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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 |