wantfa
Pioneers and Leaders in Conservation Agriculture

Western Australian No-Tillage Farmers Association

CARBON NEWS Issue10

Winter Edition

The grain growing season is shaping up to be a great one with rain falling over the majority of the region. There has been some amazing growth of crops for the time of year. The WANTFA trials have all been completed and are up and out of the ground.

Over the coming months we will be holding more carbon farming workshops and speaking at events around the wheatbelt. Our workshops will be discussing soil nutrition, crop rotations and soil compaction and how improvements in these areas can help farm profitability and productivity. We look forward to catching up with you at this and other events

Events to watch out for:

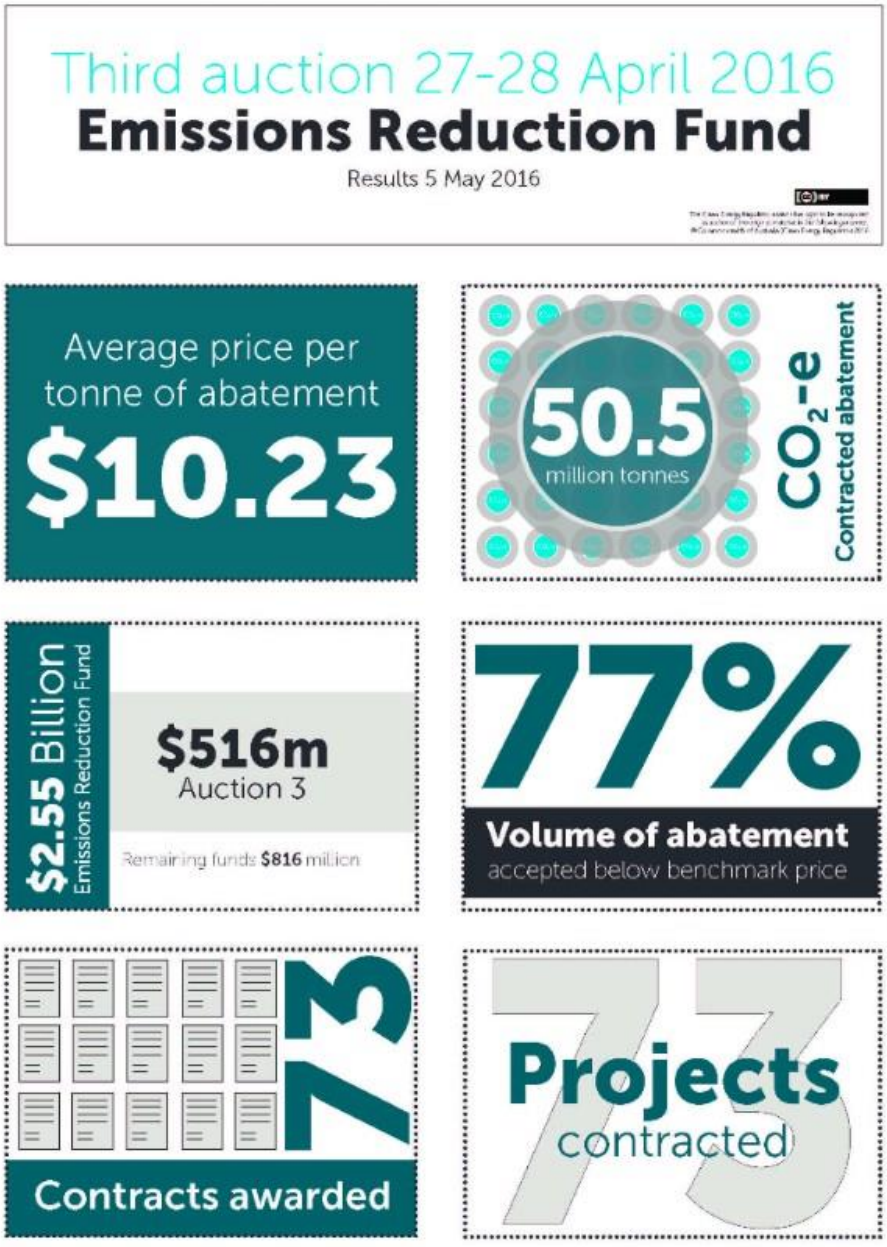
Webinar 4:
Managing sub soil acidity - Chris Gazey - 29th of June - 12.30pm

