

**GOVERNMENT OF INDIA
MINISTRY OF CHEMICALS AND FERTILIZERS
DEPARTMENT OF CHEMICALS AND PETROCHEMICALS**

**LOK SABHA
UNSTARRED QUESTION NO.2357
TO BE ANSWERED ON 09.03.2021**

New Formulation by IPFT

2357 : SHRI PRATHAP SIMHA

Will the Minister of CHEMICALS AND FERTILIZERS be pleased to state:

- (a) whether the Institute of Pesticide Formulation Technology (IPFT) has developed bio-pesticide formulation for insect control in seed spice crops;
- (b) if so, the details thereof; and
- (c) the fresh steps taken by the Government for effective use of this bio-pesticide for controlling different agriculture insects especially in seed spice crops across the county?

ANSWER

MINSITER OF CHEMICALS & FERTILIZERS (SHRI D. V. SADANANDA GOWDA)

- (a) Yes, Sir. IPFT has developed different bio-pesticide formulations as safe and user & environment friendly alternative to chemical pesticides for controlling various insects in seed spices crops. The Research & Development work is being carried out in collaboration with Indian Council of Agricultural Research (ICAR)- National Research Centre for Seed Spices (NRCSS), Ajmer. The formulation development work being done by IPFT and bio-efficacy studies on seed spices crops were conducted by ICAR-NRCSS.
- (b) The following bio-botanical pesticide formulations have been developed:
 - (i) ***Verticillium lecanii* Suspension Concentrate (SC):**

The technology for the preparation of water based Suspension Concentrate formulation of bio-pesticide *Verticillium lecanii*, an entomo-pathogenic fungus

was developed. In the bio-efficacy studies, these formulation was found very effective against *Aphis craccivora*- pest of fenugreek; *Myzus persicae* and *Aphis gossypii*- pest of cumin; *Hyadaphis corianderi*- pest of coriander. The formulation offers various advantages over chemical pesticides such as good bio-efficacy, non-phytotoxicity, safe for non-target organisms and environment and residue free crop.

(ii) Shisham Leaves extract based Oil dispersion (OD) formulation:

Oil dispersion (OD) formulation of Shisham (*Dalbergia sissoo*) leaf extract has been developed under this collaborative research. In the bio-efficacy studies, this formulation is found effective in a field assay against Aphids of spice crops like *Hyadaphis coriandri* in coriander and *Myzus persicae* in fenugreek. The formulation is free from chemical insecticides and organic solvents and safe to human, non-target organisms and environment.

- (c)** Patents have been filed for the preparation of *Verticillium lecanii* Suspension Concentrate and Shisham Leaves extract based Oil dispersion formulations. These technologies are available to industries for commercialization. The new product needs to be registered with Central Insecticide Board prior to commercialization. IPFT is making efforts for popularizing the use of bio-pesticides for controlling different agricultural insects. Recently, one-day workshop and Scientist-Farmers interaction has been organized at ICAR-Directorate of Rape seed- Mustard Research, Bharatpur (Rajasthan) on 29th January, 2021. Under this meet the Scientists of both institutions explained the use of extracts from locally available botanicals like Shisham leaves and Neem seeds to farmers for controlling various insects. The bio-botanical zero-budgeting formulations may be effectively applied for minimization of pesticide residue in crops and to promote organic farming.
