



Combating the Constraints in Evolving Women Entrepreneurs in Value Addition and Mushroom Production Through Training

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Women's contribution to national development is crucial. They play a very important role in the development of entrepreneurship. A study was undertaken to identify the constraints and training needs of farm women in selected enterprises in Madurai District of Tamil Nadu. Even though Farm women are exposed to the enterprises already, they face some problems to start or to run the enterprises smoothly. Marketing, lack of financial assistance, high cost of raw materials, inadequate supply of inputs were considered as most important factors regarding the entrepreneurial development. And moreover they expressed their preference to be trained in major areas such as in Selection of fruits and vegetables, preparation, bottling, marketing and storage in value addition of fruits and vegetables. And also preventing contamination in mushroom beds and bottles, preparation of mushroom bed for mushroom production.

Key words: Farm women, Entrepreneurial training, Value addition, Mushroom Production, Constraints.

India is the second largest producer of fruits and vegetables in the world with an annual production of around 94 million tonnes. Due to the short shelf life of these crops, as much as 30-35 per cent of fruits and vegetables perish during harvest, storage, grading, transport, packaging and distribution. Only 2 per cent of these crops are processed into value-added products. Value addition is an important technology gaining attention in the recent years which exploits the commercial utility of fruits and vegetables with overwhelming demand from the world and domestic market as well. If the nutritive value of the processed food products could be maintained, this sector will emerge as a major value-added food industry.

In view of socio-economic perspective, creation of employment opportunity among the rural women is a major feature in value addition industry, since, housewives and farm women can take the technology of making different value added food products at household level. In developing countries unemployment and under employment are greater among women than men. Most of the rural women's work remains outside the cash sector which so far has debarred their economic activities from being quantified and included in national income statistics. Lack of entrepreneurial skill and training were the main cause for poor progress in the economic activities in the right lines. Promoting and developing entrepreneurship among rural women will require

initiative, encouragement and support from the development agencies.

As most of the rural women are unaware about the technologies of preparing value added products from fruits and vegetables, knowledge about value addition is considered as one of the important aspects. For which women should be enlightened and training is the medium which can bridge this knowledge gap of rural women.

Likewise, mushroom as a vegetable has become popular due to its food value in terms of protein and medicinal contents. They also show potential for use in waste management. Engaging in its culture and spawn production creates a profitable enterprise, which generates livelihood and employment for the community. Mushroom cultivation is a profitable entrepreneurial opportunity for unemployed and under employed persons especially women in urban as well as rural areas. Mushroom is an agricultural crop which does not require much land or a large capital investment. However, the successful operation of mushroom cultivation depends on the proper knowledge of techniques and practices involved in spawn production.

Mushroom production represents one of the most commercially important steps towards diversification of agriculture based on microbial technology for large-scale recycling of agro-wastes in an agricultural country like India. It relieves the

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pressure on arable land, because its cultivation is indoors, and is also more suited to the women folk. Mushrooms supplement and complement the nutritional deficiencies and are regarded as the highest producers of protein per unit area and time. Mushrooms are also important foreign exchange earners (Rai, 2007).

Food and Agriculture Organization (FAO) has recommended mushrooms as a food item contributing significantly to the protein nutrition of the developing countries like India, which depend heavily on the cereal diets. In India, small efforts on mushroom research and development were initiated in the early sixties but their impact was perceptible only in late 80's and 90's after the establishment of the National Research Centre for Mushroom and the All India Coordinated Mushroom Improvement Project, when both horizontal & vertical growth in mushroom productivity and production were noticed.

During the last decade several medium to large sized integrated mushroom units have "mushroomed up" in different states of the country contributing to the increase in the production. In fact, the total registered capacity of the organized sector today is already touching 70,000 tonnes per annum, while in unorganized sector also, more and more small and seasonal growers are taking up this cash crop to augment their family income resulting in total production of about one lakh tonne per annum. It is obvious therefore, that to sustain and maintain the growth rate of this non-traditional cash crop, concerted R&D efforts would be needed in the coming years. Also, to make the Indian mushroom industry competitive in the world market, country's research capabilities and technological expertise will need to be brought at par with other mushroom growing countries, which can be achieved only by proper planning and implementation of requisite futuristic programmes.

Endowments with respect to abundant and cheap raw materials, low cost labour and varied agroclimate for production of various mushrooms may make India a future mushroom exporter both in form of quantity & diverse food. However, against world production of about 12 million tons, India's present contribution is meager 1,00,000 tons but the way the commercial units and unorganized mushroom growers are coming up, our production is likely to touch 20 lakh tons in 2025 (Tewari *et al.*, 2007).

Rural women can be effectively engaged in the enterprises with proper guidance and counseling for their livelihood. Despite Rural women were sufficiently trained, they were not able to start the enterprises, or run the enterprises in a successful way due to the lack of technical entrepreneurial skill. The women play a vital role for the development of entrepreneurship which in turn contributes to the development of a Nation. Every enterprise will face

the operational difficulties; the enterprises studied were not exempted. The development in India would be incomplete and lopsided, unless women are fully involved in the process of development. Women entrepreneurs are facing problems of shortage of raw materials, power, finance and marketing of the produce. The study was designed with the objective to know the problems faced by women entrepreneurs, and also the areas in which they require training to become expertise in these fields.

