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| Title | **Carry out land preparation and sowing of seeds** |
| Level | **3** | **Credits** | **9** |

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| Purpose | These competency standards will ensure that the trainee will be able to prepare land for sowing of chili seeds using appropriate procedures. |

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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** |
| **B1**: Prepare the land as per required procedures including LASER land leveling and preparation of ridges | **Trainee will be able to:****P1.** Recognize different types of weeds and other unwanted materials in the field.**P2.**Select suitable means for removal of unwanted material in fields Manage weeds and other unwanted material using chemical and physical methods**P3.**Evaluate physical conditions to determine the type and texture of soil**P4.**Level land by using appropriate procedure**P5.**Preparation of uniform ridges at recommended distances**P6.**Calculate the size of the growing field for application of weedicide, fertilizer, pesticide etc. | **Trainee will be able to describe and explain: K1.**Ploughing to remove the debris of previous crop **K2.**Importance of removing weeds before sowing **K3.**Impact of weeds on productivity**K4.**Land levelling with and without laser leveller**K5.**Importance of levelling and merits and demerits of using laser leveller**K6.**Importance of ridge formation in the field.**~~K7.~~**Importance of maintaining appropriate ridge-to-ridge and plant-to-plant distance keeping in view the variety, soil and water availability.**K8.**Impact of altering plant to plant and row to row distances as per SOPs advised by agricultural experts**K9.**Land preparation by appropriate plough by use of machinery like tractor, cultivator, mould board etc. |
| **B2:** Sow the seeds either by direct | **Trainee will be able to:****P1.** Select the method for the sowing of seeds (direct | **Trainee will be able to describe and explain:** |

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| seeding or through nursery transplantation | seeding or nursery transplantation)**P2.**Sow the seeds properly in case of direct seeding**P3.**Select the site for nursery**P4.**Prepare the nursery beds using appropriate distances**P5.**Cover the seed with appropriate material and procedure**P6.**Showering the nursery at suitable intervals e.g. 3-4 days**P7.**Maintenance of nursery plants for transplantation**P8.**Recognize the emergence stage**P9.**Recognize the stage for the saplings to be transplanted from the nursery to the growing field**P10.**Uproot unhealthy saplings from the nursery after a suitable period e.g. 2weeks**P11.**Uproot and transplant the saplings from nursery in the main field | **K1.**Merits and demerits of direct seeding and nursery transplantation**K2.**Calculating the seed requirements sowing rates for nursery and for direct seeding**K3.**Differentiate between sowing through direct seeding or transplantation**K4.**Precautions during seed sowing **K5.**Development of nursery properly **K6.**Maintenance of the nursery plants**K7.**Method of transplantation of seedlings to the field**K8.**Precautions during transplantation |
| **B3 :** Check, perform and maintain the irrigation of crop | **Trainee will be able to:****P1.** Select the appropriate irrigation system on the basis of availability, water quality (e.g. pH, hardness, SAR,TDS etc )**P2.**Draw water sample for pH, hardness and TDS testing- for complete water analysis required for | **Trainee will be able to describe and explain: K1.**Different irrigation systems**K2.**Suitable irrigation system for chilli production**K3.**Check the performance of available irrigation system |

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|  | irrigation purpose**P3.**Determine hardness of water for irrigation**P4.**Check the irrigation system**P5.**Irrigate the land by adapting suitable procedures**P6.**Managing irrigation intervals as per crop requirement**P7.**Managing the unsuitable water using appropriate procedures | **K4.**Adaptation of recommended procedures to irrigate the crop**K5.**Importance of proper irrigation system to chilli crop **K6.**Knowledge about irrigation management **K7.**Impact of suitable frequency of irrigation**K8.**Determination of the crop requirement for irrigation according to the condition of the crop |