Original Research Article

Livelihood Status of Neem Seed Pickers and constraints in seed collection and procurement in Tamil Nadu

~~Empowering Neem Seed Pickers through interventions in seed collection and procurement in Select Districts of Tamil Nadu~~

Baburaj.L.K[1]*, J.VenkataPirabu[2], D.Suresh Kumar[3],A.Vidhyavathi[4] and R.Pushpavalli[5]*

1. Ph.D. Scholar, Department of Agricultural Extension and Rural Sociology, CARDS, Tamil Nadu Agricultural University, Coimbatore 641 003
2. Director, Planning and Monitoring, Tamil Nadu Agricultural University, Coimbatore 641 003
3. Professor & Head, Department of Agricultural Economics, CARDS, Tamil Nadu Agricultural University, Coimbatore 641 003
4. Professor (Agrl. Economics), Department of Agricultural Economics, CARDS, Tamil Nadu Agricultural University, Coimbatore 641 003
5.Deputy General Manager, Neem Plantations, Coromandel International Limited.

ABSTRACT

Aims: Neem Seeds have considerable economic significance due to a variety of commercial usages. Realising the significance of neem, the present study aimed to understand the rural households' participation in neem seed collection and issues in collection and sales.

Study Design: Simple random sampling method was followed.

Place and duration of the study: The present study was conducted in Tamil Nadu state covering seven districts namely Coimbatore, Dindigul, Dharmapuri, Madurai, Sivagangai, Thoothukudi and Vellore. A total of 450 households who involved in neem seed collection was selected and studied. The data collected

was pertaining to the year 2019-20.

Methodology: Simple mean, percentage analysis, standard deviation and Garrett Ranking techniques were employed.

Results: Ninety seven percent of the neem seed collectors are above 30 years. Majority of the neem seed collectors are illiterate mostly belong to the category of more than 50 years and 30 to 50 years. Agriculture based households members generally involved in neem seed collection. Majority of the neem seed collectors (61 per cent) collect neem seeds in local village itself. Around 26 per cent of the respondents visit nearby villages to collect neem seeds. To collect neem seeds, the rural households travel 4.65 km daily, with a minimum of 2.0 km and maximum of 7.0 km in a day. The constraints in seed collection are time consuming , travel long to collect seeds, less remunerative, less productive etc. The major constraints in selling include poor price offered by the traders, lack of awareness on price in other markets, lack of awareness about quality.

Conclusion: Programmes like price support, market intervention in the form of price dissemination, market and transport infrastructure will help the rural people to fetch better price for their collected neem seeds.

Keywords: Neem seeds, Rural women, Collection, Sales, Livelihood, Constraints, Interventions.

1. INTRODUCTION

The miracle tree of India, neem (Azadirachta indica), is making its way from the lab to the market, and numerous US and Australian companies are developing neem-based insecticides. The enormous export potential of neem is attracting the attention of producers that previously solely produced neem-based goods for the domestic market.There are more than 30 neem-based pesticides are presently being produced in the country. For example to soothe and kill the bacteria neem oil can be rubbed twice a day and for controlling Lepidoptera insects *azadiractin* in 1- 50ppm concentration can be sprayed (Rahal *et al.* 2019).

The neem tree (*Azadirachta indica*) is a tropical evergreen tree native to India. Neem is popularly known as the ***village pharmacy*** found in road side and village common lands. Neem has comparatively high efficiency of Carbon-di-Oxide fixation. It can fix more than 14 micro mole of Carbon-di-Oxide per square meter per second (Bijalwan*et al.* 2017). Every part of the tree - the fruit, seeds, oil, leaves, roots and bark - has medicinal values. Neem seeds are available only during June, July and August. In India, Uttar Pradesh, Tamil Nadu, Karnataka, Madhya Pradesh, Maharashtra, Andhra Pradesh, and Gujarat are important Neem producing states. Fruit yield per tree, per year is 31 to 55 kg with an average yield of around 35 kg leading to a productivity of 14 tonnes of neem seeds per ha (Balaji, 2017; Subbalakshmi et al. 2012). Neem Seeds have considerable economic significance due to a variety of commercial usages. Quality of seed determines the commercial value. One tonne of neem seeds is capable of yielding 1.50 kg of *azadirachtin,* 200 kg of neem oil and 780 kg of neem cake (Subbalakshmi et al. 2012).

