Modification history

|  |  |
| --- | --- |
| Release | Comments |
| Release 1 | This version released with FWP Forest and Wood Products Training Package Version 7.0. |

| FWPFGM3XXX | Maintain seed orchard |
| --- | --- |
| Application | This unit of competency describes the skills and knowledge required to apply silvicultural techniques to maintain a seed orchard.  The unit applies to individuals who are involved in tree nursery operations.  All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace.  No licensing, legislative or certification requirements apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector |  |

| Elements | Performance Criteria |
| --- | --- |
| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare for seed orchard maintenance activities | 1.1 Determine job requirements from work order or instruction, and where required, seek clarification from appropriate personnel  1.2 Confirm safety and environmental requirements for the task according to workplace procedures  1.3 Identify, assess and take actions to mitigate risks and hazards associated with seed orchard maintenance activities  1.4 Identify emergency and evacuation procedures to follow in the event of an incident or accident  1.5 Consult with appropriate personnel to ensure that work is coordinated effectively with others in the workplace  1.6 Select tools, equipment and materials for seed orchard maintenance activities and check for serviceability according to workplace procedures  1.7 Read and interpret seed orchard plan to confirm species, location and other details of trees in area of orchard where maintenance activities are to be conducted |
| 2. Implement sward maintenance activities | 2.1 Mow sward  2.2 Apply weed control measures  2.3 Fertilise sward areas  2.4 Apply sward maintenance practices that maintain pollination and pollinating insects  2.5 Report outcomes of sward maintenance activities to appropriate person |
| 3. Implement seed orchard maintenance and genetic improvement activities | 3.1 Implement fungi, disease and pest control measures  3.2 Apply watering and fertilising techniques to provide optimal growth conditions for trees  3.3 Apply rouging techniques to remove undesired families or ramets  3.4 Apply thinning and pruning practices to produce trees with an open crown with large flower production and facilitate seed harvest  3.5 Apply techniques to promote flowering if flower production fails or is unsatisfactory  3.6 Respond to frost  3.7 Apply cutting and grafting techniques  3.8 Reuse, recycle or dispose of waste according  3.9 Report outcomes of seed orchard maintenance and genetic improvement activities to appropriate person |

| 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. | |
| --- | --- |
| Skill | Description |
| Reading | * Extract information from industry guides and standard references on seed orchard maintenance |
| Writing | * Complete workplace forms |
| Oral communication | * Ask open and closed questions and use active listening techniques to clarify contents of work orders |
| Numeracy | * Apply basic arithmetic functions to calculate quantities and mixing ratios for chemicals |

|  |  |  |  |
| --- | --- | --- | --- |
| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FWPFGM3XXX Maintain a seed orchard | Not applicable | New unit | Not applicable |

|  |  |
| --- | --- |
| Links | Companion Volumes, including Implementation Guides, are available at VETNet: <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47> |

| TITLE | Assessment requirements for FWPFGM3XXX Maintain seed orchard |
| --- | --- |
| Performance Evidence | |
| An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.  There must be evidence that, on one occasion, the individual has:   * applied each of the following sward maintenance activities: * mowing * fertiliser * weed control * promoting pollinators * applied each of the following seed orchard maintenance and genetic improvement activities: * fungi and pest control * watering and fertilising * rouging * thinning and pruning * flower induction * frost mitigation * frost according to workplace procedures * cutting and grafting * recorded outcomes of all sward maintenance and seed orchard maintenance according to workplace procedures. | |

| Knowledge Evidence |
| --- |
| 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:   * seed orchards * types of seed orchards - clonal and seedling seed orchards * size and longevity of seed orchards * factors influencing location of seed orchards * establishment of seed orchards * spacing of trees in seed orchards * principles of seed orchard design * seed orchard plan * pollination in seed orchards * tools and equipment used in seed orchard maintenance * safe use of chemicals * risk and hazards associated with seed orchard maintenance * seed orchard maintenance and genetic improvement activities * fungi and pest control measures * watering and fertilising * rouging * thinning and pruning * flower induction * frost mitigation * cutting and grafting * sward maintenance activities * mowing * fertiliser * weed control * promoting pollinators. |

| Assessment Conditions |
| --- |
| Assessment of the skills in this unit of competency must take place under the following conditions:   * physical conditions: * skills must be demonstrated in a forest work environment or an environment that accurately represents workplace conditions * resources, equipment and materials: * seed orchard * tools and equipment used in seed orchard maintenance * seed orchard plan * specifications: * access to workplace health, safety and environmental policies and procedures applicable to seed orchard maintenance.   Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. |

|  |  |
| --- | --- |
| Links | Companion Volumes, including Implementation Guides, are available at VETNet:  https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47 |