

## Success Story No.1

# Red gram Transplantation –Reviving Red gram area; Replenishing the Protein Bowl



## Pulses Scenario

In Tamil Nadu pulses are grown in an area of 8.8 lakh ha with an annual production of 5.08 lakh tonnes and a productivity of around 576 kg per hectare is realized. Considering the consumption of 12.35 lakh tonnes per annum in the state, there is a deficit of nearly 7.27 lakhs tonnes of pulses/annum which is met from other states or import from other countries.

## Idea Behind

To meet the demand of Red gram due to increasing per capita consumption and increasing population, high priority needs to be given to increase the area and productivity. Moreover expanding area under pulses is challenging as irrigated land has expanded and more profitable high yielding cereal crops have displaced pulses production to marginal lands and consequently potential for growth of pulse area is limited. Red gram has the potential to increase the productivity and is more remunerative among all pulses. It is observed that there is an yield increase of 2 to 3 times in Red gram by way of following the transplantation method in the farmer's field.

Hence, the Government is promoting Red gram Transplantation since 2012-13 by taking up Demonstrations, conducting Farmers training and giving incentive to farmers who adopt this technology.

## **Project**

During 2012-13, Red gram transplantation was taken up in 29155 ha at an outlay of 11.804 crores whereas in 2013-14, Red gram Transplantation was implemented in 40736 ha at an outlay of Rs.17.658 crores.

## **Methodology**

- Usage of High Yielding varieties Co (R g) 7, LRG-41, BRG-1 VBN-3 ,ICPL series, APK-1, CO-6
- Seed rate 2.5 kg/ha. Seeds are treated with 2% Calcium chloride and shade dried for 7 hours. After that, the seeds are treated with Rhizobium and Phosphorus Solubilizing Bacteria (PSB) @ 50 g/kg of seeds and finally with Trichoderma @ 4 g/kg of Seeds
- Raising of seedlings:  
2 seeds are sown adjacent to each other in plastic covers with sizes of 6' x 4' / 5' x 3' / 4' x 2' to raise 45 days, 35 days and 25 days seedlings respectively. Within 30-40 days seedlings will be ready for transplanting.
- Transplantation of seedlings:  
Two seedlings from the plastic cover are transplanted into 6 inch pits at a spacing of 5' x 3' / 6' x 3' and one can be removed after successful establishment.
- Integrated Nutrient Management –Fertilizer application including Micro Nutrients based on soil test; Use of bio fertilizers and Gypsum.
- Integrated Pest Management – use of Bio-pesticide and Bio control agent.
- Water Management - 3-4 irrigations at critical periods of growth viz. transplanting, flowering & pod filling stage is necessary.
- Weed Management- Earthing up is essential for supporting the plant and to avoid weeds.

- Nipping - Practiced at 20& 30 days after transplanting which results in Sprouting of secondary & tertiary branches.

### **Assistance**

Under NADP, for demonstrations and Incentive to farmers practicing red gram transplantation an assistance of Rs.7500/ha is being provided. Besides farmers training is being conducted with the fund allocation of Rs.10000/training for 30 farmers/batch on improved technologies for transplanted red gram.

### **Economics on the point of view of a successful farmer**

Name of farmer	Thiru. S.Veeramareddiyar
Village	Uppidamangalam,Karuppur
Block	Thanthoni
District	Karur
Cultivated area	1 ha
Irrigation Source	Well Irrigated
Season	Kharif
Name of the variety	CoRg-7
Duration of the crop	120-148 days
Subsidy by the Department	Rs.7500/Ha
Yield(Kg/Ha)	2240 Kg/Ha
Normal yield of the block	1560Kg/Ha
Cost of Cultivation per Ha	Rs.30,498/Ha
Gross income	Rs.100800/ha
Net Profit per Ha	Rs.70302/Ha

## Success Strikes

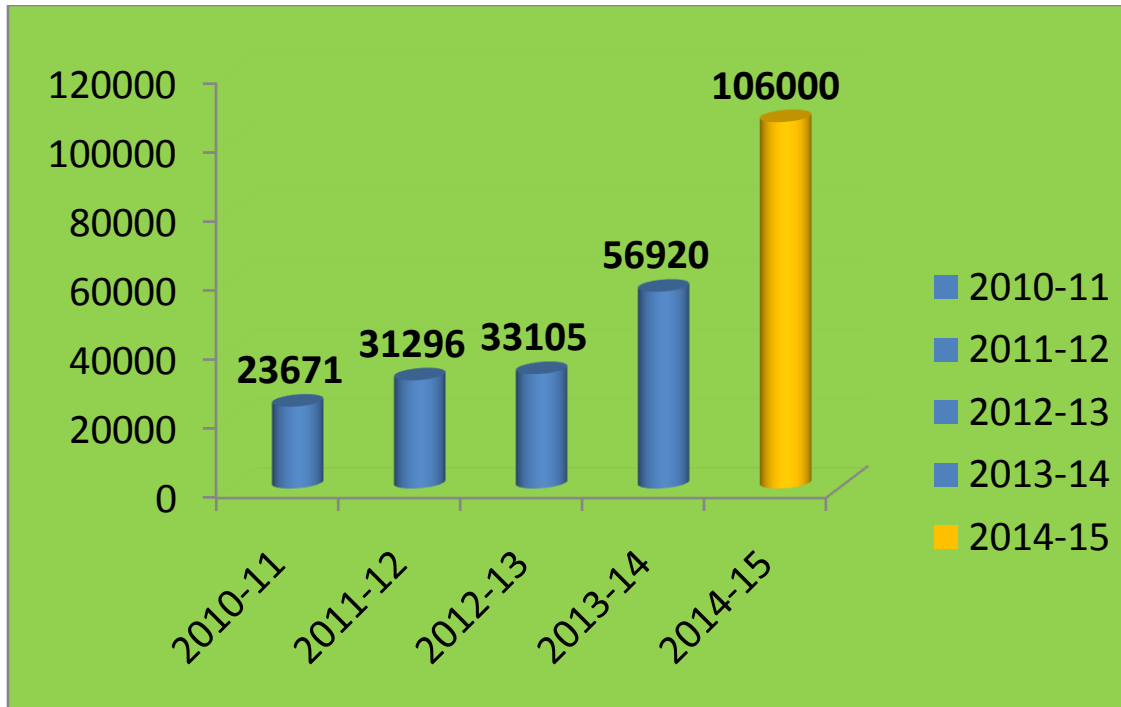
The area under red gram has increased to 0.649 Lakh ha from 0.396 Lakh.ha and production has improved to 0.586 L. MT from 0.331 L.MT.The productivity has increased to 874kg/ha from 787 kg/ha ie there is an increase of 87 kgs per Ha.

## Success leads to Scaling up

Owing to the success of this scheme, the red gram transplantation is being taken up in 52000 ha at a financial outlay of Rs.39.00 crores dovetailing Government of India schemes in 2014-15.



Red gram Area (Ha)- 5 years Data



Red gram Production (Mt) -5 years Data



