

## **Programme Module**

# **Grow Your Own Vegetables**

leading to

Level 3 QQI Component: Outdoor Vegetable Production 3N0890

## Please note the following prior to using this programme module descriptor:

- This programme module can be delivered as a stand alone module or as part of the:
  - 1. Level 3 QQI Certificate in General Learning 3M0874
  - 2. Level 3 QQI Certificate in Employability Skills 3M0935
  - 3. Level 3 QQI Certificate in Information and Communication Technologies 3M0877.
- Upon successful completion of this programme module the learner will achieve 10 credits towards the CDETB Level 3 QQI Certificates in General Learning, Employability Skills or Information and Communication Technologies.
- The learner needs to accumulate a minimum of 60 credits in order to achieve the Level 3 QQI Certificates
  in General Learning or Employability Skills or Information and Communication Technologies.
- Teachers/tutors should familiarise themselves with the information contained in CDETB's programme descriptor for Everyday Living Skills, Skills for the Workplace or Introduction to Information and Communication Technologies prior to delivering this programme module.
- In delivering this programme module teachers/tutors will deliver class content in line with the Guidelines for Teaching and Learning included in this programme module.
- In assessing the learner, teachers/tutors will assess according to the information included in this programme module. Teachers/tutors are required to devise Assessment Brief/s for the Collection of Work and Skills Demonstration.
- Where overlap is identified between the content of this programme module and one or more other programme module(s), teachers/tutors are encouraged to integrate the delivery of this content.
- Where there is an opportunity to facilitate the learner to produce one piece of assessment evidence which demonstrates the learning outcomes from more than one programme module, teachers/tutors are encouraged to integrate assessment.

# **Overview of the Programme Module**

The Programme Module is structured as follows:

**Section 1 to 8:** contains important information for the teacher/tutor about the credit value, title, code, etc. of the programme module.

**Section 9:** details the learning outcomes prescribed for the programme module by QQI. These outcomes are set by QQI and cannot be changed in any way by the CDETB or individual teachers/tutors.

**Section 10:** outlines suggestions and guidelines for teaching the module. It contains useful information and ideas for teachers/tutors and can be helpful in clarifying learning outcomes.

**Section 11:** contains the relevant information in relation to the assessment of the module. As the teacher/tutor is the assessor of the work, this section is essential reading.

Section 11a specifically prescribes the way in which learners are required to present evidence for assessment.

**Learner Marking Sheet:** this is the marking sheet that must be attached to the assessment portfolio and signed by the teacher/tutor and the learner.

Programme Module	Award
Title of Programme Module     Grow Your Own Vegetables	2. Component Name Level 3 Outdoor Vegetable Crop Production 3N0890
3. Duration in Hours of Programme Mo	dule 4. Credit Value 10
5. Assessment Technique Skills Demonstration 80% Collection of Work 20%	6. Specific Requirements  Centres must have access to the range of services, professional products, tools, materials and equipment to ensure the learner has the opportunity to cover all of the practical activities.

## 7. Aims of the Programme Module

The programme module aims to equip the learner with the knowledge, skills and competencies to grow a range of vegetables outdoors.

#### 8. Objectives:

- to provide an understanding of how to clear and prepare a site for planting vegetables
- to provide an understanding of how to set and establish a vegetable crop
- to provide an understanding of how to monitor and maintain the growth and development of the crop
- to provide an understanding of how to harvest the crop.

#### 9. Learning Outcomes of Level 3 3N0890

The learner will be able to:

- 1. list the tools, materials and equipment required to grow outdoor vegetables
- 2. list the stages of ground preparation for vegetable sowing
- 3. explain pH levels in the soil
- 4. explain the purpose of and techniques for thinning, transplanting and weeding
- 5. describe a range of preventative methods for controlling vegetable diseases and pests organically or with chemicals
- 6. carry out a soil test
- 7. prepare the ground for growing vegetables including clearing the ground organically or with chemicals, single digging, improving soil fertility, cross-digging the area, forking over, raking and levelling, marking out and preparing drills
- 8. sow a vegetable crop from seeds or transplant a crop to outdoors
- 9. use a range of techniques to maintain the vegetable crop including thinning, transplanting, watering, feeding, weed-control, mulching, disease and pest control
- 10. harvest the crop at the correct stage of maturity
- 11. demonstrate the application of communications, team working, and quality awareness in a horticulture environment
- 12. apply appropriate health, safety and personal hygiene procedures when producing a crop of vegetables.

