



Willingness and Problems of the Farmers to Use Botanical Pesticides in N S P Left Command Area in Nalgonda District

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ABSTRACT

Paddy is the staple food for the people of Andhra Pradesh. Now a days paddy crop also consumes maximum pesticides after commercial crops. The study revealed that majority of paddy farmers are willing to use neem pesticides in future. The major reason being, it is not dangerous to human beings and environmental friendly. The study also revealed that the major problem in use of neem pesticides was lack of field demonstrations and majority of the farmers suggested the require frequent vistic by the company representatives.

Key words : Botanical Pesticide, Command Area

According to the International Development Center, Ottawa, because of ignorance of safety measures in using pesticides, 10000 people die every year and another 4000 suffer from various effects of pesticide poisoning in developing countries. The continued use of pesticides will not only lead to increase in cost of production of food grains but also lead to several helath hazards of human beings. Besides, this may effectively block current or future export opportunities of agricultural products to developed nations who are serious about the harmful effect of residues of pesticides in food grains. From an initial caution and skepticism, Neem has been universally accepted .

Every year more than 2000 Species of field and storage pests destroy approximately one third of world's food production, valued at billion dollars. Synthetic chemical pesticides, which are used for managing the pests, suffer from serious drawbacks (Suresh 1994). Hence, there is a growing need to develop comparatively safe, less persistent and easily bio-degradable pesticides. Among several bio-pesticides or botanicals, Neem is cosidered to be superior and the same has been proved and accepted by a large number of researchers and international workshops also.

Neem (*Azadirachta indica* A. Juss) belongs to meliaceae family. Neem leaves in organic form help in controlling many fungal diseases. It was also found that Neem cake has 5.5 per cent N, 1.0 per cent P_2O_5 and 1.5 per cent K_2O .

To facilitate the management decision, of product positioning in the market, any pesticide firm has great responsibility to assess the willingness and problems faced by the farmers, as well as source of information to use the need pesticides in proper way.

MATERIAL AND METHODS

The study was aimed to estimate the willingness and problem of the farmers to use botanical pesticides for paddy cultivation. Now a days paddy crop also consumes maximum quantity of pesticides after commercial crops like cotton. The study was undertaken in Nagarjuna Sagar Project Left Command Area in Nalgonda District, which was considered the maximum rice cultivation area in Nalgonda District. In N S P Left canal command area three mandals viz. Tripuraram, Miryalaguda and Anumula were selected based on random sampling technique. In the same way six villages in each madal were selected. From each village 10 farmers were selected randomly. Thus using multistage random sampling producer, 180 farmers in 18 villages of three mandals in N S P Left command area of Nalgonda district were selected for the study. The study was conducted during the year 2006-07.

Garett's Ranking technique:

This technique was used to rank the source of information on pesticides. According to this technique the orders assigned to the different sources by the respondents were converted into rank by using the formula,

Percent position = $100 (R_{ij} - 0.5) N_j$
where

R_{ij} = Rank given to the it attribute by the j^{th} individual

N_j = Number of attributes ranked by the j^{th} individual

By referring to the Garett's table, the percent position estimated was converted into scores (Garett and Wood Worth, 1969). Thus, for each factor, the scores of various respondents were added and the mean score was estimated. The mean

Table 1. Willingness of the sample farmers to use neem pesticides.

(N = 180)

S.No. Particulars	Tripuraram	Miryalaguda	Anumula	Overall
1. Willingness to use	48 (80.00)	52 (86.67)	46 (76.67)	146 (81.11)
2. Not willing	12 (20.00)	08 (13.33)	14 (23.33)	34 (18.89)

Figures in parenthesis indicate percentage to total (N = 180)

Table 2. Reasons for willing to use neem pesticides.

S.No. Particulars	Tripuraram	Miryalaguda	Anumula	Overall
1. Low Price	53 (88.33)	56 (93.33)	47 (78.33)	156 (86.47)
2. Easily available	32 (55.33)	38 (63.33)	35 (58.33)	105 (58.33)
3. Neighbor is influence	41 (68.33)	48 (80.00)	51 (85.00)	140 (77.78)
4. Recommended by Gov.official	46 (76.67)	52 (86.67)	48 (80.00)	146 (81.11)
5. Dealer's influence	38 (63.33)	43 (71.67)	47 (78.33)	128 (71.11)
6. Effective control	44 (73.33)	46 (76.67)	41 (68.33)	131 (72.78)
7. Environmental friendly	53 (88.33)	54 (90.00)	56 (93.33)	163 (90.55)

Figures in parenthesis indicate percentage to total

Table 3. Source of information about pesticides.

