

# 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 recommended conservation agriculture tools, for example, jab planter, dibbler, chaka jembe, fittareli and other recommended 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 continuously 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, pruning 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 continuous CA farming.