



W03L01: Land Preparation

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Land Preparation under CASI

- ✓ What is land preparation?
- ✓ Field condition/soil type
- ✓ Pre-requisites of zero tillage
- ✓ Benefits of zero tillage

Land Preparation

- Land preparation is important to ensure that the field is ready for planting
 - Control weeds
 - Recycles plant nutrient
 - Provide suitable environment for direct seeding
- Land preparation covers a wide range of practices from zero-tillage or minimum tillage which minimizes soil disturbance through to a totally 'puddled' soil which actually destroys soil structure.

Pre-requisites of zero tillage

- ✓ Laser land leveler
- ✓ Residue retention
- ✓ Use of suitable machinery
- ✓ Control of weeds

Benefits of Zero tillage

- Reduction in the crop duration, thereby early cropping for second crop
- Reduction in the cost of inputs for land preparation (60-80%).
- Residual moisture effectively utilized.
- Organic matter added to the soil.
- Environmentally safe
- ZT reduces the compaction of the soil.
- As the soil is intact and no disturbance is done, No Till lands have more useful flora and fauna.

Good Agricultural Practices

- Establish a detailed knowledge of the nature, properties, distribution, and potential uses of soils
- Avoid soil disturbance to the extent possible.
- Avoid soil compaction beyond the elasticity.
- Maintain soil organic matter during rotations.
- Maintain organic cover through crop residues
- Maintain balanced nutrient levels .
- Avoid contamination with agrochemicals
- Maintain record of the annual use of inputs/outputs.