City & Guilds NPTC Level 2 Award in the Safe Application of Pesticides to Plant Material During a Continuous Flow Process (PA12) 601/5151/1

Version 1.0 (February 2024)

Assessment Pack – Centre and Candidate Version

Version and date	Change detail	Section
1.0 February 2024	First version	All

Contents

Introduction

This assessment relates to the unit in the Qualification handbook. The assessment can be achieved at pass only. If any task is not yet met the candidate is unsuccessful.

This assessment is for the following units and learning outcomes:

211 Applying pesticides to plant material during a continuous flow process covering the following learning outcomes:

1. Know the legislative and safety regulations relating to application equipment
2. Be able to assess the environmental factors relating to mixing and application
3. Be able to read and interpret product information
4. Be able to prepare the equipment
5. Be able to operate the equipment
6. Know how to carry out post-operational procedures

General guidance on the requirements for assessment can be found in the Assessor Guidance General guidance on the requirements for assessment can be found in the Assessor Guidance document available on the City & Guilds web site **www.nptc.org.uk**

The assessor must complete the Practical Table mark sheet for each candidate which should be kept by the assessor for a minimum period of twelve months.

Record of assessment (ROA)
A prepopulated record of assessment must be completed by the assessor following an assessment. The number of outcomes is listed above, these must be ticked into the relevant met or not met sections of the ROA.

ARAS Forms
An Assessment Result Advice Slip (ARAS form) must be completed by the assessor following an assessment. The ARAS is not a certificate but, based on the evidence of the candidate's performance, is a recommendation to City & Guilds that the candidate is either met or not met the assessment criteria. All feedback is to be recorded by the assessor on the feedback section of the ARAS form.

Assessment Time
The expected assessment time for this qualification is 1.5 – 3 hours.

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)

This is not an open book assessment, however additional technical information may be sought from the relevant manufacturer's operator manuals or any other appropriate training or safety publication.

Practical observation descriptor table

211 Applying pesticides to plant material during a continuous flow process

Activity number and description from check list		Assessment criteria
1.1	Describe the legal requirements relating to treating plant material with pesticide during a continuous flow process	May include: • 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
1.2	Describe how to apply pesticide during a continuous flow process following industry best practice	May include: • 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
2.1	Identify risks to the environment	May include: • 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
2.2	Explain how to minimise risks to the environment	Explanation to include the following points: • 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 Check and comment on wind speed: • use of anemometer at suitable height or visible signs • wind direction Reasons for minimising spray drift: • awareness of the possible effects of drift to crops, people, wildlife, water and the environment Factors that affect spray drift • weather conditions • nozzle type and size • pressure • nozzle height above convey or system • defective application equipment • defective engineering controls
3.1 - 3.2	Read product information Interpret product information	The following to be tested: • product name • active substance(s) (ingredient(s)) Important information: • 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: • crop/target • dose rate • water volume (if applicable)

		• timing Mixing and spraying: • filling • reduced volume applications (if applicable) • recommended nozzles • recommended pressure • spray quality • additional label information • compatibility
4.1	Identify application equipment, components & controls	May include: • tank • lid • filters • hoses • connections • seals • metering devices • mechanical/electrical controls • material feed system • conveying system • emergency stop control(s)
4.2	Carry out pre-use checks to the equipment	To include: • 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 Nozzle types • flat-fan – general coverage across wide conveyor • cone – comprehensive treatment of rolling/turning plant material
4.3	Adjust settings on the equipment	Correct pressure/suitable spray patterns • suitable nozzle selected • nozzle fitted correctly • correct pressure selected • nozzle undamaged • correct spray pattern for nozzle Adjusting settings/speed • adjusting width of conveyed plant material • adjusting speed of conveyed plant material

		• adjusting height and lateral position of nozzles (if applicable)
4.4	Calibrate the equipment and record relevant data	Calibration to include: • calculation of pesticide required • calculation of water volume rate (if applicable) • check water volume rate against product information recommendations Calibration data may include: • applicator used • conveyor speed • nozzle(s) fitted (if applicable) • pressure setting • application rate • flow rate
4.5	Calculate the quantities of pesticide and water	May include: • amount of pesticide required for a specified weight/volume/number • amount of water required (if applicable)
4.6	Measure or weigh the required quantities and add to the applicator as appropriate	May include: • 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
5.1	Demonstrate safe and accurate application procedures	May include: • maintaining continuous flow of plant material • accurate placement/distribution of pesticide • avoidance of splashing/contamination • maintaining correct temperature (if applicable)
5.2	Carry out all activities protecting human health and the environment	To include: • 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

