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HYBRID/HYV SEEDS PRODUCTION AND MARKETING: A CASE STUDY OF HAVERI DISTRICT OF KARNATAKA

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ABSTRACT The seed industry in India is beset with certain problems both in production and marketing. Genetic variability provides the raw materials for continuous advances in biological productivity. A series of improvements in yield potential was rendered possible in rice through the use of new genetic material. The quality of seed obtained from this source is assuring because farmers often resort to barter exchange system. Further seeds obtained from fellow farmers did not involve any transport cost and they do not insist on immediate cash payment. The entry of MNCs in the Indian seed industry will provide healthy competition. The farmers will get adequate supply of certified seeds to give a boost to the agricultural production in the 21st century. The present study has been selected for an in depth analysis of the growth perspectives and prospects for the seed industry in general and in the Haveri district in particular.

KEYWORDS : HYV Seeds, Production, Marketing, Hybrid.

INTRODUCTION

The history of agricultural progress coincided with the history of new crops and varieties of seeds brought under cultivation. The process passed through some significant stages: i) The cultivation of indigenous but useful plants and those brought from foreign countries; ii) Selection of superior types from cultivated plants. In due course many useful selections were made and there was a gradual but steady progress in crop improvements. However new vistas were opened up with the advent of sciences of genetics and plant breeding. This enabled man to manipulate the genetic composition of varieties to his dvantage. The scientists have been making available new and better varieties of seeds to the farmers through well known techniques of selection, hybridization and poly ploidisation.

Genetic resources have become immeasurably more important with the advent of biotechnology. Biotechnology alone would account for 50 to 60 percent of the global economy in the next three decades.

The farmers in developing countries have three major sources of seeds:

i. Seed purchased from seed industry
ii. Seed obtained from other farmers and
iii. Seed retained from previous years' grain crop.

More than 85 percent of the seed used in India is produced by the farmer Himself. The farmers in agriculturally developed state of Punjab use self retained seed to the extent of about 80 percent in the case of wheat, 62 percent in the case of paddy, 55 percent in case of cotton (A) 59 percent in case of rape seed and mustard and 91 percent in case of potato.

The seeds obtained from the seed industry account for a meager share in the total seeds supply to farmers on account of high price of certified seeds and their non availability in terms of proper place and time. It is also maintained by the farmers that there is no significant yield differences between certified and self retained seeds of various crops. This view has been responsible for the large majority of Indian farmers continuing to use self retained seeds. Indian seed industry is basically a cereal based industry. There is also the other aspect that there is very slow degeneration in the quality of seed in the case of self pollinated crops like wheat paddy etc.

NEED FOR THE STUDY

The present study has been selected for an in depth analysis of the growth perspectives and prospects for the seed industry in general and in the Haveri district in particular. It is obvious that India has abundant plant breeding skills. Coupled with the agro-ecological diversity and the ingenuity of the farmers, it will be possible to develop a vibrant seed industry that not only meets domestic demand but also makes India a player in the world seed trade. It is estimated that Indian agricultural production can increase by 15 percent to 20 percent if high quality seeds are more widely available. Besides India can then capture 25 percent of the world seed market.

A major problem in this field relates to the absence of a system for investment in plant breeding. Consequently investment in the seed industry is confined to hybrid seeds, high yielding varieties of ornamental and horticultural plants. Private investment needs to be attracted towards cereal crops. The supply of high yielding quality seeds is the most crucial prerequisite for promoting a vibrant agricultural economy.

The seeds market is beset with problems of delayed payment to seed farmers by the seed companies. The delay is much larger than the private buyers (commission agents) of other agricultural commodities. It is learnt that delay in payment for the sales of seeds by the farmers to the seed companies extends up to the year or even longer. This would cause lot of hardship to authorized seed growers of the concerned seed companies. Another marketing problem faced by the seed manufacturers is the substantial quantity of seeds rejected by the companies at the time of grading. This is would put the seeds growers to a substantial amount of loss. The seeds companies have been following unilateral policy of deciding the price of the seeds purchased from the seeds growers without involving the latter in the process of pricing. These and other marketing problems of hybrid seeds in the study areas led to the selection of the topic for the present study.

