The Narayana Reddy Column

Living with insects

ature is kind enough to create human beings after all its other creation so that we can enjoy and live happily and easily. But owing to our memory and thinking capacities, we became selfish and lazy and wanted to have everything for ourselves. Due to our excessive greed, we have become so foolish to deny ourselves the benefits from many creatures like snakes, birds, lizards and mostly by insects. When we look at a weak plant being eaten by an insect, we want to eradicate it by spraying poison and make more profit. In such foolish practices we get into more problems of pests and crop losses. Among some millions of insects only a few hundreds are harmful to crops, domestic animals and ourselves. Our elders managed them carefully with crop rotation, companion planting, intercropping and growing crops suitable for the local weather, providing necessary space so that each plant receives enough sunlight and air which discourage fungal and insect breeding. But by following the modern science and with a greed of making more profit, we interfered in the natural processes of creation, creating most of our problems of pest infestation. We do not have time to watch and understand the natural processes that happen in nature.

There are thousands of insects which feed on other insects, for example, lady bird, praying mantis, wasps, weaver ants, spiders, small birds, lizards, frogs and so on. Surprisingly, nature has its own motherly affection towards all its creation, more importantly towards harmful insects to save them from eviction. For instance, mealy bug has been provided with a small lump of cotton around its body coated with thin layer of wax so that the sprays do not enter the body. Only the lady bird, in its early stage as a larvae, can pierce into the body of mealy bug and kill it. But when we spray chemicals, we eradicate beneficial insects which get killed easily. Similarly, some insects like scales are provided with a shell on their body and are safe inside and protected against sprays. Praying mantis have very long front legs with saw-like thorny palms which hold the prey and eat away hundreds of harmful insects every day. The female praying mantis eats the male after mating. The wasps make earthen structures on house walls and trees which are protected from rain and hot sun with a small hole. They lay eggs inside and scout around for insect larvae. These larvae are injected to make them unconscious and are carried as food for the larvae that hatch in 10 days time. After enough larvae are stored, the hole is sealed. The weaver ants in thousands search for a tree or creeper with wider leaves and build a huge nest within 2 – 3 hours. As decided or directed earlier 5 % of them would guide, 25% will be ready to paste the leaves with a whitish emission and the rest 70 % ants will form long chains by holding each other



Author displaying praying mantis, an insect that preys on many crop pests

by their legs and waist as long as one meter and pull leaves from all directions to form a big nest and paste them. Everyday they eat away the small sucking insects like thrips, jassids, not only those that infest that one tree but also the other neighbouring trees. In some countries, farmers tie up threads, ropes, bamboos to their trees so as to encourage the ants to visit and manage the sucking insects.

The spiders weave vast webs to trap insects which get caught while flying. Unfortunately farmers not knowing the benefits of spiders, kill them by using pesticides. Similarly small birds, frogs and lizards also get killed by feeding on insects struggling to die which are sprayed with chemical pesticides. Farmers have no knowledge that the chemical pesticides eradicate predators (friendly insects that act as parasites and feed on harmful insects) and thereby destroy the beneficial insects and other natural predators on their farms, losing the crops and also hard earned money. Farmers need to be taught about the importance of protecting beneficial insects by using natural insect deterrents and antifeedents like neem decoction. They are not only ecofriendly but also cost effective and safe. If political science is a compulsory subject for all the courses in education of our country, it is surprising why "organic farming" is not a compulsory subject for all the courses, as healthy food and good environment are most important. Let us understand that humans are the last in the creation process of nature and all the other living organisms are our ancestors.

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