

FIELD PREPARATION PADDY

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Step by Step Production



Why Land Preparation is Important?


- ❑ Land Preparation is important to ensure the paddy field is ready for planting
- ❑ Land Preparation :
 - ❖ Soil preparation
 - ❖ Soil quality maintenance



SOIL PREPARATION

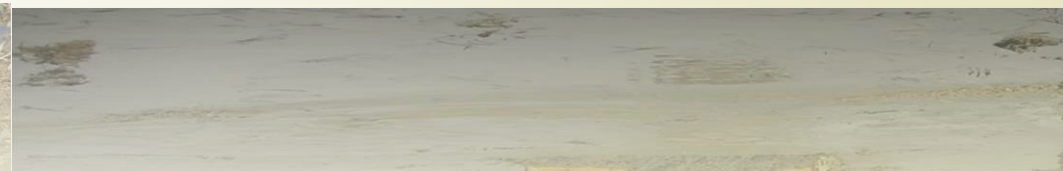


The Aims of Soil Tillage

- Change the physical properties of soil so that **hard soil** becomes **flat and muddy**
 - Control weeds
 - Recycles **plant nutrient**
 - **Provides a soft soil mass** for transplanting and **a suitable soil surface for direct seeding.**
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SOIL PREPARATION

- Plowing
- Harrowing and Puddling
- Leveling the Field





PLOWING



- **Primary tillage** which is performed to cut, dig up, mix and invert the soil partially or completely
- Plowing is purposing **to increase the water-holding capacity of the soil, improve soil aeration, and obtain a deep bed of good texture**

Harrowing and Puddling

Harrowing

- Break the soil clods into **smaller masses for smoothening**
- **Incorporate** plant residue
- cut the weeds and mix the materials with the soil
- make the **field surface uniform**
- improve soil aeration



Puddling

- **Mix the soil with water**
- Reduce water loss in lowland paddy fields
- Kill the weed by decomposition





LEVELING THE FIELD

Expected to bring permanent improvement in the value of the land

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The Aims of Field Leveling

- **Efficient weed and water management practices**
- Improve **better crop stands** and **establishment**
- **Efficient application of irrigation water**

FIELD PREPARATION according to Agroecosystem

- Wetland Preparation
- Dry and Wetland Preparation
- Dryland Preparation



WETland Preparation



DRY and WET land Preparation



DRY land Preparation





SOIL QUALITY MAINTENANCE



Why is it important to maintain soil quality?

The quality of the soil decreases,
the fertility and soil health also decrease



Decreased Crop production



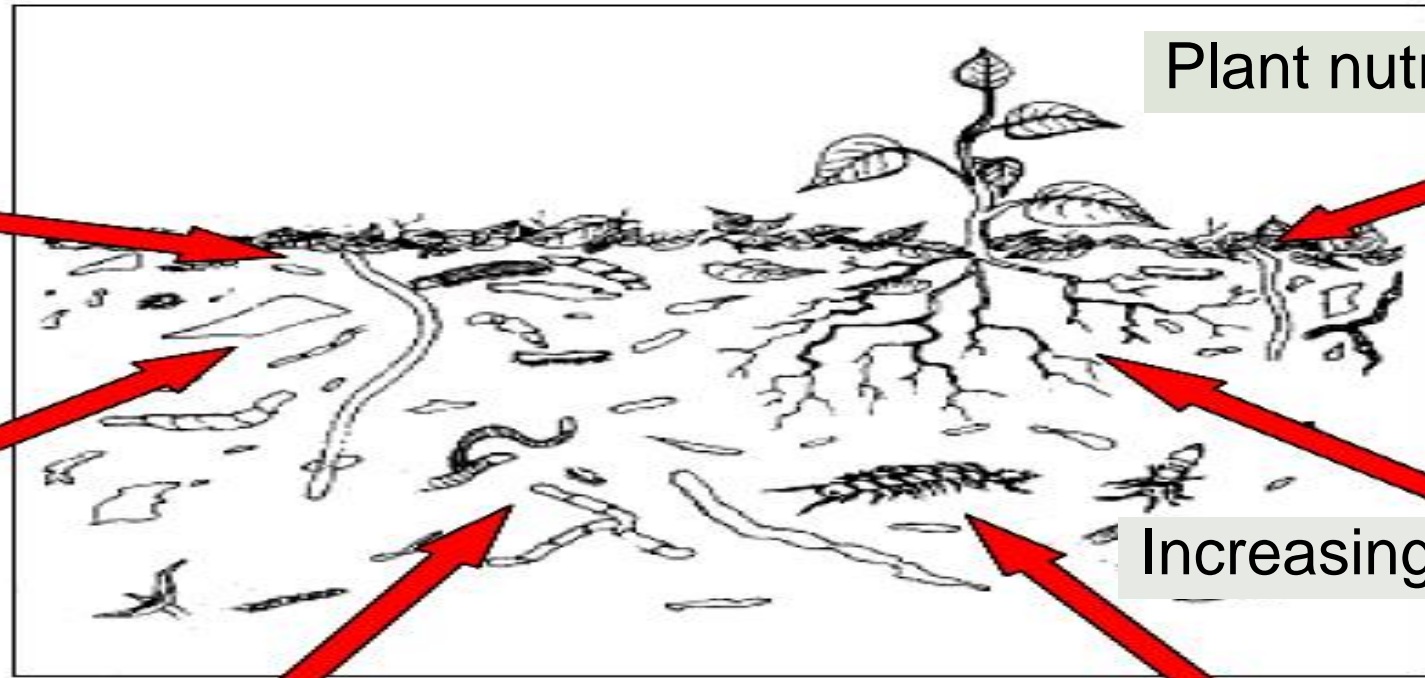
What must we do?

- **Apply organic** matter to the soil
- **Wise usage of inorganic** materials, especially fertilizers, pesticides, herbicides, etc

Why is it necessary to add organic matter to the soil?

Improving soil structure


Plant nutrition activity



Increasing soil porosity

Improving aeration

Increasing soil biological activity



Kinds of organic material

MANURE

- ☐ Cow
- ☐ Goat

Decomposer

- ☐ Decompose organic material (M-Dec, Agro DECO)

Biochar and Biological Agent

MOL (Local Microorganism)

- ☐ Mol Decomposer
- ☐ Mol Plant fertilizer



Percepatan Pengomposan jerami dengan dekomposer (M-Dec, Agro-Deco)

Source : Setyorini, Balai Penelitian Tanah



Bak Kompos



Jerami



Inokulan M-Dec



Penumpukan Jerami



Penyiraman



Penaburan Inokulan perombak M-Dec



Penutupan bak

Steps to Create Compost



Thank you
Health, Wealth, Decent Life