Soybean \([\text{Glycine max (L.) Merrill.}]\) is an important leguminous crop. Native of soybean is in Asia and the first known records, however, indicate that soybean emerged as a domesticated crop around the eleventh century B.C. in China (Hymowitz, 1970), where it was cultivated for its oil since centuries and they named it as a “yellow jewel” which feeds china’s entire population.

Soybean is one of the most important oilseed crop grown in India and throughout the world. In India, it is mainly grown in Madhya Pradesh, Rajasthan, Gujarat and Maharashtra. In India soybean is cultivated in an area of about 10.18 million hectare with a production of about 12.28 million ton and productivity is about 1207 kg/ha (Anon., 2012). In Gujarat Soybean is cultivated in an area of about 0.83 million hectare with a production of about 0.91 million ton with a productivity of 1103 kg/ha.

From nutritional point of view, soybean contains 43.20 per cent protein and 20.00 per cent of edible oil. Soybean is a good source of phosphorus and lecithin. It also contains good amount of potassium, sulphur and Vit. E. Soybean protein is mainly rich in amino acids like leucine, methionine and threonine that the human body requires. For vegetarians, it is known as “poor man’s meat”. Owing to the absence of sugar content, it is considered to be very suitable diet for diabetic patients.

The national production of soybean has not been able to meet its domestic requirement due to the poor average yield. Among the various factors responsible for the poor yield, non-replacement of old cultivars with new improved ones and insect pest damage (Lal et al., 1981) are the major ones. Out of the various factors attributed to the low yield, one of the main factors is the economic losses caused by insect-pest to various pulses varied from 10 to 15 percent (Bindra, 1968).

According to Bhattacharya and Rathore (1979), 60 to 100 species of insects are found to attack the soybean at various stages in Uttar Pradesh. Mundhe (1980) reported about 16 insect species on soybean crop in Maharashtra. Among the various
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insect pests infesting soybean crop, following are considered to be important (Singh et al., 1989; Sojitra, 1990 and Vyas, 1996).

1) Gram pod borer : *Helicoverpa armigera* (Hub.)
2) Pink pod borer : *Cydia ptychora* (Meyr.)
3) Leaf eating caterpillar : *Spodoptera litura* (Fabr.)
4) Green semilooper : *Chrysodeixis acuta* (Walker)
5) Grey semilooper : *Amyna octo* (Guenee)
6) Leaf miner : *Aproaerema modicella* (Deventer)
7) White fly : *Bemisia tabaci* (Gennadius)
8) Stem fly : *Ophiomya phaseoli* (Tryon)
9) Thrips : *Caliothrips indicus* (Bag.)
10) Aphid : *Aphis glycine* (Koch)
11) Jassid : *Empoasca kerri* (Pruthi)

Among the above mentioned insect pests, gram pod borer, grey semilooper, leaf miner, green semilooper, thrips, white fly, jassid and leaf eating caterpillar are the major insect pests of soybean in Gujarat state (Lathiya, 1985; Anonymous, 1989; Sojitra, 1990 and Vyas, 1996).

The insect pest complex in soybean cause yield loss up to 24% in Himachal Pradesh (Singh and Singh, 1990 a).

The tobacco caterpillar, *Spodoptera litura* (Fab.) is a serious and regular pest in Madhya Pradesh. It damages soybean from mid August to October in kharif and from November to March in rabi. Incidence of *S. litura* was observed in all the soybean growing parts of north Karnataka and was confined to kharif season. After damaging the leaves, they also start feeding on young parts, consequently damaging 30 to 50 per cent of the pods (Anon., 2007). Higher population was noticed in Dharwad and Belgaum districts. The pest was active in grand growth stage of the crop (Patil, 2002).

For the control of insect pests by use of bio pesticides is one of the quick methods. Large number of biopesticides are introduced in the market. It is necessary to evaluate the efficacy of these biopesticides against pest complex of soybean.
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To avoid the yield losses caused by these destructive pests and to encourage the cultivation of soybean on large area, all our efforts are needed to tackle pest complex by knowing the peak period of infestation, relation with weather parameters, suitable resistant varieties and some effective biopesticides against pest complex under the field condition.

Various pests of soybean causes direct yield loss by damaging the pod. Screening the soybean varieties/genotypes will help to find out the tolerant varieties/genotypes, which will further be used by plant breeders to improve high yielding varieties of soybean. Now-a-day large numbers of biopesticides are available in the market. So the bio-efficacy of these biopesticides is needed to test the pest complex, which will help the scientists and farmers to devise the best management strategies to pest complex. Hence, the present investigations will be carried out with following objectives.

1) Seasonal incidence of pest complex of soybean

2) Varietal susceptibility against pest complex of soybean

3) Biopesticides based management of pest complex of soybean