







# Flat Aggie Adventures Tillage Practices

Edition 1



## DID YOU KNOW?

-  **Tillage:** the preparation of land for growing crops.
-  **Fertilizer:** nutrients to help plants grow.
-  **Crop Residues:** leftover plant material postharvest (leaves, stalks, roots).
-  **Aeration:** to circulate air through the soil.
-  **Clod:** a lump of earth or clay.
-  **Porosity:** the quality of being porous, or full of tiny holes.

## CONVENTIONAL TILLAGE

Conventional tillage is used to increase porosity and loosen the soil which allows for good air exchange and root growth. It's one of many effective ways to break up the soil in fields and incorporate different fertilizers. Tillage is also an effective way to warm up the soil faster in the spring if you live somewhere like the midwest where winters are colder. Some farmers also use a conservation practice called no-till farming. No-till farming is when the soil is left undisturbed and the residue is left on the surface of the soil. This helps protect the soil from erosion and breakdown.







PRIMARY & SECONDARY

Primary tillage is the first soil tillage after the last harvest. Some farmers will do this right after they harvest or before they plant in the spring. The point of primary tillage is to kill weeds that grew in the off-season, incorporate crop residues into the soil, and allow soil aeration. The purpose of secondary tillage is to work the soil after primary tillage in the hopes of reducing clod size, weed control, incorporating fertilizers, and leveling the soil surface. Secondary tillage usually goes 3-4 inches deep while primary tillage will dig 10-15 cm deep. Depending on how clumpy the soil is the farmer might have to go over the field 2-3 times to get the outcome they want.

EQUIPMENT

Primary and secondary tillage require different pieces of equipment for their intended purposes. All tillage equipment is considered implements that are pulled behind a tractor. Primary tillage will use chisels, disks, and plows. Secondary tillage uses a variety of aerators, cultivators, harrows, and rotary hoes. Some farmers don't till their whole field, they might only till locations where needed.



FUN FACTS

- Tillage equipment used to be pulled by horses.
- Tilling was invented in the mid-1800s.
- Erosion is the wearing away of the land by forces such as water, wind, and ice.
- Gravity can cause erosion when it pulls rocks and other particles down mountains or cliffs.

JOKE OF THE DAY

Why did the farmer bury cash in his soil?  
He wanted to make his farmland rich!

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