## **Delivery Strategies and Learning Activities**

The programme module could be delivered through classroom-based learning activities, team work, group discussions, one-to-one tutorials, field trips, case studies, role play and other relevant activities. The development of team working skills and effective communications skills should be integrated where possible in the delivery of this module. The application of these skills must be demonstrated in the Collection of Work/Skills Demonstrations. There are practical elements to this module requiring access to a range of materials, resources and equipment and the learner should be allocated adequate time and facilities to complete each task. All practical activities should exemplify safe working practices and reinforce standard health, safety and environmental concerns.

## 10. Guidelines for Teaching and Learning

Please note: the following guidelines suggest a sequence for the teaching of this module. In some cases, this may differ from the sequence of learning outcomes outlined in section 9.

#### **Tools of the Trade**

**Learning Outcome 1:** List the tools, materials and equipment required to grow outdoor vegetables.

In order to help the learner achieve **Learning Outcome 1** in particular, consider doing the following:

• identify with the learner the range of tools, materials and equipment necessary to grow outdoor vegetables, for example, spade, fork, rake, hoe, watering can with rose attachment/hose, seeds and transplants, plum line/bamboo cane, garden net and pegs, horticultural fleece, wheelbarrow, trowel, etc. identify and demonstrate safe work practices in the use of equipment, tools and other materials

The teacher/tutor must explain the purpose of the tools or equipment and demonstrate the correct way to hold, carry and use them.

• guide the learner in selecting the most appropriate tool, materials and equipment for the task and demonstrate the correct usage with due care for self and others.

The learner should be aware also of the importance of maintaining and inspecting tools and equipment for damage and cleaning and storing them properly after use.

#### **Principles of Site Preparation**

Learning Outcome 2: List the stages of ground preparation for vegetable sowing

In order to help the learner achieve **Learning Outcome 2**, in particular, consider doing the following:

identify with the learner the stages of ground preparation for sowing a vegetable crop.

The learner should be aware of the stages involved in clearing and preparing the site by hand and understand that it is preferable to do this in autumn. An awareness of the distinction between single and double digging the site is recommended.

The listed stages of preparation should include reference to the following - site appraisal, the removal of weeds, stones, etc., single and/or double digging, forking, raking and levelling, marking out and addition of organic matter and/or application of fertiliser as required.

#### Why is the pH level important?

**Learning Outcome 3:** Explain pH levels in the soil.

In order to help the learner achieve **Learning Outcome 3** in particular, consider doing the following:

 explore with the learner what is meant by pH level and why it is an important consideration when growing vegetables

The learner should have a basic understanding of the pH scale and its relevance to plant growth and the availability of nutrients. For example, it would be useful to discuss with the learner how the pH of the soil

may affect the growth and development of the crop they are planting, e.g. the soil becomes 'sour' or 'acid' (low pH level) if the same crop is grown in the same place every year; normally this happens if brassicas (cabbages, cauliflower, etc.) are grown. Lime needs to be applied to the soil to increase the pH level or make the soil 'sweet' again.

If possible, it would be useful for the learner to carry out pH testing on a range of soils to identify one acid, one neutral and one alkaline soil using a simple colorimetric.

### Important techniques

Learning Outcome 4: Explain the purpose of and techniques for thinning, transplanting and weeding.

**Learning Outcome 9:** Use a range of techniques to maintain the vegetable crop including thinning, transplanting, watering, feeding, weed-control, mulching, disease and pest control.

In order to help the learner achieve **Learning Outcome 4 and Learning Outcome 9,** in particular, consider doing the following:

• identify with the learner why and how thinning, transplanting and weeding are carried out.

