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| Title | **Manage the milling process** | | |
| Level | **3** | **Credits** | **20** |

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| Purpose | To undertake milling of chillies following appropriate procedure and hygienic conditions |

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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 and Understanding** |
| **C-1:** Prepare the whole chillies for milling into powder | **Trainee will be able to:**  **P1.** Check and select the physical quality of chillies for pre milling process  **P2.** Separate the unwanted materials from the batch  **P3.** Select chilli lot prior to processing on the basis of following:   * Aflatoxin * Moisture content * fungal load * pungency etc.   **P4.** Select the chilli type(s) by keeping in view the finished product  **P5.** Identify chilli lot for specific ultimate product  **P6.** Prepare whole chillies as per requirement of finished product like   * Whole pods * Crushed pods * Chilli powder * Curry recipes   **P7.** Prepare whole chillies for milling in to crushed and powder | **Trainee will be able to explain:**  **K1.** Pre-requisites of chilli milling  **K2.** Cleaning the chilli pods before milling  **K3.** Importance of preparation of whole chillies before milling  **K4.** Milling procedure for whole chillies  **K5.** Separation of unwanted materials from the given chilli batch viz foreign material etc.  **K6.** Criteria of selecting chilli lot viz.   * Aflatoxin * Moisture content * Fungal load * Pungency etc.   **K7.** Procedures of preparing whole chillies according to the finished product   * Whole pods * Crushed pods * Chilli powder * Curry recipes   **K8.** Procedures of handling the whole chillies according |

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|  | **P8.** Handle the chillies according to the type/variety | to the type/variety |
| **C-2:** Check the milling unit and prepare the machine for milling | **P1.** Adjust the rollers gap if and when required  **P2.** Perform pre-cleaning of milling machine  **P3.** Calibrate milling machine before processing **P4.** Check the machine before running the batch **P5.** Maintain the milling machine and accessories  **P6.** Perform post cleaning of milling line by adopting appropriate procedures  **P7.** Respond upon any type of emergency such as   * Power failure * Accidents * Mechanical failure * Short circuit etc.   **P8.** Respond to the situation, processed material, milling machine etc., in case of emergencies  **P9.** Record the information related with machinery such as   * date, time and person involved in cleaning * List of accessories * Date and time of emergency * Calibration date and done by whom   **P10.** Calculate the efficiency of milling machine | **K1.** Knowledge about milling machine  **K2.** Different types of milling machines  **K3.** Inspection for the performance of milling machine  **K4.** Knowledge about the important components of machine before starting the milling process  **K5.** Calibration of milling machine **K6.** Maintenance of milling machines **K7.** Operation of milling machine  **K8.** Safety measures during operation  **K9.** Problems related to milling machine **K10.** Causes of problems in milling machine **K11.** Trouble shooting in milling machine  **K12.** Determination the efficiency of milling machine  **K13.** Milling machine requirements such as type of floor, area, ventilation etc. |

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| **C-3:** Undertake milling of whole chillies into powder of desired specification | **P1.** Undertake milling of round shaped chillies  **P2.** Undertake milling of long shaped chillies  **P3.** Calculate the ratio of different varieties/types of chillies if required  **P4.** Adjust the proportion of different chilli varieties accordingly  **P5.** Undertake milling of whole chillies according to the end product viz.   * Crushed pods * Chilli powder * Curry recipes   **P6.** Calculate the ratio of different spices for recipes mix  **P7.** Perform mixing of different spices when the recipe mix is desired  **P8.** Calculate milling yield in terms of powder collected after every batch  **P9.** Adopt safety and precautionary measures during milling  **P10.**Handle the substandard material properly | **K1.** Importance of milling process of chillies  **K2.** Proper timing of milling  **K3.** Evaluation of milling process  **K4.** Different milling techniques for round and long shaped chillies  **K5.** Procedures of milling of whole chillies in to powder  **K6.** Calculation of milling yield  **K7.** Undertaking the mixing of spices when needed  **K8.** Calculation of different chilli types/varieties according to their characteristics (viz. pungency, colour etc.) and ultimate product  **K9.** Quality characteristics viz., colour and pungency of different chilli types/varieties  **K10.** Requirement of pungency and colour for different finished products viz. crushed pods, chilli powder and curry recipes  **K11.** Precautions during the process of milling |
| **C-4:** Check and maintain the hygienic conditions during milling | **P1.** Perform pre and post cleaning of milling line using appropriate materials/solvents and procedures  **P2.** Avoid unhygienic materials in and around the production area | **K1.** Knowledge about the hygienic conditions during milling  **K2.** Importance of hygienic conditions during milling  **K3.** Sanitation of the production line |

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|  | **P3.** Inspect the production area for hygienic conditions  **P4.** Maintain the hygienic conditions during the milling process  **P5.** Identify the conditions that are appropriate for milling  **P6.** Adopt safety measures for the operators and milling workers  **P7.** Check the hygienic status of operator/worker  **P8.** Handle the undesirable materials present in processing area  **P9.** Manage the instructions related to hygiene | **K4.** Impact of unhygienic conditions on the quality of finished product  **K5.** Identification of conditions that are not appropriate for milling  **K6.** Difference between the precautionary and hygienic measures  **K7.** Procedure to inspect the hygienic conditions of milling line and area  **K8.** Procedure to check the hygienic status of operator and works  **K9.** Safety measures of personnel during milling process  **K10.** Hygienic requirements/standards for operators and workers  **K11.** Follow instructions related to hygiene whether in the form of signs or text |