Perceived Opinion of Farmers and Researchers towards Jasmine Research Priorities

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Introduction

Having achieved self-sufficiency on the food front, the focus of Indian agriculture has shifted to other fields of commercialization. One of the areas that have emerged as a viable diversification option is floriculture. In India, flowers have been grown and used for centuries. Flowers are an integral part of our living. Its use, particularly for religious offerings and social functions is on the increase. This has led to the appreciation of the economic importance of flower cultivation, in addition to the realization of its aesthetic value. During the last decade, increased investments have been made in floriculture as a commercial activity. The availability of diverse climatic conditions facilitated the production of a wide range of flowers throughout the year.

Jasmine, an important flower crop is cultivated in Tamil Nadu in a large area. Due to its diverse usage and higher market value, its cultivation has been gaining momentum. Though it is cultivated commercially for fresh flowers, the bulk of these flowers are used for garlands, bouquets and chaplets. They are used for the production of perfumed hair oils and attars (scents) as it contains benzyl acetate the principal constituent of jasmine oil. Scientists are developing production technologies for the benefit of farmers. All the developed technologies are not adopted by farmers, resulting in the farmer not getting the potential yields. Nirmala Devi (1997) reported that only 27.50 per cent of the respondents had high level of adoption on recommended technologies.

On the other hand, as flowers are highly perishable in nature, proper and systematic marketing channels are of great importance for its quick disposal. Generally, due to the ignorance on the part of the growers regarding market trend, prices, arrivals, storage facilities etc., flower cultivation is not being taken up in a big way. This has largely been due to lack of systematic development especially at the post harvest phase. Educating

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the farmers about the market trends, the arrivals, prices and storage facilities available etc., can encourage them to alter through package of practices so as to supply the flower throughout the year. The flower marketing system is also characterized by the absence of a proper cool chain facility and non adoption of appropriate technology for increasing shelf life to reduce post-harvest loss, poor technology transfer, inadequate export infrastructure and lower price realization leading to reduced exports. It is necessary at this stage of floriculture development to critically examine the requirements for sustainable growth and identify an implementable strategy plan.

Keeping this in view, a study was conducted to identify the thrust areas of research to be carried out for jasmine cultivation aspects ultimately to ensure supply of the flowers throughout the year. To increase the production and productivity of this important flower crop, the research priorities perceived by the researchers and farmers will be helpful in tailoring the research outputs meaningfully for improving jasmine production process.

Methodology

To have a different perspective to interview and data collection, Participatory Rural Appraisal (PRA) method of Pairwise Matrix Ranking was used in this study, conducted at Chinnaodappu Village of Madurai district in Tamil Nadu. For this purpose, eleven thrust areas of research were identified in consultation with progressive farmers and researchers concerned with jasmine crop. A total of fifteen researchers from various departments of Agricultural College and Research Institute, Tamil Nadu Agricultural University, Madurai and twenty-one progressive farmers from Chinnaodappu Village constituted the sample of the study.

The method followed to elicit data was as follows. The researcher of this project proposed the first pair of research area and requested the respondents to propose the needed areas of research required for the benefit of jasmine growers. The respondents had a discussion on the first pair of research to find out the area of research to be undertaken. They did this for each pair of research area. The same comparison continued up to the last research area. The number of times each area of research was placed in the total column were counted and ranked according to the total number of times they were selected. Finally, the areas occurring more number of times as scored by researcher or by farmers were ranked first. Similarly, the other areas of research rank were also finalized.

Results and Discussion

A. Research Priorities – Perceived by Farmers

It is observed from table 1 that Agricultural policy research was ranked first by most of the farmers. The farmers felt that they did not have any credit and co-operative society facilities so the farmers would have prioritized as first. If appropriate policies were tailored according to the needs then it would be meaningful for improvement in jasmine production and disposal too.

Farm constraints analysis ranked second. Every farmer has difficulties and constraints in jasmine cultivation and its marketing process. To overcome this they felt that farm constraints need to be concentrated by the researchers, so that, they could get the solution for appropriate farm policies development, etc.

During the off-season, flowers are wasted without any demand due to lack of storage facilities. Keeping this in mind, the farmers ranked post harvest analysis as third. Post harvest research would envisage them to take up any value-added product manufacturing activities for example scent factories when the demand is not at the expected level at any stage.

To meet the price fluctuation in marketing and to develop suitable marketing strategies farmers ranked marketing analysis as fourth. Varietal research was ranked fifth by the farmers. They felt that only one variety i.e Gundumalli is available in their area and developing new varieties will increase the yield and their income. Due to the high incidence of nematode and red spider mite, the farmers ranked pest management research as sixth. Pruning and fertilizer management got seventh and eighth ranks in the farmer's priority. They said, they had enough knowledge on pruning and there was no need for changes in pruning technologies. Irrigation analysis, weed management and disease management researches got subsequent ranks.

