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Study and distribution of various constituents of whole Neem tree used to Control Virus Vectors.

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Abstract

Among several other natural plants occurring on earth planet, used to control the virus vectors with their insecticidal properties. Neem tree is one of the most important. Almost every part of neem is found to be having important ingredient possessing with insecticidal property which can be applied in different ways in the form of diluted sprays on to the plants body. Neem (*Azadirachta indica*) is found distributed almost in all regions of India, even at some places predominantly is found.

Keywords: *Azadirachta indica*, earth planet, vectors, Neem tree

Introduction

There are found varieties of insect vectors with different potentialities and capabilities of transmitting the viruses of different groups and thus spread viral diseases on plants, also of different genera, families and species. Neem is found to be having *Azadirachtin* potent natural ingredient product, effective for wide range of control measures. Different parts of neem tree are found to be having other ingredients also like *Nimbin*, *Kulinone*, *Kulolactone* and *triterpenoids* etc., overall neem tree is found to be having its own significance and importance.

Methods

The whole of the neem tree or its different parts as is the requirement are picked up, then after thoroughly washing, cleaned and then dried by keeping in medium range temperature adjustment in drier or is dried as such naturally by placing in open bright light conditions. Usually leaves are freshly grinded powdered, dissolved in water and then extraction is obtained by further chemical processes. The insecticidal ingredients are obtained for the experiments to proceed may be used.

Observations, findings and analysis.

Different parts of Neem tree	Constituent ingredients analysed and obtained
Neem oil	7- Acetyl neotri chilenone, <i>Azadirachtin</i> and lipids with less polarity like <i>triterpenoids</i>
Flowers	<i>Malicitrin</i> , <i>kaempfeol-3- glucoside</i> and <i>quercetin-3- galactozide</i>
Neem leaves	<i>Quercetin</i> , <i>B- sitosterol</i> , <i>Nimbin</i> , <i>Nimbinone</i> , <i>6- desacetyl nimbinene</i> , <i>nimban oil</i> and <i>nimbolide</i>
Neem seed cake/kernel	<i>Gedunin</i> and its derivatives, <i>salannol</i> , <i>maldemin vepinin</i> , <i>Triterpenoids</i> , <i>Salanin</i> , <i>Nimbin azadirone</i> , <i>azadiradione</i> , <i>nimbinene</i> and <i>Azadirachtin</i>
Neem trunk	<i>Kulactone</i> , <i>Methyl kulonate</i> , <i>Kulinone</i>
Wood/bark	<i>Nimbinone</i> and <i>6- deacetyl nimbinone</i> , <i>Kulolactone</i> , <i>Nimbin</i> , <i>Nimbidic acid</i> , <i>Nimbidinin</i> , <i>Fraxinellone</i> .

Discussion

Naturally, there are wide variety of plants also which are prone to viral diseases also along with cultivated crops. Both types of plants are commercially important to enhance the

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quality and standard for the human welfare. Depending on the type of crop to be cultivated then accordingly neem tree ingredient products are selected for foliar spraying mostly and then other parts also. If needed, the mixture spraying is preferred. The sprayings should be of different concentration each time in increasing way but upto certain limits. Recently it is also being analysed and sorted out that which part ingredient should be applied for other categories of plants.

Conclusion

Co-ordination and Co-operation between cultivation and sprayings by keeping in mind the time factor of varying weather conditions good results could be obtained.

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