



“Seed production”- a tool for income generation

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ABSTRACT

The seed production technology is the most successful technology for farmers. By producing seeds which helps the farmers in the availability of latest variety seed as well as increase in seed replacement ratio. This help farmers in income generation and improve in their socio economic status. By the success of Shri Rakesh Rathore other farmers also motivated for seed production and process for formation of Seed Production Group is in progress.

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INTRODUCTION

In the district Ratlam farmers grow old variety and unidentified seed of different crops without recommended fertilizer and improper plant protection measures. Therefore they do not get potential yield and income. There is wide scope of seed replacement (presently 2-3.5 per cent) by improve variety and follow up of recommended crop production practices. So that farmers can get potential yield and income. There is need to motivate farmers to produce their own seed for their own purpose as well as to multiply and send to other farmers. This will increase seed replacement ratio (up to 10-15 per cent) in the district. As well as there will be increase in the availability in the newly release varieties.

Mr. Rakesh Rathore son of Shri Mangilal, is a farmer of village Roopnagar district Ratlam of Madhya Pradesh. He is educated upto high School. He has one sister. He has 15 bighas (3 ha.) of land near the village. Out of this land, only 10 bighas are irrigated and some land under grass. In fact, he had no knowledge of what to do with his land. Once he happened to visit at Krishi Vigyan Kendra jaora district. Rratlam where he saw the agriculture

technology work at farm. Then, he thought to approach the KVK, Ratlam to take guidance in agriculture, horticulture and fodder crop cultivation and rearing improved animals (Shriram and Chauhan, 2002).

Therefore, it was decided to study the success story of Seed Production Technology of the above farmer of our adopted village Roopnagar. Shri Rakesh Rathore has 3.0 ha land in which the cropping system followed by him is as such : *Kharif*, *Rabi* and *Zaid* season 2008-09 farmer grow soybean, urd, maize in *kharif*, Wheat, Mustard, Gram and Garlic in *Rabi* and Chilli, Okra and Fodder in summer season. The farmer use local and old variety seed of above crop available with him. Imbalance use of fertilizer and improper plant protection measures results in poor production of the crop and less income, (Sharma and Shandil, 1999).

METHODOLOGY

The intervention by KVK was seed varietal replacement of different crops without changing the cropping system of the farmer during *Kharif*, *Rabi* and Summer seasons with full package of recommended practices (Chaudhary, 2004).

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| Operations | Farmers practice | Recommended practice |
|----------------------|--|--|
| Seed | J.S.-7105 / 335 | J.S.-9305 / 9560 |
| <i>Kharif</i> | T-9, Desi | L.B.G.-20, J.U.-86 |
| Soybean | Local Seed | J.M.-216, AT Maize |
| Urd | | |
| Maize | Lok-1, W.H.-147 | J.W.-273 / 1142 |
| <i>Rabi</i> | Ujjain-21 | J.G.-130 |
| Wheat | Local (Amleta / | G.-282 |
| Gram | Mahadev) | |
| Garlic | | |
| Sowing method | Wheat and mustard by broadcasting | Line sowing and Ridge and furrow system |
| Seed treatment | Not done | Done by fungicide and Rhizobium culture |
| Fertilizer | 50% of RDF as soil application and at the time of interculture | S.T.V. based soil application |
| Irrigation | Un scheduled irrigation | Irrigation done at critical stage |
| Insect pests control | Unjudicious use of pesticides | Plant protection measures done as per need based |
| Marketing | Sold in local market as grain. | Sold to other farmers as quality seed of HYV. |

As the farmer belongs to adopted village of KVK the method followed for implementation of technology were as follows:

On /Off campus training of seed production technology. Farmers participated in the training (07 days in phases) and developed knowledge and skill of different component of seed production technology.

Front Line Demonstration (FLD) of improve varieties of oilseed, pulses and other crops were demonstrated in the village where farmers got opportunities to understand during the field day the difference between the improve

variety performance as compared to local check in terms of yield, resistant to disease etc.

Exposure visit to Seed Processing Plant and Govt. Seed Producing Farms, where he learn how of the seed cleaned, graded, packed and stored.

Linkages for various schemes and programmes carried by the state agriculture department (Beej Nigam), horticulture, dairy cooperative society and private seed agency for farmers.

OBSERVATION AND ANALYSIS

The results are summarized below according to objectives of the study:

Outcome diffusion of technology :

The seed produced by the farmer of different crops were sold to the farmer of the village Roopnagar and nearby villages. The farmers of other blocks of the district mainly Ratlam, Jaora, Alote and Piploda as well as district Mandsaur took seed from the farmer of the Roopnagar. In all 2850 farmers are benefited and the technology spread in the 2878 ha (Punna Rao and Israel ,2003).

Impact:

Shri Rakesh S/o Mangilal Rathore by introduction of Seed Production Technology in his cropping system just by replacing HYV seed with full package increases in total income from Rs. 143250.00 to Rs. 403480.00 and net income Rs. 260230.00.

