

Development of Decision Making Tools

- ✓ A thumb rule to predict the *Helicoverpa* attack on chickpea and pigeonpea has been developed and validated. The prediction model has since been used by Karnataka Government for issuing forewarning messages in major pigeonpea growing areas. Forecasting models for potato aphids (*Myzus persicae*) has been developed and validated at Pantnagar (Uttaranchal), Deesa (Gujarat) and Kalyani (W.B.).
- ✓ Using Geographic Information System (GIS), pest distribution maps of Rice and Cotton have been developed with pest surveillance data generated by DPPQ&S.
- ✓ Seven user-friendly Pest Management Information System (PMIS) softwares on cotton, chickpea, mustard, groundnut, okra, brinjal, rice, and nematodes have been developed to assist the teachers, researchers, master trainers, training organizers and extension workers as an instructional medium. Decision making interactive software "Pesticide Advisor ver. 1.00" has been developed to assist selection of least toxic and safe pesticides (approved by CIBRC, Faridabad).
- ✓ Fourteen on-line interactive databases developed to assist farmers, plant protection workers and research managers in taking crucial decisions related to pest management. Of late, NCIPM has hosted on-line "Pest Reporting System" with the aim to provide real time pest information on cotton and soybean.
- ✓ Information on Indigenous Technical Knowledge (ITK) of pest management in cotton based cropping system from central India has been collected and documented.
- ✓ The bio-climatic model "CLIMEX" has been used for predicting the potential geographical distribution and relative abundance of root rot disease of chickpea (*Phytophthora megasperma f. sp. medicaginis*), *Phytophthora* root and stem rot (*Phytophthora megasperma var. sojae*), and Soybean Downy Mildew (*Peronospora mansharica*).