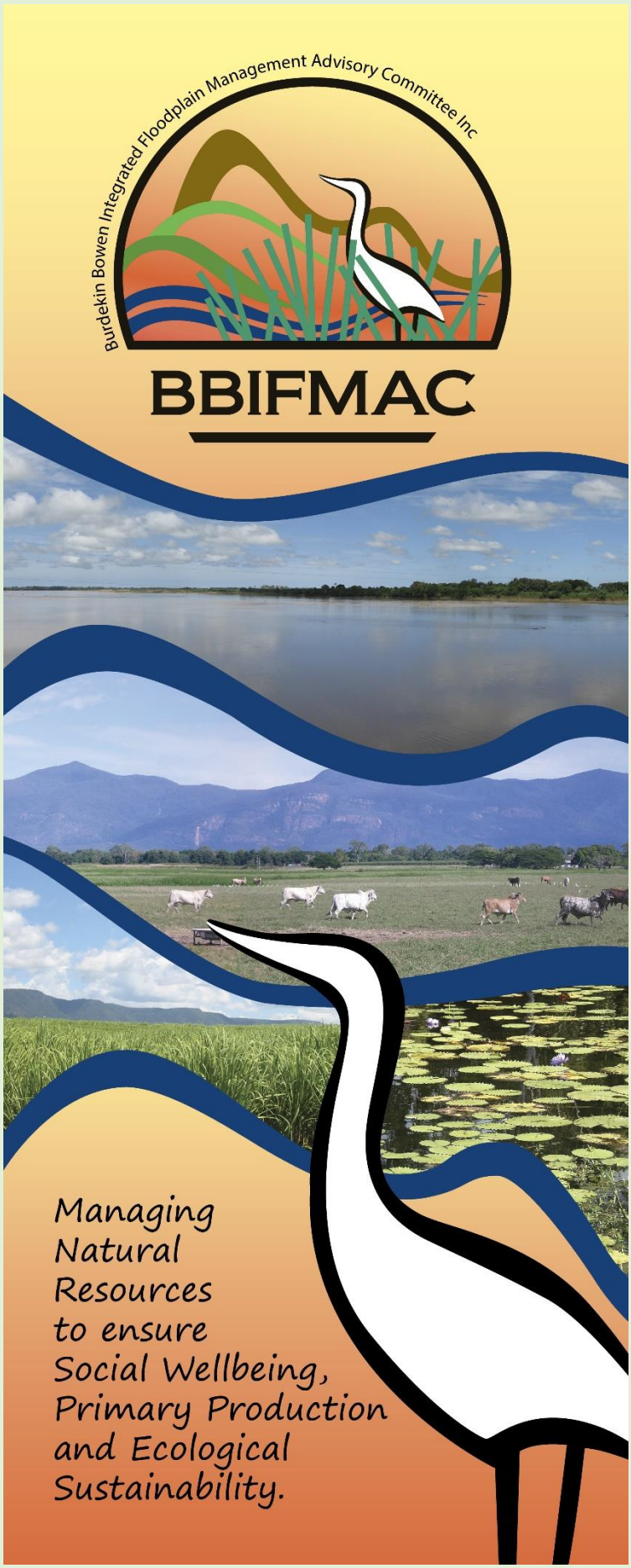
NEWSLETTER

Issue 5 September 2020



What's New?

Last summer, field trials were conducted to determine the suitability of four varieties of AgriVentis black sesame to the climate, soils, and environmental conditions in Northern Australia, as part of the North Queensland Spice Trial being undertaken with Central Queensland University (CQU) and Kenrose Farming Co, with funding from the Cooperative Research Centre for Northern Australia (CRCNA). BBIFMAC's role in the project is to provide linkages to local farmers and assist with data collection. Agronomic expertise is provided by CQU.

The Black Sesame crop at Rita Island, as part of the 2019 field trials.

Having identified leading varieties, the black sesame will now be trialled on a larger scale (0.5-1.0 hectare of land) for the 2020-2021 summer growing season. BBIFMAC have received an overwhelming response from growers in the Burdekin who are eager to participate in the trial.

AgriVentis will purchase the seed that is harvested at each location from the grower at commercial black sesame seed values per metric tonne, or part thereof to cover the cost of the trial.

These small-scale trials are essential to evaluate the potential for future commercialisation of black sesame in Northern Australia, as part of a broader spice development program which is also assessing fennel, caraway, cumin, kalijiri and kalonji for their suitability to large-scale production.

Meet the BBIFMAC team!

We would like to take this opportunity to introduce one of our great BBIFMAC team members with each newsletter. In this issue we introduce Julie, our Office Manager.

