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| Title | **Manage citrus orchard** | | |
| Level | **2** | **Credits** | **30** |

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| Purpose | These competency standards will ensure that the trainee will be able to perform citrus orchard management in local working conditions for field workers. |

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| Classification ISCED | 0811 Crop and livestock production |

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| Available grade | Competent / Not yet competent |

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| Modification history | N/A |

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| **Competency Unit** | |  | | **Performance Criteria** | | | | | | |  | **Knowledge & Understanding** |
|  | |  | |  | | | | | | |  |  |
| **A1**. Prepare the | | **P1.** Conduct soil sampling to identify characteristics of | | | | | | | | | **K1.** | Explain the importance of land preparation and layouts |
| Land | |  | | suitable soil as per industry requirements. | | | | | | | according to industry standard | |
|  | | **P2.** | | Select suitable land as per recommendations. | | | | | | | **K2.** | Describe the ideal soil characteristics for citrus farming |
|  | | **P3.** | | Design irrigation layout to meet soil needs | | | | | | | **K3.** | Explain the merits and demerits of common irrigation |
|  | |  | |  | | | | | | | systems | |
|  | | **P4.** | | Demonstrate the use of land preparation tools | | | | | | |  |  |
|  | |  | |  | | | | | | | **K4.** | Describe industry standards for planting processes. |
|  | | **P5.** | | Demonstrate the various steps for land | | | | | | |  |  |
|  | |  | | preparation including ploughing, leveling and | | | | | | | **K5.** | Explain composting processes |
|  | |  | | dressing | | | | | | |  |  |
|  | | **P6.** | | Dig pits for planting citrus plants | | | | | | |  |  |
|  | | **P7.** | | Prepare compost and fill it in the pits | | | | | | |  |  |
|  | |  | | | | | | | | |  |  |
| **A2.** Manage | | **P1.** Identify and select different latest citrus varieties | | | | | | | | | **K1.** | Describe the value and importance of right time and right |
| Orchard Plantation | |  | | recommended for citrus orchards. | | | | | | | variety keeping in view the established standards. | |
|  | | **P2.** | | Determine and assess pre plantation conditions | | | | | | | **K2.** | Explain the ideal planting season. |
|  | |  | | (temperature, soil moisture conditions) | | | | | | |  |  |
|  | |  | |  | | | | | | | **K3:** Describe the post planting operational cycle | |
|  | | **P3.** | | Observe the plantation timings | | | | | | |  |  |
|  | |  | |  | | | | | | |  |  |
|  | |  | |  | | | | | | |  |  |
|  | | **P4.** Transplant plants | | | | | |  |  |  |  |  |
|  | | **P5.** Carryout post plantation | | | | | | operations including | | |  |  |
|  | |  | irrigation, staking and making plant basin, hoeing | | | | | | | |  |  |
|  | |  | etc. | | |  |  |  |  |  |  |  |
|  | |  | | | | | | | | |  |  |
| **A3.** Fertilizer | | **P1.** Compare fertilizers types on the basis of brands, | | | | | | | | | **K1.** | Explain value of chemical fertilizer and green manure |
| Applications | |  | chemical composition and formulation | | | | | |  |  | applications. | |
|  | | **P2.** Demonstrate | | | | | different | methods | of | fertilizer | **K2.** | Describe different methods of fertilizer application |
|  | |  | application as per industry recommendations. | | | | | | | |  |  |
|  | |  |  | | |  |  |  |  |  | **K3.** | Explain the processes of manure preparation |
|  | | **P3.** Determine time and dosage of fertilizer application | | | | | | | | |  |  |
|  | |  | keeping in view the industry standards and | | | | | | | |  |  |
|  | |  | manufacturers specifications. | | | | | |  |  |  |  |
|  | | **P4.** Prepare | | | | and | apply the | farm yard | and green | |  |  |
|  | |  | manure | | |  |  |  |  |  |  |  |
|  | |  | | | |  |  | | |  |  |  |
| **A4.** Operate | | **P1.** Identify | | | | and | use different operational | | | tools for | **K1.** | Explain the importance of operational guidelines and |
| tools & equipments | |  | various identified tasks | | | | |  |  |  | checklist of tools. | |
|  | | **P2.** Develop operational and maintenance | | | | | | | schedule to | | **K2.** | Explain the importance of maintenance schedules to the |
|  | |  | ensure availability and workability of required tools | | | | | | | | operations of the orchard | |
|  | | **P3.** Identify and ensure tools safety measures | | | | | | | |  |  |  |
|  | |  |  | | | | | |  | |  |  |
| **A5.** Irrigation | | **P1.** | Select the best means of available | | | | | | water for | | **K1.** | Demonstrate the best method of irrigation |
|  | |  | irrigation | | | |  |  |  |  |  |  |
|  | |  |  | | |  |  |  |  |  | **K2:** | Explain the annual and periodic schedules of irrigation |
|  | | **P2.** | Schedule | | | | the suitable time of irrigation as per | | | |  |  |
|  | |  | industry standards | | | | |  |  |  |  |  |
|  | | **P3.** | Assess the effective method for irrigation in | | | | | | | |  |  |
|  | |  | accordance with recommendations for better | | | | | | | |  |  |
|  | |  |  | | |  |  |  |  |  |  |  |
|  |  |  | | | results | | | | | |  | |
|  |  | **P4.** | | | Calculate the water requirements stage wise. | | | | | |  | |
|  |  | **P5.** | | | Identify specific tools of irrigation as per | | | | | |  | |
|  |  |  | | | industry standard. | | | | | |  | |
|  |  |  | | |  | | | | | |  | |
| **A6.** Pruning/ |  | **P1.** | | | Demonstrate the pruning methods as | | | | | | **K1.** Describe the ways and benefits of pruning practices | |
| training and |  |  | | | recommended by industry. | | | | | |  | |
| trimming |  |  | | |  | | | | | | **K2.** Follow the guidelines and check list of each tool used | |
|  |  | **P2.** | | | Demonstrate tools of pruning, training and | | | | | |  | |
|  |  |  | | | trimming | | | | | |  | |
|  |  | **P3.** | | | Identify the branches to be pruned for balance | | | | | |  | |
|  |  |  | | | canopy | | | | | |  | |
|  |  | **P4.** | | | Schedule post operation treatment | | | | | |  | |
|  |  |  | | |  | | | | | |  | |
| **A7**. | Apply | **P1.** | | | Identify the symptoms of all disease/ pests of | | | | | | **K1.** Appraise the citrus diseases and pest infestation at | |
| Pesticides, |  |  | | | citrus | | | | | | economic threshold and economic injury level. | |
| weedicides, |  |  | | |  | | | | | |  | |
| herbicides, |  | **P2.** | | | Identify different weeds and their control as per | | | | | | **K2.** Evaluate the best control with suitable and recommended | |
| fungicides |  |  | | | industry recommendations. | | | | | | herbicides and pesticides. | |
|  |  | **P3.** | | | Manage the rearing of beneficiary predators for | | | | | | **K3:** Explain safe storage of pesticides etc | |
|  |  |  | | | efficient biological control. | | | | | |  | |
|  |  |  | | |  | | | | | | **K4:** Explain the record keeping procedures for handling | |
|  |  | **P4.** | | | Demonstrate first aid and preventive measures | | | | | | chemical sprays | |
|  |  |  | | | dealing with any incident | | | | | |  | |
|  |  | **P5.** | | | Maintain the record of all chemicals used | | | | | |  | |
|  |  | **P6.** | | | Demonstrate safe use of spray kit and spray | | | | | |  | |
|  |  |  | | | tools and machines | | | | | |  | |