ROYALTIES FOR REGIONS

Department of Agriculture and Food

What's Happening in Carbon Farming?

Keeping you up-to-date with *Royalties for Regions* carbon farming projects across the state.

SOUTH COAST NRM - IMPROVING YOUR BOTTOM LINE

Stephen and Kerry Frost have been farming at Narrikup on the South Coast since 1979, originally raising spring lambs on their 3,000 acre property.

Soon after purchasing an 800 acre property next door, Stephen noticed it was outperforming his existing land in sheep fecundity and wool quality.

However, after witnessing a decline in his animals' health, Stephen looked at alternative methods to replenish his soils instead of using industry standard synthetic fertilisers.

So, in 1999, he began applying mineral fertilisers imported from the eastern states and soon started taking orders from land managers who were impressed by the results. Always looking to improve, Stephen thought a better product could be produced, so he founded Tenterden based Australian Mineral Fertilisers in 2002 and began creating his own fertilisers.

By incorporating microbes back into the soil, mineral fertilisers provide a better soil structure, break down organic materials, increase nutrient availability for plants, create a more efficient cycling of elements and build-up soil organic carbon.

Sixty-four people who recently attended a field day the Frost's farm, heard first-hand how mineral fertiliser transformed their land and improved production and quality.

To find out more about mineral fertilisers and to view a presentation by Stephen Frost, go to: ***www.southcoastnrm.com.au/projects/landcare.***

Stephen Frost talks to field day attendees at his Narrikup farm in early November.

SOUTH WEST CATCHMENTS COUNCIL - BIOCHAR WORKSHOP

As part of its Carbon Farming Awareness project, the South West Catchments Council (SWCC) is holding a FREE Biochar workshop in Bridgetown.

"Biochar is a hot topic at the moment, particularly in relation to soil health and carbon sequestration, so we thought it was important to convey to farmers in our region what people working with it have learnt," SWCC sustainable agriculture project manager Wendy Wilkins said.

Middlesex beef and avocado farmer Doug Pow has been free feeding his cattle biochar lick and using dung beetles to bury it in his pastures for the last three years. "After going for five years without adding phosphorous or potassium whilst increasing production, what I'm doing is making available to the plants decades of applied mineral fertilisers that have been locked up in the soil," Doug said.

Farmer Doug Pow will present at the Biochar workshop on December 1.

Doug's research has led to the funding of a project for a similar trial on a large Northcliffe dairy. He is also involved with SWCC in a four-year sustainable agriculture trial using compost activated biochar in an avocado orchard. Department of Agriculture and Food WA scientist Dr Paul Blackwell has been involved in biochar trials and will present on what data shows for crops, pastures and horticulture and the implications for stock nutrition and growth.

"Biochars are very variable in their composition and impact, therefore we need to be cautious in their use. Independent evaluation and testing and careful plans on supply and product costs will help achieve benefits for agricultural businesses," Dr Blackwell said. At the end of the workshop, Dr Blackwell will fire-up his top lift updraft kiln and demonstrate how to make biochar.

The workshop will be held at Bridgetown Gardens from 4-7pm, Monday, December 1. Please register with Wendy Wilkins on 9761 4184 or wendy.wilkins@swccnrm.org.au.

WHEATBELT NRM - REDUCING METHANE EMISSIONS FROM LIVESTOCK

Methane is a natural by-product in ruminants due to the fermentation of feed during digestion and an energy loss to the system that can be reduced by the type of feed supplied to the animal.

The Enrich project shows many shrubs can reduce sheep methane production. One of these plants, tar bush *(Eremophila glabra*), doesn't need to be a large part of an animal's diet to make a significant reduction in methane production.

If pastures are more suited to the farming system than forage shrubs, then biserrula is the pick for reducing methane emissions by a large margin.

Biserrula is a persistent annual pasture legume that can work in a mixed farming system, with seed persisting for as many as three consecutive grain crops. It also provides an excellent source of biological nitrogen and can assist in weed management systems.

By improving the annual pasture species available to sheep and integrating them with a diverse range of forage shrubs, whole of farm profitability can be improved. Animal health can be improved by feeding stock a range of feed which incorporate a variety of nutrients.

The benefits of growing perennials include reducing wind and water erosion, increasing biodiversity and improving soil condition.

While there is no current CFI approved methodology for reducing sheep methane emissions by feeding specific shrubs or pastures, there is an approved methodology for feeding nitrates to beef cattle that could be used as a complimentary methodology. But the benefits to farm productivity of adopting this system may actually be its downfall under the CFI, as there's a risk this practice will fail the additionality test and therefore be ineligible.

DAFWA has produced a fact sheet about managing sheep pastures to reduce methane production and its potential in carbon farming. For this and other fact sheets go to ***wheatbeltnrm.org.au/what-we-do/sustainable-agriculture/carbon-farming.***