BREMER CATCHMENT ASSOCIATION INC.

around the bremer

July 2021

Special points of interest:

The next Operational Meeting will be held on

15th July 2021

Inside this issue:

President's Corner	1
What is Carbon Farming?	2
Angleton grass (*Dichanthium aristatum*)	3
Building resilience in local communities	4
The Bremer Catchment Story	5
Pepper Tree Hill, Mt. Forbes Soil Conservation 2021—Fencing—Simon Lott	6
Agricultures Australia receives Australian Government Grant to rebuild the bushfire–Devastated honey bee and pollination Industry	7

President's Corner by Bill Steentsma

This Newsletter is dealing with a variety of great topics. We hear so much about Carbon Farming and relevant financial benefits. Although the Queensland DPI, through its former Agricultural Extension and Research have been advocating many of these land management methods.

I have attended and spoken at a few Field Days in the Catchment, most of them organised by Healthy Land and Water (HLW). It is encouraging to see that our BCA Logo has been added on the Flyers, advertising the various activities. During these occasions many questions did arise about various topics, for example about the Angleton grass. That is why we have to accept the wellbeing benefits of participating in Landcare.

It amazes me the responsibility BCA and other like minded organisations have for the catchment. They support many landuse activities as well as eco-tourism. The Bremer and Warrill Creek and their tributaries are valuable waterways. Our **Guest Speaker at the 15th July, James Fewings** (Dept. of Environment and Science), will enlighten us about the health of these waterways.

Angleton grass

Grants for Projects are helping to keep our environment in good condition. A fencing project along a much eroded gully has been completed. It attracted a lot of interest at the recent Field Day.

Until next time—stay healthy and safe.

.What is Carbon Farming?

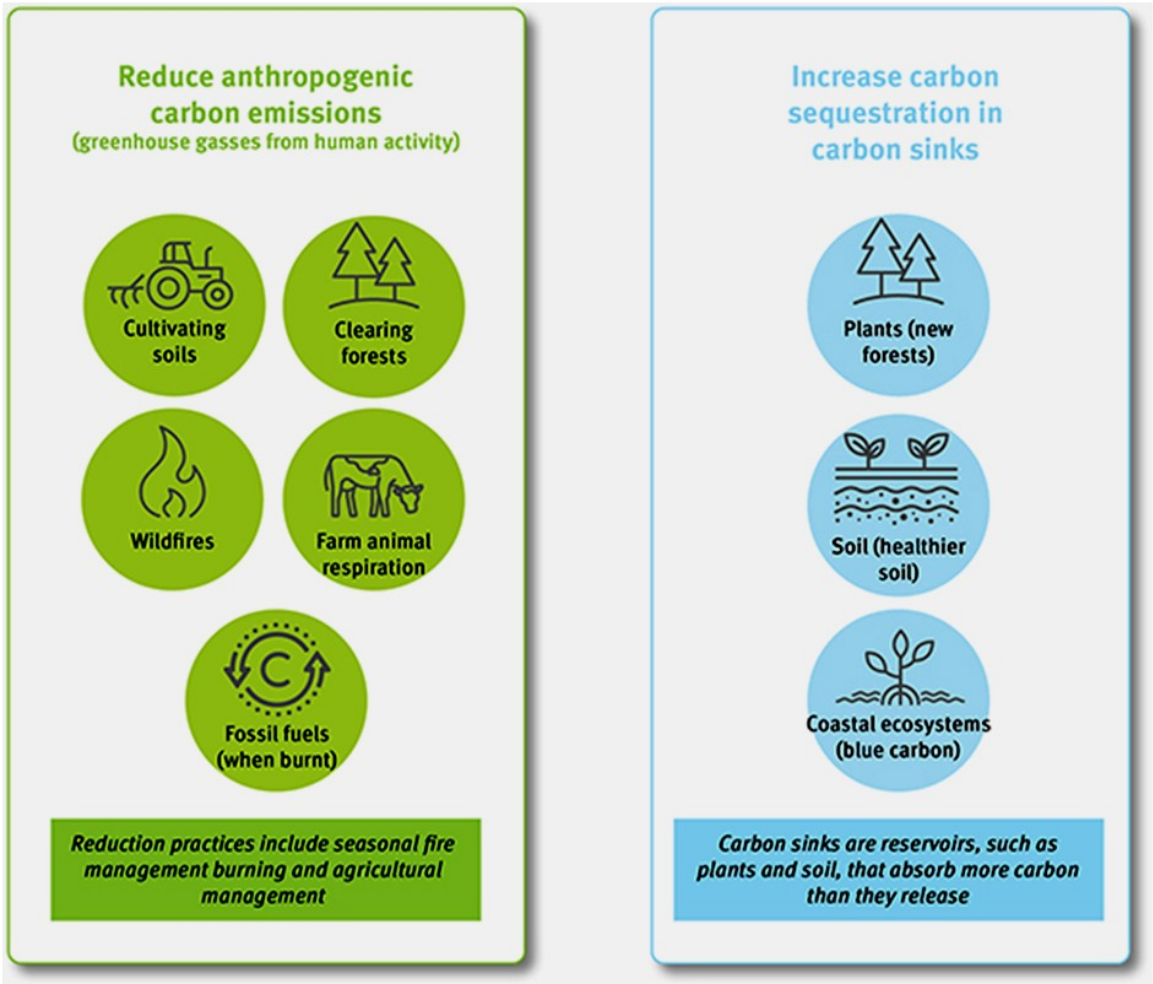
Carbon Farming is simply farming in a way that reduces Greenhouse Gas emissions or captures and holds carbon in vegetation and soils. It is managing land, water, plants and animals to meet the Triple Challenge of Landscape Restoration, Climate Change and Food Security. It seeks to reduce emissions in its production processes, while increasing production and sequestering carbon in the landscape.

