

Modification history

| Release | Comments |
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| Release 2 | This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 4.0. |
| Release 1 | This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 1.0. |

| AHCIRG303 | Measure irrigation delivery system performance |
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| Application | <p>This unit of competency describes the skills and knowledge required to measure pressure, flow and distribution uniformity of an irrigation system, monitor supply of equipment and spare parts, and record system performance.</p> <p>The unit applies to individuals who measure irrigation delivery system performance under broad direction and take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.</p> <p>No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.</p> |
| Prerequisite Unit | Nil |
| Unit Sector | Irrigation (IRG) |

| Elements | Performance Criteria |
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| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i> |
| 1. Measure irrigation system performance | 1.1 Measure and record system pressures, water flow rates and pump performance parameters 1.2 Measure and record variations in system pressures, water flow rates and pump performance parameters where relevant and record 1.3 Inspect distribution and delivery systems, and identify and fix malfunctions in system and record actions 1.4 Identify and record factors external to the system that may cause interference 1.5 Minimise environmental impacts of irrigation system performance measurement activities |
| 2. Monitor supply of equipment and spare parts | 2.1 Record supply and part usage 2.2 Monitor spare parts to ensure the supply meets demands 2.3 Make purchases within budget constraints 2.4 Report parts requirements outside of budget constraints 2.5 Record purchases and orders |
| 3. Record and report system performance status | 3.1 Record system pressures and variations 3.2 Record system flow rates and variations 3.3 Calculate and record distribution uniformity and mean application rates 3.4 Determine and record watering depth 3.5 Report system performance |

| Foundation Skills | |
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| <i>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.</i> | |
| Skill | Description |
| <u>Reading</u> | <ul style="list-style-type: none"> Interpret textual information from a range of sources to identify relevant and key information about workplace operations |
| <u>Writing</u> | <ul style="list-style-type: none"> Document equipment purchases and orders, and irrigation delivery system performance |
| <u>Oral communication</u> | <ul style="list-style-type: none"> Use clear language to report parts requirements outside of budget, and irrigation delivery system performance |
| <u>Numeracy skills</u> | <ul style="list-style-type: none"> Measure pressures, flow rates, pump performance and variations Identify and record part numbers and part usage Calculate and record purchases |
| <u>Navigate the world of work</u> | <ul style="list-style-type: none"> Recognise and follow workplace requirements, including safety requirements, associated with own role and area of responsibility |

| Range Of Conditions | |
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| <i>This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.</i> | |
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| Unit Mapping Information | | | |
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| Code and title current version | Code and title previous version | Comments | Equivalence status |
| AHCIRG303 Measure irrigation delivery system performance <u>Release 2</u> | AHCIRG303A Measure irrigation delivery system performance <u>Release 1</u> | <u>Minor changes to performance criteria and foundation skills</u> | 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=c6399549-9c62-4a5e-bf1a-524b2322cf72 |
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| TITLE | Assessment requirements for AHCIRG303 Measure irrigation delivery system performance |
| Performance Evidence | |
| <p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.</p> <p>There must be evidence that the individual has measured irrigation delivery system performance on at least two occasions and has candidate must provide evidence that they can:</p> <ul style="list-style-type: none"> • accessed and prepared data records for both print-based and computer-based data • applied measuring and testing techniques • calculated pressure differentials, flow rates, crop yields, estimated water usage and actual water usage • identified adverse environmental impacts of irrigation activities and taken appropriate remedial action • used computers to record and report data. • | |
| Knowledge Evidence | |
| <p>An individualThe candidate 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:</p> <ul style="list-style-type: none"> • environmental impacts of irrigation, using water from any ground or underground source • measuring and monitoring procedures for factors contributing to irrigation system delivery • soil water retention testing techniques • water authority standards and procedures. • | |
| Assessment Conditions | |
| <p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> • physical conditions: <ul style="list-style-type: none"> • a workplace setting or an environment that accurately represents workplace conditions • resources, equipment and materials: <ul style="list-style-type: none"> • irrigation system equipment • irrigation delivery system performance measuring tools and equipment • computer and software for recording and reporting data • specifications: <ul style="list-style-type: none"> • budget • measuring and recording procedures • relationships: <ul style="list-style-type: none"> • supervisor • timeframes: <ul style="list-style-type: none"> • according to job requirements. <p>Assessors of this unit must satisfy the requirements of assessors in applicable vocational education and training legislation, frameworks and/or current standards for RTOs.</p> | |
| Links | Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72 |