



Australian Government

AHCPER407 Design harvesting and storage systems for permaculture products

Release: 1

AHCPER407 Design harvesting and storage systems for permaculture products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design harvesting and storage systems for products to meet year round supply of fresh and stored produce. It requires the ability to determine harvesting and storage system requirements, identify requirements for maintaining optimum condition of permaculture products and preparing a harvesting and storage plan.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine harvesting and storage system requirements	1.1 Define the range and type of permaculture products to be harvested and stored and negotiate needs and budgets with client 1.2 Determine seasonal requirements for products

Element	Performance criteria
	1.3 Define optimum harvesting, processing and storage techniques for the products 1.4 Determine opportunities and constraints in respect to site location, cost and layout of storage facilities
2. Identify requirements for maintaining optimum condition of permaculture products	2.1 Carry out research to determine maintenance requirements of products 2.2 Describe treatment requirements for products 2.3 Determine appropriate preservation techniques and processes for products 2.4 Describe preparation requirements for storage of products
3. Prepare harvesting and storage plan	3.1 Describe growing and harvesting schedule and quantities in the harvest and storage plan 3.2 Set out layout of storage area in the harvest and storage plan 3.3 Record the requirements for treatment, preparation and preservation of products in the harvest and storage plan
4. Complete plan for harvesting and storage system	4.1 Evaluate training needs for the harvesting and storage system 4.2 Present the harvesting and storage system plan to client or team

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD124RES07B.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER407 Design harvesting and storage systems for permaculture products

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Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine harvesting, post-harvest and storage system requirements
- identify requirements for maintaining optimum condition of products from a permaculture system
- prepare a harvesting and storage plan
- communicate harvesting and storage plan to clients and others

Knowledge Evidence

The candidate must demonstrate knowledge of:

- products from a permaculture system commonly harvested and stored, such as:
 - vegetables where the whole plant is harvested
 - vegetables where part of the plant is harvested
 - perennial plants where fruit/nuts are harvested
 - forests where timber, fuel and fibre crops are selectively removed
 - forests where a range of other medicinal and craft crops are harvested
 - harvest from wild systems (e.g. fruit, nuts, fungi and seeds), where a clear abundance of product has been identified
 - animal products such as eggs, feathers, hides, bone, milk and meat
 - Products may also include those derived from insects (such as honey)
 - fish (such as roe), and other organisms, such as fungi, algae and moss
- design systems for meeting year-round supplies of fresh and stored produce, such as:
 - growing requirements and crop regulation strategies calendar or seasonal chart with planting times of crops
 - selection of early, mid- and late season varieties to extend harvest

- number of plants and area to be planted
- crop regulation and maintenance program involving tipping, mounding, thinning, staking
- sequential planting and/or harvesting schedules
- climatic conditions for harvesting crop such as appropriate time of day
- harvest and post-harvest factors influencing plant metabolism and quality
- post-harvest treatment and preparation techniques, such as:
 - flow chart of harvest, treatment, preservation and storage process
 - harvest and post-harvest treatment timelines and schedules
 - design or plans of processing and storage area
 - design of processing technology or equipment such as solar food dryer
 - lists of materials, tools, equipment and ingredients
 - manuals and operating instructions for equipment
 - recipes and instructions
 - anticipated shelf-life of product
 - labelling and recording systems
 - work health and safety, food safety, hygiene and other relevant enterprise and work practices
- preservation methods and processes for products from a permaculture system, such as:
 - drying and dehydrating
 - bottling
 - cheese-making
 - extraction (honey, cold-pressed and distilled oils)
 - culturing or fermenting
 - preserving with vinegar, oil, brine, sugar, salt and other natural agents
 - air exclusion (sealing with fats, wax, vacuum seal)
 - cellaring and root-cellar
 - other processes that use minimal fossil fuel energy while maintaining the integrity of the harvested crop
- technologies used in crop processing, treatment, preservation and storage systems
- design of storage areas, such as:
 - buildings such as sheds
 - cupboards
 - shelving and racks
 - work benches
 - store rooms
 - pantry
 - cool store
 - cellar
 - root cellar

- bins and containers
- developing planting and harvesting schedules for products from a permaculture system
- identifying training needs for harvest and storage workers, such as:
 - work health and safety, and other relevant enterprise and work practices
 - food safety and hygiene standards
 - appropriate clothing and personal protective equipment (PPE)
 - harvest and post-harvest handling, processing and storage practices
 - food preserving techniques
 - operation and maintenance of tools and equipment
 - reporting, recording and labelling procedures
- preparing plans and reports
- food safety, health and hygiene requirements for preservation and storage of products for human consumption

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

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