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# **ABSTRACT**

Agriculture - Additional cost Assistance of a sum of Rs.68.35 crore to Sugarcane Growers for Installation of surface / subsurface drip irrigation system in Sugarcane in 16,000 Ha during the year 2019 - 2020 - Sanctioned Orders - Issued.

# AGRICULTURE (H1.2) DEPARTMENT

G.O.(Ms) No.238

Dated: 14.10.2019 விகாரி வருடம், புரட்டாசி – 27 திருவள்ளுவர் ஆண்டு 2050 Read:-

From the Director of Agriculture Letter No.CDC1/142271/2018, Dated 05.08.2019 and 26.08.2019.

## ORDER:

In his letter read above the Director of Agriculture has stated that pursuant to the representation of South India Sugar Mills Association, the Chief Secretary to Government in the meeting held on 10.07.2019 emphasized to cover more area under Drip Irrigation in sugarcane crop to increase productivity and sustain sugar industry. It was further instructed to work out the additional cost required for installing drip system

in sugarcane crop.

- 2. The Director of Agriculture has stated that Sugarcane is the second most important industrial crop in Tamil Nadu. Sugarcane is normally cultivated in 2.45 L.Ha and the area is declining since 2017-2018. In 2018-2019 the area brought under sugarcane cultivation is 1.65 L.Ha and sugarcane growers are shifting to other crops because of low rainfall, labour problems and increasing demand for other remunerative crops. Water is one of the major and primary constraints in Sugarcane cultivation. Average water requirement for sugarcane is 1800 to 2200 mm and it requires 24 irrigation during its growth period of around 307 days. Lack of irrigation leads to decrease rate of germination, reduction in length of internodes, reduction in juice content, reduce sugar yield and increased percentage of fiber. The Government has taken various initiatives (i.e) Sustainable Sugarcane Initiative, Micro Irrigation etc to sustain the sugarcane growers and to meet the demand of mills.
- 3. The Director of Agriculture has further stated that Sub-surface drip irrigation is another method of growing sugarcane which is highly preferred by Sugarcane growers because
  - > Subsurface Drip facilitates ratoon (Stubble Crop) and once if sub surface drip is installed a farmer will cultivate sugarcane for 3-5 years continuously and will not switch over to other crops.

- As the farmer cannot shift to other crop for 3-5 years, cane supply will be ensured and sustainability of sugar mills and sugar industry could be achieved
- > Facilitates mechanical harvest of canes there by reducing cost of cultivation.
- Rodent Damage is minimized
- Avoids soil compaction and crusting.
- > Less labour requirement for inter cultivation operations.
- Yield increase and higher income.
- 4. The Director of Agriculture has further added that Subsurface Drip method is adopted only in the case of Sugarcane and not in any other Agriculture and Horticulture crops and hence claim by other farmers for additional subsidy would not arise. Hence, out of 16000 Ha proposed, 80% target of 12,800 Ha has been earmarked for subsurface drip (8320 Ha Under open well+4480 Ha under Borewell) and 20% for normal surface drip so as to reduce the financial burden of sugarcane farmers, to increase the Area, production and productivity of sugarcane, to ensure continuous supply of canes to sugar industry and to save the valuable input "Water".

#### Additional component required for Surface/Subsurface Drip in Sugar cane

S. No	Component	Unit	Nos / MTS		Surface Drip		Sub surface Drip	
			As per BOQ	Addl required	open well	Borewe II / Tube well	open well	Bore well /Tube well
1	Disc filter-2.5 inch(30m³/hr) (Replacing screen filter @ Rs 2400/no)	No	Nil	1	4400	4400	4400	4400
2	Sand filter with Back wash assembly 2.5 inches (30m³)	No	Nil .	<b>4.</b> 1	18400		18400	.174
3	Hydrocyclone filter 30m <sup>3</sup> per hr - 2.5 inches	No	Nil	1		6325		6325
4	Air release Valve 1"	No	1	4	440	440	440	440
5	PVC Pipe 63 mm	Mts	102	. 66	2838	2838	2838	2838
6	PVC Pipe 75 mm	Mts	54	60	3780	3780	3780	3780
7	PVC Pipe 40 mm- for collective sub main 240Mts @ rate of Rs.29 per metre	Mts	Nil	240			6960	6960
8	control valve 63 mm	No	Nil	5	1780	1780	1780	1780
9	Non return valve 2.5 " (Replacing NRV 1.5 " @ Rs.600/no)	No	1	1	650	650	650	650

10	63 mm Flush Valve (6 nos for surface & 18 nos for sub surface)	No	1	6 Surface, Subsurfac e-18	450	450	1350	1350
11	Lateral 16mm, Class II; 2.5 kg/cm2 -200mts @Rs.7/m	Mts	125	200	1400	1400	1400	1400
	Total				34138	22063	41998	29923
	GST 12%		F 3.4.2	1	4097	2648	5040	3591
	Total cost with GST				38235	24711	47038	33514
12	Tractor Hiring Charge for operating sub surface Laying machine.	Farmer				¥	2720	2720
	Grand Total	of North A			38235	24711	49758	36234

#### Additional Budget Required for 2019-2020:

Details	Area ha	Assistance Rs. /ha	Amount Rs. in Cr	No. of beneficiaries	
Surface Drip(open well)	2,080	38,235	7.95	1,040	
Surface Drip(Tube well)	1,120	24,711	2.77	560	
Subsurface Drip (open well)	8,320	49,758	41.40	4,160	
Subsurface Drip (Tube well)	4,480	36,234	16.23	2,240	
Total	16,000		68.35	8,000	