Julie is BBIFMAC's Accounts and Administration manager, and has worked at BBIFMAC for close to 10 years. Julie enjoys working as a member of a team and working with the community. Julie feels that the Burdekin has always been home and appreciates the spirit of the farming community.

An Evidence Based Approach to Improving Water Quality in the Barratta Creek Catchment

The Barratta Creek Project is managed by BRIA Irrigators Ltd and funded by the Great Barrier Reef Foundation. This two-year project is an evidence based, farmer driven project that aims to reduce nutrient and agricultural chemical losses from farms in the Barratta Creek catchment. This will be achieved through trialling a range of farming practices and identifying the relative water quality and productivity merits of each.

The project involves water quality monitoring on eight trial sites. Burdekin Productivity Services (BPS) are providing the agronomic guidance on four of the sites and Farmacist are providing the agronomic guidance on the other four. BBIFMAC has been engaged as an independent organisation to undertake the water quality monitoring and associated analysis and reporting on all eight trial sites. These sites were sourced through a collaborative effort between organisations in the Barratta Creek Action Group.

Paddock-scale monitoring uses an auto-sampler with a flume and water depth logger to collect a water sample and measure runoff volumes over the duration of a runoff period. Samples are sent to a laboratory for nutrient and pesticide analysis.

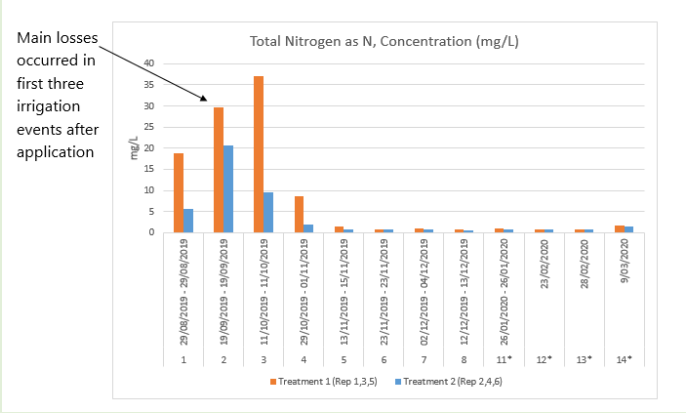
BBIFMAC have recently completed the first year of monitoring and reporting for the project. Over 800 water samples have been collected to date. Whilst it is too early to draw definitive conclusions about the merits of the farming practices being trialled, the year 1 preliminary results have highlighted some important points about field experiments, and drivers of nutrient and pesticide loss during both irrigation and rainfall events.

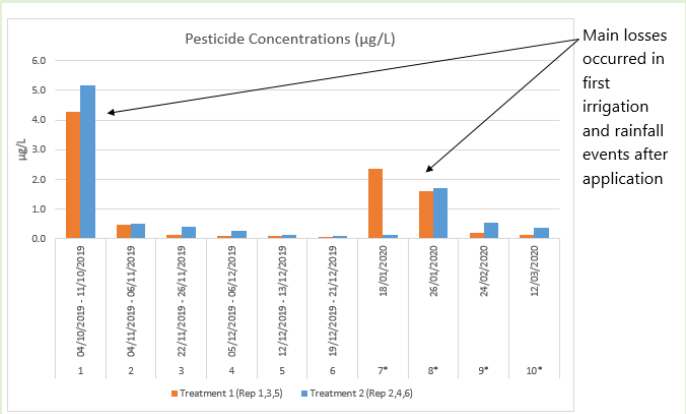
Overall, the first year of the Barratta Water Quality Project has been successful. The impact of Covid-19 resulted in a delay in the laboratory results, and affected the ability of the project team to present trial results at public meetings.

All participating farmers have agreed to continue their respective trials into the second year, with site instrumentation and monitoring already underway at some of the sites.

KEY LEARNINGS:

- **The first three to four irrigations after application are the most important to manage** carefully if nutrient and pesticide losses are to be minimised. Where possible:
  - Use irrigation scheduling tools and appropriate management to minimise runoff losses.
  - Capture and re-use runoff in a recycle pit.
- **Placement and coverage** of fertiliser is critical to minimising both irrigation and rainfall nutrient losses. Where possible:
  - Cover fertiliser with at least 75mm of soil.
- **Timing of pesticide application**
  In general, chemical losses from the field can be substantially reduced the longer the delay before irrigation or rainfall events.
  Where possible:
  - The post chemical delay in irrigation should be a minimum of 2-3 days (depending on the product).
  - Chemical or fertiliser should not be applied just before a rainfall event where the forecast is greater than 40-50 millimetres.





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