ADOPTION OF NEEM USES AND THEIR PRODUCTS

Pankaj Barotia*, S.S.Sisodia** and Nanchhu Ram Meena***

ABSTRACT

The Neem are (Azadirachta indica A Juss. Formerly known as ... azadirachta) belonging to the family Meliaceae is known for thousands of years in the Indian sub-continent by different names such as Indian lilac or Margosa tree. Ayurveda, have mentioned wide range of uses of Neem for treating wide range of diseases and symptoms. The present study was conducted in Udaipur district of Rajasthan. There are nine tehsils in Udaipur district , out of which Girwa tehsil was selected on the basis of maximum area under Neem tree. Ten villages from this tehsil were selected on the basis of maximum area under Neem tree. For selection of respondents, 100 respondents were randomly selected from identified villages for data collection. The finding indicated that 77.00 per cent of total respondents adopted the Neem use to medium level whereas 13.00 and 10.00 per cent of total respondents adopted Neem uses and their products to low and high level respectively. It was also observed that the extent of adoption in farmers was 5.00 to 92.66 per cent in all aspects regarding Neem use.

INTRODUCTION

The Neem are (Azadirachta indica A Juss. Formerly known as ... azadirachta) belonging to the family Meliaceae is known for thousands of years in the Indian sub-continent by different names such as Indian lilac or Margosa tree. Ayurveda, have mentioned wide range of uses of Neem for treating wide range of diseases and symptoms. The leaves are known to be effective against seasonal fever, dermatological diseases and worms. They are burnt to repel the mosquitoes. The twigs are used as toothbrush (Daatun). Oil has spermicidal effect and can prove as a good contraceptive. It is also used for the treatment of head louse. When the oil is applied to the chronic wounds and ulcers on the body, it quickens the cure. Neem is also used in toothpaste, cosmetics and aromatic preparations. Thus, every part of this tree is found useful.

Moreover, Neem is used in various ways in agriculture also. Plantation of Neem trees on field bunds can prove as an effective windbreak. The leaves are used as good fertilizer. Apart from leaves, seed cake is also a very good fertilizer. In addition, it helps in controlling the nematode problem. It also enriches the soil health, improves soil fertility, changes the soil structure and makes the land live for long period to produce good amount of produce. Thus, it is used as organic manure for soil. Looking to the above fact, the present study of Adoption of Neem uses and their products was carried out in Udaipur district of Rajasthan.

RESEARCH METHODOLOGY

The present study was conducted in Udaipur district of Rajasthan. There are nine tehsils in Udaipur district, out of which Girwa tehsil has been selected on the basis of maximum area under Neem tree. Ten villages from this tehsil were selected on the basis of maximum area under Neem tree. For selection of respondents, 100 respondents were randomly selected from identified villages for data collection. Data were collected with the help of interview schedule developed for the study purpose through face to face interview method. Different statistical test like mean, mean per cent score, rank and standard deviation were used in the analysis of data.

RESULTS AND DISCUSSION

Distribution of respondents on the basis of their level of adoption

To get an overview of adoption level, the

*   Assistant Professor, Department of Agriculture Extension, MJRPU, Jaipur.

**   Professor, Department of Extension Education, RCA, MPUAT, Udaipur.

***   Ph.D. Scholar, Department of Extension Education, RCA, MPUAT, Udaipur.

respondents were divided into three group viz., (i) low adopters (<28.29) (ii) medium adopters (28.29-38.15) and high adopters (>38.15). The groups were formulated on the calculated mean and standard deviation of the adoption scores obtained by the respondents. The result of the same is presented in Table 1.

Table 1. Distribution of respondents on the basis of their level of adoption of Neem uses and their products   n = 100

S. No.	Adoption level	F	%
1.	Low (<28.29)	13	13
2.	Medium (28.29 – 38.15)	77	77
3.	High (>38.15)	10	10
	Total	**100**	**100**

Mean = 33.22, F = Frequency, SD = 4.93, %=Per cent

Data presented in table 1 depict that 77 per cent of the total respondents were the medium adopters, whereas, 13 per cent respondents were low adopters and remaining 10 per cent respondents were high adopters about uses of Neem and their products.

This finding was in conformity with the finding of Kanani (1998), Temkar and Chauhan (2002), Sahoo (2004) and Patel (2005).

Aspect-wise extent of adoption of Neem uses and their products

Individual aspect wise extent of adoption of Neem uses and their product was worked out. For this purpose mean per cent score were calculated. The result are presented in table 22.

