

CITY & GUILDS LEVEL 2 AWARD IN THE SAFE APPLICATION OF PESTICIDES TO PLANT MATERIAL DURING A CONTINUOUS FLOW PROCESS (PA12) 601/5151/1



QUALIFICATION GUIDANCE

Independently Assessed

Essential Qualification Information

Not to be used by the Candidate during Assessment

You will require some of this information to accurately complete the Record of Assessment (ROA)

Qualification Group No	0 2 1 6	Pesticides
Qualification Programme No	0 2 1 6 - 6 0	L2 Award in the Safe Application of Pesticides to Plant Material During a Continuous Flow Process (PA12)
Unit(s)	2 1 1	Applying Pesticides to Plant Material During a Continuous Flow Process (PA12) (K/505/7764)
Guided Learning Hours-(GLH)	2 1 1	54
Total Qualification Time (TQT)		60
Recommended Assessment Duration		1.5 – 3 hours per Candidate
Pre-Requisite Units	1 0 1	Principles of Safe Handling and Application of Pesticides (PA1)

Version and date	Change detail	Section
1.2 November 2017	Added TQT details Deleted QCF / Learning Time	Qualification at a glance, Structure Throughout
1.3 April 2022	GLH & TQT clarified and highlighted City & Guilds address revised	Qualification at a glance Pg 4

City & Guilds Level 2 Award in the Safe Application of Pesticides to Plant Material during a Continuous Flow Process (PA12) Qualification Guidance

Introduction

The scheme will be administered by City & Guilds

City & Guilds will:

- Publish
 - Scheme regulations
 - Qualification guidance
 - Training material
 - Trainers support material
- Approve Centres to co-ordinate and administer the scheme
- Set standards for the training of Verifiers and Assessors
- Recruit, train and deploy Verifiers
- Manage verification
- Issue Certificates to successful Candidates

The Qualification

The qualification will be awarded to Candidates who achieve the required level of competence in the units to which their Certificate relates.

Training

The Code of Practice for Using Plant Protection Products states "By Law everyone who uses pesticides professionally must have received adequate training in using pesticides safely". Candidates are strongly advised to ensure that they will be able to meet the standards required in the assessment.

Total Qualification Time

Total Qualification Time (TQT) is the total amount of time, in hours, expected to be spent by a Learner to achieve a qualification. It includes both guided learning hours (which are listed separately) and hours spent in preparation, study and assessment.

Access to Assessment

Assessment Centres will be responsible for arranging the assessment on behalf of the Candidate.

The minimum age limit for Candidates taking Certificates of Competence is 16 years. There is no upper age limit.

The assessment consists of **one** compulsory unit:

Unit 211 (PA12)	(Mandatory)	(Credit Value 3)
Outcome 1.	Know the legislative and safety regulations relating to application equipment	(Criteria 1.1 – 1.2)
Outcome 2.	Be able to assess the environmental factors relating to mixing and application	(Criteria 2.1 – 2.2)
Outcome 3.	Be able to read and interpret product information	(Criteria 3.1 – 3.2)
Outcome 4.	Be able to prepare the equipment	(Criteria 4.1 – 4.6)
Outcome 5.	Be able to operate the equipment	(Criteria 5.1 – 5.3)
Outcome 6.	Know how to carry out post-operational procedures	(Criteria 6.1 – 6.3)

Candidates must successfully achieve **all** assessment activities in the above unit.

There are no endorsements for this Award.

Quality Assurance

Verification is a process of monitoring assessment; it is an essential check to confirm that the assessment procedures are being carried out in the way City & Guilds has specified. The overall aim of Verification is to establish a system of quality assurance that is acceptable in terms of both credibility and cost effectiveness.

Approved Assessors will be subject to a regular visit by a Verifier at a time when assessments are being undertaken.

Documents completed by the Assessor may be inspected by a Centre appointed Internal Verifier and a City & Guilds approved Verifier at any time.

Compliance with the verification requirements is a pre-requisite for Assessors remaining on the list of approved Assessors.

After assessment has been completed the Qualification Guidance is to be retained by the Assessor for 12 months and is to be made available for inspection by a Centre appointed Internal Verifier, a City & Guilds approved Verifier or when a centre visit takes place by a Quality Systems Consultant (QSC).

