

a Coordinated Agricultural Project

EARLY RECRUITMENT OF THE NEXT GENERATION OF PLANT BREEDERS: THE BEANCAP EFFORT



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BeanCAP Mission Statements

The BeanCAP will broaden the plant breeding applicant pool by initiating a training program focusing on early career recruitment and practical breeding/genomics training.

Education Objective

Objective 5. Initiate a modern plant breeding training program that focuses on early career recruitment and provides practical training that illustrates how the integration of genomic and phenotypic data can be used to improve nutritional traits in plants.



Who and Where?

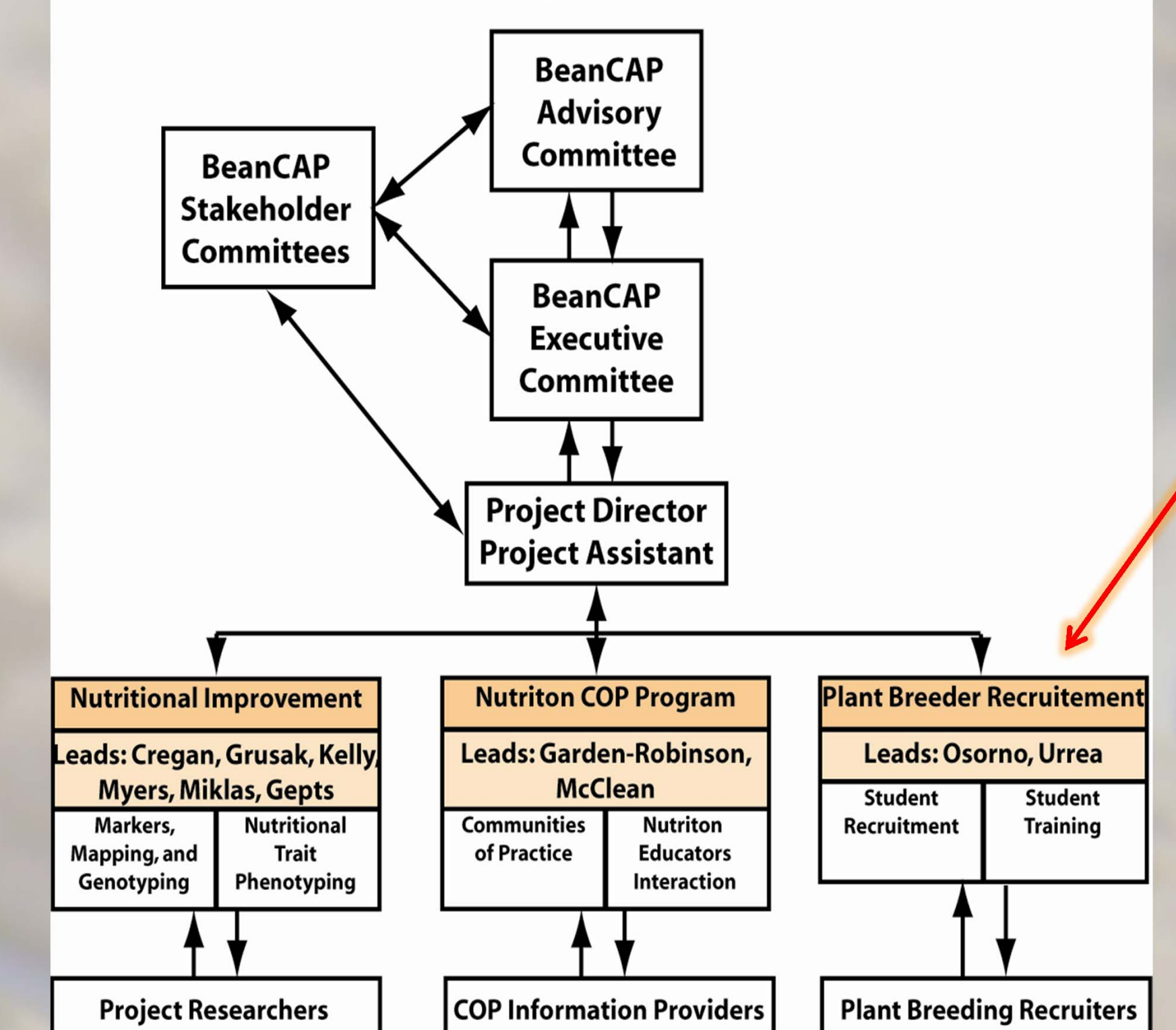
- Dr. Mark Brick, Colorado State University, Fort Collins, CO.
- Dr. Jim Kelly, Michigan State University, East Lansing, MI.
- Dr. Juan M. Osorno, North Dakota State University, Fargo, ND.
- Dr. Carlos Urrea, University of Nebraska, Lincoln (Scottsbluff station).

Collaboration/Advising

- Other BeanCAP members.
- BeanCAP Advisory Committee.
- Dr. Linda W. Beaver, University of Puerto Rico, Mayaguez.
- Other plant breeders at each institution.
- Private sector.



BeanCAP Organizational Chart



Activity 1: Hands-on Experiences (Internships)

- High School summer internships:**
 12 weeks (40 hours/week)
 1 student per location/year (4 total)
 Activities involving field and lab work
- Undergraduate internships:**
 2 year-round interns per location/year (8 total)
 Spring/fall
 10 hours/week
 Activities involving greenhouse and lab
- 1 summer internship
 12 weeks (40 hours/week)
 1 student per location/year (4 total)
 Activities involving field and lab work

Activity 2: Visits to High Schools

- Visits and presentations in at least three local/regional high schools at each location per year.
- We estimate that around 1,200 students will be reached during the four years.
- Reverse visits from high schools to breeding programs at each university.
- An effort to have a balance between urban and rural schools will be made.

Activity 3: Development of Plant Breeding Recruiting Materials

- Development of flyers, brochures, banners, posters, and other type of printed material to be distributed in all the recruiting activities.
- Leveraged by using some of the materials previously developed by other groups (e.g. other CAP projects).
- Integration with the Extension component to develop videos and animations.
- Creation and development of a Facebook website about Plant Breeding as a career.
- BeanCAP website will have all education materials available.

Activity 4: Recruitment Efforts at Regional and National Meetings

- Education leaders will attend appropriate student and scientific meetings to promote plant breeding as a career and also to do recruiting activities.
- Presentations and recruiting booths.
- Work with existing networks/groups:
 - Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS)
 - ASA/CSSA regional/national meetings
 - PBCC annual meetings
 - Graduate student fairs
 - Other student and scientific meetings

Expected Outcomes

- Around 300 high school students per year.
- At least 4 high school students per year directly involved as interns (16 total).
- 12 undergraduate students per year directly involved as summer or year-round interns (48 total).
- Additional outreach at meetings, conferences, and other recruiting activities (e.g. videos, Facebook, etc.).



Results and Challenges During the First Year

- A total of 15 students have participated in the internships across the four locations.
- Many undergraduate students highly interested in the hands-on experiences.
- Presentations at high schools have sparked interest in few students.
- Responsiveness and interest from high schools has been less than what it was originally expected. Variable interest among schools and regions. Highly dependent and driven on individual interests rather than institutional.