Carbon Farming can range from a single change in land management,

Carbon Farming can range from a single change in land management, such as introducing no-till cultivation or grazing management, **to a whole-of-farm integrated plan** which maximises carbon capture and emissions reduction. Carbon Farmers have many practices to choose from to develop their plan. Some of these practices are:

maximum groundcover (no bare earth), grazing management, no-till cropping, pasture-cropping, mulching, green manure, stubble retention, cover cropping, controlled traffic, precision application (fertiliser), natural fertilisers and many more.

Carbon farming land management activities seek to:



Due to its size and diverse natural ecology, Queensland is well positioned to generate carbon credits through carbon farming. There are already over 250 carbon farming projects in the state operating under the Australian Government's Emissions Reduction Fund (ERF).

Angleton grass *(Dichanthium aristatum)*

The strengths of Angleton grass is as follows:
Adapted to heavy black cracking-clay soils; Tolerant of two weeks or more inundation. Salt tolerant; Palatable but varies with variety or ecotype; Tolerates heavy grazing and assumes a prostrate growth habit; Persists under low soil nitrogen availability and provides a good ground cover that protects soil from erosion and minimises weed growth.

The Limitations are:
Relatively low seedling vigour compared with vigorous grasses such as Rhodes grass. Low forage production in unfertilised old stands, especially those heavily grazed and competitive with legumes such as annual medics and desmanthus.

Pasture type and use:

Sub-tropical permanent pasture, particularly in seasonally flooded or waterlogged land, and also used in non-flooded situations. Suitable for grazing and for hay. Good for waterway and bank stabilisation and suppression of invasive weeds such as lippia in flood-plain areas.

Angleton grass

Where it grows:

Rainfall: Angleton grass is moderately drought tolerant and can be killed by prolonged dry conditions. It is usually sown in areas receiving 750-1400 mm/yr.

Soils: It is one of the few introduced warm season grasses suited to very heavy black, self-mulching clays with alkaline pH but is adapted to a wider range of soils including moderately acid red and black clays, clay loams and loams. It tolerates water- logging.

Temperature: Angleton grass produces little growth in spring in the subtropics but good summer-autumn feed and tops are killed by frost.

Sowing time: It can be sown from spring to late summer. It is best sown in spring if weeds, especially annual grass weeds, are controlled or minimal, or in late-summer. Following harvest seed takes about 6 months to reach maximum germination. It establishes well from seed broadcast onto a cultivated seedbed or dropped on surface in furrow and followed by press-wheels.

