



### **Consolation Award**

#### **Herbal preparation for insect pests and fungus infesting cabbage, cauliflower and vegetables**

Kishan Singh  
Kullu, Himachal Pradesh

Kishan Singh (38), a graduate, is engaged in agriculture for his livelihood. Based on the knowledge gained from his family elders, he makes use of two local plants along with cow urine for the control of insects and fungus in cabbage, cauliflower and other vegetables.

The insect control practice developed by him involves the use of powdered roots and leaves of plants (names withheld due to IP reasons). The preparation, effective at low volumes, can be stored in cool dry place for 5-6 months without losing its efficacy. Detailed prior art search did not reveal any insecticidal properties of both the plants used in the preparation.

NIF- India facilitated the validation trials of the herbal preparation at Department of Entomology and Agricultural Zoology, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi against insect pests of Okra, reporting that the formulation

was most effective in providing excellent control against both borer and sucking insects of okra. The most prominent result was observed in controlling mite infestation, where 67.2% and 69.6% population reduction as compared to control was recorded during first and second sprays respectively at farmer's dose. It was also very effective against shoot borer infestation providing 59.63% reduction over control at farmer's dose and also reduced fruit borer infestation by 58.1% and 64.55% during first and second spray respectively. The preparation also reduced whitefly population by 42.1% and 47.1% during first and second sprays while 47.86% reduction in leafhopper population was recorded during second spray as compared to control. The preparation provided 78.4% increase in yield over control at farmer's dose and did not cause any adverse effects on crop, beneficial and non-target organisms.