(N = 180)

S.No.	Source	Mean Score	Rank
1.	Local Retailers / Dealers	78.68	I
2.	T V / Radio Advertisement	69.35	II
3.	Relatives and friends	66.91	III
4.	Demonstrations / Exhibition / campaign	62.32	IV
5.	Government officials	58.29	V
6.	Company Representative	56.36	VI
7.	Farmers Day / Field day	48.62	VII

Table 4. Problems in use of neem pesticides.

(N = 180)

S.No.	Particulars	Tripuraram	Miryalaguda	Anumula	Overall
1.	Non availability of Material	32 (53.33)	30 (50.00)	28 (46.67)	90 (50.00)
2.	Inadequate information about time and method of Application for pest control	26 (43.33)	24 (40.00)	29 (48.33)	79 (43.89)
3.	No agency is presently promoting botanical pest control	30 (50.00)	28 (46.67)	25 (41.67)	83 (46.11)
4.	Lack of field demonstrations and non availability of standard botanical pest control	28 (46.69)	26 (43.33)	23 (38.33)	77 (42.78)

Figures in parenthesis indicate percentage to total

Table 5. Farmers suggestions to increase the sale of neem pesticides.

(N = 180)

S.No.	Particulars	Tripuraram	Miryalaguda	Anumula	Overall
1.	Reduction in price	15 (25.00)	12 (20.00)	18 (30.00)	45 (25.00)
2.	More efforts through mass media	43 (71.67)	48 (80.00)	50 (83.33)	141 (78.33)
3.	Frequent visits by representatives	53 (88.33)	51 (85.00)	49 (81.66)	153 (85.00)

Figures in parenthesis indicate percentage to total

thus obtained for each of the attributes with highest mean value considered as the most important one and the other followed in order.

RESULTS AND DISCUSSION

Willingness of the farmer in use of Neem pesticides:

The sample farmers were enquired about their willingness to use neem pesticides in future, so as to analyze repeat of the purchase. The details are furnished in Table 1.

From the table, it could be inferred that 81.11 per cent paddy farmers were willing to use neem pesticides in future and the remaining were not willing to use neem pesticides. It was found that 23.33 per cent of the farmers in Anumolu mandal were not to use neem pesticides in future.

Reasons for willingness:

The reasons for willingness to use neem pesticides in future were collected from the farmers and the results are furnished in Table 2.

It could be seen from the table that 90.55 per cent of the farmers expressed that neem pesticides were not dangerous to health and environment friendly, so the farmers are willing to use bio- pesticides in future. The finding was in line with the endings of Kumar *et al* (2000) and Subramaniam *et al* (2000).

Source of information:

The analysis of source of information was in Table 3, which revealed that local retailers ranked first in disseminating information about pesticide brands to the farmers. TV and Advertisement ranked second followed by relatives and friends. The government officials played a major role for promoting the organic farming occupied fifth rank in disseminating the information about the use of neem pesticides.

Problems in use of Neem pesticides:

It could be seen from the table 4. That in N S P Left canal command area in Nalgonda district

expressed that non availability of the botanical pesticides is the most important problem (50.00 per cent) followed by no agency is presently promoting botanical pest control (46.11).

Suggestion by the farmers:

The suggestions for improving sales of neem pesticides as offered by farmers are presented in Table 5 majority farmers (85.00 per cent) had suggested lack of frequency of visits by the company representatives followed by more information through mass media and availability of product with reduced price.

Conclusion:

The study revealed that majority of poddy farmers are willing to use neem pesticides in future. The major reasons for willingness to use neem pesticides were that they are 'not dangerous to

human beings and animals' and 'environmental friendly'. The results indicate that local retailer ranked first in disseminating information about pesticides to the farmers. The major problem in use of neem pesticides was lack of field demonstrations. Majority of the farmers had suggested for frequent visits by company representatives to improve sale of neem pesticides.

LITERATURE CITED

- Garett Herry and P S Wood Worth 1969.** Statistics in psychology and education , Bombay vakils fitter and sciences pvt ltd. 329.
- Kumar K, N Chitra and R R Soundaraja 2000.** "Neem An Eco friendly Botanical Pesticides"
- Subramaniam V R, A V Dhaka, P Moitra and V R Balasubramanyam 2000.** "Neem Bio pesticides" Agro India, 4 (10 & 11): 13.
- Suresh N 1994.** "Neem as a pesticide" Kurukshetra.

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