

A new CAIGE project:
beyond June 30th 2018

What stays the same in the new proposal?

(Activities that will remain in CAIGE)

- The coordinated importation, quarantine, multiplication, distribution and evaluation of wheat materials from CIMMYT and ICARDA
 - Quarantine separately funded under AGG
- Disease and yield testing of imported materials
- The coordinated capture of data and dissemination via the CAIGE database/website
- Breeder engagement with the CGIAR centers.

What's out of the new proposal?

(Activities that should be removed)

- Chickpea (included in the last iteration of CAIGE) is removed due to the very small number of chickpea breeders in Australia.
- FIGS is removed and the importation of such nurseries managed by funded projects (with quarantine budgets included) in direct consultation with AGG.
- The importation of fixed CIMMYT and ICARDA nurseries will be discontinued.
- Non-CAIGE related data will be removed from the CAIGE website and database.
- Annual imports of fixed wheat nurseries from both CIMMYT and ICARDA will cease.
- Annual participation of CIMMYT and ICARDA breeders in the CAIGE yield trial tour to Australia

What's new in the proposed CAIGE?

(Activities that are new or modified)

- While the new CAIGE will target adapted germplasm, the materials will be selected by breeders from across the CGIAR materials thus maximizing their relevance. These materials can include germplasm from a range of programs including physiology, Seeds of Discovery, grain quality etc.
- A team of breeders will visit the centres in alternating years to make selections for the whole Australian wheat industry.
- All CIMMYT and ICARDA internal data will be provided and used to tailor selections during the visits. This will include GBS data (USyd already has a license to access these data).
- The number of materials will be capped to match the quarantine budget.

What's new in the proposed CAIGE?

(Activities that are new or modified)

- The CAIGE yield trial will therefore comprise Australian checks and materials from either CIMMYT or ICARDA only depending on the selection/quarantine cycle.
- CIMMYT and ICARDA breeders will visit Australia for the CAIGE yield trial tour every other year.
- LMA testing of imported lines will be included as an additional screen.
- All imported materials (bread wheat, durum wheat, barley) genotyped using SNP array used by breeders
- Continuous statistical analysis to identify new allelic diversity for important traits
- One CAIGE program for bread wheat, durum wheat and barley

What's the advantage of the new proposed CAIGE?

- More streamlined flow of information and germplasm at reduced cost
- More relevant and diverse germplasm for the Australian wheat industry
- Maintenance of a significant and publicly available genetic resource for wheat pre-breeders