Clinical investigations have shown that neem is effective in preventing a variety of disorders. Active components have been shown to have a chemopreventive impact in a variety of tumours by modulating

many cell signalling pathways. (Alzohairy, 2016). The leaf of the Neem tree appears to have generated a specific combination of glycoproteins known as neem leaf glycoprotein (NLGP) that, when tested on mammalian subjects, demonstrated immune-modulatory action, potentially limiting tumour progression by influencing both local and systemic immunity. (Kundu,2018). Hundreds of ailments have been demonstrated to benefit from neem treatment. Neem leaf is available as a tea or in capsule form. Neem oil can be used physically or consumed orally by placing a few drops in an empty capsule. It's also beneficial for improving soil fertility (Roshan, 2015). The health benefits of various compounds and extracts derived from Neem, as well as the mechanisms and pathways by which Neem compounds produce their effects, while also warning that extracts produced under unsanitary and unstandardized conditions can cause health problems, with certain compounds potentially damaging the liver and kidneys (Franciscolslas et al. 2020). In places like India, Pakistan, and other eastern developing countries, we see practice of complementary alongside allopathic medicine, where several healing traditions standout such as Ayurveda and Sowa-Rigpa, as these traditions take root in balance and energy or a spiritual healing process. Notably, these traditions embark on the use of several therapies using a complex of herbs and plants, like Turmeric, Amla, Tuls, Guggul and Neem (verma et al. 2019).

According to World Nature Organiation (WNO), India is home to 20 to 25 million neem trees. About 80 per cent of the trees grow as part of natural vegetation in the dry, sub-tropical climate of Uttar Pradesh, Tamil Nadu, Karnataka, Gujarat, Madhya Pradesh and Maharashtra. But the Indian market is highly unorganised and it is yet to tap even 10 per cent of oil-yielding potential of the trees in the country. It has been estimated that India's neems bear about 3.5 million tonnes of kernel each year and about 7 lakh tonnes of oil might be recoverable. However, only 10 per cent of the 3,00,000 tonnes of neem seeds collected from across the country gets processed, yielding only 3,000 tonnes of neem oil (Down to Earth, 2019).

Oil yield from neem fruits can be as high as 8 to 10 per cent of the weight of the fruit. But this requires careful drying of the fruit in shade, storing it and then using cold-pressed technology to process the seeds. Any amount of moisture left in the fruit can significantly alter the oil quantity (National Research Council (US) Panel on Neem, 1992).

Although India is in an enviable position for the neem industry because of its high quality of oil and seeds and abundant raw materials, the neem industry has not grown as expected. Problems in export exist due to regulatory restrictions in several countries and it is better to concentrate in Indian market. Recurrent problems in exporting and marketing are polluted and contaminated products, with lead and *aflatoxin* in the oil (Rashmi Roychoudhury,2016).

The Government of India in the year 2015 has introduced a New Fertiliser Policy which makes it mandatory for manufacturers and importers to spray neem seed oil over urea before releasing it to farmers. The Fertilizer Ministry has set a standard for producing neem coated urea, which requires 600 gram of neem oil to be sprayed on 1 tonne of urea. Going by the standard it is required at least 20,800 tonnes of neem oil for coating 32 million tonnes urea consumed in the country every year. But every year 30,000 tonnes of neem fruits are collected across the country. Only 10 per cent of it gets processed for oil (Down to earth, 2019). But there is lack of quality control and an inability to fulfill Indian demand of 1.5 lakh tonnes per annum (Down to earth, 2019).

As the demand for a*zadirachtin* enriched neem extracts has grown in the international market, more number of rural population is engaged in neem seed collection and marketing. The quality/ efficacy of the

neem based products plays a major role in the international markets as the *azadirachtin* content of neem-based products is difficult to measure and degrades over time. This can be ensured by collection of neem seed in right stage and right time. One of the major problems with neem seeds is that they rot if not collected at the right time and some foreign manufacturers pointed out rotting neem seeds have a higher-than-permissible level of *aflatoxin*, a cancer-inducing toxin produced by the fungus *Aspergillusflavus*. Manufacturers are not able to register their product as a pesticide in USA if *aflatoxin* levels are high (Rashmi Roychoudhury,2016).

