

LOSSES OF FRENCH BEAN, A CASH CROP, DUE TO NEMATODES INTERACTION WITH OTHER PESTS AND DISEASES

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ABSTRACT : French bean (*Phaseolus vulgaris*) is a leguminous plant. It is a most delicious as well as extensively grown vegetable. Its pods contain three to a dozen kidney shaped seeds. There are dwarf or bush varieties which also do not need any support. Bush varieties from erect bushes are 20-60 cm. tall while pole or running varieties from vines 2-3mt. Long. For sowing five to 6 seeds are planted in a circle 6 to 8 inches from each pole at a spacing of 90-120 x 15-30 cm. Plant population densities are 150,000-200,000 plants/ha. The range of variation for seed protein content was found to be 17.45%-23.9% for different varieties. The seed coat, of french bean is considered rich in structural carbohydrate. French bean shows some medicinal value, the green pods are mildly diuretic and contain a substance that reduces the blood sugar level. Cool season favours the growth of french beans and optimum temperature for better growth and yield is 20-30°C. They prefer a rich soil which has plenty of organic matter and pH range in between 5.3-5.8. French bean is very susceptible to various diseases, mechanical injury, frost damage, and wet weather damage at harvest time. Mexican bean beetle (*Epilachna verivestis*), bean weevil (*Bruchus oblectus*), bean thrips (*Heliothrips fasciatus*), bean aphid (*Aphis rumicis*), seed corn maggot (*Hylemyia cilicrura*) are the serious insect pest of bean. *Meloidogyne* spp., *Heterodera* spp., *Pratylenchus* spp., *Hoplolaimus* spp., *Helicotylenchus* spp., *Telotylenchus* spp. and *Rotylenchulus* spp. have been reported as potent plant parasites causing potential damage to pulses.

Key Words : Nematode and pest diseases, French bean, leguminous plant and dwarf or bush varieties.