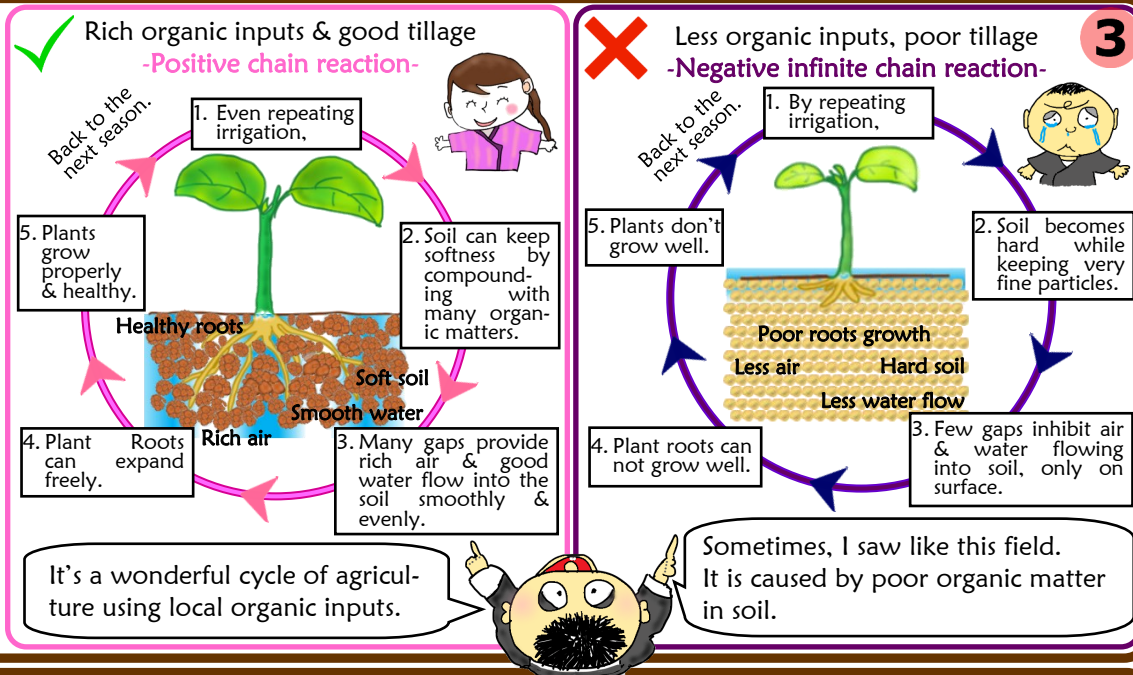


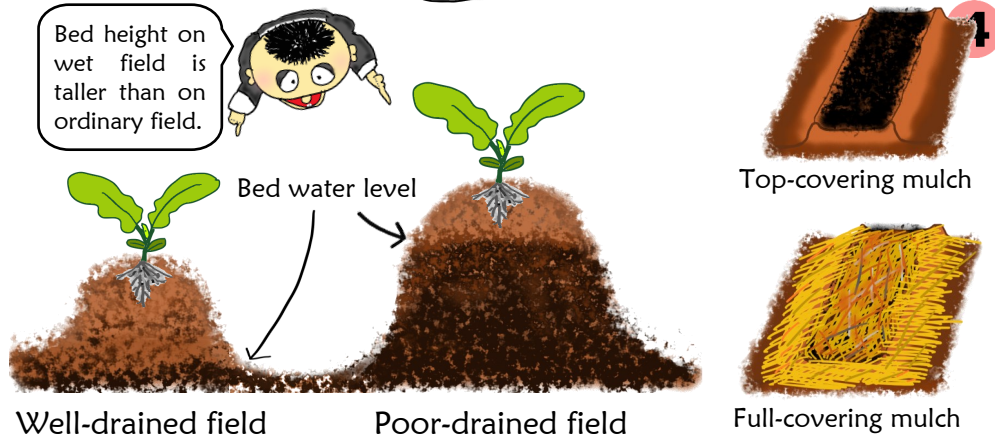
2. Tillage

Air, water and soil, together are called "soil three phase structure". Roots need a good balance of 3 phases (air: 30%, water: 30%, soil: 40%) as proper soil condition for their normal growth. It is sure that adequate tillage provides good air ventilation, soil structure renovation and suitable water conservation by mixing together organic inputs.



3. Ridging + mulching

Sizes of planting bed & nursery bed should be considered and adjusted depending on field situation. Especially, an over wet condition must be avoided for plants in poorly drained field. **Over-wetting situation is not same as less irrigated situation.** Plants should be in dry condition, and then be irrigated.



Sample work from basal soil treatment, tillage and ridging + mulching



Scattering bokashi



plant ash, Biochar & tillage



Ridging, mulching & planting



Vegetable cultivation Theme 1 Land preparation

Step-up Guide

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Important points to remember

Before planting seedlings or sowing seeds, it is important to understand the following 3 things: **1**

- 1. Basal fertilizers** have a role of improvement of soil by inputting materials, especially organic matters before planting.
- 2. Tillage** is to cultivate and soften physically hard soil by human, livestock and/or machine powers. Mixing organic materials into soil provides a good soil condition for plants growth of plants.
- 3. Ridging** is to prepare planting / seed sowing beds. Considering the land aspects (North, South, East or West), water drainage direction, a place in the morning sunlight and crops planned for cultivation, the location and the direction must be decided.



Leaflets of related information



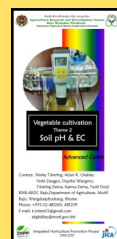
Bokashi



Biochar



Compost



pH & EC

1. Basal fertilizers

Input in your land.

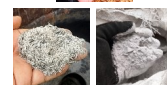
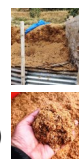


Especially organics.

Compost

Bokashi
(fermented organics)

Plant ash or
Dolomite



2 1 month before planting your vegetables in a season, addition of organic matters is highly recommended. Matured compost, bokashi and plant ash or dolomite probably renovate and restructure soil condition. SUPHALA could be useful instead of bokashi, but remember the amount to be used. See and follow the application guideline as below:



Question. What is "Dolomite" ?

Answer. It's a natural mineral. "Dolomite" is mined as an industrial material at Gomtu, Samtse. This dolomite is rich in Calcium & Magnesium which are very necessary for the proper plant growth. It works as soil pH adjuster and control some deficiency such as a bottom rot disease on tomato fruits.



Application guide line of basal fertilizers. For good acclimation, apply fertilizers 1 month before planting.

Land area (m ²)	Compost	Bokashi or SUPHALA	Plant ash or Dolomite
1 acre=4050m ²	400 baskets	500kg or 100kg	100-200kg or 100-200kg
1 decimal=40m ²	4 baskets	5kg or 1kg	1-2kg or 1-2kg
2mx5m=10m ²	1 basket	1.3kg or 250 g	250-500g or 250-500g
1mx1m=1m ²	1/10 baskets	130g or 25g	25-50g or 25-50g



Compost
1 basket = 10kg



Bokashi
1 liter = 300g



Plant ash
1 cup = 100g



SUPHALA
1/3 cup = 100g



Dolomite
1/3 cup = 100g

Proper soil pH value

Generally, vegetables grow well in the soil with proper pH values between pH 5.5 and 7.0. But, a pH meter for the measurement is required definitely. If you want to know pH value of your land, please ask ARDC Bajo.



Get more
information
on this leaflet !



pH & EC

(Based on Soil Survey Manual, USDA 2011)

