

RECOMMENDATION SHEET

No. 187, January 2014

Irrigation Scheduling Under Green Cane Trash Blanketing (GCTB) in the sub-humid zone

With green cane mechanized harvesting, the field is covered with a thick mat of green cane trash which acts as a mulch, thereby protecting the soil surface from direct evaporation. As this trash takes several months to completely decompose, the ensuing ratoon crop has time to reach full canopy while the soil remains protected. Our studies have shown that the presence of a trash blanket of about 15 cm in thickness:

- does not affect early growth of ratoon cane,
- improves water availability to the plant,
- increases the water use efficiency by the crop, and
- allows a saving of water of 10% compared to a bare soil.



Centre pivot irrigation on trash blanket

Recommendation

*In the sub-humid zone, irrigation doses for ratoon crops under GCTB can be reduced to **90%** of the calculated crop water demand when the thickness of the trash blanket is of the order of 15 cm*

Example

At high crop water demand, the following guidelines may be applied:

IRRIGATION SYSTEM	APPLICATION SCHEDULE	CALCULATED CROP WATER DEMAND	
		WITHOUT TRASH BLANKET	WITH TRASH BLANKET
Drip	Daily	5 mm/day	4.5 mm/day
Centre pivot	Daily	5 mm/day	4.5 mm/day
	Weekly	35 mm/week	32 mm/week
Big gun sprinkler	Weekly	35 mm/week	32 mm/week
Dragline sprinkler	10-day rotation	10 days per cycle	11 days per cycle

Your attention is drawn that the guideline and/or advice is restricted for the purpose for which it is recommended only. MCIA Board shall not be responsible for any act that may arise outside the purview of these guidelines.

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Réduit

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