

# Indigenous Food Research Park

## Native grains update - Sept 2019

### At the research station...

In a partnership with TAFE NSW, the Ag Skills Centre at Moree is hosting a 10 Ha field trial. Sowing to begin soon. This is funded via the University of Sydney/Landcare "Digifarm" project, which means it will combine digital agriculture tools (automatic soil moisture probes, EM surveys, satellite imagery, etc) and regenerative agriculture research.

The trial will have three treatments plus a control:

- **Pure native food plant species** from a grassland (predominately grains, possibly also yams and leafy greens)
- **Native grasses plus (simulated) livestock grazing**
- **Native grasses plus a winter crop (pasture cropping)**
- **A typical crop rotation** from NW NSW

The field trial will be used to compare the productivity (KJ of food, nutritional outputs, profits) and environmental impacts (biodiversity, soil health, carbon sequestration, etc) of the systems.



It will also be used for teaching. On 26<sup>th</sup> Aug, TAFE students kindly helped remove the paddymelons, and we shared with them about the potential role of native grains in NW NSW in the future (and had a BBQ!). We believe this will be the first of many events.

Third outcome will be grain/food for product development and nutrition testing.

An identical trial will be sown at Llara Farm in Narrabri as soon as the drought breaks. Base line soil, EM and fauna surveys have been performed. Site doesn't look like much at the moment, just waiting for rain!



### On country...

On 12<sup>th</sup> Sept we were privileged to be part of a knowledge sharing day co-organised with the Wee Waa Local Aboriginal Land Council, Tony Meppem from TAFE NSW and funded by the Sydney Institute of Agriculture and Friends of Grasslands, plus seed donated by Colin Seis. Over 50 people attended from Narrabri, Wee Waa, Moree and Walgett. The main theme was to bake Johnny Cakes from native grass flour. Steven Booby (Cultural Heritage Officer from the OEH) said this practice hasn't been performed in the area for over 200 years. We used 5 native grain species plus various versions of wheat flour.



A group of Aboriginal women from Wee Waa showed a mixed group of volunteers the dough-making technique in the morning. We used the commercial kitchen at the high school, which also meant a stream of school kids got involved. Deadly Science donated some 'Young Dark Emu' books and other resources, including a giant telescope, to the school as part of the event.

Then we moved to Tulladunna for knowledge sharing and to bake the dough. Helen Wenner shared some of her story about growing up at Tulladunna, Angela shared about native grains,

plus there was a big lunch and smoking ceremony.

The native grains all tasted different, and we were able to pick a couple that tasted better than others. These will become the focus of research for future food products.

It was agreed by all (and has always been the case) that all research will proceed in collaboration with the Kamilaroi people. The role of the University and TAFE is to support, upskill and research, not to commercialise potential products.

The picture shows one such potential product – Native millet (*Panicum decompositum*) flour and fresh quandong baked over coals. It was gluten-free, additive-free, organic and absolutely delicious! We also did a version which was half self-raising flour and half native grains, which had even better texture and colour.

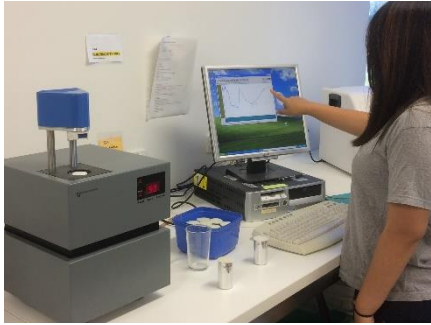


The day was documented by a professional videographer (thanks Harry and Joanne!) so stay tuned!

### In community...

Early next year, Rebecca Cross will conduct focus groups and interviews with members of the Local Aboriginal Land Councils (Wee Waa, Narrabri and Moree) to better understand local aspirations and capacities. These will be used to better understand the barriers and opportunities that LALC's face with pursuing enterprise options for generating income, becoming self-sustaining, and ultimately, enabling both increased capital and capacity. The extent to which native grasses could underpin these opportunities or play some part in them will also be explored. Information from these will be used in collaboration with the LALCs to develop future grants and projects in partnership.

### In the lab...

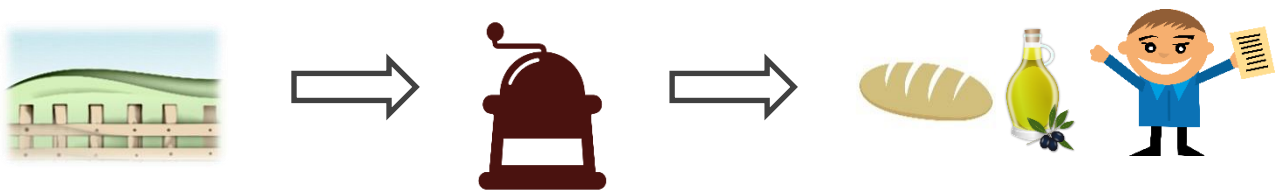


Previously, we have had students work on the grain quality/nutritional benefits of several native grass grains, acacia and purslane. Results will be published soon. The picture shows Jenifer looking at RVA graphs (showing starch properties) of native millet.

In the next few months we will test the nutritional and dough/bread properties in a more comprehensive experiment of grains which grown in NW NSW. This will further inform what species we should focus research on in the field.

### In industry...

We are currently performing a one year 'paddock-to-plate' simulation of the marketing chain funded by the Sydney Institute of Agriculture.



We are asking the tripe bottom line questions:

- Can it be economically profitable? If so, how?
- Can it be environmentally sustainable? If so, in what ways?
- How can it benefit to local communities and people? (Indigenous communities directly and other communities indirectly via engagement with the regenerative agricultural community)

Shauna Phillips is currently creating the economic models which will compare the gross margins of 1 hectare of cattle, 1 hectare of cropping and 1 hectare of native grains. This will be complemented by market research by Henry Leung to understand the potential value of native grass seed in both human food and revegetation markets.

The work is being overseen by an external cultural advisory group to ensure it is culturally appropriate and the benefits can flow the right ways.

A full report is due mid next year.



### **In the classroom...**

In addition to the association with TAFE NSW, we have had 5 students complete honours or masters projects on native grains in the last 3 years. The research work is increasingly mentioned to groups of visitors, including agriculture students on excursions.

We are in discussion with Jaime Gongora and staff from the DVC-ISS portfolio at the University of Sydney about teaching, including taking excursions of undergraduate students to Camden and Narrabri to do specific short projects (AGEN 3008 and SLIC projects) on Indigenous food and expanding honours projects to the animal science space.



There is significant room for history, law, social science, environmental science and medicine students to do projects in the Indigenous Food Research Park as it gains momentum.

### **In connection...**

The University of Sydney is in partnership with the Department of Primary Industries to create a sustainable food landscape in the Camden region. Recently, a partnership with Tharawal Local Aboriginal Land Council has been forged to help drive the direction of this work. We hope this will be a sister project to the Narrabri Indigenous Food Research Park, with cultural spaces for talking and teaching on these two campuses developed in partnership with local Indigenous communities. Future skill-building and employment opportunities will also be developed at both sites.

### **Final word...**

The support has been too numerous to acknowledge, and we appreciate everyone's partnership and input. This is a project for people and for the planet, and with the wide-ranging interest from government, media and the public it certainly has an exciting future.

Feel free to share this newsletter to interested parties. In particular, if you know people or organisations which might be interested in providing financial support, we would love to hear from them.

Kind regards,

Angela Pattison and the IFRP team

Oven baked bread using modern ingredients with native millet and arm grass flour.

Pic and baking courtesy Tina Bell

