

# AGRICULTURAL SCENARIO -TAMIL NADU

- Geographical area - 130.33 L.ha.
- Gross area sown - 51.29 L.ha
- Net area sown - 43.47 L.ha.
- Gross Area Irrigated - 28.45 L.ha
- Net Area Irrigated - 23.85 L.ha (55%)
- Rainfed - 19.62 L. ha (45%)
- Average Rainfall - 920.9 mm – {National-1200mm}
- No. of land holdings - 81.18 Lakh
- Average size of holding - 0.80 Ha. {National -1.15 ha.}
- SF/MF - 92% (operating 61% area)
- Other Farmers - 8% (operating 39% area)

# Introduction

- **Paddy occupies 31% of the gross sown area and 53% of the gross area irrigated of the state**
- **It contributes 62% of the total food grains production in the state.**
- **Paddy is cultivated in a normal area of 17.59 lakh hectare with normal production of 65.26 Lakh metric tonne.(3700 kg/ha)**
- **Paddy is cultivated in 3 major seasons viz., Kar/Kuruvai /Sornavari (April to July), Samba/ Thaladi/Pishanam (August to November) and Navarai/ Kodai (December to March).**
- **About 40% of the paddy area is cultivated in delta districts comprising of Thanjavur, Nagapattinam, Tiruvarur, Trichy, Pudukottai, Karur, Ariyalur and Cuddalore which is mainly depends on the canal irrigation**

# Constraints faced in Paddy cultivation

- Due to urbanization, industrialization and less water availability expanding paddy area is under restriction.
- Frequent drought and flood leads to reduced production.
- Deterioration of soil health due to continuous intensive mono cropping.

# Why MIS in Paddy

- Valuable water is saved for sustainable rice production
- Water use efficiency increased by 28-32 % (SAU study report)
- Leaching loss of nutrients is prevented
- Control of weeds and labour cost reduced by 40 %
- Good soil health is maintained which helps in quality
- Allows crop rotation to increase land utilization capability of farmers
- Power saving by 36 %



# Strategies adopted to increase Water use efficiency

- Department of Agriculture on pilot basis initiated steps during 2018-19 to install drip in paddy.
- Demonstrations were organised in delta districts Thiruvarur and Cuddalore in kuruvai season (predominant water source is tube wells)
- TNAU was requested that the studies need to conduct to evolve separate packages for drip irrigation in Rice
- Considering the success & to increase the water use efficiency department has also proposed to promote drip irrigation in paddy cultivating 15 potential districts (other than delta) for the year 2019-20 (i.e) Ariyalur, Cuddalore, Erode, Kancheepuram, Karur, Namakkal, Pudukottai, Salem, Thirunelveli, Theni, Thiruvallur, Trichy, Thiruvannamalai, Vellore and Villupuram.

**Success story  
on  
Paddy - Drip**

## SUCCESS STORY of Drip irrigation in Paddy

<b>Name of Farmer</b>	<b>R.Rajaram</b>
<b>Village</b>	<b>Vellapakkam</b>
<b>District</b>	<b>Cuddalore</b>
<b>Crop</b>	<b>Paddy</b>
<b>Soil</b>	<b>Clay loam</b>
<b>Drip System</b>	<b>Turbo Acura ,16 mm, 50 cm dripper of 4lph</b>
<b>Area</b>	<b>0.668 ha (1.67 ac)</b>
<b>Date of Transplanting</b>	<b>09.10.2018</b>
<b>Lateral spacing</b>	<b>1.20 mts</b>
<b>Planting distance</b>	<b>20 cm X 15 cm</b>
<b>Variety</b>	<b>BPT 5204</b>
<b>Date of Harvest</b>	<b>22.01.2019</b>
<b>Total Yield for 0.668 ha</b>	<b>4977 Kg</b>
<b>Yield obtained for one Ha</b>	<b>7450 (2980 Kg/ acre)</b>
<b>Normal yield in recent years</b>	<b>5000 kg/ha ( 2000 kg/ac)</b>

# MIS in Paddy



# The Agriculture Production Commissioner & Principal Secretary to Govt .of Tamil Nadu visited Paddy drip Plot with District Collector and Agri. Department Officials - Cuddalore



# Paper message

# Thiruvarur - Paddy demonstration plot under drip

- Name : V.Ravichandran
- Village : Poonkulam
- Taluk : Nannilam District : Thiruvarur
- Var. : CO 51 (110 days)
- Date of Sowing : 07/03
- Date of Transplanting : 01/04
- Medium : Raised bed 3'- 1' furrow
- Rows : 6/bed
- Lateral spacing : 1.20 m
- Dripper spacing: 60 cm
- Dripper capacity: 4 LPH



# Comparison of Rice – Conventional & Drip System

Components	Conventional method	Drip
Water Requirement	1200 mm	619 mm
Water Saving %		48
Yield kg/ha	5200	5940
% increase in yield		14
Water use efficiency (kg ha/mm)	4.33	9.6

# DAC&FW Intervention required

**SF/MF are 92% (operating 61% area) who mainly cultivate pulses and oilseed crops**

- 75 mm pipes may be approved for sprinklers for area below one hectare.
- Installation of sprinklers for area below 0.40 ha may be permitted as most of land holding in Tamil Nadu are small and fragmented.

# Suggestions

- Sub- surface irrigation is preferred by many sugarcane farmers and requires additional Components like sand filters which involves high cost. Hence the subsidy may be raised for Sugarcane crops.

**Proposal already sent to JS – DAC&FW for kind consideration**

**Thank You**