Methodology

Madurai District was selected deliberately for investigation because this district was one, among those operating more TANWA programmes. In this district TANWA project was under operation since 1995. Among the six agricultural divisions TANWA beneficiaries are more in Thirumangalam division and hence the same was deliberately selected.

Thirumangalam Agricultural Division comprises of three taluks viz., Thirumangalam, T.Kallupatti, and Kallikudi. Among the three blocks, based on more number of TANWA groups, Kalligudi was purposively selected to assess the constraints and training needs of farm women regarding entrepreneurial development. The villages namely, Sengapadai, Sivarakottai, T. Kokkulam, Vadakkan patti, Lalapuram, Uppligundu, Villur, Nasaneri, Koodakovil and K. Vellakulam were the study area and the respondents were selected randomly from the alphabetical order. Training need assessment was made with specific items which supposed to be served as contributing factor for production under each enterprise four point rating scale of 'Very much needed', 'Needed', 'Less needed' and 'Not needed' with the scores of 4, 3, 2 and 1 respectively were assigned. Farm women were interviewed personally and focused group discussion were employed for data collection.

Results and Discussion

Table 1. Problems encountered by the farm women in value addition of fruits and vegetables (n=120)

Items	No	%
Marketing problem	120	100
Lack of training	100	83.33
High cost of fruits	98	81.66
Lack of financial assistance	90	75.00

The results presented in Table 1, revealed that marketing was the major constraint as expressed by cent per cent of the respondents. Usually the produce of the rural women have no brand name. So, they find it difficult to sell their produce in cities and towns. This finding is in line with finding of Jeyalakshmi (1996).

More than three - fourths (83.33 per cent) of the farm women expressed 'lack of training' was the

next major constraint in value addition of fruits and vegetables. Even though the farm women got trained they preferred further more training in some critical areas.

'High cost of fruits' and 'lack of financial assistance' were the major threatening expressed by the farm women (81.66 per cent and 75.00 per cent respectively) in this enterprise. Since majority of the sample were coming under the low to medium annual income group, they could not able to invest more money. This result derived the support from the finding of Himachalam (1990).

Table 2. Problems of farm women in starting mushroom production as an enterprise (n=120)

Items	No	%
Marketing problem	120	100
Lack of financial assistance	100	83.33
Non-availability of spawn	95	79.16
Preservation of produce	20	16.68
Problem of pests and diseases	20	16.68

* Multiple responses

In one season, fruits and vegetables are available in abundance. The rural women are not able to convert and preserve these fruits and vegetables into marketable products within a limited time. And they didn't have any improved facility to store the excess produce and make it available during the period of glut. So, more than half (66.66) of the farm women expressed that 'seasonal availability of fruits and vegetables' as the important constraint. Also it could be suggested that they can go for produce the value added products whenever the fruits and vegetables available on cheap rates.

It is disclosed from the Table 2 that, marketing of mushroom was emerged as the foremost problem

as expressed by cent per cent of the respondents. Mushrooms being highly perishable with poor keeping quality can cause great losses to growers if they are not lifted for sale immediately. Some of the suitable methods were evolved commercially for increasing shelf - life of mushroom include canning, dehydration and freeze drying. These techniques are sophisticated and costly and are not practicable at grass root level. Therefore it needs quick marketing. This finding is in accordance with the finding of Mamoni Das (1997).

The next important problem of 'lack of financial assistance' was expressed by 83.33 per cent of the farm women. For rural women to start an enterprise financial assistance is a pre - requisite. Though financial assistance is given by various public organizations private agencies, they could not getting it at proper time because of the long procedures in sanctioning loans. This result derived the support from the finding of Jeyalakshmi (1996).

The basic input in mushroom production is the spawn. It is not possible for the rural masses to produce their own spawn as it requires sophisticated and automatic machinery and other facilities. Shortage of spawn growing laboratories is one of the main constraints to this industry. So, more than three - fourths (79.16 per cent) of the farm women expressed 'non availability of spawn' as a constraint. This result is in line with the result of Mamoni Das (1997).

'Preservation of produce' and 'pests and disease attack' were the minor problems expressed by only 16.68 per cent of the respondents. This finding is in conformity with the finding of Jeyalakshmi (1996).