Table 2. Extent of adoption of Neem uses and their products by respondents   n = 100

S. No.	Aspect	MPS	Rank
1.	As a wind break	85.66	5
2.	To make best use of fellow land	82.33	8
3.	To make farm implement	82.66	7
4.	For shadow	89.00	4
5.	Wood for furniture	76.66	10
6.	For storages of grains	83.00	6
7.	As an animal feed	76.65	11
8.	Act as mosquito repellent	92.33	2
9.	For counter acting scorpion poison	14.33	20
10.	As medicine for worms	21.00	16
11.	To cure dermal disease	90.00	3
12.	To cure fever	16.00	19
13.	To relieve cough	26.33	15
14.	To control diabetes	06.00	28
15.	As an ingredient of toothpaste	55.33	13
16.	As an ingredient of soap	77.67	9
17.	As a toothbrush (datun)	92.66	1
18.	To control aphids	11.66	22
19.	To control leaf eating caterpillar	12.00	21
20.	To control *Helicoverpa spp.*	06.66	26
21.	To control castor semilooper	07.66	25
22.	To control diamond back moth (*cabbage*)	06.33	27
23.	To control larvae of fruits (okra)	07.67	24
24.	To control hairy caterpillar	05.66	29
25.	In formulation of pesticides	08.00	23
26.	To prepare paste (*Ghanvate*)	19.33	17
27.	For coating of urea	16.33	18
28.	In medicines formulation	35.66	14
29.	As a fuel in oil lamp (*diya*)	05.00	30
30.	To improve fertility of soil	64.33	12

MPS = Mean Per cent Score

Table 2 depicts that the adoption of Neem branches as a tooth brush (dantun) was 92.66 per cent, ranked first by the respondents. Likewise, 92.33 per cent adopters it as mosquito repellent, which was ranked second by the respondents. Further analysis of table shows that adoption by the respondents in curing dermal disease was 90 MPS. The above practice was ranked third by the respondents.

The table further reveals that the extent of adoption about using for shadow and as a wind break was 89.00 and 85.66 MPS which were ranked fourth and fifth by all the respondents respectively.

It was found that extent of adoption about storages of grains and making farm implement was 83.00 and 82.66 MPS among respondents respectively. These practices were ranked sixth and seventh by respondents respectively. The adoption about making best use of fellow land and as an ingredient of soap was obtained to be 82.33 and 77.67 MPS by the respondents respectively. Above practices were ranked eight and nine by respondents respectively. Neem was considered as the useful tree in rehabilitating the waste land areas. It was also found that adoption of Neem uses as a wood for furniture and as an animal feed was 76.66 and 76.65 MPS by the respondents respectively. These aspects were ranked tenth and eleventh by respondents.

The aspects having low adoption rate for their wide adoption. The aspects of this category indicates that the adoption about controlling leaf eating caterpillar and aphids was 12.00 and 11.66 MPS by all respondents respectively. Whereas adoption about formulation of pesticides and controlling larvae of fruits was 8.00 and 7.67 MPS by respondents respectively. It was recorded that the extent of adoption about controlling castor semilopper and helicoverpa spp. was 7.66 and 6.66

MPS among respondents respectively. The adoption about controlling diamond back Moth and diabetes was 6.33 and 6.00 MPS in respondents, respectively.

CONCLUSION

From the above discussion, it could be concluded that the extent of adoption by respondents was 5.00 to 92.66 MPS. Further it was noted that respondents had more extent of adoption about indigenous uses than scientific uses, still there is a gap in the adoption of Neem uses and their products. To improve the extent of adoption by the respondents, intensive strategy programme should be made timely and location specific in the study area. These finding are the line with the finding of Bhagat (2005).

REFERENCES

Bhagat, P.R. 2005. Indigenous and scientific knowledge of the farmers about various uses of neem in Anand Taluka of Gujarat. M.Sc. (Agri.) thesis submitted to AAU, Anand.

Kanani, P. R. 1998. Indigenous practices of groundnut cultivation followed by the farmers of South Saurashtra Zone in Gujarat State. Ph.D. (Agric.) thesis submitted to Gujarat Agricultural University, Sardar Krushinagar.

Patel, C.D. 2005. Knowledge and Attitude of Farmers towards Organic Farming Practices in South Saurashtra Zone of Gujarat State. M. Sc. (Agric.) Thesis submitted to JAU., Junagadh.

Sahoo, M.K. 2004. Knowledge and adoption of eco-friendly practices followed by the groundnut growers of south Saurashtra zone of Gujarat state. M.Sc.(Agri). Thesis submitted to Junagadh Agricultural University, Junagadh.

Temkar, G.K. and Chouhan, N.B. 2002. Extent of knowledge and attitude of dairy farmers towards AI in the milch animals. *Guj.Ext.Edu.* 11&13 : 39-41

❑❑❑