



Consolation Award

Herbal preparation for the protection of fruits and vegetables against insects and termites

Divya Sharma
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Scout: Kiran Kumar

Divya Sharma (40) is a housewife and herbal healer, engaged in farming. She mainly grows fruits like apple, pear, plum and vegetables in her farms. She uses the fruits of a local tree (name withheld due to IP reasons) for the protection of fruits (apple, pear, plum, pomegranate etc.) and vegetables against insects and termites.

She uses the filtrate of fermented solution prepared from the fruit powder of a tree locally grown in her area. The preparation is being used by her for about a decade in her farms and orchards. The preparation can be stored in cool dry place for 5-6 months without losing its efficacy. The detailed prior art search did not reveal any insecticidal properties of the fruits of the tree used in the preparation.

NIF-India facilitated the validation trials of the preparation at Department of

Entomology and Agricultural Zoology, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi against insect pests of Okra. The formulation was very potent in the management of whitefly (*Bemisia tabaci*), providing 59.4% and 65.2% population reduction as compared to control during the first and second spray respectively at farmer's dose. The leafhoppers (*Amarasca bigutula bigutula*) were also controlled to the tune of 63.7% during first spray as compared to control at farmer's dose during first spray. The formulation at farmer's dose also reduced the fruit borer - *Earias vitella* infestation by 46.7% as compared to control during second spray. Overall 45.1% increase in production as compared to control was reported. None of the doses tested caused any harm to beneficial insects like spiders and coccinellids or caused toxicity to the crop.