Modification history

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| Release | Comments |
| Release 1 | This version released with SFI Seafood Industry Training Package Version 1.0. |

| SFIAQU404 | Operate hatchery |
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| Application | This unit of competency describes the skills and knowledge required to oversee the breeding, culling and raising of broodstock and progeny and preparing for distribution in hatchery operations.  The unit applies to individuals who have responsibility for aquaculture hatchery production and use specialised technical skills and knowledge to manage the work team and operations.  No occupational licensing, legislative or certification requirements apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | Aquaculture (AQU) |

| 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. Select, condition and spawn broodstock | 1.1 Confirm breeding objectives, selection aims and strategies with management  1.2 Confirm hatchery production schedule, labour and resource requirements, health and safety and risk minimisation procedures with production personnel  1.3 Ensure quality of broodstock selection is met according to workplace requirements  1.4 Manage the broodstock conditioning, spawning and recovery process  1.5 Identify broodstock to be spawned again at a later date and move to holding tanks or areas |
| 2. Select or cull progeny | 2.1 Manage progeny husbandry to ensure high survival and growth or other selection criteria  2.2 Carry out quality assessment of progeny regularly and cull or remove inferior progeny  2.3 Monitor progeny health and promptly control any disease outbreaks, sending samples to relevant authorities  2.4 Monitor effects of feed and health treatments on progeny and take actions to avoid or minimise health problems and negative effects on product quality  2.5 Monitor progeny growth and development using an appropriate performance recording system  2.6 Carry out harvesting to meet hatchery production plan  2.7 Maintain breeding records according to industry standards and breeding program requirements |
| 3. Monitor, review and improve hatchery performance | 3.1 Review the progress of hatchery production plan with management  3.2 Maintain and analyse physical and financial evaluations of hatchery performance  3.3 Obtain and assess information on innovations to determine relevance and possible application  3.4 Test innovations to determine suitability and adaptability to individual circumstances, their benefit and cost, and report outcomes to management team  3.5 Discuss selection aims, breeding objectives and strategies with management team |

| 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 production plans and order requirements * Research and analyse information about hatchery operations from a range of sources |
| Writing | * Complete workplace documentation relating to hatchery operations legibly and accurately |
| Numeracy | * Calculate and estimate quantities of stock * Record and interpret data relating to water quality * Monitor and analyse costs of hatchery operations |
| Oral communication | * Explain hatchery operation responsibilities to staff using language appropriate for audience |
| Interact with others | * Collaborate with others contributing knowledge, ideas and skills to achieve improvements in stock quality and hatchery operations |
| Get the work done | * Assess options taking into consideration a range of relevant factors and test and report on continuous improvements for hatchery operations * Use familiar digital systems and tools to access, organise, analyse and display information relevant to role and hatchery operations |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| SFIAQU404 Operate hatchery | SFIAQUA404C Operate hatchery | Updated to meet Standards for Training Packages | 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=e31d8c6b-1608-4d77-9f71-9ee749456273 |

| TITLE | Assessment requirements for SFIAQU404 Operate hatchery |
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| Performance Evidence | |
| An individual demonstrating competency must satisfy all the elements and performance criteria of this unit. There must be evidence that the individual has managed and monitored the operations of a hatchery on at least one occasion, including:   * communicating and supervising production personnel on all aspects of hatchery production * overseeing the collecting, caring and handling of broodstock, larvae and juveniles * overseeing the breeding, culling and raising of progeny and preparing for distribution * manipulating culture environment to achieve objectives * monitoring hatchery operations, assessing options for improvement and contributing to workplace strategy and planning activities. | |

| 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:   * breeding requirements of broodstock and progeny * nutritional, health and environmental requirements of breeding stock and progeny * clinical signs of ovulation and imminent spawning * environmental factors or cues for reproductive behaviour * preparation of broodstock and or progeny for distribution * workplace business information relevant to hatchery operations * overview of current innovations and trends in hatchery operations * health and safety requirements in context of hatchery operations. |

| Assessment Conditions |
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| Assessment of this unit of competency must take place under the following conditions:   * physical conditions: * skills must be demonstrated in an aquaculture hatchery or an environment that accurately represents workplace conditions * resources, equipment and materials: * broodstock or seedstock * hatchery and equipment for caring for and raising progeny * monitoring equipment * reference material for research purposes * specifications: * hatchery production schedule, labour and resource requirements * relationships: * interactions with management and production staff members.   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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