

Tocal Virtual Farm

Methods of agricultural record keeping



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Farm management- Methods of agricultural record-keeping

An understanding of agricultural record keeping is essential to agricultural production. The following resource provides background and engaging authentic learning activities to develop and challenge student understanding of the concept.

This resource is produced to address NSW Agriculture Syllabus 6 Preliminary Farm case Study outcomes and content.

Outcomes

- P1.1 describes the complex, dynamic and interactive nature of agricultural production systems
- P1.2 describes the factors that influence agricultural systems.
- P3.1 explains the role of decision-making in the management and marketing of agricultural products in response to consumer and market requirements
- P5.1 investigates the role of associated technologies and technological innovation in producing and marketing agricultural products.

Record keeping is a key component of managing an efficient farm business. Records are needed not only for legal, financial and taxation purposes but also for maintaining a permanent record of the farm business, business analysis, monitoring day-to-day activities, and future planning.

Businesses have a legal obligation to keep prescribed records for reporting and audit associated with income tax, goods and services tax (GST), company and securities legislation and other compliance purposes that can include compulsory livestock identification, chemical storage and usage, and workplace health and safety (WHS). Statutory recording and reporting requirements vary with the type of farm enterprise and the State or Territory in which it occurs, therefore managers must become familiar with the requirements for the enterprise mix and farm circumstances.

Good record keeping is essential for successful business management. Accurate and detailed records support all aspects of the management cycle. They allow for the capacity to set realistic goals and develop sound operational plans. They are essential for the effective control of finances and credit. They are the basis for the monitoring and review of business activities that can lead to improvements in performance and profitability.

There are various types of farm records. They fall into two broad categories, financial and non- financial. Financial records are addressed with greater detail in the “Measuring agricultural performance and finance” worksheet. Examples of farm records include:

- **Daily farm records:** These are records of important events and activities that take place on farm daily. These records allow for future planning of activities.
- **Records for farm use:** These records show the dates for land preparation, planting of different paddocks, sale or utilisation of produce and rotation programs. They also include issues encountered such as pest and disease outbreaks.
- **Record of agricultural inputs:** These shows type and amounts of farm inputs such as seed, fertilizer replacement stock, hay etc. The farmer records amount purchased, amount used and amount left for each month.
- **Records of livestock and livestock products:** Each livestock enterprise needs different records. Milk records and egg records are examples of records of livestock products.
- **Records of animal feeds:** These records show the types and quantity of feeds used and the amount available in storage.
- **Production records:** These records document everything that is produced on the farm. They are mostly prepared weekly, which add up to monthly and annual records. These records monitor the value of the farm produce and measure progress in production.
- **Records of farm implements and equipment:** these can include farm machinery inventories and infrastructure, petrol, oil used and any maintenance and repairs.
- **Workers records:** WHS protocols and safe operation procedures, salaries, registers of contracted work, insurance and other payments
- **Farm Biosecurity Plan-** Includes animal welfare guidelines, risk assessments, animal and plant movement and health registers to reduce the risk of a pest or disease incursion.
- **Chemical Registers:** includes application rate of the product, location, climatic details at time of application and Material Safety Data Sheets (MSDS).
- **National Vendor declarations and LPA records:** legislative production documents essential for stock movement, sales, marketing and management.

- **National Livestock Identification Scheme (NLIS):** producers have the responsibility to register all movements of livestock on and off property into the national database
- **Industry Quality assurance programs:** such as the Livestock Production Assurance (LPA) program managed by Meat Livestock Australia (MLA) require the following records to be kept to maintain LPA accreditation: livestock treatments; grain and fodder treatment; crop, pasture and paddock treatment; record of purchased or introduced livestock; livestock feeding record; records of livestock sold; property risk assessment; Farm Biosecurity Plan; visitor records; record of animal welfare training.
- **Financial records** see “Measuring agricultural performance and finance” worksheet for more details

Types of recording systems

There are many different farm record systems. They range from traditional, simple, hand accounting systems using a pencil and a paddock book, to sophisticated double-entry computer accounting systems. Some require a mix of hand and computer operations.

Digital technology increasingly allows for many advances in record keeping. Increased connectivity is allowing the sharing and accumulation of data without the need to use hardware. Records are also becoming more visual, with the GPS capabilities of many devices allowing data to be viewed easily on farm maps and data that can be logged and shared in real time. A broad range of record-keeping applications are increasingly becoming available and more technologically advanced, from **weather, drought feed calculators, feed cost calculators**, spray-recording, herd recording and precision agriculture through to integrated whole-of-farm management systems that link growers with industry consultants.

Follow the links above to investigate a range of **digital recording technologies** and software currently available to assist farm record keeping.

All systems potentially work well but are dependent on the skill of the record operator. Developing a system requires consideration of the individual farms recording and production requirements and operator skill.