5.3	Complete a treatment record	Completion of the treatment record must be: • accurate • legible (if handwritten)
6.1	Explain how to manage surplus pesticide and dispose of waste material	Surplus concentrate pesticide • return to temporary mobile store • return to fixed store Containers: • triple rinsed (if applicable) • placed in secure storage until disposal • returned to supplier • collected by a licensed waste disposal contractor Packaging: • thoroughly emptied • placed in secure storage until disposal • collected by a licensed waste disposal contractor Surplus dilute pesticides • 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
6.2	Explain how to clean and decontaminate the applicator	Explanation to include at least four of the following points: • 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
6.3	Describe the storage requirements for the applicator	May include: • 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

Appendix 1 Practical table

211 Applying pesticides to plant material during a continuous flow process

All criteria must be achieved.

Activity number and description	Achieved
1.1 Describe the legal requirements relating to treating plant material with pesticide during a continuous flow process	
1.2 Describe how to apply pesticide during a continuous flow process following industry best practice	
2.1 Identify risks to the environment	
2.2 Explain how to minimise risks to the environment	
3.1 Read product information	
3.2 Interpret product information	
4.1 Identify application equipment, components & controls	
4.2 Carry out pre-use checks to the equipment	
4.3 Adjust settings on the equipment	
4.4 Calibrate the equipment and record relevant data	
4.5 Calculate the quantities of pesticide and water	
4.6 Measure or weigh the required quantities and add to the applicator as appropriate	
5.1 Demonstrate safe and accurate application procedures	
5.2 Carry out all activities protecting human health and the environment	
5.3 Complete a treatment record	
6.1 Explain how to manage surplus pesticide and dispose of waste material	
6.2 Explain how to clean and decontaminate the applicator	
6.3 Describe the storage requirements for the applicator	

Appendix 2 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. To download the documents and to find other useful documents, go to the ***Centre Document Library*** on ***www.cityandguilds.com*** or click on the links below:

Quality Assurance Standards: Centre Handbook
This document is for all approved centres and provides guidance to support their delivery of our qualifications. It includes information on

- Centre quality assurance criteria and monitoring activities
- Administration and assessment systems
- Centre-facing support teams at City & Guilds / ILM
- Centre quality assurance roles and responsibilities.

The Centre Handbook should be used to ensure compliance with the terms and conditions of the Centre Contract.

Quality Assurance Standards: Centre Assessment
Approved centres must have effective quality assurance systems to ensure optimum delivery and assessment of qualifications. Quality assurance includes initial centre approval, qualification approval and the centre's own internal procedures for monitoring quality. Centres are responsible for internal quality assurance and City & Guilds is responsible for external quality assurance. All external quality assurance processes reflect the minimum requirements for verified and moderated assessments, as detailed in the Centre Assessment Standards Scrutiny (CASS), section H2 of Ofqual's General Conditions. For more information on both CASS and City & Guilds Quality Assurance processes visit: the What is CASS? and Quality Assurance Standards documents on the City & Guilds website.

This document sets out the minimum common quality assurance requirements for our regulated and non-regulated qualifications that feature centre assessed components. Specific guidance will also be included in relevant qualification handbooks and/or assessment documentation.

It incorporates our expectations for centre internal quality assurance and the external quality assurance methods we use to ensure that assessment standards are met and upheld. It also details the range of sanctions that may be put in place when centres do not comply with our requirements, or actions that will be taken to align centre marking/assessment to required standards. Additionally, it provides detailed guidance on the secure and valid administration of centre-assessments.

Access arrangements - When and how applications need to be made to City & Guilds provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The ***Centre Document Library*** also contains useful information on such things as:

- Conducting examinations
- Registering learners

- Appeals and malpractice

Useful contacts
Please visit the Contact Us section of the City & Guilds website, ***Contact us***

About City & Guilds

As the UK's leading vocational education organisation, City & Guilds is leading the talent revolution by inspiring people to unlock their potential and develop their skills. We offer over 500 qualifications across 28 industries through 8500 centres worldwide and award around two million certificates every year. City & Guilds is recognised and respected by employers across the world as a sign of quality and exceptional training.

City & Guilds Group

The City & Guilds Group is a leader in global skills development. Our purpose is to help people, organisations and economies develop their skills for growth. We work with education providers, employers and governments in over 100 countries across the world to help people, businesses and economies grow by shaping skills systems and supporting skills development.

The Group is made up of City & Guilds, ILM, Kineo, The Oxford Group, Gen2, and Intertrain. Together we set the standard for professional and technical education and corporate learning and development around the world.

Copyright

Published by City & Guilds, a registered charity established to promote education and training

City & Guilds of London Institute
Giltspur House
5-6 Giltspur Street
London
EC1A 9DE

cityandguildsgroup.com