Post Seeding Field Walk – July 19 – Cunderdin

Nutrition - Compaction - Rotations workshops:
Cranbrook/Kendenup - 21 July
Goomalling - 12 August
Boyup Brook - 21 Sept

Deep Ripper Demo Day – August 30 – Bolgart, Wongan Hills

Spring Field Day – September 1 – Cunderdin



Emission Reduction Fund (ERF)
3rd Auction Results

The third auction was held on the 27th and 28th of April and a further 73 projects were contracted. The price per tonne of abatement fell to $10.13; this has reduced the average price per tonne from the 3 auctions to $12.10. In the 3rd auction there was a greater volume of abatement contracted and with the lower price, has increased the value of the $516 million spent.

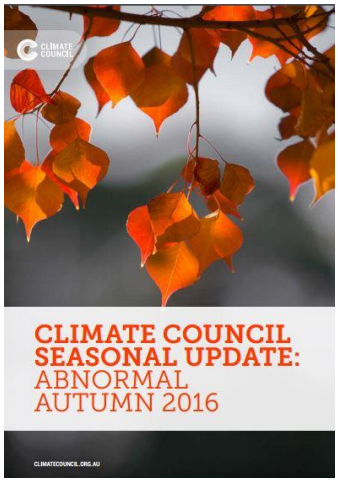
There are now 53 projects registered within WA with 16 of these winning contracts with the Clean Energy Regulator. There were 7 projects successful in the 3rd auction with a further 2 projects that will be running Australia wide. Of these projects there were 2 successful revegetation projects, one based in the Goldfields and the other in the Jerramungup Shire.

There will be one further auction run this year, so if you are interested in participating, register your project early as it takes longer than you think

Food Production

A study published in the Nature paper is suggesting that global food production is making it more difficult to tackle climate change. Agriculture globally contributes significant emissions of methane and nitrous oxide emission which have a greater warming potential than carbon dioxide. In Australia, agriculture contributes 58% of all methane emissions and 86% of all nitrous oxide emissions. These emissions are greater than the cooling effects of the forests absorbing carbon dioxide.

To read a summary of this paper go HERE



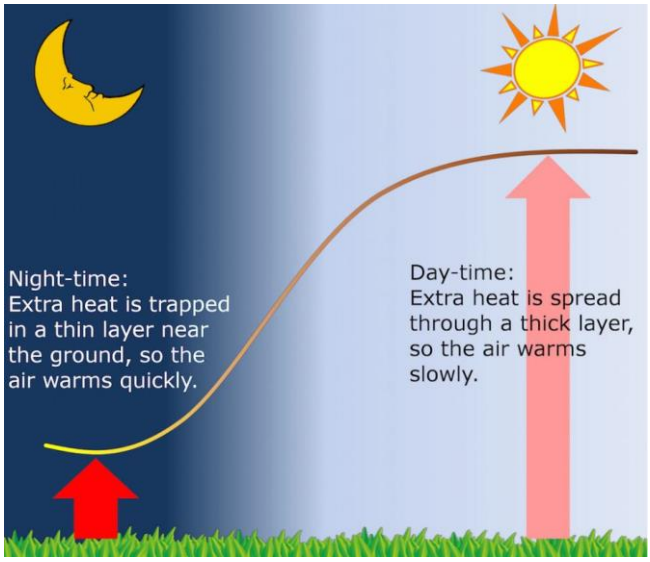
Abnormal Autumn

Autumn this year has created a range of new records according the Climate Council, who have released a new report discussing the events that have occurred and why.

Key findings from the report are:

- **Climate change continues to drive abnormally warm conditions with autumn 2016 being the warmest on record for Australia.**
- **Sydney was particularly affected by the abnormal heat.**
- **The abnormally high ocean temperatures wreaked havoc on marine life.**
- **Climate change, driven by greenhouse gases from the ongoing burning of fossil fuels, is driving these abnormal autumn temperatures.**

To read the full report click HERE



Night time temperatures are warming

phys.org

Records over the last 50 years are now showing that night time temperatures are warming faster than the day time temperature and it's all to do with a thin layer of air trapped near the ground surface. The increased levels of carbon dioxide warm the temperature during the day and night, but as the boundary layer (thin air layer closest to the ground) at night is so thin, it warms quicker.