It is important that the learner understands the reasons and principles behind the tasks as they will be expected to apply the principles when growing a vegetable crop. The learner should be able to give a clear and brief description of both purpose and method, for example,

## o thinning

Purpose: Thinning is essential to enable a seedling to access sufficient water, nutrients and air

Technique: As seedlings grow to approx 2- 3 cm, take out sufficient seedlings that will allow approx 4-6 cm between each. This may have to be done on a continuous basis depending on the seeds sown

### transplanting

Purpose: The roots of seedlings/plants fill their tray/pots very quickly and need to be moved to bigger pots or transplanting outdoors (if weather is suitable). This enables the plant to produce better leaves, roots and flowers

Technique: Put plants into bigger pots by carefully extracting the plants from their original pots without damaging the roots, place fresh compost into a bigger pot and place the plant in the centre of the pot. Firm compost around plant

#### weeding

Purpose: To prevent weeds from taking the water, nutrients and space from vegetables.

Techniques: Use a trowel or hoe to carefully remove weeds from between vegetables.

## Protecting the crop

**Learning Outcome 5:** Describe a range of preventative methods for controlling vegetable diseases and pests organically or with chemicals.

In order to help the learner achieve **Learning Outcome 5** in particular, consider doing the following:

• distinguish with the learner the difference between growing vegetables organically and growing vegetables with chemicals

The learner should have a clear understanding of the rationale behind each as well as an awareness of some of the advantages and disadvantages.

• identify with the learner a range of simple preventative measures, for example,

## Organic Pest and Disease Control

- Don't leave plant debris around area
- Practice crop rotation
- Use plastic bottles with the base removed as cloches to protect plants from snails
- Use thorny bushes to protect seeds from birds and cats
- Use 'scarecrows' to prevent damage from pigeons
- Ensure plants are never put under 'stress' by lack of watering
- o Ensure plants are thinned regularly to allow for adequate air circulation
- Companion planting: growing certain plants such as marigolds, dill or borage between vegetables will help deter insects
- The use of home made sprays to control pests and disease such as garlic spray (made by placing crushed garlic in the bottom of a jar, fill with water and use mister to apply to plants). For aphid control, a dilution of one part washing-up liquid to 10 parts water and be applied using a mister

### **Chemical Control**

When discussing chemical control, the teacher/tutor should emphasise the health and safety and environmental implications and codes of practice (e.g. avoidance of chemical drift, safe disposal and storage of containers, etc.) In addition, some teacher/tutors may like to explain that when controlling pests, plant based chemicals that contain pyrethin may be preferred, or glyphosate based products for weed eradication. Similarly, the learner should be aware of reasons for avoiding slug pellets for slug and snail control in favour of more environmentally friendly chemical options which can be equally effective but safer.

## Testing the soil

Learning Outcome 6: Carry out a soil test.

In order to help the learner achieve **Learning Outcome 6** in particular, consider doing the following:

identify with the learner why and how to carry out basic soil appraisal.

Exemplify a simple soil test as described below. The learner should be able to test the soil based on texture and structure and understand that the test is performed to ascertain site preparation techniques and to determine soil improvement needs

The teacher/tutor should exemplify how to do a simple hand test and explain the implications, for example, take a handful of soil in hand and mould a round shape. If it is heavy and sticky, the learner should

know that organic matter will need to be applied, and possibly grit if very heavy. If it is sandy or course to touch, the learner should know that organic matter applied in early spring is sufficient.

## Preparing the site

**Learning Outcome 7:** Prepare the ground for growing vegetables including clearing the ground organically or with chemicals, single digging, improving soil fertility, cross-digging the area, forking over, raking and levelling, marking out and preparing drills.

In order to help the learner achieve **Learning Outcome 7** in particular, consider doing the following:

explore with the learner how to prepare the ground for growing vegetables.
 Building on knowledge gained in 2 and 5 above, exemplify with the learner the following stages:

## o prepare the ground for planting

Clear site of general debris and unwanted plant material as exemplified with the learner in 5 above. Carry out simple soil analysis as exemplified with the learner in 6 above. Check for potential hazards (e.g. underground services, etc.) The ground should be cleared at the appropriate time of the year for the crop and in suitable weather conditions.