Table 3. Major areas of Training need in value addition of fruits and vegetables (n=78)

Items	Very much needed		Needed		Less needed		Not needed	
	No	%	No	%	No	%	No	%
Selection of fruits and vegetables	12	15.39	48	61.54	18	23.07	-	-
Washing	12	15.39	21	26.92	45	57.69	-	-
Peeling	12	15.39	21	26.92	44	56.41	1	1.28
Preparation								
Pulping	14	17.95	31	39.75	33	42.30	-	-
Testing sugar content (refractometer-brix)	60	76.92	16	20.51	2	2.57	-	-
Preparation of sugar : pulp : water	61	78.20	14	17.95	3	3.85	-	-
Preservatives	62	79.49	16	20.51	-	-	-	-
Artificial colour	59	75.65	19	24.35	-	-	-	-
Essence	49	62.83	29	37.17	-	-	-	-
Bottling								
Sterilization of bottles and vessels	48	61.54	30	38.46	-	-	-	-
Avoiding contamination while filling	50	64.10	24	30.76	4	5.13	-	-
Marketing and storage								
Marketing outlet	43	55.12	32	41.03	3	3.84	-	-
Storage	30	38.46	42	53.85	6	7.70	-	-

Technological and managerial up gradations will solve the constraints and also the proper guidance and training in some critical areas is required to build the farm women as competent in the selected fields. So, the study identified the areas in which they lack in exposure and training and that can be concentrated to build them as successful entrepreneurs. Such areas brought to lime light through this research may be considered in organizing future training programmes which will enable the farm women concerned to lead them towards prosperity in their enterprises.

Training needs in specific items under value addition of fruits and Vegetables

It is quite interesting to note from Table 3, that all the respondents studied, expressed there are need for training in the critical areas and none was observed under not needed category. More than half of them stated that they very much needed training in the areas like adding preservatives (79.49%), Sugar pulp water ratio (78.20%), Testing sugar content (76.92%), Artificial colour (75.65%), Contamination (64.10%), Adding essence (62.83%), Sterilization of bottles and vessels (61.54%) and marketing outlet (55.12%). The said factors play very

crucial role in the preparation of value added products. The quantum of adding preservatives decides the keeping quality of the product. Also the sugar brix, colour etc., enriching the preference towards the material in the same way preventing contamination is most critical as that of all reserved for products, hence such an outcome.

The result has been in line with the result of Parvathi (1995) who also revealed that farm women required training in the aspects like preparation and bottling in value addition of fruits and vegetables.

Any effort taken by an entrepreneur must be linked with the market network, which will enable them to sell their produce of any kind. Being farm women their exposure to market areas may be limited and they could not get such information prior to their venture. Hence they wanted to get those information through training programmes.

Training needs in specific items under mushroom production

Among various items of mushroom production, the specific items of training need has been furnished in table 4 .

Table 4. Major areas of Training need in mushroom production

(n=71)

Items	Very much needed		Needed		Less needed		Not needed	
	No	%	No	%	No	%	No	%
Selection of fruits and vegetables	12	15.39	48	61.54	18	23.07	-	-
Sterilization of spawn bottles	39	54.93	15	21.13	17	23.94	-	-
Inoculation of spawn bottles	32	45.07	23	32.40	16	22.53	-	-
Avoiding contamination in bottles	27	38.03	28	39.44	16	22.53	-	-
Preparation of substrate for mushroom bed preparation	27	38.03	31	43.66	13	18.31	-	-
Preparation of bed	28	39.44	30	42.25	13	18.31	-	-
Avoiding contamination in beds	42	59.16	16	22.53	13	18.31	-	-
Maintaining mushroom beds in cropping room	24	33.80	32	45.07	14	19.72	1	1.41
Harvesting	6	8.45	26	36.62	20	28.17	19	26.76
Packing	-	-	18	25.35	34	47.89	19	26.76

From the Table 4, it could be concluded that 'contamination of beds', 'sterilization and, 'inoculation of spawn bottles', 'preventing contamination in bottles', 'preparation of substratum for mushroom bed and 'maintaining mushroom beds in cropping room' were the areas in which cent per cent of the farm women expressed the need for training. It is worth noting that the cent per cent of the respondents felt that they needed training. Vijayakhader (1994) and Mamoni Das (1997) also observed from their studies, that the mushroom growers required training in all the areas of production

This clearly shows that the need for organizing a massive training programme on the felt need areas of farmers in mushroom production.

Mushroom cultivation involves relatively more simple techniques and small investments. Mushroom production is such activity which can easily be undertaken especially by farm women as a subsidiary income earning activity. This might be the reason why the farm women expressed the need for training in the above mentioned areas. If these trainings are given to them, they will be able to carry out mushroom production as a successful one.

Harvesting and packing were the areas in which nearly three - fourths (73.24 per cent) of the farm women required training as harvesting and packing plays a very important role in preserving the produce. However 26.76 per cent of women not expressed the need for training on the above mentioned areas as those group might had possessed skill on those areas.

Conclusion

The need for training and guidance at all stages could be one of the most effective ways of dealing with problems of farm women that hinder taking up self employment avenues. The major problems of credit, non-availability of inputs, lack of marketing facilities need to be tackled through suitable means. In order to solve these issues, the farm women may be encouraged to go for such type of ventures as a group. Also they can be motivated to base tie-up with the small produces to process the vegetables and fruits at field level when the production is more. These type of approaches will enable them to run the enterprise comfortably in all aspects. They could

earn some additional income from their enterprises. Such success, certainly will instigate the other farm women group/the peer group to follow the similar line of movement.

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