



SNS COLLEGE OF TECHNOLOGY

**An Autonomous Institution
Coimbatore – 35**

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DEPARTMENT OF AGRICULTURE ENGINEERING

19AGE307 – ERGONOMICS OF FARM MACHINERY AND IMPLEMENTS

III – YEAR VI SEMESTER

UNIT 4 – MAINTENANCE OF IMPLEMENTS

**TOPIC – CARE AND MAINTENANCE PROCEDURE OF AGRICULTURAL
MACHINERY DURING OPERATION AND OFF SEASON**



CARE AND MAINTENANCE PROCEDURE OF AGRICULTURAL MACHINERY

➤ Improved safety:

Proper maintenance can help to reduce the risk of accidents, which can protect farmers and their workers.

➤ Increased lifespan:

Well-maintained machinery will last longer, which can save money on replacement costs..



FOUR WAYS TO IMPROVE MACHINE MAINTENANCE



- There are four main areas to focus on when aiming to improve machine maintenance at your facility **Planning, precision, protection, and measurement.**
- **1. Planning**
- Having a machine maintenance plan in place will ensure that parts, equipment, and labour are available when they're needed, and that there is a strategy in place to use those resources effectively.
- Many maintenance plans will include both **planned and scheduled maintenance**, which will identify problems before failure occurs, and planned unscheduled maintenance, which ensures that failures are repaired, and assets are returned to working order as quickly as possible.



2.Precision

- Establishing a **precision maintenance** strategy will ensure that maintenance tasks are performed consistently, accurately, and according to industry best practices.
- In order for precision maintenance to be effective, you must ensure you have these four elements:
 1. Workers must have the training and skills to perform maintenance tasks quickly and accurately
 2. Tools and equipment that are needed to perform maintenance tasks must be available
 3. All maintenance materials, such as lubricants and spare parts, must be high quality and free from contamination
 4. Maintenance plans and workflows must be accessible and easy to follow



3. Protection

- A key part of improving maintenance involves keeping workers safe. Workers must have adequate personal protective equipment (PPE) and be trained in how to use it correctly.
- There are a few important tasks to keep on top of when you're looking to **improve safety**:
 - ❖ Frequent checks to ensure guards or barriers are in use and are not damaged
 - ❖ Inspections of electrical equipment, power cords and switches to identify exposed wires
 - ❖ Regular workplace safety training for every employee



4.Measurement

- The final piece of the machine maintenance puzzle is measuring asset performance. Without data, condition-based, predictive, and prescriptive maintenance plans will not work.
- Accurate data about how your machinery performs lets you choose the right maintenance strategy, which will lead to better, more reliable performance.



CARE AND MAINTENANCE PROCEDURE OF AGRICULTURAL MACHINERY DURING OPERATION



➤ **Disconnect The Battery**

- When you need to store the battery for a long time, you need to remove the battery from the tractor. It's also important to adjust the electrolyte to the proper level. Store the battery in a dry place away from sunlight.
- Keep in mind that the tractor battery can self-discharge. Check on it frequently and recharge every 3 to 6 months, depending on the weather.

➤ **Key Takeaway**

- It's important to prepare a tractor prior to storage, so you can lessen long-term damage due to dirt and grime, solve small problems before they worsen, protect it from the elements, and keep the tractor in the best condition. If you want to know the exact procedures, you can consult your manufacturer's manual for more information for tractor storage.



Thank You!