Performance Evaluation

The result of each assessment activity is evaluated against the following criteria:

- M =** Met Meets or exceeds the assessment criteria by displaying a level of practical performance and/or underpinning knowledge. If the Criterion has been MET, a tick is to be put in the box provided in the bottom right-hand column of each section.
- NM =** Not Met Does not satisfy the requirements of the assessment criteria, being unable to perform the practical task satisfactorily or safely or having insufficient underpinning knowledge. If the Criterion is NOT MET, a cross is to be put in the box provided in the bottom right-hand column of each section.

Appeals and Equal Opportunities

Centres must have their own auditable, appeals procedures. If a Candidate is not satisfied with the examination conditions or a Candidate feels the opportunity for examination is being denied, the Centre Manager should, in the first instance, address the problem. If, however the problem cannot be resolved, City & Guilds will arbitrate and a Principal Verifier may be approached to offer independent advice. All appeals must be clearly documented by the Centre Manager and made available to the Principal Verifier or City & Guilds if advice is required.

Should occasions arise when Centres are not satisfied with any aspect of the verification process, they should contact the Quality Assurance Manager at City & Guilds NPTC, Building 500, Abbey Park, Stareton, Warwickshire, CV8 2LY. Telephone 024 7685 7300

Access to the qualification is open to all, irrespective of gender, race, creed or special needs. Subject to H&S restrictions the Centre Manager should ensure that no learner is subjected to unfair discrimination on any grounds in relation to access to assessment and to the fairness of the assessment. QCA requires City & Guilds to monitor centres to check whether equal opportunities policies are being adhered to.

Validation of Equipment

All equipment being used for this assessment must comply with the relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998.

Vehicles must comply with Department of Transport and Road Traffic Acts where relevant.

Any machinery/equipment complying with current legal requirements is acceptable for the assessment, provided it is suitably equipped for **all** assessment activities to be carried out.

Summary of responsibilities in the assessment process		
Centre responsibilities	Candidate responsibilities	Assessor responsibilities
A suitable site is made available for the assessment to take place		Ensuring that the site provided is suitable for the assessment to take place
Machinery, equipment and materials are available to enable assessment of all the activities to take place	To be familiar with the machinery/equipment being used for the assessment	Ensuring that the machinery, equipment and materials provided satisfy the assessment requirements
	To bring appropriate Personal Protective Equipment (PPE) to the assessment	Ensuring that candidate's PPE complies with the requirements of the assessment
	To bring relevant training materials (including calibration sheet if applicable)	
	To bring a product label appropriate for the assessment	To ensure that the product label is appropriate for the assessment (or provide a suitable alternative)

Safe Practice

The Assessor and Candidate must wear Personal Protective Equipment (PPE) when appropriate.

The Assessor must ensure that a Site Specific Risk Assessment is carried out.

All equipment must be operated in such a way that the Candidate, Assessor, other persons and the environment are not endangered. Failure to operate safely and comply with these requirements will result in the Candidate not meeting the required standard.

A breach of Health and Safety that puts any person at risk during the assessment process will result in the assessment being terminated and the Candidate not meeting the required standard. The Assessor may stop the assessment on the grounds of safety at any time at their discretion.

Before any assessments take place, Assessor & Candidate should be aware of any local or national issues to prevent breach of security, safety and any cross contamination or damage to the local environment.

Information

During the assessment the candidate may refer to operator manuals, training materials or safety publications, but they **may not** refer to the Qualification Guidance Document.

Questions should be related to the background or employment aspirations of the candidate.

Candidates who undertake this assessment and have met the requirements are reminded of their legal obligation to receive/undertake appropriate additional training in the use of any equipment that differs from that used during the assessment, but which they are nevertheless qualified to use.

Assessment Guidance for the Assessor

This qualification can only be assessed by an Assessor who is suitably qualified and meets the requirements of the awarding body. The Assessor must be independent **and cannot have been involved with the training of the Candidate**. Please see City & Guilds Centre Manual for guidance.

The Candidate is to be notified of the place and time of assessment and when formal assessment commences and ceases.