As the neem market is likely to grow, there is an urgent need to evaluate the seed collection process to ensure a concerted effort to collect, process and market neem seeds. It is estimated that some US $350 million worth of neem seeds are wasted in India every year. Only 25 to 30 per cent of the neem seeds are collected or are usable, mainly because of ignorance and poor infrastructure facilities (Down to Earth, 1993). At the same time, the growing international market for neem seeds demands not only proper collection but participation of rural population in seed collection. As it has vast potential for rural employment, it is important to study the participatory behavior of rural people in neem seed collection. It is also important to create and work with local communities on sustainable harvesting methods.

The overall objective of the present study is to understand the rural household's participation in neem seed collection and its impact on household income. The specific objectives include: (i) to study the socio-economic dynamics of need seed collectors and the extent of rural households' participation in neem seed collection, (ii) to examine the factors which limits or enhance rural households participation in neem seed collection and sales.

2.METHODOLOGY

2.1.Sampling Design

The present study was conducted in Tamil Nadu stating covering seven districts namely Coimbatore, Dindigul, Dharmapuri, Madurai, Sivagangai, Thoothukudi and Vellore. For the purpose of the study, a multi-stage sampling procedure was followed. In the **first stage**, based on the major market centres for neem seeds, nine blocks were selected covering seven districts and the nine blocks were grouped into three clusters based on movement of neem seeds for sale. Nine blocks namely Cluster 1:Harur, Tirupathur & Pennagaram (for Krishnagiri), Cluster 2: Puliyampatti (for Annur), Ottanchadram and Dindugul and Cluster 3:Melur, Singampunari and Kovilpatti will were purposively selected. These blocks are the major market centres where local traders, oil mills, mandi and oil retail shops were approached to get information on the raw materials sources. Based on the oral enquiry, one block which acts as major source of neem seed collection was selected and two villages were identified based on further follow up information. In the **second stage**, based on the area two villages were selected in each block. Thus a total of 18 villages were selected spread across 9 blocks (Table 1).

Table 1 Sampling Framework

Name of the districts	Cluster	Blocks	Name of Villages
Vellore	Cluster I	Tirupathur	Vishamangalam Perampattu
Dharmapuri		Harur	Kavundampatti Sundagipatti

		Pennagaram	Sikanampatti Puthur
Coimbatore	Cluster II	Puliyampatti	Ellampalayam V.Palayam
Dindigul		Oddanchatram	Perumalkoivilvalasu Naganampatti
		Dindigul	Dhasarpatti Porulur
Madurai	Cluster III	Melur	Thumbaipatti Puthupatti
Sivagangai		Singampuneri	Piranmalai Anaikaraipatti
Tuticorin		Kovilpatti	Ilupaiurani E.pannai
Total	**Districts : 7**	**Blocks: 9**	**Villages : 18**

In **third stage**, rural households were selected employing simple random sampling. A sample of 25 households in each village who involved in neem seed collection were selected with 150 rural households were studied in each cluster. Thus, a total of 450 households involved in neem seed collection was selected and studied. Well defined and pretested interview schedule was used to collect primary data from the rural households. Details regarding rural households participation, time spent on neem seed collection, income earned per day, seasonal assessment, wages/prices obtained by the collectors, awareness on seed quality, weighing units, selling of neem seeds by the collectors and other socio economic profile were collected using interview schedule. Secondary information were collected on major market centres in Tamil Nadu, price levels etc., from authorized sources.

2.2. The Period of Study

The reference year of the study is the agricultural year 2019-20. The primary data were collected from the sample respondents from September to December 2019 and the data were related to the year 2019-20.

2.3.Tools and Techniques used

Simple mean and percentage analysis were used to present the results of the study. For the purpose, the sample respondents were grouped into three categories based on age viz., (i) less than 30 years, (ii) 3- to 50 years and (iii) more than 50 years. The formula used is lower category is < mean–standard deviation, mean–standard deviation to mean+standard deviation is middle category and >mean+standard deviation is upper category.

2.3.1. Garrett's Ranking Technique

The respondents perception about the prime objective of neem seed collection, constraints in neem seed collection and constraints in marketing of neem seed. For the purpose, Garrett's Ranking technique was employed. It is as follows:

$$\text{Per cent potition} = \frac{100\,X\,(R_{ij} - 0.5)}{N_j}$$

Where,

R_{ij} = Ranking given to the i^{th} attribute by the j^{th} individual
N_j = Number of attributes ranked by the j^{th} individual.