Simulating this increased level of night-time warming in climate modelling is proving quite challenging. Getting the correct measurement of the boundary layer is the first step.

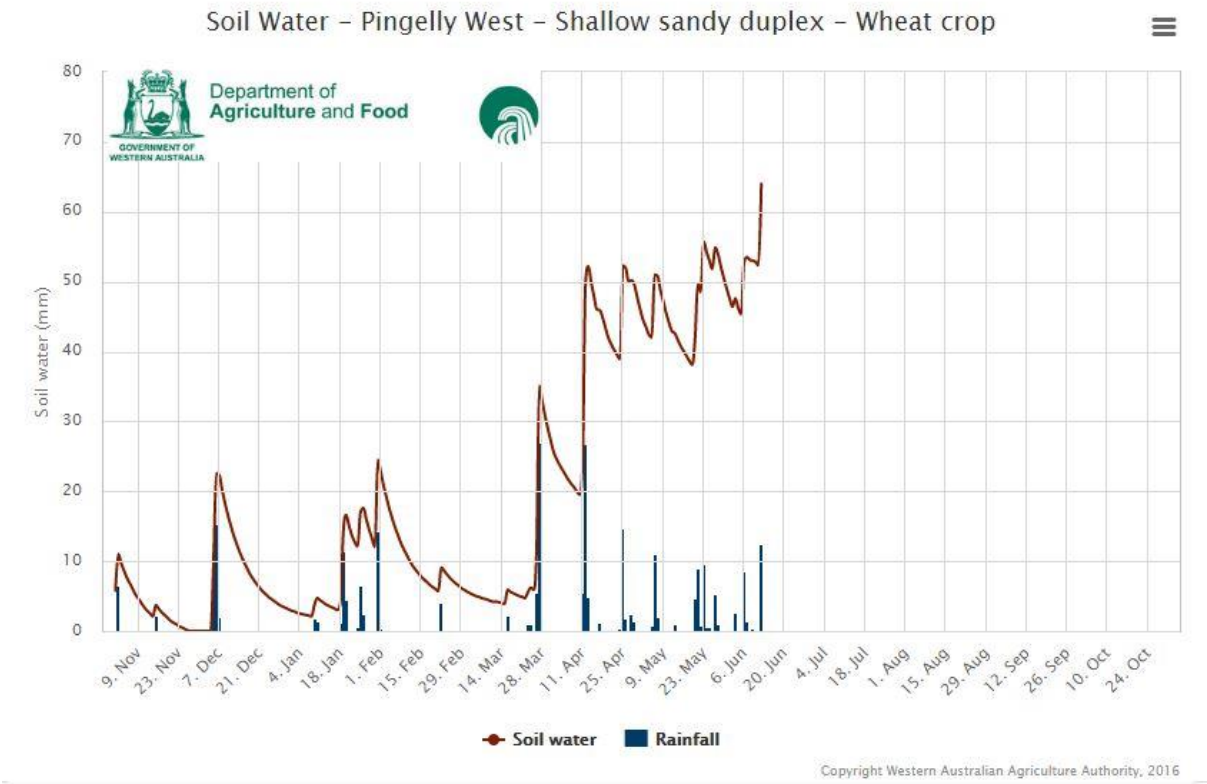
If you would like to read the full article click HERE

Antarctic ice shows Australia's drought and flood risk is worse than thought

The Conversation

This research undertaken in Antarctica has found a direct link between the deposition of sea ice in Antarctica and the rainfall patterns of eastern Australia. The results have shown that our current assumptions about flood and drought based on around 100 years of instrumental rainfall data are wrong and this could have negative effects on infrastructure and other capital investment.

To read more click HERE



Soil Water Tool now available

DAFWA

Soil water graphs are now available on the DAFWA website to help with in-season decision making. These graphs are created after running soil water models for the soil type selected and they assume that there are no growth constraints within the soil.