Assessors are reminded that assessment is a formal process and that assessment must be carried out using this Qualification Guidance. All relevant assessment criteria must be assessed as specified in the Qualification Guidance. Assessment will be carried out by direct observation and by oral questioning of the Candidate. **Where a specific number of responses are required these may include other suitable answers not specified if they are deemed to be correct by the Assessor.** The performance of the Candidate is to be recorded on the Qualification Guidance as directed by completing the tick boxes. Space has been provided on the Qualification Guidance for the person assessing to record relevant information which can be utilised to provide feedback to the Candidate. After assessment has been completed the Qualification Guidance document is to be retained by the assessor and provided if required.

Assessment Guidance for the Candidate

A list of registered Assessment Centres is available from City & Guilds NPTC. (www.nptc.org.uk)

Assessment is a process by which it is confirmed that the candidate is competent in the unit(s) within the award to which the assessment relates. It is the process of collecting evidence about the candidate's capabilities and judging whether that evidence is sufficient to attribute competence.

The Candidate must be registered through the City & Guilds approved Assessment Centre for this qualification prior to the assessment.

The results of the assessment will be recorded on the Record of Assessment form (ROA).

The Qualification Guidance contains criteria relating to:

- Observation of practical performance
- Assessment of underpinning knowledge

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Unit 211 - Applying Pesticides to Plant Material during a Continuous Flow Process (PA12)

Candidate A	Name:	Date:	Start Time:	Duration:
Candidate B	Name:	Date:	Start Time:	Duration:
Candidate C	Name:	Date:	Start Time:	Duration:
Candidate D	Name:	Date:	Start Time:	Duration:

CRITERIA NUMBER	ASSESSMENT CRITERIA	ASSESSOR GUIDANCE	ASSESSMENT ACTIVITIES	CANDIDATE			
				A	B	C	D
Unit 211 1.1	Describe the legal requirements relating to treating plant material with pesticide during a continuous flow process	Candidate to describe two operator's obligations in terms of legal requirements	include: <ul style="list-style-type: none"> all required guards are in place and equipment complies with legal requirements comply with The Plant Protection Products (Sustainable Use) Regulations 2012 the operator must hold the appropriate certification for the equipment they are using Met ✓ Not Met X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 1.2	Describe how to apply pesticide during a continuous flow process following industry best practice	Candidate to describe one operator safety regulation in terms of applying pesticide using a continuous flow process	May include: <ul style="list-style-type: none"> comply with Pesticide Codes of Practice adopt industry best practice be aware of any safety implications imposed by COSHH/Risk Assessment and comply with the requirements Met ✓ Not Met X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 2.1	Identify risks to the environment	Candidate to identify all relevant risks to the environment for the application site	May include: <ul style="list-style-type: none"> water courses drains boreholes non-targets housing public/co-workers wind speed & direction awareness of working in a confined space other risks specific to the site Met ✓ Not Met X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 2.2	Explain how to minimise risks to the environment	Candidate to explain how to minimise the risks identified in 2.1 Candidate to check and comment on wind speed and direction Candidate to state the reason for minimising spray drift or off target application Candidate to state five factors that affect spray drift	Explanation to include the following points: <ul style="list-style-type: none"> use of an appropriate pesticide careful timing of application containment in case of leakage from fixed equipment check and maintain application rate avoid spray drift erect warning signs use of anemometer at suitable height or visible signs wind direction Statement to include: <ul style="list-style-type: none"> awareness of the possible effects of drift to crops, people, wildlife, water and the environment May include: <ul style="list-style-type: none"> weather conditions nozzle type and size pressure nozzle height above conveyor system defective application equipment defective engineering controls Met ✓ Not Met X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CRITERIA NUMBER	ASSESSMENT CRITERIA	ASSESSOR GUIDANCE	ASSESSMENT ACTIVITIES	CANDIDATE			
				A	B	C	D
Unit 211 3.1 Unit 211 3.2	Read product information Interpret product information	The candidate is required to read and interpret the information on a product label and provide relevant information as requested by the Assessor Note to the Assessor: A product label is required. It is expected that the candidate will provide the product label The label provided must be for a currently approved product and appropriate to the candidates normal work situation Note to the Candidate (Assessor also to note): It is acceptable for key information on the label to be highlighted for use during the assessment	The following to be tested: <ul style="list-style-type: none">• product name• active substance(s) (ingredient(s)) Important information: <ul style="list-style-type: none">• field of use• crop/target• maximum individual dose• maximum total dose• maximum number of treatments• specific product precautions/warnings• operator protection• environmental protection• restrictions on use Crop specific information: <ul style="list-style-type: none">• crop/target• dose rate• water volume (if applicable)• timing Mixing and spraying: <ul style="list-style-type: none">• filling• reduced volume applications (if applicable)• recommended nozzles• recommended pressure• spray quality• additional label information• compatibility <p style="text-align: right;">Met ✓ Not Met X</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 4.1	Identify application equipment, components & controls	Candidate to identify all components and controls relating to the applicator being used for the assessment	May include: <ul style="list-style-type: none">• tank• lid• filters• hoses• connections• seals• metering devices• mechanical/electrical controls• material feed system• conveying system• emergency stop control(s) <p style="text-align: right;">Met ✓ Not Met X</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 4.2	Carry out pre-use checks to the equipment	Candidate to part fill the applicator and check for satisfactory operation Identify and explain the use of two types of nozzle, one of which could be that intended for use	To include: <ul style="list-style-type: none">• applicator checked for leaks under pressure (if applicable)• any problems identified to be rectified if within operator's level of responsibility and ability• condition confirmed as suitable for operation• flat-fan – general coverage across wide conveyor• cone – comprehensive treatment of rolling/turning plant material <p style="text-align: right;">Met ✓ Not Met X</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 4.3 Continued	Adjust settings on the equipment	Fit the required nozzle for use and select the correct pressure. Check suitable spray pattern	To include: <ul style="list-style-type: none">• suitable nozzle selected• nozzle fitted correctly• correct pressure selected• nozzle undamaged• correct spray pattern for nozzle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CRITERIA NUMBER	ASSESSMENT CRITERIA	ASSESSOR GUIDANCE	ASSESSMENT ACTIVITIES	CANDIDATE			
				A	B	C	D
Cont... Unit 211 4.3		Candidate to adjust settings/speed of the conveying system and position of the nozzles (if applicable)	May include: <ul style="list-style-type: none"> adjusting width of conveyed plant material adjusting speed of conveyed plant material adjusting height and lateral position of nozzles (if applicable) <p style="text-align: right;">Met ✓ Not Met X</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 4.4	Calibrate the equipment and record relevant data	The candidate is required to calibrate the equipment and record relevant data Note to the Assessor: Any method of calibration may be used Candidate to record relevant calibration data	Calibration to include: <ul style="list-style-type: none"> calculation of pesticide required calculation of water volume rate (if applicable) check water volume rate against product information recommendations Calibration data may include: <ul style="list-style-type: none"> applicator used conveyor speed nozzle(s) fitted (if applicable) pressure setting application rate flow rate <p style="text-align: right;">Met ✓ Not Met X</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 4.5	Calculate the quantities of pesticide and water	Candidate to calculate the quantities of pesticide and water required for a specified weight/volume/number of plant material	May include: <ul style="list-style-type: none"> amount of pesticide required for a specified weight/volume/number amount of water required (if applicable) <p style="text-align: right;">Met ✓ Not Met X</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 4.6	Measure or weigh the required quantities and add to the applicator as appropriate	Candidate to measure or weigh the appropriate quantities of pesticide and water (if applicable) and add to the tank Note: This may be a simulated pesticide product	May include: <ul style="list-style-type: none"> correct selection and use of PPE/RPE (as required by the product label, COSHH/Risk Assessment) fill following product recommendations and approved procedures accurate measurement of water accurate measurement of pesticide avoidance of spillage <p style="text-align: right;">Met ✓ Not Met X</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 5.1	Demonstrate safe and accurate application procedures	The candidate is required to treat the weight/volume/number specified in 4.5 demonstrating safe and accurate application procedures	May include: <ul style="list-style-type: none"> maintaining continuous flow of plant material accurate placement/distribution of pesticide avoidance of splashing/contamination maintaining correct temperature (if applicable) <p style="text-align: right;">Met ✓ Not Met X</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 5.2	Carry out all activities protecting human health and the environment	Note to the Assessor: Assessor to be satisfied that the candidate has carried out all activities protecting human health and the environment	To include: <ul style="list-style-type: none"> prevention of personal injury and contamination through correct selection and use of PPE/RPE (as required by the product information, COSHH/Risk Assessment) prevention of public / bystander contamination safe filling procedure avoidance of off target application avoidance of overdosing plant material <p style="text-align: right;">Met ✓ Not Met X</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 5.3	Complete a treatment record	The candidate is required to complete a treatment record Note to the Assessor: the treatment record must be approved or if necessary supplied by the Assessor	Completion of the treatment record must be: <ul style="list-style-type: none"> accurate legible (if handwritten) <p style="text-align: right;">Met ✓ Not Met X</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CRITERIA NUMBER	ASSESSMENT CRITERIA	ASSESSOR GUIDANCE	ASSESSMENT ACTIVITIES	CANDIDATE			
				A	B	C	D
Unit 211 6.1	Explain how to manage surplus pesticide and dispose of waste material	Candidate to explain one method of dealing with surplus concentrate pesticide Candidate to explain one method of dealing with waste containers and packaging Candidate to explain one method of dealing with surplus dilute pesticides	Explanation may include: <ul style="list-style-type: none"> • return to temporary mobile store • return to fixed store Containers: <ul style="list-style-type: none"> • triple rinsed (if applicable) • placed in secure storage until disposal • returned to supplier • collected by a licensed waste disposal contractor Packaging: <ul style="list-style-type: none"> • thoroughly emptied • placed in secure storage until disposal • collected by a licensed waste disposal contractor Explanation may include: <ul style="list-style-type: none"> • use on another approved target • treated by specialist treatment facility on site (e.g. a lined bio bed) • collected by a licensed waste disposal contractor <p style="text-align: right;">Met ✓ Not Met X</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 6.2	Explain how to clean and decontaminate the applicator	Candidate to explain what factors need to be considered when cleaning the applicator	Explanation to include at least four of the following points: <ul style="list-style-type: none"> • select and use correct PPE/RPE • selection of an appropriate site for cleaning the sprayer/applicator • triple rinse the applicator following product information recommendations (if applicable) • through flushing of system (if applicable) • cleaning of conveyor system • safe disposal of contaminated washings in an appropriate manner following good practice • safe procedures followed <p style="text-align: right;">Met ✓ Not Met X</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit 211 6.3	Describe the storage requirements for the applicator	Candidate to describe three factors to consider prior to storing the applicator	May include: <ul style="list-style-type: none"> • de-pressurisation • ensure the sprayer/applicator is clean and dry • inspect for wear or damage • repair or notify supervisor if not within operators level of responsibility and ability • lubricate if required • frost protection measures implemented • store in a secure area • store under cover and out of direct sunlight <p style="text-align: right;">Met ✓ Not Met X</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Summary of Assessment (The Assessor is to complete the following as appropriate)