Referring to the Garrett's table, the per cent positions estimated were converted into scores. Thus, for each factor, the scores of the various respondents were added and the mean values were estimated. The means thus obtained for each of the attributes were arranged in descending order. The attributes with the highest mean value was considered as the most important one and the others followed in that order.

3.RESULTS AND DISCUSSION

3.1. Socio-economic dynamics of the neem seed collectors

3.1.1. Age of the Neem Seed Pickers

There is a remarkable changes happened in rural areas in terms of rural demography. Increasing urbanization and industrialisation led to migration from rural areas to urban, increasing density of population in urban areas, emergence of new towns which eventually resulted in dramatic decline in rural population. In the light of declining rural population, it is critical to understand which segment of the rural mass involved in neem seed collection.

The age is the major factor in decision making of important household activities. The neem seed collectors are grouped into three age categories namely less than 30, 30 to 50 and more than 50 years. As expected ninety seven percent of the neem seed collectors are above 30 years. Out of which 55 percent of them belong to middle age category (30-50 years) and 42 per cent of the collectors are above 50 years old (Table.2).

Table. 2. Distribution of neem seed collectors according to sex

(Number of households)

Neem seed collector Category	Number	Male	Female
< 30 years	12	..	12
	(3.0)	..	(3.0)
30-50 years	246	17	229
	(55.0)	(50.0)	(55.0)
> 50 years	192	17	175
	(42.0)	(50.0)	(42.0)
All category	450	34	416
	(100.0)	(100.0)	(100.0)

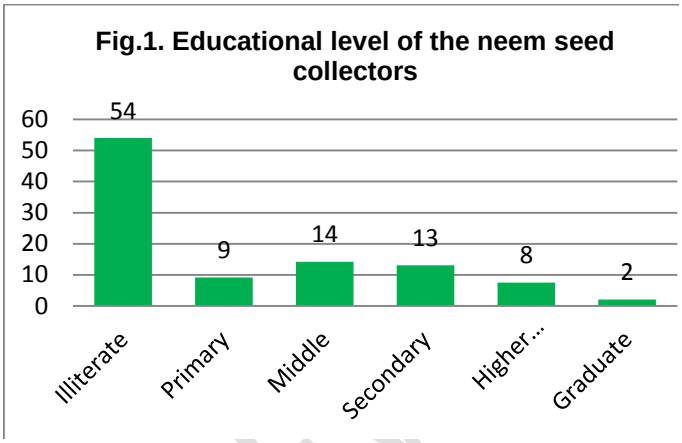
Source: Household survey during 2019

(Figures in parentheses indicate percentage to total)

The neem seeds are mostly collected by female rural mass. Of the total 450 respondents, around 92 percent are female and only 8 per cent are male. It is mainly due to the fact that the male labourers prefer to go for other agricultural and non-agricultural wage employment as they have comparative advantage in wages.

3.1.2. Educational level of neem seed collectors

Education plays an important role in securing employment and participation in various livelihood activities. Higher the education better would be the employment opportunities. Thus, educational level of the neem seed collectors influences their participation behavior in different livelihood activities to a greater extent. It is seen that majority of the neem seed collectors are illiterate mostly belong to the category of more than 50 years and 30 to 50 years. Around 14 per cent of the neem seed collectors completed middle school followed by 13 per cent completed secondary education.



3.1.3. Occupation of the rural households

The rural households are generally involved in different employment activities like agriculture, agricultural wage labour, non-agricultural labour, service sectors and self-employment for their livelihood. To have better understanding of neem seed collectors from which type of households, the primary occupation of the head of the households was analysed. The analysis of occupational structure of the neem seed collectors indicates that the primary occupation of the neem seed collectors includes agriculture, agricultural wage labour, non-agricultural wage labour and other activities like self-employment and service sectors. It is evidenced that majority of the neem seed collectors (52 per cent) are from the households whose primary occupation is agricultural wage labour followed by agriculture (38 per cent).

