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| Title | **Carry out pest management** |
| Level | **3** | **Credits** | **9** |

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| Purpose | These competency statements will ensure that the trainee will be able to monitor the crop and control of insect pests. |

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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** |
| **E-1:** Recognize insect pests and diseases, and access their nature of damage at various chilli production stages | **Trainee will be able to:****P1.**Identify the insect pests of chillies and diseases**P2.**Relate insect pests and diseases with climatic factors**P3.**Calculate losses due to insect attack**P4.**Determine the economic threshold level for different insect pests**P5.**Recognize the insect species and diseases that attack at particular stages of crop production- knowing the mode of action of insect and pest**P6.**Monitor the crop for determining the level of insect activity**P7.**Collect samples for insect identification and their comparative occurrence**P8.**Recognize mouldy pods**P9.**Separate mouldy pods**P10.**Select the appropriate fungicide according to mould attack | **Trainee will be able to describe and explain: K1.**Knowledge about insect pests and diseases **K2.**Insect pests and their relationship with climatic factors **K3.**Identification of various pest species**K4.**Losses due to insect pest attack**K5.**Insect pests and diseases of chillies and their timings of occurrence**K6.**Role of insects as a vectors of bacterial, viral and fungal diseases**K7.**Developmental stages of insect pests**K8.**Feeding sites of insects**K9.**Sampling for detection of insects and their relative abundance**K10.**Determining economic threshold levels(ETL) for different insect pests**K11.** Determining the timing of pesticide application keeping in view their ETL |

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|  | **P11.**Identify different growth stages of insect pests |  |
| **E-2:** Determine the dosage and method of application of pesticides | **Trainee will be able to:****P1.** Differentiating the types of insecticides/fungicides **P2.**Selecting appropriate insecticides/fungicides **P3.**Obtaining insecticides/fungicides from reliablesource**P4.**Prepare the solution insecticides/fungicides before applying to the crop**P5.**Use the knap sack sprayer and its adjustment for crop spraying**P6.**Determine the frequency and interval of pesticide application, keeping in view infestation levels**P7.**Apply pesticide using safety measures **P8.**Select the appropriate sprayer **P9.**Calibrate the sprayer**P10.**Select proper nozzle of sprayer**P11.**Inspect the crop at different stages of production for insect pest and diseases attack | **Trainee will be able to describe and explain: K1.**Types of insecticides and their use**K2.**Mode of action of different types of pesticides **K3.**Differentiation between generic and branded pesticides **K4.**Concept of active ingredient in calculating the dose **K5.**Preparation of suspension for crop spraying**K6.**Impact of pH on insecticidal activity **K7.**Knowledge regarding the knap sack sprayer **K8.**Importance of the usage of knap sack sprayer**K9.**Adjustments in knap sack sprayer for its optimum use **K10.**Determining the need of pesticide applications **K11.**Timings and frequency of pesticide application **K12.**Procedures of applying pesticides**K13.**Principles of the safe usage of pesticides- selection of pesticide/insecticide having minimal residual effect and minimum with drawl period e.g. DDBP**K14**. Advantages of applying precautionary measures for operators |