Since then he followed the seed production technology in the coming years. During last two year farmers by multiply improved variety seed and selling to the farmers he is earning higher income (Singh, 2002 and

Table 1 : Kharif season (Before adopting the technology)

| Sr.No. | Crops | Variety | Area (ha) | Yield (Qts.) | Gross cost (Rs.) | Gross income (Rs.) | Net income (Rs.) |
|--------|---------|------------------|-----------|--------------|------------------|--------------------|------------------|
| 1. | Soybean | JS-7105 / JS-335 | 2.0 | 28.00 | 23600 | 56000 | 32400 |
| 2. | Maize | Local | 0.50 | 12.50 | 3500 | 6250 | 2750 |
| 3. | Urd | T-9 / Desi | 0.50 | 3.00 | 3150 | 5400 | 2250 |
| | Total | | | | 30250 | 67650 | 37400 |

Note:- Cost of cultivation-(Per ha.)-Soybean-11800, Maize-7000, Urd-6300

Table 2 : Kharif season (After adopting the technology)

| Sr.No. | Crops | Variety | Area (ha) | Yield (Qts.) | Gross cost (Rs.) | Gross income (Rs.) | Net income (Rs.) |
|--------|---------|----------------------|-----------|--------------|------------------|--------------------|------------------|
| 1. | Soybean | JS-9305/ JS-95-60 | 2.0 | 34.40 | 26110 | 75680 | 49570 |
| 2. | Maize | J.M.-216/ A.T. Maize | 0.50 | 22.00 | 3900 | 17600 | 13700 |
| 3. | Urd | L.B.G.-20 | 0.50 | 5.00 | 3600 | 10000 | 6400 |
| | Total | | | | 33610 | 103280 | 69670 |

Note:- Cost of cultivation-(Per ha.)-Soybean-13055, Maize-7800, Urd-7200



Urd (Ju-86)



Farmers visit to seed production field (Wheat G.W.-275)

Table 3: Rabi season (Before adopting the technology)

| Sr.No. | Crops | Variety | Area (ha) | Yield (Qts.) | Gross cost (Rs.) | Gross income (Rs.) | Net income (Rs.) |
|--------|--------|--------------------------|-----------|--------------|------------------|--------------------|------------------|
| 1. | Wheat | Lok-1/ W.H.-147 | 1.00 | 40.00 | 10500 | 24000 | 13500 |
| 2. | Gram | Ujjain -21 | 1.50 | 18.00 | 11250 | 21600 | 10350 |
| 3. | Garlic | Local (Amleta / Mahadev) | 0.50 | 30.00 | 19000 | 30000 | 11000 |
| Total | | | | | 40750 | 75600 | 34850 |

Note:- Cost of cultivation-(Per ha.)-, Wheat-10500, Garlic-3800, Gram-7500,

Table 4 : Rabi season (After adopting the technology)

| Sr.No. | Crops | Variety | Area (ha) | Yield (Qts.) | Gross cost (Rs.) | Gross Income (Rs.) | Net Income (Rs.) |
|--------|--------|----------------------|-----------|--------------|------------------|--------------------|------------------|
| 1. | Wheat | J.W.-273 / J.W.-1142 | 1.00 | 45.00 | 11600 | 45000 | 33400 |
| 2. | Gram | J.G.-130 | 1.50 | 27.60 | 12600 | 55200 | 42600 |
| 3. | Garlic | G-282 | 0.50 | 50.00 | 22300 | 200000 | 177700 |
| Total | | | | | 46500 | 300200 | 253700 |

Note:- Cost of cultivation-(Per ha.)-Wheat-11600, Garlic-44600, Gram-8400

Table 5 : Kharif Season

| Sr.No. | Crops | Variety | Horizontal spread of technology | | | | | |
|--------|---------|----------------------|---------------------------------|----------------|---------------|----------------------|----------------|---------------|
| | | | 1 st Year | | | 2 nd year | | |
| | | | No. of village | No. of farmers | Area (in ha.) | No. of village | No. of farmers | Area (in ha.) |
| 1. | Soybean | JS-9305 | 10 | 80 | 40 | 22 | 217 | 535 |
| 2. | Maize | J.M.-216/ A.T. Maize | 7 | 25 | 63 | 18 | 167 | 473 |
| 3. | Urd | L.B.G.-20/J.U-86 | 8 | 39 | 23 | 27 | 377 | 213 |
| Total | | | 25 | 144 | 126 | 67 | 761 | 1221 |

Table 6 : Rabi Season

| Sr. No. | Crops | Variety | Horizontal spread of technology | | | | | |
|---------|--------|----------------------|---------------------------------|----------------|---------------|----------------------|----------------|---------------|
| | | | 1 st Year | | | 2 nd year | | |
| | | | No. of village | No. of farmers | Area (in ha.) | No. of village | No. of farmers | Area (in ha.) |
| 1. | Wheat | J.W.-273 / J.W.-1142 | 7 | 59 | 32 | 25 | 630 | 715 |
| 2. | Gram | J.G.-130 | 11 | 38 | 23 | 23 | 517 | 327 |
| 3. | Garlic | G-282 | 4 | 32 | 10 | 41 | 942 | 615 |
| Total | | | 22 | 139 | 65 | 109 | 2089 | 1657 |

Bhatnagar *et.al.*,2003). Hence it helps him in improvement socio economic status in the village. From the income generated he has :

- Established dairy farm (06 buffaloes + 01 calf)
- Increase irrigation facilities by connecting well to the tube well by underground pipe line.
- He also converted his Kachha House to Pucca House with a extra room for seed godown.

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