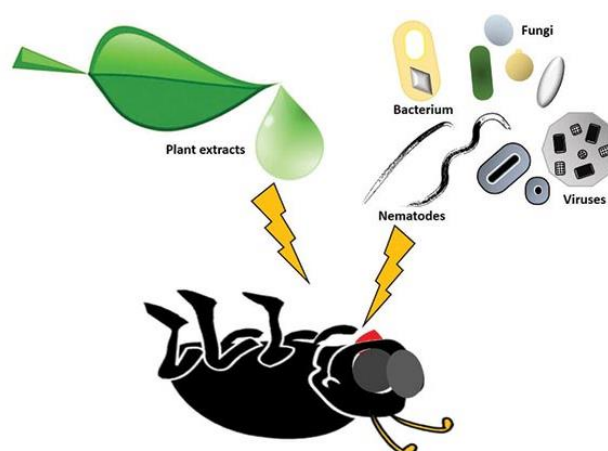


## Biopesticides

Bio-pesticides are ecofriendly pesticides which are obtained from naturally occurring substances (biochemicals), microbes and plants. Not all-natural products are biopesticides. Some are chemical pesticides if they act on nervous system of the pest. Through



the use of biopesticides in a wider way, agriculture and health programmes can be beneficially affected. There are many disadvantages associated with the use of chemical pesticides like genetic variations in plant populations, reduction of beneficial species, damage to the environment or water bodies, poisoning of food and health problems such as cancer which makes biopesticides to come into picture. Their usage reduces risk of exposure to chemicals, reduces water pollution through fertilizer runoff, reduces number of applications, causes less harm to beneficial pests, biodegradable, provides better nutritional quality. The total world production of biopesticides is over 3,000 tons/yr., which is increasing at a rapid rate. India has a vast potential for biopesticides. However, its adoption by farmers in India has to be motivated for maximizing gains. Some bio-pesticides currently being developed may be excellent alternatives to chemical pesticides. Also, in India, there are many locally available plants like beshram, neem, garlic, triphala, Pinus kesia etc which can be easily processed and increase the biopesticide consumption in India. However, in India, some of the biopesticides like Bt, NPV, neem-based pesticides, Trichoderma etc. have already been registered and are being practiced Also, the establishment of biopesticide units in rural areas, where such plants are available, will also provide employment to the dwellers. Use of chemical biopesticides and fertilisers have caused negative impact

on environment by affecting soil fertility, water hardness, development of insect resistance, genetic variation in plants, increase in toxic residue through food chain and animal feed thus increasing health problems and many more. This has made it essential to introduce measures which can harness foresaid challenges. Use of Biopesticides and Biofertilizers can play a major role in dealing with these challenges in a sustainable way.

