



Company overview



Introduction

Aim: To build on synergies and collectively become more efficient in research efforts to take crop R&D in Northern Australia to a new level.

NACRA is industry driven, outcomes focused and has good 'market pull' due to each partner's sales activities in both domestic and export markets



NACRA Stakeholders



"Growing together since 1963"

www.ordco.com.au

- 50 Years In The Region
- Represents 95% Of All Farmer's In The Region
- Strong Capacity & Capability In Merchandise, Agronomics, Logistics, Grain Marketing, etc



NACRA Stakeholders



www.thechiaco.com.au

- Vertically Integrated, Market Focused Company.
- Active In Developing Domestic & Export Markets, Particularly For Chia, But Also For Other Healthy Grains



NACRA Stakeholders



www.kai-australia.com.au

- Developing Ord Stage 2
- Strong Development & Farming Capacity
- Irrigated Farmland Development Potential Up To 27,000Ha. (in addition to Ord Stage 1 – 15,000Ha.)



Board members



John Foss

Director & Board Chairman



Jim Engelke

Director



David Cross

Director



Meet the Board



John Foss

NACRA – Director & Board Chairman

The Chia Co. - CEO & Founder

Born & raised in Bruce Rock, WA on the family's large scale grain and livestock farm.

Education

Bachelor of Business Agriculture & Diploma in Farm Management – Curtin University

Graduate Degree in Marketing and Asian Business – Edith Cowan University

Nuffield Scholar

Graduate of Australian Rural Leadership Program

Industry Background

Founder & CEO of **The Chia Co** – established 2003.

Founder and Partner in **Living Farm Pty Ltd**; an agricultural crop research company.

Partner **John Foss & Co**; a 15,000 hectare WA wheatbelt grain & livestock farming company.

President of the **Wickepin LCDC** for 7 years and established **The Facey Group**.



Board



Jim Engelke

NACRA – Director

Kimberley Agricultural Investment Pty Ltd – General Manager

Education

Bachelor of Science in Agriculture (Hons) – University of Western Australia

Master of Business Administration – University of New England

Industry Background

25 years' experience in agribusiness, particularly in the Kimberley context.

Development Officer – **DAFWA** Cattle Industry West Kimberley, 1992.

Sugar Agronomist for **Ord Sugar Industry**, 1998.

General Manager of **Odeum Produce Pty Ltd**, wholesale fruit & vegetable business commencing 2004.

Bank Manager for **National Australia Bank** – Perth / Kununurra 2009.

General Manager for **Kimberley Agricultural Investment** commencing in 2013.



Board



David Cross

NACRA – Director

Ord River District Cooperative Ltd - Chief Executive Officer

Farming background from Donnybrook, WA.

Education

Bachelor of Agribusiness (Horticulture) - Curtin University.

Industry Background

Graduate agronomist with *Wesfarmers Landmark* in Kununurra in 2002.

Agronomy role in *ORDCO* in 2003.

General Manager of *ORDCO's* Agricultural Division in 2004.

CEO of *ORDCO* following the demerger of the consolidated business in 2007.

Graduate of AICD's Company Directors Course.



Team



Mark McGrath

NACRA – General Manager

The Chia Co. – Crop Production Manager

Raised on a dryland grain & cattle property in Southern Queensland.

Education

Bachelor of Agricultural Science (majoring in Crops & Pastures) – University of Queensland

Graduate Certificate in Agribusiness – University of Melbourne.

International Agricultural Exchange Association program - dryland wheat, canola, hay and cattle property in Canada.

Industry Background

Agronomist for **Cotton Consultancy Services** (Central Queensland)

Agronomist, Senior Agronomist & Operations Manager – **Pacific Seeds** (Kununurra, WA)

Operations Manager – **Foundations Seeds** (Kununurra, WA)

Branch Manager - **Elders Ltd** (Innisfail & Tully, North Queensland)

Supply Chain Manager - **Canola Breeders** (Melbourne)

Crop Production Manager - **The Chia Company** (Melbourne)



Team



Matt Whiting

NACRA - Breeding Operations Manager

The Chia Co. - Breeding Operations (Project) Manager

Born and raised in Kununurra, WA

Education

Bachelor of Applied science (Rural Technology) – University of Queensland

Industry Background

Parent Seed Agronomist – **Pacific Seeds** (Toowoomba).

Production Coordinator – **Advanta Canada** (Alberta); working in canola seed breeding & production.

Product Development Specialist – **LongReach Plant Breeders** (Melbourne) – screening & commercializing new varieties.

Breeding Operations (Project) Manager – **The Chia Company** (Melbourne) – commencing August, 2014.



Team



Deb Pearce

Funding and compliance

Industry Background

- Born and raised on irrigation in Harvey WA. In Kununurra ~ 12 years.
- Background in NRM - cut teeth in Landcare about 25 years ago.
- PhD in agricultural development.
- Works locally with producers and others on approvals & government applications – cutting through red tape, getting project funding, project management.