## Specific Rationale:

- i) As reported in the "Training Manual On Sustainable Sugarcane Initiative ICRISAT" in conventional Flooding method Average water (not including rainfall) requirement of Sugarcane crop is 2000 mm (i.c) 80 L litres/acre/ full season), but Under Micro Irrigation on an average of 1500mm (60L litres/acre/full season) including rainfall is required. Thus in Drip system, irrigation efficiency improves up to 90% and water is saved up to 40-70% and consumption of electricity is also reduced.
- ii) In terms of Productivity of Sugarcane, various studies conducted by "Water Technology Centre" Tamil Nadu Agriculture University, Coimbatore and ICAR, it is reported that the number of millable canes is increased from 4-5 Nos to 9-10 Nos / clump which ultimately result increase in Productivity by around 50%.

- 5. The Director of Agriculture has also stated that, Sugarcane, being a water guzzling crops requires specific intervention to keep a check on the enormous amount of water that goes into Sugarcane Production. Hence, considering depletion of water table, huge cost of production and threat of sugarcane growers switching over to other crops and commercial value of sugarcane to sustain mills, Sugarcane growers should be supported/ motivated by extending this sort of assistance.
- 6. The Director of Agriculture has therefore requested the Government to sanction the additional cost required for the installation of surface/subsurface drip in sugarcane to cover 16000 Ha at a financial out lay of Rs 68.35 crore.
- 7. The Government after careful examination have decided to accept the proposal of the Director of Agriculture and accordingly sanction a sum of Rs 68.35 crore as additional cost Assistance to Sugarcane Growers towards installation of surface/subsurface drip in sugarcane to cover 16,000 Ha during the year 2019-2020.
- 8. The expenditure sanctioned in para 7 above shall be debited to the following heads of account:-

"2401 00 Crop Husbandry -119 Horticulture and Vegetable Crops – Schemes shared between State and Centre –UF Micro Irrigation Scheme - 11 Subsidies – 01 Individual Based Subsidy. (Old DPC: 2401 00 119 UF 1116)
IFHRMS DPC: 2401 00 119 UF 31101 – Rs.54.68 crore

2401 00 Crop Husbandry - 793 Special Central assistance for Scheduled Caste Component Plan - Schemes shared between State and Centre - UP Micro irrigation Scheme - 11 Subsidies - 01 Individual Based Subsidy.

(Old DPC: 2401 00 793 UP 1118)

IFHRMS DPC: 2401 00 793 UP 31101 - Rs.12.987 crore

2401 00 Crop Husbandry - 794 Special Central Assistance for Tribal Sub-Plan – Schemes shared between State and Centre – UK Micro Irrigation Scheme – 11 Subsidies - 01 Individual Based Subsidy.

(Old DPC: 2401 00 794 UK 1116)

IFHRMS DPC: 2401 00 794 UK 31101

- Rs.0.683 crore

and Contra credit to-

"K. Deposits and Advances (b) Deposits not bearing interest – 8443-00-Civil deposits 800-other deposits- CW – Deposits of Tamil Nadu Horticulture Development Agency (TANHODA) (DPC 8443-00-800 CW 000D) (Receipts)"

9. The Director of Horticulture and Plantation Crops is authorized to draw the amount sanctioned and released in para-7 above and deposit the same in the Personal Deposit account of Tamil Nadu Horticulture Development Agency by Contra Credit by following the procedures laid down in G.O.(Rt) No.1251, Finance (Ways and Means II) Department, dated 30.12.2005 and G.O.(Rt) No.1253, Finance (Ways and Means II) Department, dated 30.12.2005.

- 10. The Managing Director, Tamil Nadu Horticulture Development Agency is directed to release the amount sanctioned in para 7 above to the Director of Agriculture.
- 11. The Director of Agriculture is directed to disburse the funds sanctioned in para 7 above for installation of surface/ subsurface drip in Sugarcane to cover 16,000 Ha during the year 2019-2020.
- 12. This order issues with the concurrence of the Finance Department vide its U.O.No.50603/SS(AK)/Agri/2019, Dated 11.10.2019

## (BY ORDER OF THE GOVERNOR)

#### GAGANDEEP SINGH BEDI AGRICULTURAL PRODUCTION COMMISSIONER AND PRINCIPAL SECRETARY TO GOVERNMENT

To

The Managing Director, Tamil Nadu Horticulture Development Agency, Chennai-600 005

The Director of Horticulture and Plantation Crops, Chennai-5.

The Director of Agriculture, Chennai – 5.

The Commissioner of Sugar, Chennai - 32.

The Executive Director, Tamil Nadu Watershed Development Agency, Chennai-32.

The Chief Engineer (Agricultural Engineering) Chennai – 35.

The Principal Accountant General (G&SSA) / (E&RSA) / (AAD), Chennai-18.

The Residential Audit Officer, Office of the Principal Accountant General, Chennai – 600 009.

The Pay and Accounts Officer (East), Chennai-600 008.

The Chief Accounts Officer, Office of the Director of Horticulture and Plantation Crops, Chennai- 600 005.

#### Copy to

The Senior Private Secretary to Agricultural Production Commissioner and Principal Secretary to Government, Agriculture Department, Chennai-600 009.

The Finance (Agri) Department Chennai-9
The Agriculture (OP-3 / S1) Department, Chennai -600 009.

The Assistant Programmer, Agriculture Department, Chennai-600 009.

Concerned file No.19578H1-2/2019.

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//FORWARDED BY ORDER//

SECTION OFFICER