Modification history

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| Release | Comments |
| Release 1 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 3.0. |

| AHCPHT2020 | Carry out hot water treatment |
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| Application | This unit of competency describes the skills and knowledge required to treat grape vine cuttings with hot water to meet industry standards.  The unit applies to individuals who work under general supervision, with limited autonomy and accountability for their own work.  No occupational licensing or legislative requirements are known to apply to this unit at the time of publication. Individuals undertaking this unit of competency in the workplace may require accreditation by the Australian Vine Improvement Association (AVIA).  All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace. |
| Prerequisite Unit | Nil |
| Unit Sector | Production horticulture (PHT) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare for hot water treatment | 1.1 Confirm work instructions and identify potential work health and safety (WHS) hazards and controls with supervisor  1.2 Select and use appropriate personal protective clothing and equipment relevant to the job role  1.3 Ensure cuttings are available and ready for use  1.4 Clean and set up the hot water treatment (HWT) tank and cool down tank to remove foreign matter and contaminants according to industry standard  1.5 Prepare water for hot water treatment, hydration and cool down according to specifications |
| 2. Treat cuttings | 2.1 Load cuttings into treatment basket and lower into HWT until completely submerged  2.2 Monitor temperature and time parameters to specification and make adjustments when necessary  2.3 Lower cuttings into the cool down tank for time specified in the HWT standard  2.4 Identify, rectify or report problems and anomalies  2.5 Use safe work practices to minimise the risk of hazards |
| 3. Carry out post-treatment procedures | 3.1 Unload treatment basket and avoid re-contamination  3.2 Store and label treated cuttings according to industry standards and workplace procedures  3.3 Check chlorine levels and sanitation requirements for water quality in HWT and cool down tanks according to standards  3.4 Collect and dispose of waste according to workplace environmental and waste management procedures  3.5 Undertake work to comply with workplace environmental guidelines  3.6 Record treatment information and complete any logs or batch information as specified in the standard |

| Foundation Skills  This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria. | |
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| Skill | Description |
| Reading | * Interpret textual information from a variety of workplace documents accurately |
| Oral Communication | * Converse clearly using industry-specific language |
| Numeracy | * Calculate numerical information relating to measuring and mixing materials |
| Navigate the world of work | * Follow clear instructions within defined level of responsibility * Recognise own work performance and seek assistance where required |
| Get the work done | * Recognise and act on opportunities for continuous improvement in accordance with workplace practices * Respond to routine problems using step-by-step instructions and procedures |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| AHCPHT2020 Carry out hot water treatment | FDFWGG2020A Carry out hot water treatment | Updated to meet Standards for Training Packages  Code changed to reflect changed training package  Minor changes to performance criteria for clarity | Equivalent unit |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4 |

| TITLE | Assessment requirements for AHCPHT2020 Carry out hot water treatment |
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| Performance Evidence | |
| An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.  There must be evidence that the individual has demonstrated the following on at least two separate occasions:   * using personal protective clothing and equipment * following hot water treatment safety procedures * applying current viticulture industry standards to heat treatment of cuttings * handling and treating cuttings according to instructions and industry standards * monitoring treatment process and responding according to workplace procedures * disposing of waste according to instructions and workplace procedures * maintaining records according to industry and workplace requirements. | |

| Knowledge Evidence |
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| An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:   * purpose and process of hot water treatment: * importance of precise treatment * consequences of mistreatment * setting up equipment for hot water treatment: * placing correct volumes of water in the tanks * calibrating data loggers * calibrating temperature sensors against a certified thermometer * calibrating thermometers * dipping cuttings, fully submersing for the specified amount of time, at the specified temperature in prepared hot water * preparing cuttings for treatment or re-hydration * preparing water for cool down, hot water treatment and hydration: * testing and adjusting chlorination levels * checking and adjusting temperature levels * current industry best practice, standards and workplace specifications for hot water treatments * reasons for using different specifications for hot water treatments * monitoring techniques to ensure temperature and water quality are within specifications: * quality assurance process for the hot water treatment process * monitoring the dipping process to ensure compliance with required specifications: * monitoring critical control points for compliance with specifications * analysing readouts from data logging devices * maintaining level of agitation in the tanks * maintaining chlorine level * recalibrating thermometers * procedures for storing treated cuttings: * separating from untreated cuttings to prevent contamination * covering with clean covers * placing cuttings in vented plastic bags to prevent dehydration * placing cuttings in the cold room * work health and safety (WHS) hazards and controls when undertaking hot water treatments: * purpose and application of personal protective clothing and equipment * selecting, fitting and using appropriate personal protective clothing and equipment * safe and effective handling of equipment * principles of nursery hygiene * cleaning requirements and procedures for work area and equipment * cleaning and sanitation techniques * environmental issues and controls: * identifying, rectifying and reporting environmental non-compliance * waste disposal requirements and procedures * reporting and recording requirements and procedures * procedures and responsibilities for reporting problems and anomalies. |

| Assessment Conditions |
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| Assessment of skills must take place under the following conditions:   * physical conditions: * a workplace or an environment that accurately represents workplace conditions * resources, equipment and materials: * personal protective clothing and equipment used for heat treatment of vines * equipment, services and corresponding information * products and materials to be treated * equipment cleaning procedures and materials * documentation and recording requirements and procedures * specifications: * work procedures, including advice on company practices, safe work practices, quality and environmental requirements * legislative and local quarantine regulations and codes of practice and industry standards for heat treatment of grape vines * instructions, information, specifications and schedules.   Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. |

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