## o single dig the site

The learner should understand and be aware of the process of single digging as follows:

- dig to a spade's depth one drill
- place soil in wheelbarrow
- fill drill with well organic matter
- cover with soil dug from second drill
- continue until last drill is dug and manure applied
- place the soil from first drill (in wheelbarrow) into last drill

## o improve soil fertility

Exemplify with the learner how to dig in and incorporate into the soil organic matter such as farmyard manure, home-made compost, mushroom compost, seaweed, etc. The learner should recall that this should be done in autumn if soil is heavy or spring if it is free-draining soil. Apply appropriate fertilisers if necessary

## cross-dig, fork over and level the site

Exemplify with the learner how to cross-dig the area by digging the plot at a 45 degree to original starting position. The learner should know to use a fork to breakdown any clods or remove any large stones and then how to rake the soil to produce a level surface before firming the soil gently using the back of the rake

## o mark out and prepare drills

Exemplify with the learner how to mark out drills using a plumb line, line and sticks or bamboo cane. The learner should be aware that the aim is to create a straight line for marking out a drill. The learner should make the drill by using a hoe, bamboo cane or dibber, the depth of the drill will depend on the size of the seed and indicated on the back of seed packet. Water drill using a watering cane with rose attachment or hose

## Sowing the crop

**Learning Outcome 8:** Sow a vegetable crop from seeds or transplant a crop to outdoors.

In order to help the learner achieve **Learning Outcome 8** in particular, consider doing the following:

identify with the learner how to sow vegetable seeds outdoors

The learner should sow 3 different types of vegetable seeds in either flat bottomed, deep or shallow drills. The learner should be aware of the correct depth and spacing of seeds as indicated on the pack and provide immediate after-care, for example, water in appropriately, protect from pest or adverse weather conditions, etc. The learner should be aware of the importance of identifying the most appropriate time of year and weather conditions suitable for planting each vegetable as well as identifying the most appropriate environmental conditions, for example, shelter, shade, etc.

- exemplify with the learner the following procedures:
  - o place seed in drill at the required distances
  - cover seed with soil
  - o fill soil in and level with back of rack
  - o provide suitable protection from pests or adverse weather conditions
  - o write label with name, cultivar and date and place it at the end of each row
- identify with the learner how to plant transplants outdoors

The learner should plant a minimum of 10 young plants of 3 different types of vegetables. When planting, the learner should be aware of the importance of row and plant spacing, depth of sowing and planting, watering in and labelling, and the provision of immediate after-care such as the provision of supports and protection from pests or adverse weather conditions. The learner should be aware of the importance of identifying the most appropriate time of year and weather conditions suitable for planting each vegetable as well as identifying the most appropriate environmental conditions (e.g. shelter, shade, etc.)

- exemplify with the learner the following procedures:
  - o as above, but instead of making a drill, dig a hole with a trowel to the depth of the size of the transplant
  - o prepare and carefully remove transplant
  - o place in hole and firm in well around base
  - o provide suitable support (e.g. pea sticks, wire, etc.) and/or protection (e.g. cloche, netting, etc.) if

necessary

water in well.

## Maintaining the crop

**Learning Outcome 9:** Use a range of techniques to maintain the vegetable crop including thinning, transplanting, watering, feeding, weed-control, mulching, disease and pest control.

In order to help the learner achieve **Learning Outcome 9** in particular, consider doing the following:

• identify with the learner how to maintain the growth and development of the vegetable crop

The learner should be aware of how to successfully cultivate the vegetable crop including; weed control, pest and disease monitoring and control, feeding, watering, thinning of seedlings and pruning/training as necessary

- when maintaining the growth and development of the vegetables, the learner should follow the correct procedures for:
  - Thinning: Building on knowledge gained in 4 above, the learner should know how and when to
    pick out/thin seedlings. The learner should be able to select suitable equipment for thinning out
    and identify the correct stage of development for thinning out. The learner should know the
    appropriate spacing and quantities of the remaining seedlings, and provide them with effective
    immediate aftercare
  - Transplanting: Building on knowledge gained in 4 above, the learner should know when and how
    to transplant young plants outdoors. They must know how to handle the transplants correctly to
    prevent damage and ensure quick establishment
  - Watering: The learner must be aware that regular watering is essential to maintain vegetables and when and how to apply water by hose, seep hose (i.e. holes pierced intermittently in pipe to allow equal water dispersal), and watering can. The learner should be aware that the amount of water needed is dependent on the type of vegetables planted and weather conditions
  - Feeding: The learner should be aware of indications that feeding may be necessary as well as some common methods for doing so. For example, a base dressing of a general purpose fertiliser (i.e. Fish, Blood and Bonemeal) can be applied to brassicas during the growing season. Fruiting groups (e.g. tomatoes) should be fed every 2 weeks with tomato feed, liquid seaweed or comfrey feed
  - Weed- Control: Applying the knowledge gained in 5 above, the learner should know how and when to weed by hand or hoe and the importance of removing all weeds as early as possible. The learner should be able to identify a range of common weeds and some organic and chemical means by which to control them
  - Mulching: The learner should be aware of the reasons for mulching (e.g. retain moisture, control
    weeds, etc.) and when it may be necessary (e.g. peas and beans often benefit from mulching.)
     The learner should be aware that a free draining vegetable plot can be mulched with organic
    matter in spring before digging in for planting
  - Disease and Pest Control: Building on knowledge gained in 4 above, the learner should be aware

