaries of Australia*. 2 ed. Scale 1:2500000. Geoscience Australia, Canberra. <http://dx.doi.org/10.4225/25/555C181CC0EAE>

Abstract

The 'Major crustal boundaries of Australia' map synthesizes more than 30 years of acquisition of deep seismic reflection data across Australia, where major crustal-scale breaks have been interpreted in the seismic reflection profiles, often inferred to be relict sutures between different crustal blocks. The widespread coverage of the seismic profiles now provides the opportunity to construct a map of major crustal boundaries across Australia. Starting with the locations of the crustal breaks identified in the seismic profiles, geological (e.g. outcrop mapping, drill hole,

geochronology, isotope) and geophysical (e.g. gravity, aeromagnetic, magnetotelluric) data are used to map the crustal boundaries, in map view, away from the seismic profiles. For some of these boundaries, a high level of confidence can be placed on the location, whereas the location of other boundaries can only be considered to have medium or low confidence. In other areas, especially in regions covered by thick sedimentary successions, the locations of some crustal boundaries are essentially unconstrained. The 'Major crustal boundaries of Australia' map shows the locations of inferred ancient plate boundaries, and will provide constraints on the three dimensional architecture of Australia. It allows a better understanding of how the Australian continent was constructed from the Mesoarchean through to the Phanerozoic, and how this evolution and these boundaries have controlled metallogenesis. It is best viewed as a dynamic dataset, which will have to be further refined and updated as new information such as seismic reflection data becomes available.


[Show full abstract](#)

Google map showing geographic bounding box with values North bound -11.0 East bound 152.0 West bound 114.7 South bound -43.5




<http://www.ga.gov.au/metadata-gateway/metadata/record/83223>

Soil renovation boosts productivity

05 Jun, 2015 04:00 AM  A+ A-

 Comments

0

 Share

0

 Tweet

0



“
This research has
provided grain
growers with the
potential to
significantly increase
grain yield
”

KEY POINTS:

- Farmers can look to improve land they already own rather than expand
- Yields can nearly double on sodic soils
- Soil renovation may not be as expensive as first thought

WITH the price of quality cropping land sky high, many farmers keen to expand their operation are priced out the market.

Research from the Victorian Department of Economic Development, however, has shown they may be able to boost their production by investing in their existing holding.

<http://www.stockandland.com.au/news/agriculture/cropping/general-news/soil-renovation-boosts-productivity/2733940.aspx>

RELATED

Frank Crofts: a pioneer
in his field

Trailblazers of the no-
till movement

Weed management
drives yield returns

Hybrid canola a
resowing winner

LATEST

Rate of environmental degradation puts life on Earth at risk, say scientists

Humans are 'eating away at our own life support systems' at a rate unseen in the past 10,000 years, two new research papers say



📷 The view from the Amazon Tall Tower Observatory in the middle of the Amazon forest. Researchers say that of the nine processes needed to sustain life on Earth, four have exceeded "safe" levels. Photograph: Reuters

Humans are “eating away at our own life support systems” at a rate unseen in the past 10,000 years by degrading land and freshwater systems, emitting greenhouse gases and releasing vast amounts of agricultural chemicals into the environment, new research has found.

<http://www.theguardian.com/environment/2015/jan/15/rate-of-environmental-degradation-puts-life-on-earth-at-risk-say-scientists>



“Land really is the best art.”

— Andy Warhol

