

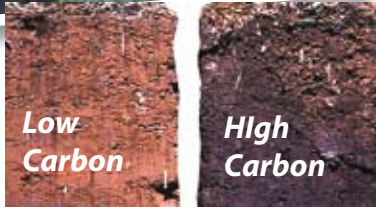


Ray Hull and farmer
Organic Flat Bone Cattle,
Soil Carbon workshop



Ray Hull has changed his farming practices to biological farming and organic flat boned cattle. Beef cattle are a major agricultural commodity on the Darling Downs. Other innovations in the beef cattle industry include conversion to native pasture food sources, increased erosion control on hillslopes and increasing ground cover where cattle graze. Creeks are often fenced and watering points established to minimise siltation in delicate habitats.

FACT: A 1% increase in soil carbon in 10% of the world's farm land would absorb all the CO2 overload



Our Farmers
LIVE the land
LOVE the land
LOOK AFTER the land



“Quick Snapshot”

Head of the Murray-Darling Basin

- ❑ 2,750,000 ha. Home to approx. 190,000 people and increasing by 2 % per annum
- ❑ 3000 farmers decreasing by 3%
- ❑ 5 endangered, 34 rare, 32 vulnerable flora species
- ❑ 10 endangered, 26 rare, 21 vulnerable fauna species
- ❑ 8 (20) groundwater systems under stress
- ❑ 16000 bores (irrigation, towns, stock and domestic).

Agricultural Value

- ❑ 20% of Queensland grain crops (300,000 hectares)
- ❑ Approximately 35% of Queensland Cotton (90,000 hectares) is grown in the Condamine Catchment serviced by 3 Cotton Gins
- ❑ Queensland represents 44.5% of Australia's feedlot capacity of which approximately 70% is managed in the Condamine catchment (272,662 head on 124 feedlots)
- ❑ Niche horticultural production critical to Queensland's supply.



Commodity \$'s our percentage of QLD's total

- Barley 73% • Cotton 30% • Eggs 85%
- Wheat 26% • Pigs 34% • Milk 23%
- Grain Sorghum 40%



North East Downs Landcare Group Inc
P O Box 199
Oakey Qld 4401
ph 07 4691 1499



Dung Beetles

Queensland Value of Commodities produced in the Condamine Catchment (Source ABS & QRIS 2000/01)

North East Downs Landcare (or NED as we are affectionately known in the catchment area) was formed in 1994 as a management group for Landcare activities across the north-eastern Darling Downs area. The NED region covers approximately 7000 square kilometres. NED has approx 450 members within their twelve sub-catchments. Our goals for the future are to work towards assisting people adapt to climate change and recognising opportunities to further enhance their lives for the better.

Our farmers are making new choices with their farming practices to secure a solid healthy environment for all of us. We need to appreciate, support and understand the importance of their contributions through improved land management practices which are ultimately aimed for Australia's future benefit.

Soil Carbon



Ian Moss & Christine Jones at NED workshop on soil carbon.

Cotton



Biological farming

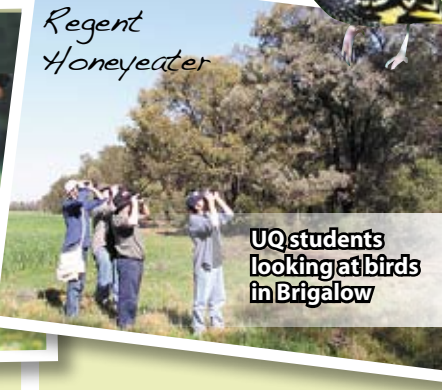


David Lange taking on the challenges to improve his soil carbon levels.

Dairy



Brigalow



Regent Honeyeater

UQ students looking at birds in Brigalow

Facts about carbon soil

FACT: There is already enough CO₂ in the atmosphere to drive the earth's temperature through the critical 2°C level

FACT: "Clean Coal" cannot reduce the existing CO₂ burden

FACT: Wind and solar power cannot reduce existing CO₂

FACT: Changing light bulbs cannot reduce existing CO₂

FACT: It would take 7 planet Earths covered in forests to absorb the existing burden of CO₂

FACT: "Soil organic carbon is the largest reservoir in interaction with the atmosphere." (United Nations Food & Agriculture Organisation) - Vegetation 650 gigatons, atmosphere 750 gigatons, soil 1500 gigatons

FACT: A 1% increase in soil carbon in 10% of the world's farm land would absorb all the CO₂ overload

Golden-tailed Gecko



The Cotton industry has been around on the Downs since the 1950's. A relatively small area on the Downs (approx 10% of the total area in an average year) provides a large number of jobs, including farmhands, chippers, agronomists, harvest crew and ginners. The Darling Downs produces about 300,000 bales of cotton in an average year worth \$135M ex farm gate from 40,000 ha.

The transformation of the cotton industry began 12 years ago with the introduction of GM cotton seed. This has reduced insecticide use by more than 80%.

Even conventional cotton has benefited from technology with 40% higher yields and new environmentally friendly plant protection materials that have very low toxicity to flora and fauna other than the targeted pests.

Written by Kim Bremner



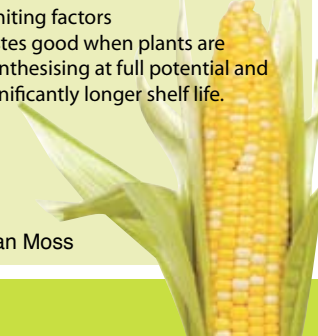
What's different?

- Biological farmers realise the important role that soil microbes play in the recycling, sequestering and storage of nutrients.
- They also understand the role of soil organic carbon as the key energy source to drive these processes
- They maintain a dual focus of longer-term soil health improvements with smart management & input choices for current season benefits.

What's interesting?

- The majority of a plant is made up of elements created from the photosynthetic process.
- This process is dependent on balanced nutrition and removal of constraints and other limiting factors
- Food tastes good when plants are photosynthesising at full potential and have significantly longer shelf life.

Written by Ian Moss



The north eastern Darling Downs is home to a growing dairy industry. Farms rely on rainfall to grow crops and then graze or silage/hay these crops as the season dictates. Currently oats and barley are planted, with forage sorghum being the main crop grown during summer.

With the experience of recent times all farmers now are involved in minimum and zero till to preserve ground cover and increase available soil moisture. Every farmer manages run off to prevent soil erosion with contour banks and waterways. Some farms in the area recycle their water for cleaning holding yards at the dairy with the solids taken out and spread on cultivation along with the manure collected from around the feeding areas.

Farming requires good soils and keeping the soil healthy is a priority. Feed quality is the major driver of milk production and therefore viability.

To be successful dairy farmers need to look after their people, their farms and their animals. I am proud to be one of them.

Written by Simon Wieck

Conservation and production

For generations the Hartmann family has preserved, and maintained, a number of fine stands of various endangered Brigalow (*Acacia harpophylla*) communities. Not only are these natural vegetation stands a refuge for wildlife, but they are natural assets to maintain the biodiversity and a functional landscape in the region.

The fauna and flora contained in the Brigalow remnant vegetation is both diverse and astounding. University of Queensland students have studied the fauna in these Brigalow remnants over a number of years. Weed and pest control is required to maintain the full natural value of these remnants.

Errol and Jewel are doing a fine job on their property of balancing their agricultural production with a true conservation focus.

Yakka Skink



Written by Mark Schuster