of when and how to protect vegetables from a range of pests and diseases by both organic and chemical means. The learner should be able to identify the pests/disease most likely to affect particular vegetables, (e.g. carrot fly, potato blight, etc.) and describe ways in which to control them.

#### Harvesting the crop

**Learning Outcome 10:** Harvest the crop at the correct stage of maturity.

In order to help the learner achieve **Learning Outcome 10** in particular, consider doing the following:

- identify with the learner the harvesting indications and requirements of a range of commonly grown vegetables, for example, cabbage and lettuce should have formed a good 'heart', potatoes should be harvested when flowers have died back, etc.
  - Follow instructions on seed packet/book as to the appropriate size of crop to be harvested.
- facilitate the learner to harvest by hand 3 types of vegetables and indicate appropriate picking /lifting/cutting techniques to avoid bruising or damage.

## Developing other core skills and competencies

**Learning Outcome 11:** Demonstrate the application of communications, team working, and quality awareness in a horticulture environment.

**Learning Outcome 12:** Apply appropriate health, safety and personal hygiene procedures when producing a crop of vegetables

In order to help the learner achieve **Learning Outcome 11 &12** in particular, consider doing the following:

- investigate with the learner the necessity for effective communication in a horticultural environment, for example, interacting with visitors, devising planting schemes, etc.
  - It is important to facilitate the learner to apply effective communication skills in different contexts throughout the delivery of the module. This could include one to one or group discussions and oral and written presentations, etc. Evidence must be verified by the teacher/tutor and retained in the Collection of Work
- investigate with the learner the necessity for effective team-working in a horticultural environment, for example, follow instructions, motivating other team members, etc.
  - It is important to facilitate the learner to participate effectively in group situations and team activities throughout the delivery of the module. Evidence must be verified by the teacher/tutor and retained in the Collection of Work
- investigate with the learner the necessity for quality awareness in a horticultural environment, for example, compliance with legal standards and regulatory requirements, adequate waste disposal facilities, etc.
  - It is important to facilitate the learner to identify a range of quality awareness issues relevant to a gardening / horticultural environment and to understand that success is linked to the application of sound

quality concepts. Evidence must be verified by the teacher/tutor and retained in the Collection of Work.

• identify with the learner basic health and safety guidelines for working in a horticultural environment; (for example, wear sun protection, have access to first aid equipment, proper storage of tools, etc)

The learner should be able to identify common hazards and causes of accidents and describe strategies to prevent them or minimise the danger. The learner should be able to describe basic first aid and emergency procedures in the event of accidents and be familiar with correct manual handling procedures. The learner should be able to observe relevant safe working practices as outlined in the Safety, Health and Welfare at Work Act, 2005.

exemplify with the learner how to use tools and equipment safely

The learner should be able to handle and store tool, materials, equipment and machinery in a safe and appropriate manner. The learner should understand the importance of recognising common hazard signs and labels on tools and products and correctly identify and following instructions on containers, materials, equipment, etc. In addition, the learner should be aware of when and why it may be necessary to wear personal protective clothing and equipment (for example, goggles, face masks, etc.)

• identify with the learner the potential for certain plant material to be poisonous or an irritant, and identify the necessity to follow correct procedure when using and storing garden chemicals and disposing of them and their containers.

The learner should be aware of common potential physical, chemical and biological hazards to humans, animals and the environment. The learner should understand the importance of washing their hands carefully with soap and following other basic hygienic procedures and practices relevant to a horticultural environment.