STATEMENT OF THE RESEARCH PROBLEM

In view of the issues involved and the significant role of hybrid seeds farming in the study area the choice of the present study "Hybrid/HYV seeds Production and Marketing A Case Study of Haveri District" has been made by the researcher.

OBJECTIVES OF THE STUDY

The study has been conducted with the following specific objectives.

1. To analyze the various aspects of production of seeds by the farmers covering the areas of nature and pattern of production.
2. To assess the financial and manpower involvement by the farmers in the production of seeds.
3. To estimate production costs and productivity of the seeds

farming at the farmers level.
4. To make quantitative assessment of seeds production during the 5 year period from 2010-11 to 2015-2016 and to examine the infrastructure facilities and the government incentives extended to the seed farmers.
5. To examine the important marketing functions of assembling, grading, branding, weighting, packing and transporting both at the farmers and at the companies level.
6. To analyze the pricing and the marketing costs and marketing problems at different levels.

METHODOLOGY OF DATA COLLECTION

The study is an empirical investigation of seeds farming and marketing in the district of Haveri. The area covers five talukas of the district viz. Haveri, Ranebennur, Hangal, Hirekerur and Bydagi. Where the seeds farming is carried on an extensive scale. The primary data is collected from 100 seed farmers spread over the selected 5 talukas. The farmers are selected at random and 20 farmers are chosen from each taluka giving due weightage to the farms of different sizes and the selected farmers are duly categorized under big, medium and small farmers.

The data is collected through two types of pre-tested questionnaire schedules one for the seed farmers and the other for the seed companies sponsoring the concerned seeds farms. The data has been collected personally from the farmers through personal interviews and the answers have been recorded by necessary counter checking to ascertain the factual information needed for the study. The information is collected in a properly structured Performa to enable the researcher for further scientific processing and tabulation in order to derive appropriate inferences.

The data collected from the primary and secondary sources has been processed and tabulated in scientifically prepared tables. The interpretation of the data has been accomplished using the simple qualitative statistical techniques and the necessary inferences have been drawn accordingly. Graphical representations based on the statistical data have been provided to focus on some of the important trends and economic parameters. The data has been interpreted and inferences have been drawn with relevant theoretical explanations wherever necessary.

Summary of main Findings, Conclusions and Suggestions

New vistas have been opened up with the advent of sciences of genetics and plant breeding scientists have been making available new and better varieties of seeds to the farmers through well known techniques of selection, hybridization and polyploidisation. The advances in this area have led to the emergence of India as one of the major producers of hybrid and high yielding varieties of seeds. This study has focused on the strides made in production and marketing of hybrid and high yielding varieties of seeds in Haveri district in Karnatak. The study has led to some significant findings and conclusions which have been summarized here to provide a brief but comprehensive picture of the research findings on the subject.

