

**EVALUATION STUDY OF THE HIGH YIELDING VARIETIES
PROGRAMME - (RABI, 1967-68 - WHEAT, PADDY AND JOWAR)- 1968.**

1. The Study

In the year 1967-68 the PEO carried out a detailed study on the implementation of the High Yielding Varieties Programme covering four kharif crops viz paddy, maize, bajara and jowar. Encouraged by the results of this Study, it was extended to cover rabi crops namely wheat, paddy and jowar. The study was conducted at the instance of Agricultural Division of Planning Commission and Ministry of Food and Agriculture. The aspects covered in the study included planning, programming, organisation of supplies and credit, extent of adoption of various recommended improved practices and inputs, cultivation expenses, levels of yields, extent of acceptance of the HYV among cultivators and the problems thereto for wider adoption.

The report was presented in two volume covering wheat in the first volume and paddy & jowar in volume-II.

2. Objectives

i) To assess the spread of the various high yielding varieties in different parts of the country and also determine the extent of such spread.

ii) To assess the reaction and attitudes of cultivators, participating in the programme and - also examine the problems of non-participating cultivators: and

iii) To study the problems of implementation of the programme at different level of administration such as state, district, block and village,

iv) To study the aspects relating to the production and multiplication of seed, assessment of requirements of various inputs, special measures taken to provide timely credit, technical guidance etc..

3. **Sample Size/Criteria for Selection of Sample**

The study for wheat was carried out in 15 districts in as many as 6 States covering a sample of 441 participant and 192 non-participants cultivators in 45 selected villages. There was no participant cultivators in three selected villages of Ahmednagar district, Maharashtra and hence data from the non-participants only were collected and analysed.

The study for paddy and jowar was carried out in 14 development blocks (10 paddy, 4 jowar) in 8 States. These sample blocks were the same as studied in the kharif season.

4. **Reference Period**

This study was conducted during agriculture year 1967-68 and the data was collected for the years 1966-67 and 1967-68.

5. **Main Findings**

1. The introduction of Mexican wheat varieties gave a new hope for wheat cultivation. The release of PV-18, S-277 and S-308 during rabi 1967-68 somewhat eclipsed the earlier introduced varieties by their extremely good performance. The new wheat varieties, unlike the other high yielding and hybrid crops, are reported to be less susceptible to pests/diseases, thus enhancing their acceptability.

2. Trials/demonstrations were expected to precede the large scale release of new varieties. But the number of demonstrations conducted in the selected areas was quite less and the programme was significantly extended during rabi 1966-67 ' only. In more than fifty per cent of the selected villages no demonstrations had been organised.

3. A considerable Section of cultivators, particularly in Punjab, Haryana and U.P. adopted high yielding varieties.

4. One of the most extraordinary features of the current rabi was the clamour for the latest varieties of wheat seed by the cultivators. The seed supplied by official agencies constituted only a fraction of the total supplies and the bulk of the sowings were accounted by natural spread among the cultivators. The distribution of seed through the cooperatives was reported to have not functioned satisfactorily. In more

than 95% of the cases, seed supplied by the departmental agencies was treated-seed while such seed treatment was much less than half of the cases of seed supplied from other cultivators.

5. The policy regarding the **liberalisation, enhancement** of credit limits were more or less the same as in the kharif season. The extent of disbursement of credit witnessed significant improvement during the current rabi compared to the previous season and there was eight fold increase in the number of cultivators benefitted by cooperative credit.

6. The main source of credit was cooperatives followed by the block agency.

7. The preparatory ploughing was observed to be generally satisfactory and the proportion of plots having adequate number of ploughings worked out to more than half and upto three-fourths of the relevant plots in all the States except Bihar where this proportion was slightly more than a tenth.

8. The adoption of plant protection measures was very meagre in all the selected areas. Interculture operations were reported for 86 per cent of the plots and in 57 per cent of the plots, hoeing was reportedly done.

9. Almost all the relevant plots were irrigated but the proportion of plots given the recommended minimum of 5 irrigations or more came to 35.8 per cent and this proportion was much less in UP and Bihar.

10. The average yield per acre for the total harvests numbering to 699 for the high yielding wheat varieties of the selected participants worked out to 10.75 quintals. Yield upto 20 quintals or more was recorded in 24 cases including 4 cases where the yield was more than 30 quintals per acre. The average yield recorded increase to a certain extent with increased size of operational holding of the participants.

11. Inadequate and untimely inputs supplies and credit facility were reported to be the main problems to be tackled as yet to facilitate wider adoptions and coverage under these varieties. The problem of marketing of the produce was also reported from many areas.

12. The performance of these varieties during the current rabi was reported to be quite satisfactory and about nine-tenths of the participants desired to continue their cultivation.

13. The HYV Programme in the rabi season for both the paddy and jowar varieties was relatively more successful. Although the coverage of area was limited because of the constraints of irrigation, lack of rainfall etc, the performance of the varieties during the rabi compared to the kharif was very much better. Besides the seasonal advantages, the efficiency in the organisation of input supplies and credit leading to better standards of cultivation seems to have contributed a great deal for the higher yields recorded in this season for all these varieties. The adoption of the recommended practice in the cultivation of both paddy and jowar varieties in terms of preparatory ploughing, application of chemical fertilisers, inter-culture operations, preventive plant protection measures, etc. was observed to-be better in this season compared to the kharif.

6. **Major Suggestions**

1. There is need for extending the facilities of processing the seed at nominal charges for the local cultivators.

2. There is need for better exploitation of the potentialities of these varieties in the rabi season by an effective linkage of the programme to areas served by minor irrigation sources as well as areas enjoying casual irrigation during this season. Concentration of efforts in such areas rather than universalising the programme is bound to prove much more rewarding.