Animal production

Feeding value: The growth of cattle grazing tropical pasture grasses, including angleton grass, is limited by low dry matter digestibility, especially in winter. Supplementary nitrogen in diet will increase feed intake in deficient situations.

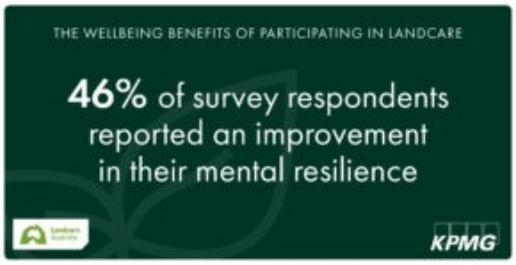
Palatability: Vegetative growth is very palatable and palatability declines as flowering stems mature in autumn and dry off in winter, especially after frost. Palatability varies with naturalised ecotype, of which there are several introductions in Queensland.

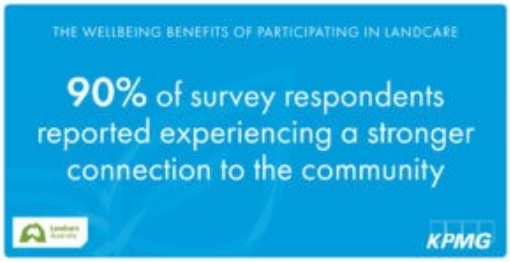
Production potential: Live weight-gains of 1 kg/hd/day in summer and small losses in winter are expected from cattle.

Building resilience in local communities

The wellbeing benefits of participating in Landcare

For decades, those involved in Landcare have testified to a greater sense of self, both physically and mentally, resulting from an enhanced link with their local community and environment. This, in turn, has boosted community wellbeing and it has long been the desire of the Landcare movement to quantify the significance of these benefits.





Now, newly published findings by KPMG Australia in partnership with Landcare Australia, indicate Landcare volunteers enjoy substantial improvements to their mental and physical wellbeing – with a significant decrease to their healthcare costs.

Surveying more than 1,000 Landcare volunteers and coordinators from Landcare groups, the findings in the report, titled ***Building resilience in local communities: The wellbeing benefits of participating in Landcare*** suggest substantial improvements in wellbeing owing to involvement in Landcare lead to approximate savings from avoided healthcare costs of $403 per individual per year. For the Landcare movement which exceeds 140,000 individuals, that number equates to $57 million nationally.

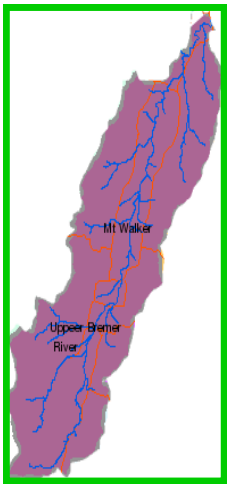
The report also goes on to address additional savings to the Landcare volunteer community relating to productivity, and benefits owing to natural disaster resilience and recovery, with the combined value amounting to $191 million annually.

LANDCARE WORKERS HAPPIER, SAYS STUDY

The Bremer Catchment Story

The Bremer River catchment is located west of Brisbane within the local government boundaries of Ipswich City Council and Scenic Rim Regional Council.

The Bremer catchment covers approximately 203 000ha, with the main channel, the Bremer River, surrounded by several sub-catchments. (click to play animation).



Although the Warrill Creek is the longest waterway in the area, the Bremer River was discovered earlier by John Oxley in 1824* and therefore named it the main channel of the catchment. It flows into the Brisbane River which also receives water from the Lockyer, Upper Brisbane, Stanley and Mid Brisbane catchments prior to the Bremer catchment.

Values of the catchment

The Bremer Catchment contains many environmental, economic and social values. There are a number of parks, reserves and protected areas in the Bremer catchment from Mount Goolman, Flinders Peak and Ivory's Rock, to Mount French (North), Mount Moon, and Mount Greville (part of Moogerah Peaks National Park). The Bremer Catchment also includes Main Range National Park, a World Heritage area - with features such as Spicers Gap, Cunninghams Gap, Mount Mitchell, Mount Cordeaux and Mount Castle.

