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Neem - As Agriculture Medicine

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Abstract

Neem is popular tree in India and being indigenous it is utilized in rural and urban areas for several traditional purpose further it has pesticides properties which are useful for mankind. The quality of the plants is that each and every part of it can be utilized for different purpose to solve different agriculture and problems. There are various solutions of agriculture problems available in the market, which are effective as well as Eco friendly, low cost and more of that acceptable by farmers. Applying different traditional methods of neem products in the field farmers can get more production and can easily avoid chemicals I the field. Neem is a fascinating tree. This plant can be used in a new era for pest control, provide millions with inexpensive medicines reduce purify the air, reduce soil erosion and deforestation and can help in decreasing the excessive temperature of an overheated globe. Its botanical name, *Azadirachta indica* derived from Farsi "azad dirakhta-I-hind", literally means "the noble or free tree of India" or Neem's Sanskritized, "Arishtha", means "the reliever of sickness". Thus with the objective to collect the information on the properties of the neem used as an agricultural medicine review research study was done on neem as agriculture medicine.

Keywords: Neem, Agriculture Medicine, rural and urban areas, agriculture medicine

Introduction

Methodology As extensive literature review of secondary data sources was under taken as relevant to stated objectives of the study. In order to fill supplementary data gap of the stated objectives of the study raw data is also incorporated in the report. Use of internet, books, research paper etc was inculcated for data collection.

Use of neem oil

Neem oil is a broad-spectrum botanical insecticide, matricides and fungicide treatment derived from the seeds of the neem tree. Neem oil is biodegradable. This does not provide any harm to environment. The product is mixed with water at a ratio of 0.05% to 2.0% depending upon the targeted use. It can be applied with foliar spray keeping area agitated during application. The study was limited to use of neem in agriculture area. Neem extracts could influences almost 200 insect species which are difficult to control by pesticides as they have become resistant.

The name summer pest is given as it is specially use in backward as garden in for household. It must be used within 8 hours after mixing with the water. Readymade mixture is available with complete instructions. It is nontoxic to humans, birds, earthworms or animals. Being oil it can affect bees if it is actually sprayed on them so it is recommended to use it when bees are not visiting. Once the spray has settled it will not hurt the bees. It is also effective for all seasons.

Neem as summer pests

Herbal sprays containing Neem leaf extract and Neem oil are useful for controlling the summer pests. They are safer and more effective than widely used commercial insect repellents.

Neem as crop storage

It was a common practice in rural India to mix dried neem leaves with grains meant for storage. Mixing of dried Neem leave (2-5%) with rice, wheat and other grains is even now practiced in some parts of India. Also, as early as 1930, neem cake was applied to rice and

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Sugar cane fields against stem borers and white ants. In India even today "Puddle" green twigs and leaves in rice nursery beds to produce robust seedling and simultaneously ward-off attack by early pests-leafhoppers, plant hoppers, and whorl maggots.

Controlled experiments confirmed that rice seedlings raised from seed treated with neem kernel extract or cakes were vigorous and resistant to rice leafhoppers and plant hoppers. This is very effective as well as environmental friendly.

Neem as biomass production and utilization

Grown up neem yield between 10-100 tons of dried biomass, depending on rainfall, site characteristics, spacing, ecotype or genotype are used. Leaves comprise about 50% of the biomass; fruits and wood constitute one-quarter each. Improved management of neem stands can yield harvests of about 12.5 cubic meter of high quality solid wood/ha.

Neem as pest of stored products

Postharvest losses are noticed high in developing countries. Worldwide annual losses in store reach up to high of all store grain, million tons of grain lost due to insects or million tons of failure to store properly. At farm level storage and warehouses, the application of neem derivatives to bags and stored grains have provided protection against insect pests. Powdered neem seed kernel mixed with paddy (1 to 2%) significantly reduced infestation and damage to grain during a 3 month storage period; the effectiveness capacity jute bag (100 x 60 cm) controlled 80% of the population of major insects and checked the damage to wheat up to 6 months. The treatments with untreated pest can be control. The neem seed extract treatment was effective as that of 0.0005% primiphos methyl mixed with the grain.

Neem as fungicide

Neem can be used as fungi protection for crop. It is affective only when neem fungicide is sprayed before fungi disease affect to crop. Neem fungicide covers the whole surface of neem leaf which prevents the germination of the fungi. It also help to increase the production for farmer.

Neem as compost

Quality and fertility of soil can be increased by mixing neem compost regularly. It is used most because it is ecofriendly, less cost, gives more benefit and does not have any side effects. Neem compost is a mixture of decaying organic matter from specially neem leaves and other part of neem trees.

Conclusion

Neem is a fascinating tree. This tree is used in agriculture to increase the production & can also be used for the treatment of the seed, storage purpose also. Over the last two decades, neem has come under scientific scrutiny as a source of natural pesticides, slow mineralizing fertilizers and other useful product. Neem is also an ecofriendly, low cost and provide result next time in production.

Positive effect of neem tree can widely see in the agriculture. It neem products are used for long time continuously fertility of soil and productivity of crop can be increased.

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