

Extension Brochure : FPARP No. 4

***Trash Mulching for
Saving Irrigation Water
in Sugarcane Ratoon***



Prepared by

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Sugarcane trash i.e. dried leaves available after harvesting of the crop is a valuable source of organic matter and for water saving. In general, farmers burn trash or utilize it for some other purposes such as thatching, fuel, litter etc. If it is recycled in the cane field itself, it contributes not only in saving precious irrigation water but also adds organic matter as well as other plant nutrients in the soil. This helps in improving the cane productivity and soil health. So, it is important to recycle the trash by way of mulching in sugarcane field.

Operational Steps

- ❖ After harvesting cane, collect trash (about 8-10 tonnes per ha) and keep it at both the ends of the field.
- ❖ Shave the stubbles, if needed.
- ❖ Irrigate the field just after collection of trash and stubble shaving.
- ❖ Do off-barring/hoeing.
- ❖ Do gap filling, if needed, through germinated setts.
- ❖ Apply 140 kg urea, 130 kg DAP and 100 kg Muriate of potash per hectare as basal dose along the cane rows.
- ❖ Spread trash uniformly of 6-8 cm thickness in alternate inter-row spaces.



- ❖ Prepare a solution by dissolving 5 liters Chlorpyrifos (20 EC) in 1500-1600 liters water.
- ❖ Spray this solution over the trash with the help of a sprayer to control infestation of termite and army worm.



- ❖ Irrigate the field one month after ratoon initiation (at the first order of tillering).
- ❖ Apply 100 kg urea per hectare along the cane rows as topdress.
- ❖ Do hoeing in alternate rows having no trash mulch.
- ❖ Apply third irrigation one month after second irrigation (at the second order of tillering).
- ❖ Do weeding and intercultural operations as and when required in rows having no trash mulch.
- ❖ Topdress 100 kg urea along the cane rows during mid June.
- ❖ Apply fourth irrigation one month after third irrigation (at the third order of tillering).
- ❖ Apply 33 kg Furadan 3 G per hectare along the cane rows in the last week of June to control the infestation of top borer.
- ❖ Follow plant protection measures as per the recommendation.
- ❖ Do earthing-up before the onset of monsoon.

- ❖ Tie canes of each clump together in the first fortnight of August with lower dry leaves.
- ❖ Tie the clumps of opposite rows together in September.
- ❖ Remove lower dry leaves during the months of August - September.
- ❖ Harvest the cane close to the ground level to raise a good succeeding ratoon crop and to avoid the yield loss.

Advantages

- ❖ Irrigation water is saved up to 40 per cent by trash mulching as it conserves the soil moisture and reduces evaporation from soil surface.
- ❖ Soil temperature is decreased and accordingly modify biological activities including increased availability of nutrients particularly nitrogen and phosphorus to the plants.
- ❖ Bud sprouting and survival of tillers and their growth is improved.
- ❖ Weed growth is checked.
- ❖ Mulch also adds a large quantity of organic matter to the soil, thereby, improves soil health.



- ❖ The greater absorption of rainfall is ensured.
- ❖ Soil erosion is reduced.
- ❖ Cane yield and farmers' income are increased.



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