



Australian Government

Department of Education, Employment and Workplace Relations

RTE5912A Plan and monitor production processes

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This competency standard covers the process of planning for production, and then monitoring the implementation of that plan. It includes the need to act in an environmentally aware manner, while at the same time maximising the production capacity of the organisation. It requires the need to analyse and extract information from a broad range of sources, and to comply with a variety of legislative and regulatory requirements.

Planning and monitoring production processes is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Planning and monitoring production processes requires extensive knowledge in some areas such as sustainable land use principles and practices, and a range of technical and other skills such as planning, and cost benefit analysis.

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Determine production process requirements	1.1 Information regarding the characteristics of products being grown or refined/manufactured and their respective market requirements is accessed. 1.2 Characteristics of the land under production and the quality and amount of existing infrastructure are confirmed from colleagues and other planning processes. 1.3 Historical data, including recent data from organisational records is identified and accessed for input to production planning. 1.4 Information regarding other organisational planning processes and potential for improvements or innovations is collected and used to inform production planning. 1.5 Requirements of the organisation are taken into consideration during analysis. 1.6 Production processes required to efficiently achieve the targeted production requirements in line with organisational policies are identified and compared with those that currently exist. 1.7 Details regarding production planning are used as input to other organisational planning processes.
2 Determine monitoring requirements and systems	2.1 Production targets for each enterprise and each product, crop, herd, or flock are established from the range of organisational management and strategic plans. 2.2 Scheduling for production processes is determined taking varying organisational factors into consideration. 2.3 Environmental and waste management controls are established and specifically included in the production plan. 2.4 Monitoring points and performance indicators for the production process are established using target,

- environmental management and scheduling information.
- 2.5 Prepared **risk management strategies** are put into place and acted upon when necessary.
- 2.6 A **plan** is prepared that documents the decisions taken, the assessments made, the targets established, and any specific issues that relate to environmental and **OHS** risks.
- 3 Monitor/evaluate effectiveness of production processes
- 3.1 Checks are made to ensure that the performance indicators, targets, and specifications are being met and amendments to the process are made where necessary.
- 3.2 The **effectiveness** of the production processes is evaluated at key points and adjustments are made as necessary.
- 3.3 Environmental impacts and OHS hazards relating to production processes are identified, monitored and assessed throughout the production cycle.
- 3.4 **Modifications** are made to the production process when made necessary by shifting priorities and results.
- 3.5 **Data**, observations and documentation from the production process are analysed against the plan according to organisation guidelines.
- 4 Record and manage information
- 4.1 Recommendations for future plans are prepared based on the analysis of the data.
- 4.2 A **report** is prepared that documents the plans implementation according to the organisations requirements and guidelines.
- 4.3 Records and documentation are created, maintained and kept as described in the production plan, the OHS requirements, and machinery and equipment management programs.
- 4.4 The **recordkeeping system** that is used ensures that required information is available, accessible, meaningful and useful.

Required Skills and Knowledge

Not applicable.

Evidence Guide

What evidence is required to demonstrate competence for this standard as a whole?

Competence in planning and monitoring production processes requires evidence that the production plan includes appropriate and effective guidelines in relation to environmental and waste management and OHS, and sets in place organisational efficiencies that will meet stated targets.

The skills and knowledge required for planning and monitoring production processes must be **transferable** to a different work environment. For example, across a range of product types and organisation sizes.

What specific knowledge is needed to achieve the performance criteria?

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:

environmental controls and codes of practice available to the organisation

relevant legislation and regulations relating to OHS, contractor engagement, chemical use and application, and vehicle and plant use

sound management practices and processes to minimise noise, odours and debris from production processes

sustainable land use principles and practices applicable in the region

relevant legislation and regulations, such as those relating to soil and water degradation issues, animal health and welfare, and chemical use.

What specific skills are needed to achieve the performance criteria?

To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:

interpret monitored information on production processes

interpret, analyse and extract information from a range sources such as professional literature, legal documents, discussions and workshops

identify, build and use network and support groups

prepare written plans and procedures for implementation by others

observe, identify and react appropriately to environmental implications and OHS hazards

assess, then adopt profitable innovations

set yield targets and objectives and estimate timelines

prepare enterprise budgets and calculate financial returns

converse and liaise with industry contacts, colleagues and family regarding the land/farm based business

write reports to be understood by all levels of the organisation

communicating detailed and complex information in written and oral form with people both inside and outside the organisation.

What processes should be applied to this competency standard?

