**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* preparation  Field 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*** due  End of Ag program |
| **3** | | Finalise moderation packages |