There are two main soybean pests in tropical Asia, seed fly and pod borer. Both pests tend to be more troublesome in conditions of high temperatures and high humidity. Pest control should be applied in advance, to prevent any infestations of soybean by seed fly and pod borer.

Seed fly (Ophiomya phaseoli)

This pest infests young soybean plants from germination until two weeks after sowing. If the pest infests soybean plants in the first ten days after sowing, plant mortality will be around 90%. If it infests plants which are slightly more mature, most of the soybean plants will survive, but they will be stunted and weak.

Symptoms of infestation

The early symptoms are white spots on the seeds and the first or second leaf, where the larvae have been sucking the sap.

Later symptoms are more severe. The larvae eat out tunnels in infested areas of the seeds and the first or second leaf. The tunnels appear as brown curved lines on the surface of the seed and leaf.

Heavy infestations cause the soybean plant to wilt, as the root cannot function normally to transport water and nutrients. Within two weeks, the infested plant begins to die.
Control of soybean seed fly

Before planting soybean, you should treat the seed by mixing it with Marshal 25 ST, at a rate of 10 g/kg seed, to prevent seed fly infestation. Apply 15% Monokratos at a rate of 2 liters/ha to the plants eight days after sowing, to kill any surviving larvae. This practice can reduce seed fly infestations by 92%.

Pod borer (Etiella spp.)

Pod borer infests soybean plants when they are at the pod formation stage. If the pest infests soybean plants in the period 42-50 days after planting, it may result in yield losses of around 78%.

Symptoms

Early symptoms are a white, woolly covering on the surface of pods, which contain the larvae (= caterpillars). As the larvae grow, the pod is damaged, and is poorly developed.

The larvae live inside the seed, making a dark-brown hole in the seed with the internal portions eaten out. From outside, the pods appear shrunken.

Later symptoms are two holes or spots in the skin of the pod, meaning that the larvae have already left and hatched into adult moths. The adult moth is small and brown, and lays its eggs on the flowers and young pods of soybean plants.

Control of pod borer

Growers should check their soybean plants regularly, from early pod formation up to the seed filling stage. As soon as one larva is found per 20 inspected plants, it is time to apply pesticide.

Plants should be sprayed with a systemic insecticide such as 0.5 - 1.0 liter/ha Monitor or Karphos, or 2 liters/ha Marshal. If pod borers are known to be in the area, a preventative spray should be given 50 days after planting. Assessment has shown this practice can reduce pod borer infestations by 64%.