# Performance of Semi dry Rice cultivation K.C .canal area of Scarce Rainfall Zone of Kurnool district, A.P.

## *Intoduction:*

**Problem identified**:. Transplanted rice has deleterious effects on the Soil environment and nearly 30% of total Water used (1,400 – 1,800 mm) in rice culture is consumed mainly during Puddling and transplanting Operations. Puddling requires lots Water at a time when there is little Water in the reservoirs, destroys Soil structure and adversely affects Soil Productivity. Therefore, a key concern is how the farmers can avoid Puddling and transplanting operations without yield penalty.

**Intervention:** Direct Seeded rice which removes Puddling and drudgery of transplanting the young rice Seedlings provides an option to resolve the adaphic conflict and enhance the Sustainability of rice and Subsequent cropping system. DSR overcomes the problem of Seasonality in labour requirement for rice nursery raising and transplanting operations. DSR facilitates timely establishment of rice and Succeeding crops.

**Mean Yield and Economic Returns of Redgram based for the last three years-2016-18**

| Particulars | Yield (kg/ha). | Cost of production (Rs) | Net returns (Rs/ha | CB ratio |
|---|---|---|---|---|
| Semi Dry Rice | **7397** | **55190** | **76233** | **1:2.38** |
| Farmers practice | **7431** | **62375** | **68961** | **1:2.10** |

**Performance of DSR in farmers fields**

- Saving of 3 to 4 thousand rupees was observed in the first stage.
- Approx. 50% reduction in seed rate compared to transplanted method is observed in DSR.
- A 20-40% of reduction in water usage compared to transplantation method.
- Harvesting can be done in 7 to 10 days ahead.
- As seeding is done by the tractor , nursery and the transplantation labour is not required.
- In the transplantation method we need 10-15 labourers, where as in the direct-seeding method one person per one hour is enough to finish the seeding process.
- Because of the recent advances in improved efficiency of pesticides and herbicides , initial growth phase of the weeds can also be eradicated.
- Optimum plant population can be maintained.