



HOME MADE BOTANICAL INSECTICIDE –A SUCCESS STORY OF MAHAVEER SINGH

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Situation Analysis

Name – Mahaveer Singh
Father Name – Bhanwar Singh
Address- Nimbdi Chandawata
Block- Kuchera- Nagaur (Raj.)

Mahaveer Singh's father has been aligned with the agriculture as he was having 60 Bigha of the land cover. His father was doing all the work like growing and managing crop, selling the outputs. He was studying and doing his senior secondary from Agriculture subject. Later he came to his village and begins to support his father in farming. After a span of time he has analyzed, expenses occurred were equal to the production as he was doing the farming according to the traditional patterns. He has got to know that the input cost were higher than the income or production.

He has observed several advisories services or extension activities of the KVK. After getting knowledge through various advisory services and he met with the KVK scientist and get critical analysis of input cost including fertilizer, pesticides etc. and production was low in comparison to the income. He has analyzed the input was higher due to the pesticides and fertilizers usage. Then KVK scientist suggested that Neem oil will be the good practice as an alternative to the pesticide to protect the crop from pests and strengthening the crop. He has also taken advices from his seniors of Agriculture University. Then he went to market to purchase Neem oil but the cost was higher and the ratio of the Neem extract was lower. Therefore he has learned the process from KVK scientist to how to make it at home. As raw material is available nearby or within the field that's why there is no input cost for the same.

Technology Implementation & Support-

Integrated Pest Management (Home made botanical Insecticide): Mahaveer singh adopted Neemastra (Neem kernel shell, Aakra, dhatura and water) in cotton and cumin crop as Integrated Pest Management. After adoption of neemastra in cotton and cumin with the support of KVK he gained maximum output and good quality production with low cost input.

Ingredient-

- 10 KG Neem Kernel shells
- Aakra- 3 KG
- Jimsonweeds (Dhatura/Thornapple)-2 KG
- Water- 100 Litre

Uptake-

Grind the Neem kernel shells, jimsonweeds & aakra leaves separately and mix them well in the 100 litre of water then left all the material to soak for 15 days of period and he used it in cotton and cumin crops.

Neemastra (Home made botanical insecticide) will be used by the farmer during the land preparation

before sowing as he used to dried up the waste and use 2 Kg of the waste and mix it with Khali & Sand and broadcast it in per bigha land.



Impact & Benefits-

Sr. No.	Name of Crop	Area	Pesticid e input cost per bigha before interven tion approximate in Rs	Pesticid e input cost of 30 bigha before interven tion in Rs	Pesticid e per bigha input cost after interven tion in Rs. (labour and diesel)	Pesticid e input cost of 30 bigha after interven tion in Rs. (labour and diesel)	Production in quintal /bigha before intervention	Total Product ion in quintal before interven tion	Per bigha Product ion in Quintal after interven tion	Total Product ion in Quintal after interven tion
1	Cotton	30 Bigha	2000	60000	100	3000	3.5	105	5	150
2	Cumin	30 Bigha	2200	66000	100	3000	1.3	39	2	60

- Controls of the sucking pest like aphid, Jassid, white fly etc.
- Pesticide cost has been reduced No input cost for availing and making the produce Environment friendly approach
- Soil structure and carbon component in soil has been increased
- Easily replicable at the field by farmers
- Strengthening of the plant has increased as well as the production.



- Production has enhanced the income, reduction in use of pesticides increases saving and quality of production.



Spread-

Farmers of the nearby villages are interested in making and using neemastra as Mahaveer Singh seems a role model in this particular area. After seeing the result of neemastra prepared by Mahaveer Singh, villagers are also adopting it and using it within the maximum area and got motivated.

Challenges faced by farmer -

- Pesticide use due to lack of awareness
- High input cost
- Hot climate & light soil
- Scarcity of water with poor quality

Farmer Opinion-

This practice has saved my money as well as environment. The production has increased so the income also increased. I want the farmers must use it because there's no harm of this botanical homemade produce. I want to make my village's farmer to adopt pesticide free practices-Mahaveer Singh