Table.3. Distribution of households based on primary occupation

(Number of households)

Neem seed collector Category	Agriculture	Agricultural labour	Non Agricultural labour	Others
< 30 years	4	3	3	2
	(2.0)	(1.0)	(10.0)	(13.0)
30-50 years	103	111	24	8
	(60.0)	(48.0)	(80.0)	(54.0)
> 50 years	64	120	3	5
	(38.0)	(51.0)	(10.0)	(33.0)
All category	171	234	30	15
	(100.0)	(100.0)	(100.0)	(100.0)

Source: Household survey during 2019

(Figures in parentheses indicate percentage to total)

The age group wise analysis indicates that the agricultural wage labour is the primary occupation in 51 per cent of households under the >50 years category whereas the agriculture forms the primary occupation in 60 per cent of the households in middle aged group of households. The analysis confirms

that agriculture based households members generally involved in neem seed collection. Hence, these households in the rural areas may be identified and supported for their livelihood.

3.1.4. Experience in neem seed collection

The experience in neem seed collection ie number of years involved in neem seed collection of the sample respondents was grouped into three category namely less than eight years, eight to fifteen years and more than fifteen years of experience in neem seed collection.

Of the total 450 neem seed collectors, 239 neem seed collectors (53 per cent) had 8-15 years of experience in neem seed collection followed by 26 per cent of them had an experience of more tha 15 years and 21 per cent of them had less than 8 years of experience (Table.6). The average experience of neem seed collection of young age group is 5.0 years where as it is 7.5 years for middle aged and 10.0 years for aged respondents.

Table 4. Experience of the neem seed collectors

(Number of households)

Neem seed collector Category	< 8 years	8 to 15 years	> 15 years
< 30 years	11	1	..
	(12.0)	(0.4)	
30-50 years	61	158	27
	(66.0)	(66.1)	(23.0)
> 50 years	20	80	92
	(22.0)	(33.5)	(77.0)
All category	92	239	119
	(100.0.0)	(100.0)	(100.0)

Source: Household survey during 2019

(Figures in parentheses indicate percentage to total)

Among the different age group of neem seed collectors, majority of them have experience of 8 to 15 years. For instance, among the middle aged group (30-50 years), 158 members have an experience of 8 to 15 years followed by 51 members have an experience of less than 8 years and only 27 members have more than 15 years of experience. The scenario is little different in aged group (> 50 years), wherein majority of the members (92 members) have an experience of more than 15 years followed by 80 members have 8 to 15 years and only 20 members have experience of less than 8 years. The analysis however conclusively argue that aged people (>50 year) have rich experience in neem seed collection.

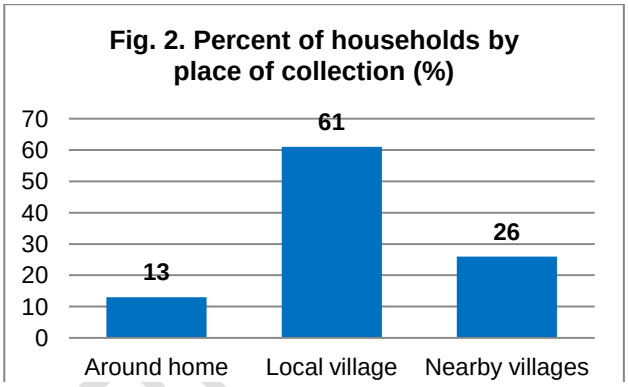
It is expected that education coupled with expertise gained in neem seed collection and other related activities will pave way for augmenting the productivity in neem seed collection.

3.2. Neem Seed Collection by rural households

Neem tree has been considered and recognized as the most potential tree of India due to its evergreen nature and ability to grow in even the most arid and nutrient deficient soils as well as for its many commercially exploitable by products and environmentally beneficial characteristics of Neem. Neem trees

come to flowering and fruiting once in a year. The fruiting and seed collection lasts for 60 to 65 days per year. It starts from middle of May and sometimes it lasts upto middle of September. The peak season is June, July and August months. Such an important activity in rural areas is not much studied and documented. The present study is first of its kind in Tamil Nadu. The collection of neem seeds, methods of collection was not documented properly in Tamil Nadu and hence efforts have been made to document the collection methods and the quantity collected in rural areas of the Tamil Nadu state.

