

Economic impact of improved production technology of small millets in Haveri district of Karnataka

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ABSTRACT

The study was conducted in Haveri District of Karnataka for the economic impact of transfer of technology of improved production technology of small millets, which revealed that there was a wide gap in the actual yield compared with the potential yield in the farmers field and research station yields.

INTRODUCTION

The poor largely grown small millets or Coarse Cereals in marginal and fragile environments where rainfall is scanty and occurrence of periodic droughts. As millets are photoinsensitive and have shorter growing season and low moisture demand, They fit in well with mixed cropping system. They not only provide nutritious food for the people but are also a source of fodder for the cattle. There has been large-scale reduction in the cultivation of these small millets owing to the impacts of the green revolution. There is declining production of these small millets with each passing year. However, efforts to popularise the cultivation of these millets in order to conserve genetic diversity as well as to utilize the marginal and arid lands are being taken up. In this regard various high yielding varieties for the small millet crops have been released and are being cultivated. The impact of such efforts of KVK, Hanumanamatti was assessed using participatory monitoring and the change in the economics of the district was worked out.

METHODOLOGY

The small millets research programme at Hanumanamatti was initiated during 1992 and is continuing till date. A repertoire of local land

aces of small millets were collected and evaluated in the station for various characters. Many promising varieties were identified and were released after multi-location trial. These varieties along with agronomic practices were popularised among the farming community of the district through Front Line Demonstrations and sale of quality seeds both by KVK and ARS, Hanumanamatti. An attempt to study the impact of this transfer of technology through participatory monitoring on the economics of the district was made. The study was conducted in Haveri district of Karnataka, which comes under zone – 8 *i.e.* Northern transitional zone. All the seven Taluks of the district were considered for the study.

The sample for the study was 63 randomly selected respondents, which comprised of 36 Little millet respondents (10%), 11 foxtail millet beneficiaries (20%) and 16 finger millet beneficiaries (23%). The list of all the beneficiaries was organised year wise and village wise then the required sample was randomly selected for the study. Impact to be monitored, indicators to be used and interview schedule were developed with participation of the client at each and every level. This interview schedule was prepared and suitable modifications were incorporated with respect to characteristics of respondents, impacts to

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be monitored and indicators to be used.

RESULTS AND DISCUSSION

Front line demonstrations (FLDs) undertaken by the KVK, in Haveri District to popularise the improved production technologies of small millets have yielded better results not only in increasing the yield levels of the crops but also in increasing the utility of these crops for home consumption. The study to assess the economic impact of the FLDs on the district economic scenario revealed worth noticing impacts.

The area and production of small millets in Haveri district has been presented in Table 2. The production levels of little, foxtail and finger millets were 6320.6, 2201.9 and 3103 tonnes, respectively. Potential yield deduced from the average yields of beneficiaries and research station, which had been presented in the table. The result indicates major change in the production scenario, with research station yield levels of 16054, 8355 and 13080 tonnes of little, foxtail and finger millet, respectively.

The data of Table 3 indicate the after effects of

adoption of small millet technology on the economics of small millet in Haveri district. Figures presented show a substantial increase in gross and net returns. In case of little millet, the net returns increased from 24 lakhs to 1.4 crores and 2.7 crores based on farmers' field and research station yield levels, respectively. Similarly, the increase in case of foxtail and finger millets was from 19 lakhs to 5.6 and 7.8 crores and from 64 lakhs to 3.7 and 4.7 crores, respectively. The potential increase in returns of the district was around 7.8 crores and 12.2 crores based on farmer field and research station yield levels, respectively. The findings are in conformity with that of Vennilla and Annamalai (2005).

Conclusion:

The foregoing study indicated the potentiality of the hitherto neglected crops *viz.*, small millets both in terms of potential economic returns as well as their utility as food grains. The adoption of improved production technologies in minor millets will enhance the economics of the district where these crops have been cultivated and used as food grain since yester years. Based on the

Table 1: Size of the sample for the study

Crops	Population	Sample Size	Percentage
Little millet	349	50	14.33
Foxtail millet	53	25	47.17
Finger millet	66	25	37.89
Total	468	100	

Table 2: Production scenario of small millets of Haveri district

Crop	Area (ha.)	Present production (tonnes)	Potential yield in farmers field (tonnes)	Research station yield levels (tonnes)
Little millet	9174	6320.6	12912	16054
Foxtail millet	3932	2201.9	6143	8355
Finger millet	3270	3103	10975	13080

Table 3: Ramifications of improved variety on the economics of small millets in (crores)

Crop	Present returns (Rs.)			Potential returns		Potential net increase (Rs.)
	Gross	Net		Gross returns (Rs.)	Net returns (Rs.)	
Little millet	1.32114	0.23995	Farmer field	3.6858	1.3651731	1.1252231
			Research Station	5.013	2.6923731	2.3206269
Foxtail millet	4.42442	1.90168	Farmer field	9.0384	5.5570188	3.6553388
			Research Station	11.2378	7.7564188	5.8547388
Finger millet	1.5515	0.64225	Farmer field	5.4875	3.6538475	3.0115975
			Research Station	6.54	4.7063475	4.0640975
Total	7.29706	2.78388	Farmer field	18.2117	10.5760394	7.7921594
			Research Station	22.7908	15.1551394	12.2394632

observed yield levels, the economy is bound to be boosted as more marginal and arid regions of the district which will also contribute to the current agricultural production.

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