### Useful resources:

- The Health and Safety Authority (<u>www.hsa.ie</u>) provide a range of publications and a list of resources that might prove useful, including <u>www.hsa.ie/eng/Education/Managing Safety in Schools</u>
- Health & Safety Guide for Garden Centre Workers on the <u>www.worksafebc.com</u> website offers clear, simple and useful information and guidelines.

## **Useful Resources:**

Joy Larkcom, 'Grow your own Vegetables'
Dr Hessyan Expert Guides, 'Vegetables'

## Useful Websites:

www.bbc.co.uk/gardening

www.rhs.co.uk

www.gardening.ie

## 11. (a) Specific Information Relating to the Assessment Techniques

The assessor (teacher/tutor) is required to devise Assessment Brief/s for the Collection of Work. In devising the Assessment Brief/s, care should be taken to ensure that the learner is given the opportunity to show evidence of ALL learning outcomes. Each learner is required to work alone in completing the Collection of Work. There is no facility for this Collection of work to be completed as a group.

Evidence that the learner has achieved the learning outcomes may take a variety of forms including tutor verification of the learner's contribution, learner's worksheet, diagrams, cloze tests, multiple choice statements, visual presentation or another appropriate evidence in the form of written, oral, graphic, audio, visual or any combination of these. Any audio or visual evidence must be provided in a suitable format. All of the evidence must be retained n the learner's assessment portfolio.

## **Collection of Work**

20%

The Collection of Work may be produced throughout the duration of this programme module. It must be clearly indicated where evidence covers more than one learning outcome.

The learner will compile a Collection of Work that demonstrates the following:

- 1. Maintain a log book/ gardening journal to include
  - general observations/reflections
  - significant dates of planting, pest control, harvesting, etc
  - list of tools, materials, equipment used
  - details of the seeds/transplants used
  - problems encountered
  - ideas for improvement.

The log book/gardening journal should evidence the learners understanding of the

- stages of site and ground preparation
- relevance of ph levels in the soil
- purpose and principles of thinning, transplanting and weeding
- preventative methods for controlling disease and pest either organically or chemically.

#### **Skills Demonstration**

80%

The learner will complete a number of Skills Demonstrations at appropriate intervals during the programme. Evidence of the Skills Demonstrations must be included in the assessment portfolio. The evidence may be photographs, video, audio or digital evidence, or other appropriate evidence of the learner completing the tasks.

The learner will complete the following Skills Demonstrations:

- perform a basic soil test
- clear and prepare site (either organically or chemically) for growing a vegetable crop
- plant the vegetable crop (i.e., sow 3 different types of vegetable seeds or plant a minimum of 10 young transplants of 3 different types of vegetables)
- monitor and maintain the growth and development of the vegetable crop
- harvest the vegetable crop at the correct stage of maturity.

When completing the Skills Demonstration, the learner must demonstrate:

- correct maintenance and storage of tools, materials and equipment
- appropriate health, safety and personal hygiene procedures
- effective communication and team working skills, and an awareness of quality issues throughout.

## 11.b Assessment - General Information - Outdoors Vegetable Crop Production 3N0890

All instructions for the learner should be clearly outlined in an Assessment Brief.

Mapping Each Learning Outcome to an Assessment Technique		
Learning Outcome	Assessment Technique	
1 List the tools, materials and equipment required to grow outdoor vegetables.	Collection of Work	
2 List the stages of ground preparation for vegetable sowing.	Collection of Work	
3 Explain pH levels in the soil.	Collection of Work	
4 Explain the purpose of and techniques for thinning, transplanting and weeding.	Collection of Work	
5 Describe a range of preventative methods for controlling vegetable diseases and pests organically or with chemicals.	Collection of Work	
6 Carry out a soil test.	Skills Demonstration	
7 Prepare the ground for growing vegetables including clearing the ground organically or with chemicals, single digging, improving soil	Skills Demonstration	
fertility, cross-digging the area, forking over, raking and levelling, marking out and preparing drills.		
8 Sow a vegetable crop from seeds or transplant a crop to outdoors.	Skills Demonstration	
9 Use a range of techniques to maintain the vegetable crop including thinning, transplanting, watering, feeding, weed-control,	Skills Demonstration	
mulching, disease and pest control.		
10 Harvest the crop at the correct stage of maturity.	Skills Demonstration	
11 Demonstrate the application of communications, team working and quality awareness, in a horticulture environment.	Collection of Work	
	Skills Demonstration	
12 Apply appropriate health, safety and personal hygiene procedures when producing a crop of vegetables.	Collection of Work	
	Skills Demonstration	

## Grading

At Level 3 a learner is graded as Successful or Referred.