3.2.1. Place of neem seeds collection



It is commonly observed that neem seed collection activity is performed by the majority of labour force who actively involved in collecting the neem seeds from the common lands where neem is grown either in patches or along the sides of the roads, tankbeds and also in reserve forests under the foothills. It is evidenced that majority of the neem seed collectors (61 per cent) collect neem seeds in local village itself. Around 26 per cent of the respondents visit nearby villages to collect neem seeds.

It is interesting to note that in all categories of respondents, majority of them collect neem seeds in local village itself. For instance among middle aged respondents (30-50 years), 150 respondents collect neem seeds in the local village. Similarly, among aged respondents (> 50 years), 112 members collect seeds in local village followed by 54 members in nearby villages (Table.7).

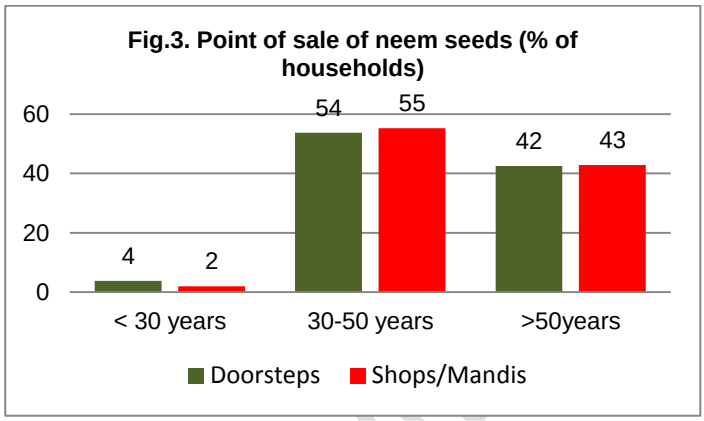
The neem seed collectors sell the collected and processed neem seed frequently. Being the bottom of the rural income scale, the neem seeds collection solves cash flow problems. To address cash flow issues, In respect of selling of seeds, they sell neem seeds in different frequencies such as twice a week, weekly and fortnightly. It is evident that majority of the neem seed collectors (49 per cent) sell fortnightly, followed by weekly (39 per cent) and twice a week (12 per cent). In addition to cash flow issues, the other major reason for selling the neem seeds more frequently is lack of storage facilities and fear of deterioration of quality of neem seeds.

When asked about whether the neem seeds collected and processed by the villagers are rejected by the traders, only four per cent of collectors revealed that the seeds are rejected. Majority of the neem seed collectors (96 per cent) do not face the issue of rejection of seed collected by them. During the survey, it is observed that only in Annur and Melur blocks, neem seed collectors faced the issue of rejection mainly due to poor quality of seeds.

3.2.2. Selling of Neem Seeds

During the survey it is found that respondents sell their collected neem seeds either at doorsteps or shops/mandis in the local village or nearby towns. It is evident that out of 450 neem seed collectors, around 59 per cent sell their seeds at shops/mandis either in the local village itself or nearby towns, whereas 41 per cent sell their seeds to village traders at doorsteps.

Among the seed collectors selling at shops and mandis, majority are the middle aged followed by the aged people. Similar scenario is visualized in the case of selling at doorsteps as well. Around 54 per cent and 55 per cent of the middle aged sell their seeds at doorsteps and shops/mandis. Similarly 42 per cent and 43 per cent of the aged people sell their seeds at doorsteps and shops/mandis. It is observed that people belong to Oddanchatram and Dindigul blocks collect neem fruits and sold after drying the fruits without removing pulp. In Kovilpatti, Annur and Singampurai blocks the neem seed collectors sell both dried fruits without removing pulp and de-pulped dried seeds. Respondents in Tiruppathur, Pennagaram, Harur and Melur blocks sell only de-pulped dried neem seeds. Some respondents belong to blocks namely Kovilpatti and Melur collect neem seeds from their own lands and also engage labourers for seed collection. Most of the respondents belong to Annur, Ottanchatram, Dindigul and Melur sell the dried fruits to the traders or oil mill owners which is used for making neem cake.



The neem seed collectors from blocks like puliyapatti (100 %), Oddanchatram (78%), Dindigul (62%) preferred to sell their neem seeds at doorstep vendor itself, whereas collectors from blocks like Pennagram (100%), Kovilpatti (96%), Melur (94%) and Singampunari (94%). sell their products directly to mandi or shop because they get higher price.