Pillars Of Research

NACRA's R&D focus places an emphasis upon four key areas;

1. **Breeding & Selection** - screening the world for germplasm which is intimately suited to Northern Australia.
2. **Agronomy** - developing an agronomy package to allow select germplasm to perform at it's best.
3. **Cropping Systems** - investigating how select species can best be grown together and in rotation to ensure to ensure long-term sustainability across all facets of crop production.
4. **Extension** - ensuring research learnings are translated into tangible commercial outcomes in a timely manner.



Pillars Of Research

1. Breeding & Selection

Large Breeding Nurseries in Kununurra – screening for elite germplasm.

Nurseries introduced in 2017

- chia = 200+ entries
- quinoa = 1,200+ entries in collaboration with King Abdullah University
- chickpea = 200+ lines (CAIGE)



Pillars Of Research

Breeding & Selection



NACRA 2016 Chia Breeding Nursery

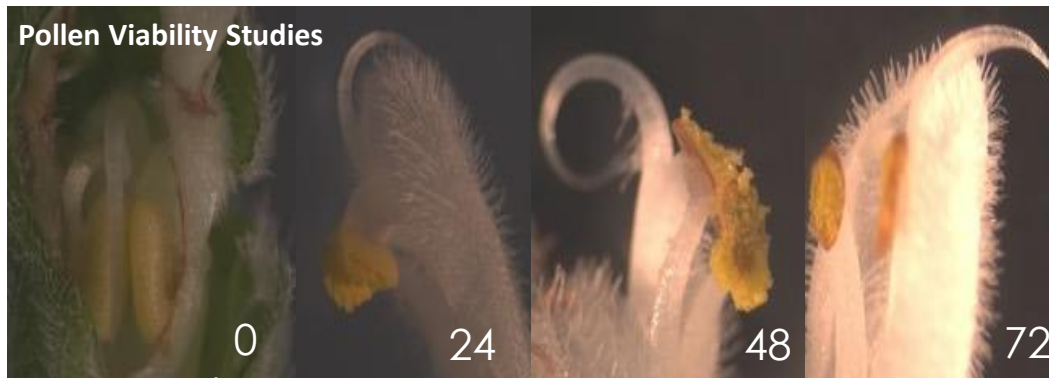


Pillars Of Research

Breeding & Selection

Crossing Projects at University of Western Australia

Pollen Viability Studies



Pillars Of Research

Breeding & Selection



Pillars Of Research

Breeding & Selection



Variety Trials & Pure Seed Bulk-Ups

Pillars Of Research

2. Agronomy

- Time of Sowing
- Plant Population
- Row spacing
- Herbicides, Insecticides & Fungicides
- MUP & Registrations
- Nitrogen fertiliser – rate & timing
- Foliar Fertilizer & Growth promotants
- Irrigation scheduling
- IPM strategies
- Pollination trials
- Swathing & harvest timing



Pillars Of Research

3. Cropping Systems

Best practice rotations in terms of;

- farmer economic viability (dual crops per season)
- long-term sustainability
- insect, disease & weed resistance management

Current Projects

- mungbean as a dual crop
- millet as a wet season bed stabilizer for cotton



Pillars Of Research

4. Extension



Current R&D

GGRD Funded Project

- Two year project ending March 2019
- \$500,000 from WA state government
- Grains orientated
Chickpeas, Soybean, Mungbean, Maize, Sweet Sorghum, White Sorghum, Millet, Chia, Quinoa
- Collaborative Quinoa Research with King Abdullah University of Science & Technology from Saudi Arabia.



Current R&D

CRC-P Funded Project

- Three year project ending September 2020
- \$3,000,000 from Federal government
- Cotton & Grains orientated
- \$11.69M = Total Value of Project
 - NACRA \$1.5M cash + in-kind
 - King Abdullah Uni \$20K cash + in-kind
 - other Participants considerable in-kind.



Current R&D

CRC-P Funded Project

- **Participants with NACRA;**
 - **DPIRD** (grains & cotton)
 - **CSIRO** (cotton)
 - **QDAF** (cotton)
 - **Harris Operations** (cotton in NQ)
 - **Uni of Sydney** (chickpeas)
 - **Uni of WA** (chia & quinoa breeding)
 - **King Abdullah University of Science & Technology** (quinoa)





Grain Developments / R&D

With John Woods GRDC



Grain Developments / R&D

Maize

- gritting: export to South Korea
- feed : supplement feed into pastoral industry

Soybeans

- Seafarms- feed for pawns
- interest from Indonesia

Chickpeas

- maintain presence in large kabuli market (export & domestic)



Grain Developments / R&D

Healthy Grains / demand for plant proteins / gluten free options, etc.

(Ord Valley is currently a gluten-free production area – attractive ingredient sourcing option)

- chia
- quinoa
- teff
- amaranth
- sorghum
- plantago
- mungbean

What's next?

- sesame?, etc.

