

**6(e). Response farming- a type of farm planning
being practiced in Australia considering seasonal
climate forecast**

Dr. T.N. Balasubramanian



What is Response Farming

- Framing flexible adaptation strategies for the forth coming rainy season
- It is methodology that identifies and quantifies seasonal rainfall related risks(Stewart,191) and guides to develop strategies for addressing them at farm level
- This approach couples seasonal rainfall forecast with appropriate agronomic responses/tactics concerning crop planning

- It is a flexible system of farming in which key farm decisions affecting crop water utilization is taken in response to pre season and early season rainfall predictions.

It focuses on water and its management at farm level for sustaining crop production by reducing climate related risks.

Hypothesis for Response Farming

Solutions to farming problems may
be found for improved forecast of
expected seasonal rainfall behavior in
the cropping season

Aim of Response Farming

- To exploit high rainfall seasons potential and minimize the risk of crop failures in poor rainfall season using rules based on date of onset and early season cumulative rainfall

Which forecast is suitable for Response Farming

- Long range weather forecast and Seasonal climate forecast, since they have enough lead time to take farm decision on land use pattern, crop planning, technology selection and tailoring

Where Response Farming is Useful

- Arid and Semi arid climate regions
- Regions with frequent climate variability
- Where adaptations strategies developed already at village level

Additional tool required in Addition to SCF/LRF

- Document on onset date
- Document on conditional probability of rainfall
- Document on initial probability of seasonal rainfall
- Document on rainfall return period
- Document on length of growing period
- Farm size information
- Land use pattern used in the past

Case Study in India(Coimbatore)

- Normal crop : rice during Oct-Nov with ground water support in addition to rainfall
- Normal seasonal rainfall: 420mm
- Seasonal climate forecast (SCF) predicted rainfall: 250 mm
- Farmers response to SCF:
80 per cent farmers went for rice and 20 per cent farmers went for black gram with season

Economics of the Case Study

Details	Farmer with black gram	Farmer with rice
Cost of cultivation (Rs./4000m ²)	5000.00	12000.00
Revenue(Rs./4000m ²)	7500.00	Nil (crop failure)
Gain(Rs./4000m ²)	7500+12000=19500- 5000=14500	Nil