



DEPARTMENT OF
EDUCATION
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PROJECT BASED AGRICULTURAL EXPERIENCE FOOD AND FIBRE PRODUCTION



RATIONALE



Project Based Agricultural Experience (PBAE) aims to engage students in authentic learning experiences that embody a balance between academic rigour and experiential learning and facilitate high quality evidences of student learning. The program will support relevant priorities of the Tasmanian Agricultural Education Framework and the Australian Curriculum: Technologies (Design and Technologies).

A key goal of PBAE is to support a pathway for high level learning in agricultural education (Food and Fibre Production) through Years 9 and 10 to Years 11 and 12 and onto post-year 12 education and training. This initiative will be of particular interest to extension schools currently offering, or planning to offer, agriculture/food and fibre production related courses; including VET Certificate courses in Animal Studies, Agriculture, Horticulture and Aquaculture and/or the TASC approved agriculture courses, Agricultural Enterprise (Level 2) and Agricultural Systems (Level 3).



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While the PBAE program is aimed predominately at Year 9 and 10 students, schools may consider including students from Years 7 and 8 if deemed appropriate. A category with appropriate modifications, will be made available to year 11 & 12 students at extension schools and colleges offering relevant TASC and VET in Schools courses.

Support for the PBAE will include: targeted professional learning for teachers, project scaffolding, ongoing support during the project and the opportunity to attend and receive recognition at a presentation event called 'The Project Pitch'.

Students who present their projects at a 'The Project Pitch' will be recognised for their achievements. The event will include a panel of judges who will decide on overall winners in each category; Year 7–10 and Year 11–12.

This initiative is designed to complement existing/planned school based Ag Ed related elective programs without the need for significant changes. Some variations to class based activity that reflects and supports the

PBAE program may be required and some out of class time commitment by students is an expectation.



PROCEDURE

- I. Students select, in consultation with their teacher, a project focus from the given categories:
 - a. Animal Production
 - b. Plant Production
 - c. Farm Environment

2. Students decide, in consultation with their teacher, the type of project they will undertake:
 - a. Enterprise Based – design and undertake a small scale enterprise such as raising chickens, a calf, or a crop
 - b. Inquiry Based – design and complete an inquiry, including an experiential component, in an area of interest



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3. Students present their project for school based assessment:
 - a. *The presentation should demonstrate evidence of relevant learning, including details of the experiential learning and self-assessing reflections*
4. Students present their project to a panel of adjudicators at a Project Pitch event.
 - a. *All students who present at this event will receive recognition*
 - b. *Students unable to attend may submit a pre-recorded presentation*
 - c. *The adjudicating panel will award scores that determine final accolades*

Notes:

- Students may undertake projects in small groups (up to a maximum of four members)
- Detailed assessment criteria will be provided during Term 2
- Students/groups will submit a project proposal on a provided template by the end of Term 2
- A venue for each regional Project Pitch event will be finalised by the end of Term 2



PROJECT BASED AGRICULTURAL EXPERIENCE – THE PROJECTS

Project Attributes

Inquiry Based Project

These projects will be guided by an inquiry question and can be in the form of a research project or an exploratory project. Research projects may be an Agriscience experiment using scientific processes. Exploratory projects will be designed primarily to literate in a food and fibre production area of interest, with a future career path in mind.

Enterprise Based Project

Students will plan and manage a small scale, short term food and fibre production enterprise. Evidence of business management and entrepreneurship will be key attributes of the projects.

Evidence of Student Learning

All projects will demonstrate evidence of the attainment of relevant knowledge and understanding.



‘The Project Pitch’

The Project Pitch event will involve students presenting their projects to an invited panel of judges. Panel members will include industry experts, agribusiness leaders and UTAS staff. Scores will be awarded and prizes presented. All students will be appropriately recognised for presenting their projects.

The pitch event will be in the style of an expo, with students allocated a space to display materials relevant to the projects. Adjudicators will rove the room and engage students in conversation about their projects. A key aim is to demonstrate evidence of student learning as a result of engagement in the project.



PROJECT BASED AGRICULTURAL EXPERIENCE – PBAE

STEP 1

Organise your team
– from 1 up to 4

STEP 2

Choose a focus area and
project type then submit a
detailed project proposal

STEP 3

Complete your project
and prepare for “The
Project Pitch” event

STEP 4

“The Project Pitch” event



Team Organisation

Animal Production

Farm Environment

Plant Production

Inquiry Based Project

Enterprise Based Project

The Project Pitch

Present your project and outcomes to
a panel at an event in your region



SUGGESTED PROJECTS



Farm Environment

Technology

- Drone technology
- Robotics
- Spatial technology - list map
- Application of remote sensors in agriculture
- Design website for local farmers
- Precision farming research

Soils

- Analysing soil microflora in different soil types
- Composting and worm farms
- Different growth rates in different soil mediums
- Fertiliser comparison

Engineering

- Tool or implement design
- Irrigation types/comparisons
- Fencing construction comparisons
- Irrigation for different areas
- Renewable energy

Construction

- Aquaponics recirculation systems
- Fencing construction comparisons
- Greenhouse construction and design
- Yard design, sheering shed design
- Solar powered chook house
- Infrastructure design project

Marketing

- Selling produce
- Niche products



Animal Production

- Enterprise base - chickens, pigs, lambs, cattle, worms
- Raising calves
- Analysing gut
- Drench trials
- Creep feed lambs
- Beef genetic selection
- Strip grazing
- National Merino Challenge
- Manure disposal
- Feed comparisons
- Broiler growth
- Feeding systems vs weight gains
- Poultry hatching
- Techno grazing
- Trout growth vs fee rates
- Snails

Plant Production

- Plant growth
- Inner city school garden project
- Vertical gardens
- Mushrooms
- Floriculture
- Seasonal growth of plants
- Effects of fertiliser
- Growing garlic, broad beans
- Different growth rates in different soils
- Cropping
- Nitrogen plants – legumes
- Fodder systems – hay vs silage
- Integrated pest management
- Essential oils
- Hydroponics



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agricultural education