1. The production of certified seeds rose from 1.0396 millions tonnes in 2002-03 to 2.5035 millions tonnes in 2008-2009.
2. The area under High Yielding Variety of seeds rose from 21.3 lakh hectares in 2002 –03 to 61.05 lakh hectares in 2008 –2009 in Karnatak.
3. The severe variations in the quality of seeds produced by seed farmers is the most severe marketing problem followed by problems of inadequate demand, price competition from rival firms, and in export market, power shortage, poor post harvest infrastructure etc. Shortage of qualified technical staff, unsold stock of hybrid seeds aggressive advertisement of rival companies and escalation of package and other marketing costs are the other problems of marketing faced by seed companies.
4. Hybrid seeds produced by the seed farmers in the study area include cotton, tomato, brinjal, okra and sunflower. The high yielding variety (HYV) of seed produced through open polination method include tomato, brinjal and okra.
5. Suitable soil, water and irrigation facilities, suitable climate, knowledge of seed farming, availability of finance, availability of cheap and skilled labour were the advantages for starting seed farming according to the majority of respondent seed farmers.
6. The average cost of production of different hybrid seeds ranged between Rs.21.53 per Kg to Rs.391.6 per kg. The average cost of production of different seeds is Rs.91.75 for hybrid cotton, Rs.391.6 for hybrid tomato, Rs.138.83 for hybrid brinjal, Rs.66.97 for hybrid okra, and Rs.21.53 for hybrid sunflower. The average cost of production for 1 kg for different high yielding variety (HYV) of seeds (open polination) of seeds is Rs.78.00 for tomato, Rs.70.00 for brinjal, and Rs.25.00 for Okra.
7. The marketing of hybrid and high yielding varieties of seeds is insulated against the usual uncertainty of market demand and supply forces and against the frequent price fluctuations because of a prior agreement of the seed farmers with the seed companies. Seed farmers enjoy a sheltered market and sell all their seeds to the seed company. Seed companies enjoy a monopolistic market position.
8. The marketing cost of the seed farmers is limited since the major aspects of marketing are done by the seed companies.
9. Credit sales of the seed farmers relate to the delayed payment received from the seed companies for the purchase of the seeds from the farmers. The delay in payment for the purchase of seeds from the seed farmers varied from one month to three months or more. Nearly 50 percent of the payment due to the seed farmers is delayed by the seed companies. The responses of the seed farmers suggest that the delay in payment is caused by a slack in demand in the market for the company's seeds and also due to over supply of seeds in the market. Internal disputes in the management of the company and monetary loss incurred by the seed company also caused the delay in payment to the seed farmers.
10. The seed companies generally agree for upward revision of seed prices whenever the seed farmers appeal for the same on grounds of high input costs, and increased labour cost.

Suggestions for Improvement

Following are some of the suggestions which would help in promoting a further thrust to the vibrant seed industry in the country.

1. The seed farmers have a major grievance of undue delay in payment by the seed companies for the seeds purchased from them. The delay extends from a month to few months putting the seed farmers to much hardship. The seed farmers are forced to borrow money from banks and from high cost sources like private money lenders and finance corporations. The advance amount paid by the seed companies to the seed farmers is meager. Hence the seed farmers are forced to borrow from other sources to meet their working capital requirements. This situation needs to be redressed by the seed companies by making prompt payment for the seeds purchased from the seed farmers. The state government and the farmers associations should try to evolve some remedy to alleviate this financial problem of the seed farmers.
2. The problem of rejection of seeds on the ground of poor quality is another issue which needs to be addressed by the seed companies and the government. A good amount of rejection of seeds put the small seed farmers to a good deal of monetary loss. A scheme for compensating the seed farmers for the rejection of their seeds need to bee evolved by the seed companies.
3. To take advantages of the positive effects of PVP(Plant Variety Protection) System which is in place now) on the seed programme and to ensure that the competition remains healthy and that the seed enterprise survives on merits to the ultimate benefit of the farmer/consumer, some adjustments/

changes in different areas seem necessary; viz.

(i) Compulsory variety registration has to be introduced and so designed as to facilitate and ensure full disclosure of all the details essential for seed certification and low enforcement. This will help to maintain and protect the varieties in their original form.

(ii) Certification and law enforcement may be delinked from notification and instead linked to registration. This would make every registered variety eligible for certification and bring it under the ambit of law enforcement as against the present state o restricting these quality control measures only to notified varieties. Extending certification and law enforcement to every registered variety will enlarge the scope of quality control to a larger number of varieties.

(iii) At least four Seed Testing Laboratories in the four zones (North, South, East and West) have to be geared up to secure membership with ISTA as authorized labs for issue of ISTA range certificates. This would help promote seed exports in the post WTA era.

4. Globalisation and economic liberalization have opened up several new wide opportunities and challenges. While providing the appropriate climate for the seed industry to utilize available and prospective opportunities safe guarding interests of Indian farmers and conserving agro bio-diversity and traditional knowledge are also of central concerns.

5. There is a need for diversifying seed production areas in terms of seasons as well as regions. This will help in making seed availability right in the zone where the seed is required. A search for disease free areas is very important to maintain the seed health and to check the spread of the diseases from one area to the other. Dry cool regions could be used for effective seed storage at a much lower cost and lesser risk on account of seed viability.

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