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

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| 1. How can communication of ideas and information (3) be applied? | By preparing production plans that will be implemented by other people. |
| 2. How can information be collected, analysed and organised (3)? | Using the variety of sources available for input to decision-making. |
| 3. How are activities planned and organised (3)? | In developing plans and directions for the production of animals, crops and/or products. |
| 4. How can team work (2) be applied? | In working with colleagues during input to the range of other planning processes. |
| 5. How can the use of mathematical ideas and techniques (2) be applied? | In calculating production targets and comparing the costs and profitability of different processes. |
| 6. How can problem-solving skills (2) be applied? | In recognising where and when amendment is required to plans. |
| 7. How can the use of technology (2) be applied? | In operating any necessary equipment prior to and during production - communication technology, calculating equipment, measuring equipment, and word processing/spreadsheets software. |

Are there other competency standards that could be assessed with this one?

This competency standard **could** be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to the **Assessment Guidelines**. Further advice may also be sought from the relevant **sector booklet**.

Range Statement

Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment requirements may depend on the work situations available

What characteristic of the products might be accessed?	If it is an annual or perennial product, experimental product, yield, financial return, frequency of rotation, harvesting requirements, prevalence of pests and disease, pest and disease control.
To what does the term " products " refer?	To the crops, stock and/or products under production or refinement/manufacture in the organisation.
What characteristics of the land under production should be accessed?	Accessibility, topography, moisture content, pH levels, nutrient levels, salinity, erosion, drainage, land use history, germination rates, and pest and disease prevalence.
What infrastructure might be in place?	In addition to equipment, machinery and vehicles, the organisations infrastructure may include buildings, sheds, shelters, stock yards, stock handling structures, fences, water supply systems, roads, tracks, soil conservation works, irrigation and drainage channels, silage pits and/or grain and fodder storage, dams, monitoring systems, and information technology systems.
What historical data might be assessed in the planning process?	Crop/stock history, disease and pest history, previous yield data, pesticide use, weather patterns, market information, existence and suitability of previous infrastructure, and financial returns.
What other organisational planning processes might provide input to infrastructure planning?	Activities such as land-use, production systems, production process and strategic planning processes.
What kind of innovations might be researched and implemented?	Equipment, machinery, materials, practices, and systems - including those relating to environmental, OHS, and animal welfare practices and/or related equipment might be researched and implemented.
What requirements might the organisation	Requirements may relate to the preferred

have in relation to production processes?	approach/policy in regard to animal welfare, environmental management, waste management, and OHS. Legislation and regulation may also impact on, or restrict, production.
What does the production process include?	The production process includes the resources, personnel, methodology, and any interactions between them.
What organisational factors might vary from one production cycle to the next?	Factors such as the calendar of operations for each enterprise production cycle, and seasonal, geographic, resourcing and product factors.
What environmental and waste management requirements should be considered?	Construction activity, as well as the improvement itself, might put the local environment at risk of off-site contamination such as the fouling of surface or ground water bodies with solid material, and/or nutrients, including acid discharges from acid sulfate soils. Any change to the natural lie of the land may affect run-off and drainage to increase erosion or the acidity of the soil, and the way in which effluent is managed to pollute surface and underground catchments. Removal of vegetation and ground cover may affect wind or water erosion and/or an increase in salinity.
How might performance indicators be established?	By examining historical records of production and environmental indicators and data for similar organisations.
What risk management strategies may be put in place?	A variety of strategies may be used which may involve insurance policies, diversified investment, training and development programs, vital records strategies, or recruitment programs.
What information will be included in the plan ?	It may include the type, format, frequency and detail of any reporting required by both manager(s) and operators.
What actions could be taken to eliminate or minimise OHS risk?	The range of actions are both systemic and at an operational level. These are listed below: Systems should be in place to ensure the safe operation and maintenance of machinery and equipment. Precautions should also be in

place to minimise exposure to noise and organic and other dusts. Systems and procedures for handling and storing product, as well as working with and around electricity should also be in place.

Fixtures should be in place in all silos and storage sheds including appropriate access ladders, hand rails and ladder cages.

Personal protective equipment should be selected, used and maintained.

Environmental conditions should be controlled. For example, keeping moisture levels as low as possible will reduce the likelihood of fire and silo collapse.

Procedures should be in place and used for working with and operating machinery and equipment, including exposed moving parts, noise, transporting and storing hazardous substances (such as pesticides), working within confined spaces, moving vehicles and working at height.

Record keeping should ensure that requirements in relation to properly observing and using product labels and MSDS's, instruction manuals and written organisational procedures.

How might the effectiveness of the plan be evaluated?	By determining if performance indicators and production targets are being met.
When might modifications need to be made to the production plan?	Situations and priorities can change as a result of environmental, OHS, animal welfare, resourcing, and marketplace reasons
What data might be analysed against the production plan?	Information pertaining to costs, production levels, labour and overhead inputs, environmental and OHS data.
What would be included in the report ?	Issues and details such as any difficulties or issues faced, the methods used for treatment, impacts on environmental and OHS, any recommendations for future plans, results, costs, and any available data analysis.
What record keeping systems might be used?	These may include the storage devices, the procedures, operators who enter and update the data, and guidelines and policy for the maintenance and migration of data.

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

Unit Sector(s)

Not applicable.