EFFECT OF SOME COMMERCIAL NEEMBASED INSECTICIDES AGAINST BIOCONTROL ON VEGETABLE AND FRUIT CROPS.

Introduction

India is mostly based on Agriculture. In India cultivate various types of cultivar on vegetables, fruits, food grain, flowering, crops, forest plants. Economy of India is 60-80 percent based on agricultural production. Agricultural production is affected by various types of diseases and insect pests. The control of diseases and pest is totally based on synthetic chemicals. In modern agriculture heavily use of synthetic insecticides increase environmental pollution, development of insecticide resistance but synthetic pesticide have also caused unpredictable ecological damages, genetically abnormalities, also induced serious health hazard among workers during manufactures, formulation and field application on farmers. To overcome the problem of synthetic chemical hazards one of the best control measures is the use of plant origin products. Pest related damages result in large percentages loss annually in agriculture production in the field and storage in India. Generally pesticides are being seen extensively in the control of various insect pests because they can be applied whenever and wherever needed, economical and most important things is the reliability of control method. Production and consumption of pesticides has greatly increased in recent years. The contribution of pesticides to increase agricultural production cannot be denied, The popularly
of the plant products increasing day by day because of their biodegradability, least persistence and least toxic and non-target organisms, economic and easy availability.

There are number of plants with insecticidal activities are known. Neem is the best example for bio pesticide based products is used in agriculture to manufacture natural bio control agents for its safety, effectiveness and low cost. It is more effective than its synthetic counterparts. The properties of neem help to naturally control the pest growth rate and diseases. It is commercially produced on large scale in organic farming and agriculture.

Among the natural products, one of the most promising natural compound is Azadirachtin, an active compound extracted from the Azadirachta indica A. Juss (neem) tree (Family Meliaceae) (figure 1) whose antiviral, antifungal, antibacterial and insecticidal properties have been known for several years. Azadirachtin is active in nearly 550 insect species, mostly in orders Coleoptera (beetles and weevils); Dictyoptera (cockroaches and mantids); Diptera (flies); Heteroptera (true bugs); Homoptera (aphids, leaf hoppers, wasps, and ants); Isoptera (termites); Lepidoptera (moths and butterflies); Orthoptera (grasshoppers, katydids); Siphonaptera(fleas); and (AgroForestryTree Database).