# PRACTICE ABSTRACT nº 1

## Plant Spacing and Cropping Arrangement

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Any spacing and cropping arrangement should aim at providing better plant growth and maximum plant population per hectare. In the end, plant population determines the desired amount of yields. Appropriate spacing between rows and spacing between plants increase efficient use of light leading to faster canopy establishment, which reduces soil moisture evaporation and weed growth. Proper cropping arrangement allows intercropping practice- the simultaneous cultivation of two or more crops on the same field. The most common goal of intercropping is to produce high yields on a given piece of land by using same resources or ecological processes that would have been utilized by a single crop.

### How to make proper crop spacing in the field

- Prepare a fine soil tilth (tilled soil) and make sure the field is well leveled.
- Layout and demarcate borders of the whole field.
- Create plant rows using recommended spacing. For example, 20cm x 50cm for beans, 30cm x 75cm for maize, etc.
- Sow one or two seeds per hole for better crop growth and yields.
- If intercropping is practiced (e.g. alternating two rows of maize and beans) recommended spacing for each crop should be used.

### Importance of correct crop spacing

- Facilitates nutrient uptake by plants.
- Increases plant population.
- Natural way of controlling weeds, thereby reducing the cost of production.
- Diseases and pests are better managed with a good spacing of crops.
- Farming practices are easily carried out on properly spaced crops.
- Good farm layout is maintained.
- Contributes to high yields in terms of quantity and quality.
- Facilitates easy harvesting.
- Get more yields per unit area.

*Beans planted randomly without proper spacing*

### Advantages of intercropping and good cropping arrangement

- Contributes to higher yields and greater utilization of available resources.
- Maximize utilization of nutrients present in the soil.
- Enables harvesting more than one type of crop at the same time on same land.
- Fixation of biological nitrogen (N) by legumes and transfer of N to associated crop.
- Reduces risk of soil erosion through large soil cover



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