Institute of Agriculture: Programs and Structure

Kadambot Siddique
Chair in Agriculture and Director

Email: ksiddique@fnas.uwa.edu.au
Strategic Issues

- Achieving International Excellence
- Eight areas of strategic opportunity for UWA, two being ‘The management of agricultural and natural ecosystems’ and ‘Development of innovative technologies’
- Growth in research performance and in numbers of postgraduate researchers in areas where performance is high
Excellent marks for local unis

Gavin Moodie

Catherine Armagle

SEVEN Australian universities appear among the world’s top 100 performers in five broad fields of research in the latest Shanghai Jiao Tong rankings. UK universities occupy 30 of the 500 places available. Britain is second with 29, Canada is next with 25 and Japan and Germany occupy 20 places each. Australia and the Netherlands occupy a creditable 15 places, ahead of Switzerland, Sweden, Israel and China (2 places each).

The Australian National University and the University of Western Australia achieved highest rankings in individual fields. The ANU was ranked 3 in natural sciences and math and 48th in life sciences; agriculture sciences; the University of Western Australia appeared at 35 for life and agriculture sciences and at 51 for clinical medicine and pharmacy.

The University of Melbourne appeared in the top 100 for more fields than any other Australian university, ranking 19 in engineering technology-computer sciences (51), agriculture sciences (67), clinical medicine and pharmacy (76) and social sciences (77).

The University of Queensland was ranked in the top 100 across three fields: 39th for life and agriculture sciences, equal to UWA, 48th for clinical medicine and pharmacy at 35, and equal to the University of Melbourne in the social sciences at 78th spot.

The University of NSW and the University of Newcastle were ranked in the top 100 for engineering technology and computer sciences (63 and 77 respectively). Sydney University was ranked 95th in the same category.

Because it recognises the diversity of institutions, Shanghai Jiao Tong University’s latest rankings over five broad fields is a welcome adoption of one of the so-called Bologna principles for ranking higher education institutions.

The field rankings show that in Australia not all research excellence resides in the Group of Eight and that not all G8 universities are equally strong in research. The University of New South Wales and the University of Western Australia have appeared in the top 100 for the fields of life sciences and engineering technology-computer sciences, respectively.

UWA’s Agriculture ranks 37 in the world and 1st in Australia

Australian Government’s longstanding preference for funding applied research in the applied disciplines over basic research in the fundamental disciplines.

Issues on international trends in university ranks and classifications will be considered at a symposium being held by Griffith University in Brisbane next week. http://www.griffith.edu.au/conference/university-rankings/

Gavin Moodie is a higher education policy analyst at Griffith University.
WA is a Key Grain Supplier

Barley, Oats, Canola, Lupins, Wheat

WA, Rest of Aust
<table>
<thead>
<tr>
<th>Commodity</th>
<th>Australia A$1000</th>
<th>Western Australia A$1000</th>
<th>Proportion WA To Australia (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>3,212,388</td>
<td>1,614,343</td>
<td>50</td>
</tr>
<tr>
<td>Barley</td>
<td>904,811</td>
<td>323,167</td>
<td>36</td>
</tr>
<tr>
<td>Oats</td>
<td>69,886</td>
<td>30,059</td>
<td>43</td>
</tr>
<tr>
<td>Malt</td>
<td>203,638</td>
<td>51,783</td>
<td>25</td>
</tr>
<tr>
<td>Cereal Hay</td>
<td>198,202</td>
<td>108,578</td>
<td>55</td>
</tr>
<tr>
<td>Canola</td>
<td>330,748</td>
<td>210,902</td>
<td>64</td>
</tr>
<tr>
<td>Lupins</td>
<td>114,777</td>
<td>105,112</td>
<td>92</td>
</tr>
<tr>
<td>Field Peas</td>
<td>45,647</td>
<td>12,568</td>
<td>28</td>
</tr>
<tr>
<td>Carrots</td>
<td>40,828</td>
<td>37,466</td>
<td>92</td>
</tr>
<tr>
<td>Live Cattle</td>
<td>403,950</td>
<td>191,998</td>
<td>48</td>
</tr>
<tr>
<td>Live Sheep</td>
<td>297,185</td>
<td>234,018</td>
<td>79</td>
</tr>
<tr>
<td>Wool Greasy</td>
<td>1,857,099</td>
<td>428,889</td>
<td>23</td>
</tr>
<tr>
<td>Wool Degreased</td>
<td>212,308</td>
<td>60,400</td>
<td>28</td>
</tr>
<tr>
<td><strong>Australia – TOTAL</strong></td>
<td><strong>28,275,621</strong></td>
<td><strong>4,721,874</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

Source ABS & DAFWA
Institute of Agriculture - Why?

