

## EXTENT OF ADOPTION OF DEMONSTRATED GROUNDNUT CULTIVATION PRACTICES OF FRONTLINE DEMONSTRATION PROGRAMMES

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### ABSTRACT

To assess the influence of frontline demonstration scheme, on adoption of farm practices by the farmers 40 participants and 40 non-participants of Groundnut frontline demonstration were selected randomly in Madurai and Coimbatore districts. The needed data were collected and analysed. The results show that a considerable per cent (75 to 85%) of both the participants and non-participants have adopted the application of gypsum and pest and disease management practices after the introduction of frontline demonstration on groundnut cultivation. Frontline demonstration have increased the extent of adoption of modern groundnut cultivation practices.

**KEY WORDS :** Groundnut cultivation practices, Frontline demonstration, Extent of adoption.

The crucial contribution of the Frontline Demonstration (FLD) to agricultural development certainly requires a scientific study to assess the influence of the scheme in their adoption by the farmers. So far, no systematic research study has been conducted on the impact of groundnut frontline demonstration scheme in Tamil Nadu. Hence this study was undertaken as a pioneering one.

### MATERIALS AND METHODS

Coimbatore and Madurai districts formed the study area. Forty participants (20 each Coimbatore and Madurai) and forty non- participants (20 each Coimbatore and Madurai) of FLD were selected at random from Annur and Pollachi taluks of

Coimbatore district and Usilampatti and Chellampatti blocks of Madurai District. Well constructed interview Before - After design of measurement was followed.

### RESULTS AND DISCUSSION

The extent of adoption of important practices in groundnut by the participants and non-participants was focussed on seven practices viz., variety, seed rate, seed treatment, application of micronutrient mixture, gypsum application, management practices and need based pest and disease management.

It could be observed from table 1 that eightyfive per cent of the participants of Madurai and Coimbatore districts adopted the application of

**Table 1.** Practicewise adoption of frontline demonstration technologies in groundnut by the respondents (n=80)

| Technologies                           | Participants (CBE)<br>(n=20) |    |       |    | Non-Participants<br>(n=20) |    |       |    | Participants (MDU)<br>(n=20) |    |       |    | Non-Participants<br>(n=20) |    |       |    |
|--|------------------------------|----|-------|----|----------------------------|----|-------|----|------------------------------|----|-------|----|----------------------------|----|-------|----|
|  | Before                       |    | After |    | Before                     |    | After |    | Before                       |    | After |    | Before                     |    | After |    |
|  | No.                          | %  | No.   | %  | No.                        | %  | No.   | %  | No.                          | %  | No.   | %  | No.                        | %  | No.   | %  |
| Use of high yielding variety           | -                            | -  | 9     | 45 | -                          | -  | 3     | 15 | -                            | -  | 8     | 40 | -                          | -  | 3     | 15 |
| Seed rate                              | 4                            | 20 | 12    | 60 | 2                          | 10 | 10    | 50 | 4                            | 20 | 11    | 55 | 2                          | 10 | 9     | 45 |
| Seed treatment                         | 3                            | 15 | 6     | 30 | 2                          | 10 | 4     | 20 | 2                            | 10 | 7     | 35 | 1                          | 5  | 5     | 25 |
| Application of micro-nutrient mixture  | 1                            | 5  | 5     | 25 | 2                          | 10 | 2     | 10 | 1                            | 5  | 4     | 20 | 2                          | 10 | 2     | 10 |
| Gypsum application                     | 2                            | 10 | 17    | 85 | 1                          | 5  | 16    | 80 | 2                            | 10 | 16    | 80 | 1                          | 5  | 15    | 75 |
| Weed management (Weedcide application) | -                            | -  | -     | -  | -                          | -  | -     | -  | -                            | -  | -     | -  | -                          | -  | -     | -  |
| Need based plant protection management | 5                            | 25 | 14    | 70 | 4                          | 20 | 12    | 60 | 4                            | 20 | 15    | 75 | 2                          | 10 | 11    | 55 |

Table 2. Extent of adoption of groundnut technologies among the respondents

(n=80)

| Category | Participants (CBE)<br>(n=20) |    |       |    | Non-Participants<br>(n=20) |    |       |    | Participants (MDU)<br>(n=20) |    |       |    | Non-Participants<br>(n=20) |    |       |    |
|----------|------------------------------|----|-------|----|----------------------------|----|-------|----|------------------------------|----|-------|----|----------------------------|----|-------|----|
|          | Before                       |    | After |    | Before                     |    | After |    | Before                       |    | After |    | Before                     |    | After |    |
|          | No.                          | %  | No.   | %  | No.                        | %  | No.   | %  | No.                          | %  | No.   | %  | No.                        | %  | No.   | %  |
| High     | 0                            | 0  | 10    | 50 | 1                          | 5  | 10    | 50 | 0                            | 0  | 8     | 40 | 1                          | 5  | 12    | 60 |
| Medium   | 12                           | 60 | 10    | 50 | 12                         | 60 | 10    | 50 | 14                           | 70 | 12    | 60 | 12                         | 60 | 7     | 35 |
| Low      | 8                            | 40 | 0     | 0  | 7                          | 35 | 0     | 0  | 6                            | 30 | 0     | 0  | 7                          | 35 | 1     | 5  |

Table 3. Analysis of variance showing extent of adoption of demonstrated technologies

|  | 'F' Value  |
|--|------------|
| Place (CBE Vs MDU)                             | 2.0588 NS  |
| Respondents (Participants Vs Non-Participants) | 7.1957**   |
| Before Vs After                                | 257.0356** |
| Place Vs Respondents                           | 1.8269 NS  |
| Respondents Vs Before & After                  | 9.3436**   |
| Place Vs Respondents Vs Before & After         | 0.0005 NS  |

gypsum after the introduction of the FLD followed by pest and disease management (75.00% and 70.00%), seed rate (55.00% and 60.00%), use of high yielding variety (40.00% and 45.00%), seed treatment (35.00% and 30.00%) and application of micronutrient mixture (20.00% and 25.00%)

Non-participants of Madurai and Coimbatore districts also adopted the demonstrated technologies in the order of application of gypsum (75.00 % and 80.00%), need based plant protection measure (53.00% and 60.00%), seed rate (45.00% and 50.00%), seed treatment (25.00% and 30.00%), HYV (15.00% and 15.00%) and micronutrient mixture application.

None of the respondents adopted the application of weicide to control weeds.

The data from table 2 revealed that the adoption of demonstrated technologies by the participants of both the districts have moved from

medium to low to high to medium category level of adoption. Among the non-participants also remarkable per cent of them moved from medium to low to high to medium category due to the impact of frontline demonstration.

The significant 'F' value from table 3 indicated that participants adopted more technologies than non-participants and also after the introduction of frontline demonstration the adoption level had increased than before introduction. The significant 'F' value also indicated that within each category also after introduction of frontline demonstration adoption level increased. It could be observed that the non-significant 'F' value indicated that there were no difference among the respondents in respect of place. This finding is in line with that of Sankaran (1987), Selvaraj (1990), Hanchinal *et al.*, (1991) and Muthuraman (1995).

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