Candidate A	Candidate has met all of the assessment criteria	Tick <input checked="" type="checkbox"/> <input type="checkbox"/>	The Candidate has not met all of the assessment criteria; (state reason(s))	Tick <input checked="" type="checkbox"/> <input type="checkbox"/>
	Signed:		Date:	

Candidate B	Candidate has met all of the assessment criteria	Tick <input checked="" type="checkbox"/> <input type="checkbox"/>	The Candidate has not met all of the assessment criteria; (state reason(s))	Tick <input checked="" type="checkbox"/> <input type="checkbox"/>
	Signed:		Date:	

Candidate C	Candidate has met all of the assessment criteria	Tick <input checked="" type="checkbox"/> <input type="checkbox"/>	The Candidate has not met all of the assessment criteria; (state reason(s))	Tick <input checked="" type="checkbox"/> <input type="checkbox"/>
	Signed:		Date:	

Candidate D	Candidate has met all of the assessment criteria	Tick <input checked="" type="checkbox"/> <input type="checkbox"/>	The Candidate has not met all of the assessment criteria; (state reason(s))	Tick <input checked="" type="checkbox"/> <input type="checkbox"/>
	Signed:		Date:	

For use by Internal Verifier ONLY if the assessment process was internally verified
 (Internal Verifier to complete **ONE** of the boxes below)

I observed an assessment process taking place and I am satisfied that the assessment was conducted in line with the qualification requirements.	Tick <input checked="" type="checkbox"/> <input type="checkbox"/>
I observed an assessment process taking place. The following were noted as areas of concern.	Tick <input checked="" type="checkbox"/> <input type="checkbox"/>
Signed:	
Date:	