- Strengthen the cohesion of agriculture teaching and research within and between Faculties at UWA
- Facilitate and lead a more efficient co-ordination of existing strengths of the Faculty in teaching and research in agricultural science
- Strengthen the reputation of UWA in agriculture by further enhancing links with industry, farmer groups, the community, national and international organisations
Institute of Agriculture

Vision

“To be recognised for excellence in serving agriculture and resource management through education, training and research.”
Institute of Agriculture

Mission

“To advance research, education, training and communication in agriculture and resource management.”

“Sustaining productive agriculture for a growing world”
Programs

Areas of interest for the Institute:

- Improved technologies for profitable production and sustainable conservation of natural resources;
- Diversified farming systems that reduce risk, improved resource-use efficiency leading to improved returns to growers;
- Rural economy, policy and development;
- Food and health related outcomes;
- Enhanced vertical integration from grower to consumer (Paddock to Plate approach);
- Training of agricultural graduates and post-graduates with modern scientific, analytical, entrepreneurial and communication skills.
UWA- Agriculture

Institute of Agriculture

WA farmer group projects

Research Centres

Future Farm Industries CRC
Canola Breeders of Western Australia
Centre for Legumes in Mediterranean Agriculture
Institute for Regional Development

Centre for Land Rehabilitation
WA Herbicide Resistance Initiative
Centre for Microscopy and Microanalysis
Centre of Excellence in Natural Resource Management

Academic units - Schools

School of Agricultural and Resource Economics
School of Animal Biology
School of Earth and Geographical Sciences
School of Plant Biology
**Executive**
- Chair (Dean FNAS)
- CEO (Director of Institute)
- Heads of Schools (4)
- Executive Officer FNAS
- 1 Centre Rep (rotational basis)
- Executive Secretary

**Program Team**
- Director, Program Leaders
- Communications Officer and Exec Secretary

**Integrated Land & Water Management**
- Projects & Staff
- PG students
- Hon students

**Animal Production Systems**
- Projects & Staff
- PG students
- Hon students

**Plant Production Systems**
- Projects & Staff
- PG students
- Hon students

**Rural Economy, Policy & Development**
- Projects & Staff
- PG students
- Hon students

**Education, Outreach & Technology Exchange**

**External Advisory Board**
- Independent Chair
- Industry Reps (10)
- Reps from DAFWA & CSIRO
- Dean
- Director

**CRC-FFI**
**CLIMA**
**WAHRI**
**IRD**
**CENRM**
**CLR**
**CBWA**
**EHC**
**PEB**
**CMM**

(Existing Research Centres)

**FNAS Planning & Budget Committee**
Program 1: Integrated Land & Water Management
  Leader: Professor Zed Rengel
  Deputy Leader: Dr Daniel Murphy

Program 2: Animal Production Systems
  Leader: Professor Graeme Martin
  Deputy Leader: Dr Phil Vercoe

Program 3: Plant Production Systems
  Leader: Professor Stephen Powles
  Deputy Leader: Dr Guijun Yan

Program 4: Rural Economy, Policy and Development
  Leader: Professor Matthew Tonts
  Deputy Leader: My Graeme Doole

Program 5: Education, Outreach and Technology Exchange
  Leaders: Professor Kadambot Siddique
           and Mrs Christine Richardson
Plant Production Systems Program

Objectives
Contribute to the productivity and sustainability of plant-based Australian agriculture through the application of science and technology.

Background
- Australian agriculture includes a large land area (300-600 mm winter rainfall) devoted to rain-fed annual temperate crops, pastures/livestock (extensive agriculture and/or the grain-belt).

- Intensive agriculture in areas of high rainfall and/or irrigation with crops (cotton, vines, orchards, vegetables, flowers etc), perennial pastures/livestock and other higher value agricultural products.

- The UWA Institute of Agriculture Plant Production Systems activities are separated into the two areas of extensive and intensive agriculture.
Effective communication of agricultural research and training activities at UWA to the industry, farmer groups, collaborators (national & international), funding bodies and potential students is one of the major objectives of the Institute
Institute of Agriculture
Communication Objectives

➢ To increase the rate of uptake and extent of use of UWA Agricultural research outputs by the industry, farmer groups & community at large

➢ To attract talented undergraduate & post-graduate students to undertake agricultural training & research at UWA

➢ To enhance opportunities for collaboration with industry, national & international organisations

➢ To assist in diversifying & increasing UWA’s agricultural funding base
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Expected outcome (benefits)

- Critical mass
- Strong signals to funding bodies & the industry
- Increase UWA’s competitiveness for funding
- Enhanced national & international profiles in agricultural education, training & research
- High quality science and educational outputs
- Effective communication
- Act as single door
Institute of Agriculture

Summary

- The Institute confirms the University’s commitment to agriculture and resource management
- Excellence in research, education, training and communication (Building on present strengths)
- Outreach - Linkage to business, community, people (Making the difference)