How to Make Minimum Tillage Riplines with Animal Draft Power

Recognize the problem
Low yields have been the major problem for farmers using unsustainable farming systems, usually referred to as Conventional farming systems. Conventional farming is where farmers use tools that invade and turn soils to create a favourable field to plant crops. This involves using tools and equipment such as tractor or animal drawn ploughs or hand hoes which result into destruction to soil structures.

Background
Conventional farming technologies involves tillage systems such as ploughing, overall digging or ridge splitting. These farming systems have been used by farmers for many generations in the past. Most farmers were born and raised up knowing these farming systems as the best way of farming even with their low yielding results. These types of land preparation leave soils exposed to sunlight resulting in beneficial nutrients escaping and in the long run soils become overworked and withered. In order to combat low yielding farming systems, conservation farming tillage systems are used to achieve higher yields.

Management
Minimum tillage land Preparation riplines using Animal Draft Power:

- **TOOLS NEEDED:** 180cm Yoke, 3.5m trek chain, magoye ripper, plough beam, well trained animals
- Hook the yoke on animals
- Connect the trek chain to the yoke and ripper
- Rip at 90cm spacing between lines
- Rip between 15 to 20cm deep
- Prepare land early starting in June and complete before onset of planting rains
- In sandy soils, prepare land 2-3 weeks before planting to avoid riplines backfilling
- Add recommended manure quantities as indicated in the nutrients’ factsheet

The recommendations in this factsheet are relevant to: Zambia

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