To use the tool and create graphs for your area go HERE

WA biodiversity hotspot in decline

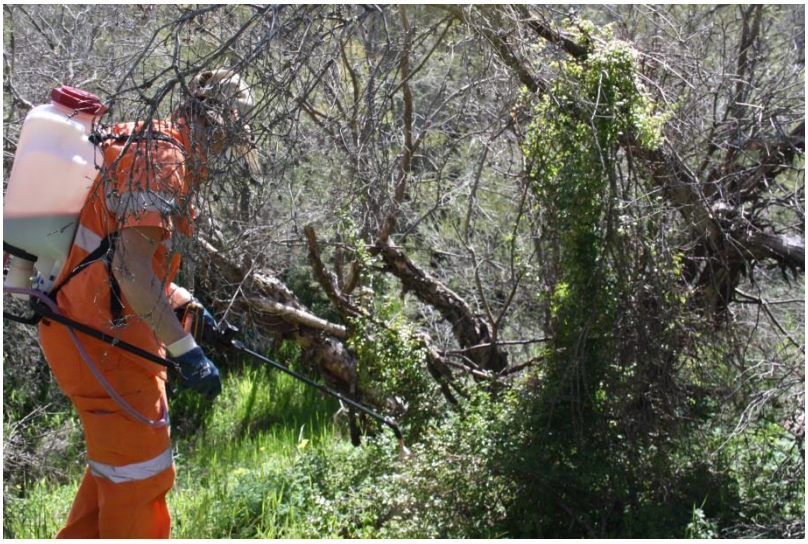
Science Network WA

South West WA is home to one of 34 global biodiversity hotspots. These are areas that are recognised for their unique flora and fauna, amazing biodiversity and the risks that these areas face.

A recent Murdoch study has found that the declining rainfall in the area of this hotspot, from

Exmouth to Esperance, has cause rapid declining in the vegetation growth of this area. An area the size of half of Tasmania was found to have lost a quarter of it's vegetation growth.

To read more about the research findings click HERE



New Method Variation - Human-Induced Regeneration of a Permanent Even-Aged Native Forest

The variation to the Human-Induced Regeneration method replaces the Reforestation Modelling Tool (RMT) that estimates carbon abatement in the regenerating forest with the Full Carbon Accounting Model (FullCAM).

FullCAM more accurately reflects tree growth and the management and disturbance events that occur in HIR projects. FullCAM is also the model used by Australia's National Greenhouse Gas Inventory for international greenhouse gas reporting obligations.
Following public consultation, other key changes to the method include:

- A clearer definition of eligible management activities for a Human-Induced Regeneration project area.
- Removal of the requirement to model baseline carbon stocks.
- The ability to add new project areas at different times.
- Adding a provision for some project activities to be undertaken on conservation land where there are opportunities for additional carbon abatement.
- Improved clarification of accounting for years of net negative abatement, such as when a large fire occurs.
- Streamlining administration, including provisions relating to the historical loss of carbon.

Projects registered under existing regeneration methods, for the *Carbon Credits (Carbon Farming Initiative) (Human Induced Regeneration of a Permanent Even-Aged Native Forest) Methodology Determination 2013*[1] and the *Carbon Credits (Carbon Farming Initiative) (Native Forest from*

Managed Regrowth) Methodology Determination 2013, can transfer to the improved Human-Induced Regeneration method variation, provided they have already submitted at least one offset report to the Clean Energy Regulator.
Importantly, this variation (under Section 126 of the *Carbon Credits (Carbon Farming Initiative) Act 2011)* applies to all projects registered under the original 2013 Human-Induced Regeneration method that have not yet commenced their crediting period – the period over which emissions reductions activities are eligible to generate Australian Carbon Credit Units (ACCUs).

Further information on how to apply for a project under the method variation is available on the Clean Energy Regulator's website.

WANTFA Project: Carbon Farming

Visiting this website is a great way to learning about carbon farming, the Emissions Reduction Fund and the information relevant to WA.

The resources that have been created by this project over the last 2 and a half years are all available here. There are webinars on the life cycle analysis of farm inputs, livestock management to reduce GHG emissions and soil carbon in long term no-tillage systems. There are fact sheets on carbon farming activities and the methods that are relevant to WA farmers. Past newsletters and WANTFA journal articles are kept here as well.

If you are a farmer you can gain benefits by participating in carbon farming activities such as:

- Improved productivity
- Efficiency gains
- Better soil health and decreased salinity
- More efficient water use

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