Institute of Agriculture

Susan Barker

Genetics & Breeding Education at UWA
Overview

- Recent history
- Current UWA degrees
- Opportunities for contribution
Recent history

- CRC-MPB Education Program (1997)
- Review of training needs in Australia
  - 6-10 breeders per year required
  - 2-3 graduates per year
  - Molecular breeding techniques and private breeding will increase demand
  - CRC provides opportunity for development of unified training
  - Educational shortfall seen at U/G level
Recent history

• Undergraduate training initiative
• Input from across Australia
• Establishment of a Plant Breeding degree at the University of Adelaide (1 year Hons.)
• Establishment of a Genetics and Breeding degree at the University of WA (4 year)

• Thanks to: Peter Langridge for handing me this task; members of the Crop Improvement group at DAFWA, SARDI and academic staff at The University of Adelaide and The University of WA for extensive discussions about desirable content; plant breeders in WA for ongoing enthusiasm and contribution to the training process
Current UWA degrees

Coursework + Research Degrees
• 4 year BSc in Genetics and Breeding
• 2 year MSc in Genetics and Breeding
  • incl. 1 year Graduate Diploma

Research only Degrees
• 2 year MSc
• 3 year PhD
Current training at UWA

Core units in BSc (Genetics&Breeding)

Level 2
Introduction to Genetics
Biometrics 1

Level 3 and Grad Dip (Gen&Br)
Genetics and Plant/Animal Breeding
Genetics and Evolution
Proposed - Biotechnology and Breeding
Biometrics 2

Level 4, Grad Dip and MSc (Gen&Br)
Research project
Opportunities for contribution

Level 3 Genetics and Plant/Animal Breeding
Breeder/Genetics interview (15% of final mark):

CLIMA
Heather Clarke
Curtin University
Beng Tan

DAFWA
Bevan Buirchell, Wallace Cowling, Peter Dawson, Kelly Hulcup, Rachel Lancaster, Reg Lance, Chengdao Li, Tanveer Khan, Robyn McLean, Chris Newell, Phil Nichols, Daniel Real, Ben Vermey, Robin Wilson, Guijun Yan

DEC
Margaret Byrne

FPC
Liz Barbour

KPBG
Eric Bunn, Patrick Courtenay, Max Crowhurst, Digby Grounds, Siegy Krauss
Opportunities for contribution

Level 4, Grad Dip, MSc (Coursework and Dissertation)

Research Project
24 points (approx 6 months work)

MSc (Thesis and Coursework)

Research Project
36 points (approx 9 months work)

Proposed MSc (Coursework)

International breeders, mid-career training
6 month Internship after 18 months of coursework
Thank You!