Activities

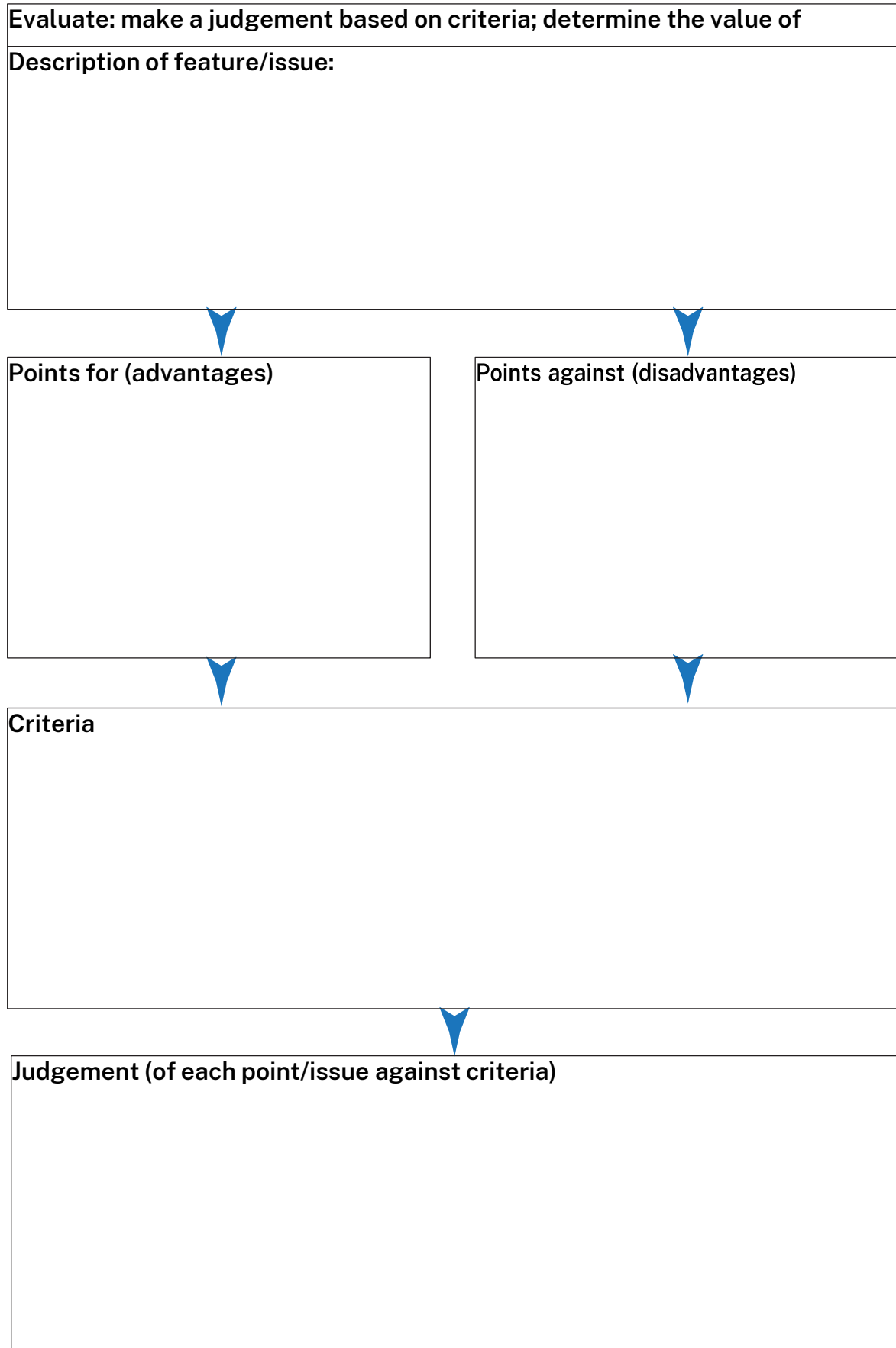
Create a table contrasting advantages and disadvantages of farm records

Positive	Negative

Complete the table to Identify and describe 5 non-financial records. (refer to Worksheet 4 for financial records)

Non-financial records	Record type	Description

Select and research a current digital recording system available in Australia. For your chosen system identify what is recorded and evaluate its impact on production. Use the following scaffold. (Source: Sewell 2002, **Scaffolds for key words**)

Evaluate: make a judgement based on criteria; determine the value of	
Description of feature/issue:	
	
Points for (advantages)	Points against (disadvantages)
Criteria	
Judgement (of each point/issue against criteria)	

References and Further Reading:

Agfact A2.8. Record keeping and management planning

Blackwood, I 2007, 'Agfact A2.8. Record keeping and management planning' NSW Department of Primary Industries, <https://www.dpi.nsw.gov.au/animals-and-livestock/beef-cattle/management/business-management/record-keeping-mgt>

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Blackwood, I 2007, 'Agfact A2.8.2 Record keeping for herd improvement', NSW Department of Primary Industries, <https://www.dpi.nsw.gov.au/animals-and-livestock/beef-cattle/management/business-management/record-keeping-herd>

AgGuide - How to write a business plan and review farm performance

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Tocal Virtual Farm

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Scaffolds for key words (for use in Stage 6 science courses)

Sewell, J 2002, Scaffolds for key words (for use in Stage 6 science courses), NSW Department of Education and Training, <http://home.kooee.com.au/mulhearn/HSC%20VERBS.pdf>

Ten farming apps you should download

Davies, J 2017, 'Ten farming apps you should download,' The Land, Fairfax Media, <http://www.theland.com.au/story/4329934/ten-farming-apps-you-should-download/>, viewed 16 February 201