The Bremer Catchment contains many environmental, economic and social values.

The many recreational areas including areas for camping, bushwalking and water based activities. The natural beauty of the Bremer catchment provides a recreational retreat for many and adds significant value to the catchment.

Further more the catchment contains threatened vegetation communities, like the endangered Swamp Tea-tree Forest, found only in few areas in South East Queensland. The catchment also contains areas of Brigalow scrub and other rare flora such as Boonah Tuckeroo, Grevillea linsmithii, Eucalyptus dunnii (Dunns white gum), Arundinella grevillensis, Callitris baileyi, Marsdenia coronate (slender milk vine), Melaleuca groveana (Grove's paperbark), and Notelaea lloydii (Lloyd's olive).

This catchment is also home to threatened animal species including the endangered lungfish, Spotted tailed Quoll, koala, black-breasted Button-quail, Glossy black cockatoo and Black necked Stork.

The catchment supports a diverse range of land uses which include agriculture, grazing, natural areas, mining, industry and urban development. Since European settlement this catchment has had intense industry and agriculture. The remnants can still be seen, such as the old coal mine pillars and cleared salt affected lands.

There have been significant changes throughout the catchment since the first European arrived in the catchment.

The majority of the catchment has now been cleared* for agricultural production, mining, industrial activities and urban development.

Pepper Tree Hill, Mt Forbes Soil Conservation 2021 – Fencing - Simon Lott BCA Member

Completion of the BCA-HLW funded fencing project has been achieved. The fencing project is part of the greater soil conservation project. It fences off a severely eroded gully to allow regressing and soil conservation.

The gully is about 3.0km long. It runs from the uplands to the west through our property and into the neighbors' property to the east. It is about 50m wide and up to 10m deep. The catchment is large and water runoff is significant, as is the sediment fall into Mt Walker Ck, The Bremer River and eventually the Port of Brisbane. The gully erosion commenced about 1950 by the landowner of that time. More than 110,000m3 of sediment has left the gully and has passed into the river systems.

The fence materials were purchased with grant funds. The land owners have provided;

- All labour;
- All plant and equipment
- Soil conservation works
- Electric fence switches and under gate cabling

Figure 1 Open gully access to stock (In the Past)

The severely eroded gully that runs throughout our property has been isolated through the building of a 700m 4 barb fence, with electric offset. A creek crossing has also been established. Vetiver grass (Monto sterile variety) and Kikuyu grasses have been acquired and propagated. Some Vetiver has been planted on a trial basis to assess its compatibility with the alkaline soils. Some has been retained for spring planting once are lessons are learnt form the earlier plantings.

The length of the fence traverses some large gullies that run into the larger gully and was challenging to build. Fencing off of several hectares of land has enabled less stock traffic, therefore allowing grass growth and will enable substantial tree plantings. With recent rain native grasses are presenting.

Figure 2 Placement of end assemblies for straining

The fence and fence line

Figure 3 Recovery of Grasses in fence line

AgriFutures Australia receives Australian Government grant to rebuild the bushfire-devastated honey bee and pollination industry

07.07.21

AgriFutures Australia has welcomed a $600,000 grant from the Australian Government for research, development and extension (RD&E) to support the industry as it continues its recovery from the 2019-20 Summer bushfires.

During the 2019-20 bushfire crisis an estimated 15.6 million hectares of native Australian forest was destroyed. This has severely compromised the industry's $14.2 billion per year contribution to the Australian economy, from vital pollination services.

Minister for Agriculture David Littleproud's said the grant would help the Australian honey bee industry to build resilience and bounce back.

"This funding is great news for our beekeepers and will help them get their buzz back and build resilience for future disasters," Minister Littleproud said.

"The grant will help the Australian honey bee industry undertake key research about how to help rebuild hives after bushfires.

"The research will help beekeepers understand how decreased forest resources after fires affects honey bee biosecurity and nutrition.

"It will also investigate best practice supplementary feeding and hive management technology."

Bushfire recovery research and development is part of the industry's Bushfire Recovery Plan, which was released by the Australian Honey Bee Industry Council and AgriFutures Australia 2021.
For more information refer to Minister Littleproud's media release.

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