



## RESEARCH ARTICLE

### MEETING CHALLENGES IN FARMING SUGGESTIONS OFFERED BY NEEM TREE OWNER FARMERS TO POPULARISE NEEM-AN INDIAN PERSPECTIVE

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#### ABSTRACT

Neem is accredited today as an ecological alternative to many unhealthy practices followed by farmers. With input intensive farming adversities like pest resurgences, disease incidences and crop losses are escalating. The Role of neem is well established and it has much to offer in solving global agricultural, environmental and public health problems. The natural products of neem do not have any toxic reactions, so they are helpful in plant protection and eco-friendly management for sustainable agricultural development. Neem oil, neem fruit and its different by-products make efficient biopesticides, fungicides and organic manures. These products can help to construct a sustainable agricultural backbone for low-income group and developing countries with reasonably lower costs and ecological damages. In past many efforts have been undertaken by agricultural scientists to encourage such organic alternative neem based products among farmers for the control of various harmful pests. The present study was aimed to understand the extent of usage of neem based biopesticides by practising farmers and suggestions offered by neem tree owner farmers to popularise neem as system for meeting challenges in farming and presenting it as an Indian perspective. The most important suggestions given by neem tree owner farmers to popularize neem in agriculture in order of their importance were; create awareness about ill effects of chemical pesticides right from school level, need to give proper advertisement for various commercial formulations made of neem, need to promote environment friendly pest control measures etc.

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## INTRODUCTION

India remains an important global agricultural player, despite the fact that agriculture's share in the country's economy is declining. It has the world's largest area under cultivation for wheat, rice, and cotton, and is the world's largest producer of milk, pulses, and spices (Food security portal, 2016). Nearly three-quarters of India's households are dependent on rural incomes. Farming in the semi-arid tropical region of India is obstructed by water shortages and recurrent drought, while environmental degradation and vulnerability to weather-related disasters pose challenges to the country as a whole. The population of India is 1.3 billion accounts for 17.85 per cent of the world population (World Population Prospects, 2015). Providing food for the entire population is a huge challenge. The predicament of achieving food security by increasing productivity is causing damages to the environment and effects the quality of life of people. Neem has undisputed role in

sustainable agricultural practices. Neem as a biopesticide is active against 200 or more known pests of crops (Anonymous, 1992). This role is more evident if we take the challenges in the views of marginal and poor farmers living in the developing nations. There were efforts for popularising neem in farming by researchers and extension agencies. In spite of these efforts only a minor group of farmers are practising in actual situations. The present study was aimed to get suggestions offered by neem tree owner farmers to popularise neem as a system for meeting challenges in farming and allied activities. It is the farmer who decides the degree of usefulness and the practicability of the recommended practise ultimately. The outcome of the study are also helpful to extension workers, agricultural academicians and the research workers to reframe their efforts to motivate farmers in adopting neem-based biopesticides.

## MATERIALS AND METHODS

The crucial method used in collecting data was a field survey. The interview schedule was used as a tool for the collection of requisite information.

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**Table 1. Suggestions offered by neem tree owner farmers to popularize neem in agriculture n=100**

SN.	Suggestions	MS	Rank
1	Need to develop awareness about ill effects of chemical pesticides right from school.	1.48	1 <sup>st</sup>
2	Ensure market for organically grown crops at premium prices.	1.47	2 <sup>nd</sup>
3	Need to give proper advertisement for various commercial formulations made of neem	1.38	3 <sup>rd</sup>
4	Promote environment friendly pest control measures at government level.	1.33	4 <sup>th</sup>
5	Create awareness regarding harmful effects of chemical pesticides among farming community	1.33	5 <sup>th</sup>
6	Extension workers should encourage farmers to use neem based bio pesticides.	1.33	6 <sup>th</sup>
7	Need to arrange special training at KVKs, universities and other training institute to demonstrate the use of neem based biopesticides.	1.26	7 <sup>th</sup>
8	Timely technical guidance should be provided to the farmers on various aspects of biological pest control measures with Neem.	1.22	8 <sup>th</sup>
9	Need to create awareness regarding depletion of soil health upon continuous use of chemical spray and soil application.	1.10	9 <sup>th</sup>
10	Create awareness through mass media and SMS to popularise use of the neem based biopesticides.	0.96	10 <sup>th</sup>
11	Input suppliers should promote the selling of neem based biopesticides as an alternative against the indiscriminate recommendation of chemical pesticides.	0.95	11 <sup>th</sup>
12	Unemployed youth in rural areas should be motivated to start enterprises in neem based biopesticides.	0.95	12 <sup>th</sup>
13	More neem trees should be planted so that enough raw materials can be made available for farmers for making bio pesticides.	0.74	13 <sup>th</sup>
14	Need to motivate self-help groups to produce and distribute neem based biopesticides.	0.69	14 <sup>th</sup>
15	Need to improve the innovativeness of farmers to adopt newly available technologies in plant protection.	0.68	15 <sup>th</sup>

In formulating the questions and statements for the schedule, the investigator sought the opinion and guidance of the major advisor, advisory committee and experts of the department of extension education of Anand Agricultural University. The data were collected by personal interview from randomly selected respondent farmers of the Anand taluka of Anand district.

#### Statistical analysis

The suggestions were obtained from each respondent. To know their degree of importance, respondents were asked to give their responses in three point continuum viz. very important, important and not important, the scores assigned were three, two and one, respectively. Finally, the mean score for each suggestion was calculated for ranking them regarding its importance (Fisher, 1954) (Ref: Table-1).

#### Major findings

The most important suggestions given by neem tree owner farmers to popularize neem in agriculture in order of their importance were; create awareness about ill effects of chemical pesticides right from school level, need to give proper advertisement for various commercial formulations made of neem, need to promote environment friendly pest control measures, need to arrange special training at KVKs and universities and other training institutes to demonstrate the use of neem-based biopesticides to farmers and need to create

awareness through mass media and SMS to popularise use of neem-based biopesticides.

#### Conclusion

The major share of Indian agriculture is dependent on monsoon. Climate variations are directly affecting the rainfall and temperature patterns in the Agro-ecological zones. Agriculture as of now is input intensive with hybrid and high yielding varieties of crops acting as a sink of chemical inputs for growth and protection. An average subsistence farmer making heavy investments for his crop is literally gambling with nature. Instead of input intensive agriculture, farmers should adopt sustainable practices where ever applicable. Feedback from working farmers reinstates that only such a system can make farming profitable and healthy. In this initiative, neem has to play an important role, which is for sure.

#### REFERENCES

- Anonymous 1992. National Academy of Science. Neem, a tree for solving global problems. Washington, DC: NAS.
- Fisher, R. A. 1954. Statistical Methods for Research Workers (Twelfth Ed.). Edinburgh: Oliver and Boyd. ISBN 0-05-002170-2.
- Food security portal, IFPRI accessed on 20.7.2016 <<http://www.foodsecurityportal.org/india/resources>>
- World Population Prospects 2015 revision, accessed on 25.7.2016 <<https://esa.un.org/unpd/wpp/>>

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