





GETTING STARTED WITH CONSERVATION AGRICULTURE

Definition of Conservation Agriculture

Conservation Agriculture (CA) is a farming system that promotes permanent soil cover, minimum soil disturbance, and diversification of plant species leading to improved and sustained crop production.

Starting CA

- 1. Carry out soil testing for better management of soil health.
- 2. Undertake farm planning and layout
- 3. Implement soil and water conservation/water harvesting structures based on the slope.
- 4. Undertake deep ploughing to break hardpans by use of either ox or tractor drawn sub-soiler if available (most recommended) in virgin land. This should only be done when hardpans are a real problem. Alternatively, trees and shrubs (pigeon pea) are also able to break hardpans.



Using tractor drawn sub soiler to break the hard pan



Sub-soiled field

- 5. If sub-soiler is used, one can plant directly in the subsoiled lines.
- 6. If sub-soiling is not done, one can establish the crop after land preparation.
- 7. Planting can be done using reccomended conservation agriculture tools, for example, jab planter, dibbler, chaka jembe, fittareli and other reccomended methods.
- 8. Introduce cover crop or mulch for permanent soil cover. Cover crops can be introduced either during planting, 2 weeks after planting or as a relay crop.
- 9. First weeding to be done 2 weeks after planting using a weed scrapper, when the crops are still young. Weed management after cover crop establishment is continously done through uprooting, scrapping and slashing. Continue uprooting/scrapping weeds before flowering to avoid replenishing the soil with more weed seeds.
- 10. Cover crop remains in the field after harvesting the main crop to continue providing permanent soil over.
- 11. In subsequent seasons, cut back the cover crop to 15cm above the ground using secateurs, sickle, panga, prunning knife or other recommended tools one week before planting.
- 12. Introduce crop rotation and continue with the other CA practices. Agroforestry trees can also be planted along the contour lines at this stage.
- 13. Sub soiling can be repeated after 4-5 years of continous CA farming.