Respondents sell their products to the village traders or local traders at doorstep. The unit of measurement followed is called ‘padi”. Traders manipulate with measurements and payments as most of them are illiterate. The respondents sell the produce to nearby mandis or shops after processing sufficient quantity of seeds. For want of money to meet daily basic necessities, they sell the produce to local traders at doorstep.

The annual income earned by the rural population during the peak season period varies from Rs. 6237/annum to Rs.13100/annuam. The average annual income of the households involved in need seed collection is Rs130,000 and only five to ten percent of their annual income was from neem seed collection.

3.3. Constraints in neem seed collection

Being the resource poor households, the neem seed collectors in rural areas face several constraints in neem seed collection. When we asked about the constraints faced by them in neem seed collection, most of the neem seed collectors revealed that neem seed collection is a time consuming and ranked first as evidenced from highest mean score.

Table.5. Constraints in neem seed collection

Constraints in Neem Seed Collection	Mean Garrett Score	Rank
More time consuming	70.34	I
Should travel long	57.58	II
Less remunerative	57.45	III
Less productive	55.85	IV
Poor health- unable to walk	52.56	V
Less dignified	37.15	VI
Lack of source	22.31	VII

Source: Household survey during 2019

This is followed by other reasons viz., should travel long, less remunerative, less productive, Poor health, socially less dignified, and lack of source for neem seed collection. As neem seed collection is a time consuming, laborious and needs good health conditions, support in the form of transportation and health insurance may be ensured. This will encourage the rural people to involve in neem seed collection so as to ensure their livelihood.

3.4.Constraints in selling neem seed

The neem seed collectors sell their collected seeds after processing sell into the local traders at doorsteps or shops/mandis in the local areas or nearby towns. In the course of selling their collected seeds, they face several constraints. The most important constraints in selling as perceived by the neem seed collectors is poor price offered by the traders. This is followed by other important constraints like lack of awareness about price prevailed in other markets,lack of awareness about quality, malpractices in weights and measurements, malpractices in prices, collusion among the traders and oil millers, The other constraints which affect the selling of neem seeds are delayaed payments by the traders/mandis and lack of transport facilties.

Table.6. Constraints in selling of neem seeds

Constraints in Marketing	Mean Garrett Score	Rank
Poor price	72.40	I
Lack of awareness about the prices in other markets	66.64	II
Lack of awareness about quality	63.15	III
Malpractice in weighing	53.66	IV
Malpractice in unit price	48.88	V
Agreement among traders and oil manufacturers	47.54	VI
Dominance of manufacturers over the traders	43.61	VII
Delayed payment	36.93	VIII
Lack of transport facilities	20.00	IX

Source: Household survey during 2019

Programmes like price support, market intervention in the form of price dissemination, market and transport infrastructure will help the rural people to fetch better price for their collected neem seeds. This

will also encourage them to participate more in neem seed collection. It is evident from the discussion with the neem seed collectors that good quality seeds fetch better prices when compared to poor quality seeds.

4. CONCLUSION

It is found that ninety seven percent of the neem seed collectors are above 30 years. Out of which 55 percent of them belong to middle age category (30-50 years) and 42 per cent of the collectors are above 50 years old. The neem seeds are mostly collected by female rural mass.

Majority of the neem seed collectors are illiterate mostly belong to the category of more than 50 years and 30 to 50 years. The analysis confirms that agriculture based households members generally involved in neem seed collection. It is evidenced that majority of the neem seed collectors (61 per cent) collect neem seeds in local village itself. Around 26 per cent of the respondents visit nearby villages to collect neem seeds. During the survey, the neem seed collectors revealed that better transportation facilities will help them to collect more quantity of seeds also will help reduce drudgery in walking distance places.Neem seed collection is a time consuming and ranked first as evidenced from highest mean score. The other constraints are to travel long to collect seeds, less remunerative, less productive, poor health, socially less dignified, and lack of source for neem seed collection. The major constraints in selling include poor price offered by the traders, followed by lack of awareness about price prevailed in other markets, lack of awareness about quality, malpractices in weights and measurements, malpractices in prices, collusion among the traders and oil millers.The study clearly indicates that the neem seed collection is less remunerative and not attractive financially.The present study conclusively suggest that Programmes like price support, market intervention in the form of price dissemination, market and transport infrastructure will help the rural people to fetch better price for their collected neem seeds.

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