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**FARM MACHINERY MAINTENANCE**

**1. Maintenance Activities**

Good maintenance practices are essential for efficient operation of all types of farm machinery. Day-to-day maintenance and repair activities keep farm machinery and vehicles safe and reliable.

**Maintenance** involves fixing any sort of mechanical or electrical device should it become out of order or broken

Generally speaking, there are two types of maintenance in use: **Preventive maintenance**, where equipment is maintained before break down occurs.  Preventive maintenance is effective in preventing age related failures of the equipment. Corrective maintenance, where equipment is maintained after break down. This maintenance is often most expensive because worn equipment can damage other parts and cause multiple damage.

There are four strategies to achieve maximum farm machinery life. These strategies are: machinery maintenance, oil analysis, machinery storage, engine tune-ups.

**Maintenance activities** include lubrication, oil and filter changes, battery replacement, and repairs including light metal machining. Lubrication is needed because of friction    It increases engine life span, aids fuel efficiency and helps you get maximum performance from your vehicle. Lubricants are available in three forms: fluid oils, semisolids and solids.

**Oil Analysis**. A detailed look at a sample of engine, transmission or hydraulic oil is a valuable preventative maintenance tool. In many cases, it enables identification of a potential problem before a major repair is necessary and downtime during critical operations can be avoided. Oil analysis is a means of monitoring wear and oil contamination.

**Machinery storage**. Farmers must have a “good home” for the machinery when it is not working in the field. The first thing is to make sure that the machine is in good repair before you put it away. It must be kept clean, dry and lubricated. Equipment stored inside has a significantly higher trade-in value compared to the same equipment stored outside. Parts such as belts, tires and hoses deteriorate rapidly when unprotected. Machines, including tractors, combines, planters, drills should be kept inside.

**Engine Tune-Ups.** Diesel and gas engines require periodic tune-ups. Engines and hydraulic systems should be thoroughly warmed up periodically during periods of non-usage. A tune-up may include changing air and fuel filters, cleaning and adjusting injector nozzles, and adjusting engine timing.

**2. Machinery Safety**

It is important to be safety conscious when dealing with any job that requires the use of machinery. To avoid any type of machinery-related injury strict safety practices must be employed. -Never operate machinery under the influence of drugs or alcohol. The operator not only puts himself  in danger but also anyone who may be working with them or in the general area. – Protective clothing should be worn during the operation of farm machinery. Never wear baggy or loose fitting shirts or pants.

**2.1  Machinery Repair**

– All machinery should be maintained regularly. When repairs are done, the machine should be fixed according to manufacturers specifications.   – Brakes, hitches, safety chains, springs and shackles, should be inspected regularly for wear, broken or missing parts and cracks in the welds.   – Whenever preparing to work on a piece of equipment, wheels need to be blocked to prevent movement and any jacks used should be stable and in good condition.

**Exercise 1. Следующие слова и словосочетания связаны с сельскохозяйственной техникой. Разделите их на четыре группы согласно тексту.**

sub-soiler; row-crop planter; harrow; drill; manure spreader;  digger; fertilizer; distributor; roller; rake; tool for mulching and fallowing ; tractor; planter; sprayer; thinner; broad-cast cultivator; plow; baler.

**TILLAGE EQUIPMENT:**

**PLANTING EQUIPMENT:**

**FERTILIZING EQUIPMENT:**

**HARVESING EQUIPMENT:**

**Exercise 2. Выберете правильный ответ.**

*What is the aim of tillage?*

to cultivate

to prepare the soil

to harvest

*What is a plow designed for?*

making the soil more fertile

preparing the suitable seedbed

placing seeds

*How many components does a plow have?*

4

7

6

*What is a bean cultivator designed to?*

to cultivate beets

to cultivate beans

to cultivate weeds

*What can a tractor pull?*

many kinds of implements

food crops

feed crops  