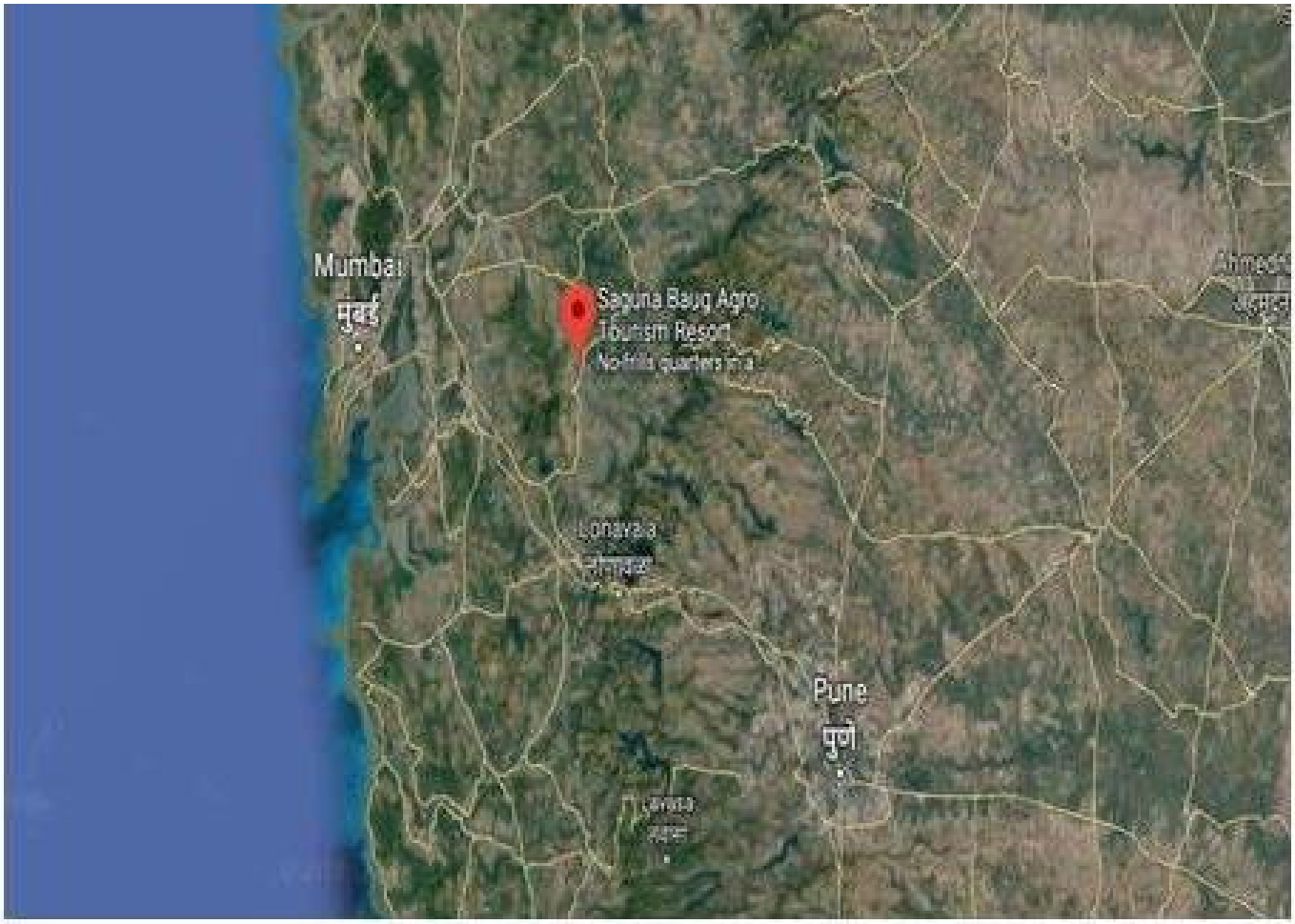
Saguna Rice Technique - SRT

CASE STUDY
SAGUNA RICE TECHNIQUE – SRT

Saguna Rice Technique is a unique new method of cultivation of rice and related rotation crops without ploughing, puddling and transplanting (rice) on permanent raised beds. This is a zero till, Conservation Agriculture (CA) type of cultivation.

Origin



Chanrdashekhar H Bhadsavle is the person who is largely responsible for the success story of Saguna baug and development of SRT (Saguna Rice Technique).

WHAT'S SO SPECIAL ABOUT SRT?

- Ample oxygen supply to root zone
- Optimum moisture condition
- Reduces treacherous labor by 50%
- Reduction in cost of production by 40%
- Prevent fertility loss during puddling
- Stops emission of greenhouse gases
- Not dependent on erratic behavior of rain

IMPORTANT PRINCIPLES

- SRT insists that all roots and small portion of stem should be left in the beds for slow rotting.
- Weeds are to be controlled with weedicides and manual labor. No ploughing, puddling and hoeing is to be done to control weeds.
- This system will get the crop ready for harvesting 8 to 10 days earlier. Take this into consideration while choosing a variety to avoid getting harvesting caught in receding rain.

HOW IS IT DONE?

Till the soil and make the raised beds only **once**. The same permanent beds will be used again and again to grow various rotation crops after rice in Kharif season.

Till the soil with rotavator or power tiller to make it workable.

Use tractor drawn 'Bed maker' or any other means to open furrows at marked lines and make raised beds.

Draw parallel lines with help of rope and lime or wood ash at 136 cm i.e 4.5 feet apart.

Make depressions / holes with SRT iron forma on the raised beds.

Sow / dibble 2 seeds of either Wal beans (Kokan Wal no. 2) or Gram (Vijay), or bush type Cowpea (Kokan Sadabahar) or Horse Gram (Dapoli no. 1) as per recommended variety and distances.

Apply fungicides and / or beneficial microorganisms to the seed as per the agriculture university guidelines.

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Irrigate plot with best possible available method. 3 to 4 hours later spray the plot with selective weedicide Goal (Oxyfluorfen 23.5% EC) @ 1 ml per litre of water.

When the crop is ready for harvest, cut the plants leaving roots and 2 to 3 inches stem on the beds.

It is very important to leave the roots of previous crop in to soil and spray the plot with Glyphoset (15 lit water + 100 ml Glyphoset + about 200 g of sea salt or 150 g of Urea) 2 to 3 days after harvesting.

Earthworms eat the decaying roots and plants and in turn they make holes which provide the required aeration in soil.

The new crop can then be planted again. Summer moong beans can be planted after the winter crop on the same bed.

IMPACTS

Impact on Farmer

- ✓ Farmers become more confident about their profession.
- ✓ Lost dignity toward farming is regained through various systematic procedures carried out in SRT.
- ✓ Farmers have gain independence from the problem of labor shortage.

Impact on Soil

- ✓ Fragrance of a soil improved in the process of keeping roots beneath the earth surface.
- ✓ Soil becomes more productive.
- ✓ Water holding capacity of soil has been drastically improved.

Impact on Nature

- ✓ Presence of earthworm in farms attracts some of the rare species of birds, so it improves the eco-system.
- ✓ Groundwater level increases.
- ✓ Reduction in Methane Gas generation.
- ✓ It reduces water, Fertilizers & other chemicals requirements.

End of Module
More Case Studies Coming Soon