

PIL208A Pick permaculture crops

This competency standard covers the process of picking permaculture crops. It requires the ability to assess plants for harvest, prepare equipment for harvesting and pick the crop. Picking permaculture crops requires knowledge of common crops used in permaculture systems, recognition of the maturity parameters of crops, grading characteristics, maintaining quality of produce, and the effect of adverse weather conditions.

Element		Performance Criteria	
1	Assess plants for harvest	1.1	Crop maturity is determined according to permaculture practices and enterprise guidelines
		1.2	Analysis is reported to the supervisor according to enterprise work procedures
2	Prepare equipment for harvesting	2.1	Tools, equipment and machinery are selected appropriate to the task being undertaken
		2.2	Pre-operational and safety checks are carried out on tools, equipment and machinery according to manufacturers specifications and enterprise work procedures
		2.3	OHS hazards are identified, risks assessed and reported to the supervisor
		2.4	Suitable personal protective equipment (PPE) is selected, used and maintained
3	Pick the crop	3.1	Harvesting practices employed minimise plant damage and reflect efficient use of time, resources and labour as per enterprise work procedures
		3.2	Harvesting the crop is undertaken according to OHS requirements
		3.3	Basic sorting and grading of the crop is carried out according to enterprise work procedures
		3.4	Harvesting tools, equipment and machinery are cleaned and maintained according to enterprise work procedures

	3.5	Problems are reported to the supervisor	
4	Transport the crop	4.1	Safe manual handling techniques are employed when handling containers
		4.2	Containers are moved and stacked in such a way that minimises damage to the crop
		4.3	Temperature of the crop is maintained at the levels set by enterprise work procedures
		4.4	The crop is transported from the field to the processing or storage area
		4.5	Containers are maintained in good working order

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 particular training and assessment requirements may depend on the work situations available.

How is the maturity of a crop determined?	Maturity parameters may include size, weight, length, shape, colour, ripeness, texture, skin condition, ease of removal and moisture content.
What enterprise work procedures may apply to this standard?	Work procedures will be based on sound permaculture practices and may include supervisors oral or written instructions, harvest program or schedule, enterprise standard operating procedures (SOPs), specifications, routine maintenance schedules, work notes; manufacturers service specifications and operators manuals; waste disposal, recycling and re-use guidelines; and OHS procedures.
What types of crop may be harvested?	Fruit, vegetable, flower, foliage, timber and bulb crops may be included.
What tools, equipment and machinery may be used to carry out crop harvesting procedures?	Tools, equipment and machinery may include secateurs, knives, callipers or sizing rings, specification charts or aids, gloves, bags, ladders, wheelbarrows, tractors, trailers, containers, buckets, cut-and-catch devices and bins.
What OHS hazards may be associated with harvesting a crop?	Hazards may include solar radiation, noise, dust, pollen, pests, sharp hand tools and equipment, manual handling, ladders, slippery or uneven surfaces, potholes and moving machinery and vehicles, animal

	and insect bites or stings..
What personal protective equipment (PPE) may be required?	Personal protective equipment may include boots, overalls, gloves, goggles, face mask, hearing protection, sun hat and sunscreen lotion.
What harvesting practices may be employed to harvest a crop?	Harvesting practices may include correct use of equipment, select picking, reporting or recording tallies, removing out-of-type plants and removing rotten or immature fruit. Plant and crop damage may be minimised by wearing gloves, maintaining sharp tools, placing rather than dropping the crop into containers, cutting fingernails, observing fill heights or packing instructions for containers, and correctly stacking containers.
What does sorting and grading of the crop involve?	Sorting and grading may include removing out-of-type plants, or physically damaged, unhealthy, rotten or immature fruit and vegetables. The crop may be graded according to variety, size, length, colour, maturity, blemishes, bud count and quality, which are subject to seasonal and market forces. Crop in doubt is checked with the supervisor. Any out-of-standard produce should be disposed of or recycled according to enterprise policy.

Evidence Guide

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

Competence in this unit requires evidence that plant products have been assessed, picked and transported according to enterprise requirements. The skills and knowledge required to pick permaculture crops must be **transferable** to different permaculture work environments, plant types and harvesting procedures.

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:

- Permaculture principles and ethics
- Range of common permaculture crops that are harvested in permaculture systems.
- Establishment and maintenance techniques for

common crops of permaculture systems.

- Recognition of the maturity parameters of a range of crops.
- Appropriate ways of harvesting to ensure future and maximum yields
- Grading characteristics of each crop.
- The importance of maintaining quality of produce including cooling requirements and quick transport from field to processing areas.
- The effect of adverse climatic conditions (eg rain, hail, extreme wind with dust, or very high ultraviolet radiation), which may downgrade the quality of affected crop, prevent or impede harvest operations or severely influence the time taken to complete the harvest program.

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:

- Assess plants for harvest
- Prepare equipment for harvesting
- Pick the crop

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 (1) be applied? | Ideas and information about crop selection, crop maturity standards, harvesting procedures, grading requirements and transportation methods should be discussed with other members of the work team and the supervisor. |
| 2. How can information be collected, analysed and organised (1) ? | Enterprise work procedures should be consulted, interpreted and applied to crop harvesting activities with further clarification sought from the |

	supervisor where necessary.
3. How are activities planned and organised (1) ?	Tools, equipment and machinery, harvesting schedule, own work activities and coordination in the work team should be organised according to enterprise work procedures such as supervisors instructions and production schedules.
4. How can team work (1) be applied?	Crop harvesting usually involves coordination and participation with other members of a work team to complete specified tasks.
5. How can the use of mathematical ideas and techniques (1) be applied?	Mathematical concepts may be used in counting, tallying and calculating individual and team harvesting output or hours worked.
6. How can problem solving skills (1) be applied?	Problems relating to harvesting techniques, the crop, workplace safety and other team members may arise during the harvesting of a crop.
7. How can the use of technology (1) be applied?	Technology may be applied in the preparation, use and maintenance of harvesting tools, equipment and machinery.

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

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

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the **Permaculture International Ltd Course Documentation**.
