



<http://www.plantsciences.ucdavis.edu/plantbreeding/index.htm>

The University of California Davis has a long history of plant breeding, celebrating 100 years in 2008. Significant contributions have been made to breeding methods and germplasm development and cultivar release by such leaders as:



Robert W. Allard
 Fred N. Briggs
 Royce S. Bringhurst
 Gordie "Jack" C. Hanna
 Paulden F. Knowles
 R. Merton Love
 Harold P. Olmo
 Charles M. Rick, Jr.
 J. Neil Rutger
 Charles W. Schaller
 G. Ledyard Stebbins

Part I. Breeding efforts by crop

Major crops currently bred at UC Davis

Alfalfa	Potato
Almond	Rice
Celery	Strawberry
Grape	Walnuts
Lettuce	Wheat
Peach	Tomato
Pistachio	Phaseolus Bean
Plum	Flowers

Part II. Person Years in Breeding	PY	%
(a) plant breeding research	1.7	12%
(b) germplasm enhancement,	2.8	19%
(c) variety development,	2.9	21%
(d) biotechnology research and development and	3.4	24%
(e) plant breeding education	3.2	23%
Total	13.9	100%

PART III: Recent and current graduates in breeding

2000-2006	
MS	13
PHD	18
Enrolled	
MS	7
PhD	11
	49

Job Placement. UC Davis graduates have been successful in finding jobs in academia and internationally as professors. Many have also become breeders for private industry including leaders of global programs. The demand for breeders is clear as seen by the many unfilled postings for high quality breeding jobs world wide especially in the horticultural industry.

UC Davis is continually adjusting to Breeding industry needs by focusing on germplasm development, introducing novel traits from wild germplasm, application of biotechnology to breeding, studying genetic and biological systems, seed production systems and cultivar development including a new curriculum and alternative teaching programs.



Curriculum.

Undergraduate

With the merging of departments into Plant Sciences, UC Davis has redone both its undergraduate and graduate programs in Plant Breeding. These majors prepares students for careers in crop improvement and breeding, genetic conservation, seed production and certification, and related industries. It also provides a solid genetics background for graduate study in breeding, genetics, genomics, and biotechnology.

The core courses; Undergraduates in plant breeding take the basic courses in chemistry, physics, biology, statistics,

Plant Sciences majors focus on Plant physiology, Plant/environment interactions, plant genetics, plant ecology and evolution, pest management (weed insect and disease)

Plant Breeding majors additionally take Plant Breeding, molecular genetics, biotechnology and electives related to crop production, cropping systems, greenhouse production, soil relations, bioinformatics, international Ag markets

Graduate Program

- Graduate studies at UC Davis is across departments with 5 possible programs addressing Plant Breeding:
- Crop Improvement - Graduate Group in Horticulture & Agronomy (MS and PhD)
 - Genetics, Plant Breeding and Population Ecology - Graduate Group in Ecology (MS and PhD)
 - Plant Breeding and Biodiversity - Genetics Graduate Group (MS and PhD)
 - Plant Biology Graduate Group (PhD)
 - International Agricultural Development (MS)