Over all, the farmers ranked social studies research as the first priority area of research. Crop improvement was ranked second. Crop protection and production was the third area for research.

Table 1. Pairwise Matrix Ranking: Farmers Response

	A Variety	B Irrigation	C Fertilizer	D Weed	E Pruning	F Pest	G Disease	H Marketing	I Post harvest	J Farm constraints	K Agricultural policies	Total	Rank
I. Crop improvement													
A Variety	B	C	A	A	A	A	H	I	J	K		4	5*
II. Plant production													
B Irrigation			C	D	E	F	B	H	I	J		K	2	9*
C Fertilizer				C	E	F	C	H	I	J		K	4	8*
D Weed					E	F	D	H	I	J		K	2	10*
E Pruning						E	F	H	I	J		K	4	7*
III. Plant protection													
F Pest							F	H	I	J		K	4	6*
G Disease								H	I	J		K	0	11
IV. Social studies													
H Marketing									I	J		K	7	4
I Post harvest										J		K	8	3
J Farm Constraints												K	9	2
K Agricultural Policies													10	1

Total is based on number of times each area of research occurred

*- Even though they were having the same total, it was ranked based on the importance given by the farmers

B. Research Priorities – Perceived by Researchers

It is observed from table 2 that, variety was ranked as the highest priority area of research. The researchers felt that the present ruling variety Gundumalli is a local selection and any research to evolve an improved variety would help to maximize and sustain the production.

Agricultural policy research was ranked second, as government policy research would help the farmers to get increased income. Post harvest and farm constraint analysis got third and fourth rank by getting 7 points. The researchers opined lack of storage facilities as the major problem to avoid post harvest losses. The release of a new variety or generation of any improved production technology would not reach the farmers properly unless the farm constraint researches are identified and suitable solutions are given. Jasmine needs an immediate market as it perishes fast, so, researchers ranked

market research as fifth. Majority of the researchers felt that irrigation analysis was important and ranked sixth. They felt that without proper irrigation management fertilizer application does not arise and also felt that irrigation research is limited at present, so appropriate irrigation recommendation is necessary for farmers. Fertilizer management, pruning, weed, pest and disease researches got subsequent ranks.

Over all, the researchers ranked crop improvement that is varietal improvement as the first priority area of research for the betterment of farmers. Social studies was ranked second. Crop production and protection was the third research priority.

The spearman rank correlation test was worked out to find out whether there existed any difference between the ranks assigned by the researcher and farmers in ranking the selected eleven areas of research. The 't' value (0.8481) was not significant indicating that the researchers and farmers did not differ in ranking the priority research areas.

Table 2. Pair Wise Matrix ranking: Researchers Response

	A Variety	B Irrigation	C Fertilizer	D Weed	E Pruning	F Pest	G Disease	H Marketing	I Post harvest	J Farm constraints	K Agricultural policies	Total	Rank
I. Crop improvement													
A Variety		A	A	A	A	A	A	A	A	A		10	1
II. Plant production													
B Irrigation			B	D	E	B	B	H	I	B	B	5	6
C Fertilizer				C	C	C	C	H	I	J	K	4	7*
D Weed					E	D	D	H	I	J	K	2	9
E Pruning						E	E	H	I	J	K	4	8*
III. Plant protection													
F Pest							F	H	I	J	K	1	10
G Disease								H	I	J	K	0	11
IV. Social studies													
H Marketing									I	J	K	6	5
I Post harvest										J	K	7	3
J Farm Constraints											K	7	4
K Agricultural Policies												8	2

Total is based on number of times each area of research occurred

*- Even though they were having the same total, it was ranked based on the importance given by the farmers

Conclusions

From the findings of the study it can be concluded that the scientists considered varietal improvement as the most important area for research followed by the social research dimension.. Research on crop production and protection was the third priority area of research. The farmers felt that social studies research needs to be given more attention followed by varietal improvement research. Research projects on agricultural policies, analysis of farm constraints, market analysis, post harvest analysis and varietal improvement may be given priority by the research organizations. Proper cool chain facilities have to developed to increase the shelf life of jasmine in order to reduce the post-harvest loss. Suitable strategies need to be formulated to provide the needed facilities in time. The market information system and export infrastructure have to be strengthened to ensure supply of the flowers throughout the year/ to get the flowers throughout the year.

References

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