GROUP 2  Leader: Jon Clements

How can we integrate, focus and enhance Plant Production Systems (PPS) research at UWA?

UWA is ranked in top 37 in Agricultural Science worldwide and 1st in Australia and ranked in top 10 internationally for Agronomy research. Three plant scientists on ISI’s list of highly cited scientists (top 0.5% in the world in their field). In agriculture and related areas about 150 teaching and research staff and 180 undergraduates and 125 research postgraduates

1) Where do you want to be in the next 10 years and 20 years in the PPS research?
   a) Not answered

2) Our research and teaching efforts are spread too thinly over various aspects of PPS.
   a) Focus is restricted by the grant. New staff should be exposed early to what is being done and then they can focus.
   b) Mentorship for new lecturers and researchers
   c) Suggest focus Inst Ag thematic forums – ideas from forums to develop industry projects – younger staff to be involved. – Can develop into subprograms then Kadambot Siddique to take to funders. Forum suggestions: fertilizer efficiency in soils; phosphorus in soils; cereal and legume N rotation/cropping systems; plant breeding methods. WAHRI seen as good model for larger theme development. Linking of little projects into larger themes. Still cannot avoid some smaller projects as stand-alones

3) Limited cross disciplinary collaboration and movement of staff between school and Centre boundaries.
   a) More work on cereals suggested with DAFWA, Murdoch, communicate with cereal disease group at DAFWA
   b) Research only staff to link with lecturers on project ideas and skills
   c) Cross collaboration more likely if longer (5year) projects developed, with mentorship pairs, avoid short term contracts where possible
   d) UWA or funder to underwrite 5 year projects
   e) WAHRI seen as good model

4) Have we got sufficient post-doctoral and research fellows to take us to the next stage?
   a) This is again encouraged by longer term projects and sense of job security – if the researchers has a sense of security, they will put their hand up more to do this
   b) Lecturers are over-worked so they are glad to get lecturing help
   c) GRDC to fund PhDs onward into jobs related to relevant projects
5) **Short term contracts - 3 years is not sufficient to attract and retain talented post-doctoral and research fellows.**
   a) Included in above response

6) **Greater involvement of post-docs and research fellows in teaching and student supervision.**
   a) Included in above response

7) **The role of post-doctoral and their training and development are vital.**
   a) Included in above response

8) **A limited number of people are successful in winning grants, attracting students, developing ideas etc. How can we mentor and train others to catch up?**
   a) Some people good because of hard-won track record and publications
   b) Must play the game – match track record people to others with new ideas and inspiration
   c) Put in lots of times and eventually get one!
   d) Need to encourage continued high quality publications so people can have greater grant success.
   e) PhD students to be encouraged to write up for full 6 months to help them get their papers out
   f) Getting grants – important to start lobbying funders (eg. GRDC Western Panel) in advance of project development

9) **Connecting with the real world - industry? Impact on the industry and community at large. We need further efforts in this area. Some people are good at it.**
   a) Answered in Q 14

10) **Further improvement in quality of research outputs and outcomes.**
    a) Not answered

11) **Are we overloaded?**
    a) Not answered

12) **A lot of individuals pursuing their own goals; need to buy into collective objectives, are we all clear on the objectives?**
    a) Not answered

13) **We need to improve our communication efforts at all levels.**
    a) Answered in Q 14

14) **Enhance international collaboration with world class groups.**
a) Develop better international linkages with China, Canada and institutes like ICRISAT, ICARDA (the latter want PhDs to link with UWA?). Use conferences as meeting and planning times for new projects

15) *We need to celebrate our success (we don’t do this often!)* - Rewards?
   a) Yes, and celebrate losses too!