**Stage 2 Agricultural Systems Program**

This is a 20-credit program conducted over a full year, with four 55-minute lessons per week.

The following topics will be covered:

* Animal Systems: the subtopics of Animal Nutrition, Animal Reproduction and Breeding and Animal Health are explored with particular emphasis on sheep, cattle, and pigs.
* Plant Systems: the topics of Plant Growth and Nutrition, Plant breeding and Propagation and Plant Health are explored, with particular emphasis on broadacre crops, including cereals, oil seeds, and legumes.
* Soil and Water Systems: the subtopics of soil and water are investigated through the context of management of these resources in broadacre farming and intensive livestock systems.

| **WEEK** | **STAGE 2 AGRICULTURAL SYSTEMS** |
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| **Term 1 Week 1** | Introduce formative *Crop Investigation*. Submit individual *Crop Investigation* designs. |
| **2** | Select, plan and set up class *Crop Investigation* |
|  **3** | Introduce *Experimental Investigations* – commence planning |
| **4** | *Experimental Investigation* planner due for approval Commence Animal Systems topic- Animal nutrition |
| **5** | Collect *Crop Investigation* data If *Experimental Investigation* planners approved, commence and self-manage from now on. |
| **6** | Animal Systems topic – animal reproduction and breeding*Crop Investigation* drafts due |
| **7** | *Crop Investigation* due *Sheep Practical* – assessing lambs |
| **8** | Animal Systems topic – Animal Health*Sheep Practical* draft due |
| **9** | Revise Animal Systems topic***AT1: Sheep Practical***final report due |
| **10** | *Experimental Investigations* week |
| **11** | Plant Systems topic – plant growth and nutrition |
| **Holidays** Catch up session – Week 2 |
| **Term 2 Week 1** | *Experimental Investigation* Checkpoint One Begin *Design Practical Investigation* |
| **2** | Breeding Technology Formative *Local Practices Interview* |
| **3** | Plant Systems - plant breeding and propagation |
| **4** | ***AT2: Plant Breeding Technologies***assignment |
| **5** |  |
| **6** | Plant Systems topic – plant health |
| **7** | ***AT2: Animal and Plant systems*** *test* |
| **8** | End of Semester One |
| **9** | Start Semester Two ***AT1: Design Practical Investigation*** due*Experimental Investigation* Checkpoint 2 |
| **10** | *Experimental Investigation* week*Experimental Investigation* drafts due Day One Term 3 |
| **Holidays** | Catch up session Week 2 |
| **Term 3 Week 1** | Soil and Water systems– soil properties – physical, chemical, biological. *Experimental Investigations* drafts due |
| **2** | Soil and Water systems– management and modifications of soil as a key resource |
| **3** |  |
| **4** | Soil and Water systems– water quality parameters, management of water resources |
| **5** | *Soil* and *Water Systems assignment* |
| **6** | ***AT3: Experimental Investigations*** due. |
| **7** | *Soil* and *Water Systems assignment* |
| **8** | ***AT2: Soil* and *Water Systems*** *assignment* due |
| **9** | Submit *Experimental Investigations* to SACE Board (date TBC)Intro *Technology essay* task – start planning |
| **10** | *Technology essay* preparationField trip – technology applications for water management in livestock and irrigation enterprises |
| **Holidays** | Catch up session Week 2 |
| **1** | *Science as a Human Endeavour* task preparation  |
| **2** | ***AT1: SHE task*** dueEnd of Ag program |
| **3** | Finalise moderation packages |