

## Raised Bed Planting Technology: An Efficient Irrigation Technique

### Why raised bed planting?

About 40% of irrigation water is wasted in the fields during its application due to conventional methods of irrigation such as flat basins or inappropriate size of the furrows resulting into loss of precious water, nutrients, energy resulting into overall low water productivity. This precious irrigation water can be saved and crop yield can be increased by growing crops on the raised beds using a bed planter.

### Salient features of the bed planter

- Bed and furrow sizes can be adjusted for individual crop
- Seed and fertilizer rates can be adjusted as per requirements
- Bed planter can be operated by a common tractor operator



Bed planter that plants the seed and at the same time apply fertilizer

### Benefits of bed planting for wheat crop

- Water saving from 30 to 50%
- Yield increase upto 25%
- Higher water and fertilizer use efficiencies
- Less weeds and less lodging of the standing crops
- Easy crop harvesting



Wheat sown on beds can save upto 50% water

### Sugarcane inter cropping with wheat

Additional benefits can be obtained by inter cropping sugarcane with wheat crop such as:

- Increase in crop intensity
- Less fertilizer requirement
- Less cost of production
- Water saving for both crops
- Less weed infestation in sugarcane



Sugarcane can be planted in standing wheat to save water and fertilizer

### Benefits of bed planting for maize

- Water saving from 30 to 50%
- Increase in yield from 10 to 30% due to better plant density
- Higher water and fertilizer use efficiencies
- Less weeds in the standing crops



Maize planted on beds can save upto 50% water and increase yield by 30%

### Benefits of bed planting for cotton

- Water saving from 30 to 50%
- Increase in crop yield from 10 to 20%
- Higher water and fertilizer use efficiencies
- Better drainage of water during rainy season



Planting of cotton on beds saves upto 50% water with 15% increase in yield

### Benefits of bed planting for rice

- Increased plant density resulting in 20-25% higher yields
- Water saving from 20 to 30%
- Energy and labor efficient
- No need of puddling
- Less lodging of standing crop
- Improved grain size



Rice planted on beds saves upto 40% water and 20-25% increase in yield

### Cost of bed planter

- Cost of bed planter varies from Rs.100,000 to Rs.120,000
- If properly maintained, no major repair is required

### Potential of raised bed technology

Description	Wheat	Cotton	Maize	Rice
Area under crop (Mha)	8.66	2.83	1.08	2.57
Average production (000 bales/000 tons)	20959	13595	3313	6160
Average yield increase (%)	17	12	27	25
Increase in national production (000 bales/000 tons)	3563	1631	894	1540
Average water saving (%)	46	43	42	30
Potential of increasing area under crop (Mha)	3.98	1.21	0.45	0.77

For further information on how to make raised beds/ridges contact  
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