**Successful** means that ALL the learning outcomes from the Component Specification have been demonstrated to an appropriate standard in the learner's portfolio of assessment.

**Referred** means that the portfolio of assessment needs further work by the learner before s/he can demonstrate the standard and achieve certification from QQI.

<b>Level 3 Outdoor</b>	Vegetable Production	3N0890
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# **Learner Marking Sheet**



earner's Name:	Learner's PPSN:
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		✓	
The learner will be able to:	Evidence of the following is included in the assessment portfolio:	ı ın	Please indicate where evidence is to be found
1. list the tools, materials and equipment required to grow outdoor vegetables	<ul> <li>identify a range of tools, materials and equipment required to grow vegetables</li> <li>demonstrate the correct usage of the tools, materials and equipment</li> <li>observe basic safety procedures and practices when using tools, materials and equipment</li> <li>demonstrate good working practices in the maintenance, cleaning and storage of the tools, materials and equipment</li> </ul>		
list the stages of ground preparation for vegetable sowing     explain pH levels in the soil	<ul> <li>explain why and how to prepare sites for planting vegetables</li> <li>outline the steps involved in preparing the site</li> <li>explain what is meant by pH level</li> <li>outline why pH level is an important consideration for vegetable production</li> </ul>		
4. explain the purpose of and techniques for thinning, transplanting and weeding 5. describe a range of preventative methods	<ul> <li>indicate one method of testing soil pH level</li> <li>explain the reasons for thinning, transplanting and weeding</li> <li>identify the correct methods to thin, transplant and provide weed control</li> </ul>		
for controlling vegetable diseases and pests, organically or with chemicals	<ul> <li>identify and explain a range of organically-sound preventative measures</li> <li>identify and explain a range of chemically-based preventative measures</li> </ul>		
6. carry out a soil test	<ul> <li>explain the reasons for conducting a soil test</li> <li>indicate how to carry out a simple soil test</li> <li>explain the implications of the test results and the corrective measures to be taken</li> </ul>		

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7. prepare the ground for growing vegetables including clearing the ground organically or with chemicals, single digging, improving soil fertility, cross-digging the area, forking over, raking and levelling, marking out and preparing drills	<ul> <li>prepare the site for planting</li> <li>single dig the site</li> <li>apply organic matter and / or fertiliser as necessary</li> <li>cross dig and fork over the site</li> <li>rake and level the site</li> <li>mark out and prepare drills</li> </ul>
8. sow a vegetable crop from seeds or transplant a crop to outdoors	<ul> <li>correctly plant a range of seeds in either flat bottomed, deep or shallow drills according to instructions on pack</li> <li>correctly plant out a minimum of 30 vegetable transplants</li> </ul>
9. use a range of techniques to maintain the vegetable crop including thinning, transplanting, watering, feeding, weed-control, mulching, disease and pest control	<ul> <li>thin out seedlings to specified spacing</li> <li>prepare, lift and plant transplants</li> <li>identify and supply watering and feeding as appropriate</li> <li>monitor and control weeds and pest / disease infestations</li> </ul>
10 harvest the crop at the correct stage of maturity	<ul> <li>identify when the crop is at the correct stage of maturity</li> <li>indicate and carry out the correct method of harvesting</li> </ul>
11 demonstrate the application of communications, team working, and quality awareness in a horticulture environment	<ul> <li>apply effective communication skills</li> <li>apply effective team-working skills</li> <li>apply quality awareness</li> </ul>
12 apply appropriate health, safety and personal hygiene procedures when producing a crop of vegetables.	<ul> <li>apply appropriate healthy and safety practices throughout</li> <li>apply appropriate personal hygiene working practices throughout.</li> </ul>
This is to state that the evidence presented in	the attached portfolio is complete and is the work of the named learner.

Learner's Signature:	 Date:
Assessor's Signature:	 Date:
External Authenticator's Signature:	 Date: