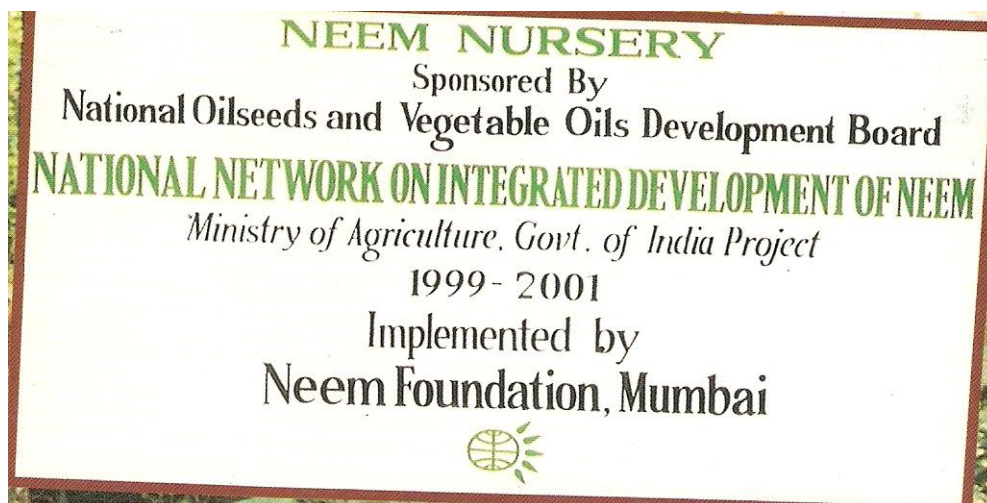


GLOBAL
NEEM UPDATE

Vol. III No. 4

QUARTERLY NEWSLETTER OF THE NEEM FOUNDATION



FOR PRIVATE CIRCULATION ONLY

Editorial Notes

We are back with another issue and loads of neem news!

The most heartening happening is the launch of the '**National Network for Integrated Development of Neem**' which is our cover story. We are sure this unique project will be milestone in the neem story and will set a trend for further development of neem resource around the world.


In keeping up with neem we have a collection of news records that are carefully collected from diverse sources. This one feature that keeps the editorial team for ever on the lookout for any mention or development that concerns the Neem.

In this issue. From the Internet contains authentic and useful information on using neem leaf tea for curing various illnesses. Neem in Nematode Management – is an exciting area of study for the future- especially useful for organic growers across the world.

In the last few months the Neem Foundation has been actively pursuing various ministries to extend policy support to the Neem Movement and the Neem industry. Various recommendations have been made for implementation which will be followed up in the coming months.

In the last issue, the Foundation had invited suggestions with regard to the venue and the month for organising the next World Neem Conference in India. We have received some response. New Delhi and Jaipur in Nov-Dec, 2002 appear to be the favoured choice. The final decision is still sometime away. You can still write in and let us know your preference.

In the meanwhile – **Join The Neem Chorus – Sing with The Neem Tree!**



P Thakkar

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tional Network for Integrated Development of Neem

For several years the Neem Foundation tried to impress Government Agencies and Funding Bodies to evolve a National Plan and moot an integrated Project to highlight the vast potential of the Neem tree.

While everybody agreed in principal to support an integrated model project for optimum utilization of neem, the formalities and norms made it difficult to actually make it happen.

Like so many other worthy causes the Neem tree seemed to be a victim of red tapism!

That was till the NOVOD Board took determined action to focus its attention and resources to promote utilization of Neem seeds along with another important national resource - mango kernel.

The National Oilseeds & Vegetable Oils Development Board is a statutory body under the Ministry of Agriculture, Govt. of India, entrusted with the Integrated Development of Oilseeds and Vegetable Oils Industry in India. Besides cultivated nine annual oilseeds, this Board has been entrusted with the nodal responsibility for Integrated Development of Tree-Borne Oilseeds including Neem. To coordinate all the Research and development activities relating to TBOs, Ministry of Agriculture has also constituted an Inter-Ministerial Committee comprising of all the concerned Departments / Ministries / Organisations including Ministry of Industry under the chairmanship of the Special Secretary & Director (TMOP).

NOVOD Board has been entrusted with nodal responsibility for integrated development of TBOs encompassing with seed collection, processing, marketing, storage, nursery, plantation and training & awareness etc. The Board has stressed upon utilisation of neem seeds and mango kernel by creating general awareness and publicity for quality collection and plantation on a larger scale under wastelands and degraded lands etc.

The requirement of quality planting material for large -scale plantation of neem, was discussed during the Trainers Training Programme organised by NOVOD Board. Subsequently gap areas / research needs were identified by a Group of Scientists from CSIR, ICAR, ICFRE and action plan was finalised and reviewed. Subsequently, the consolidated proposal was scrutinized by the Project Appraisal Committee. It was strongly felt that India should lead in identifying its natural resources, range of variation in its bio-diversity and make available quality planting material for plantation

on wastelands available in the country. Need of a good data base was also identified by the scientists in the above mentioned meetings. This data base is required to safeguard our inherent property, bio-diversity and provide necessary inputs to industry and developmental institutions.

The highlights of the National Network for Integrated Development of Neem are cataloguing of all eco types / collections from India, database on Neem / R&D for tree improvement and training programmes for beneficiaries. The programme also provides for market intervention in seed collection and networking of neem seed extractors and processors.

The following are the participating Institutes and NGOs

FOREST RESEARCH INSTITUTE
DEHRADUN. U.P.
(FRI)

TROPICAL FOREST RESEARCH INSTITUTE JABALPUR.
(TFRI)

ARID FOREST RESEARCH INSTITUTE
JODHPUR.
(AFRI)

INSTITUTE OF FOREST GENETICS AND TREE BREEDING
COIMBATORE
(IFGTB)

CENTRAL ARID ZONE RESEARCH INSTITUTE, JODHPUR (CAZRI)

NATIONAL BOTANICAL RESEARCH INSTITUTE
LUCKNOW
(NBRI)

C.C.S. HARYANA AGRICULTURAL UNIVERSITY
HISAR
(HAU)

INDIAN INSTITUTE OF TECHNOLOGY
NEW DEHI
(IIT)

NATIONAL BUREAU OF PLANT GENETIC RESOURCES
NEW DELHI

(NBPGR)

TATA ENERGY RESEARCH INSTITUTE
NEW DELHI
(TERI)

NEEM FOUNDATION
MUMBAI
(NF)

The collection will be supplemented with all necessary observations of the seeds / trees to make a national inventory. This data will be supplemented with climatic & geographical informations by the above eight participating institutions.

The collections will be supplemented with phenological observations of the seeds and the trees. This will assist in making a national inventory.

All collections will be sent to NBPGR for accession. This will ensure a record of national bio-diversity of neem in the country.

The selection will be sent to two central facilities (TERI & NBRI) for analysis of chemical parameters such as oil, fatty acids, azadirachtin etc. This will provide a complete range of resource assessment of neem in the country. The data thus generated will assist other centres for tree improvement work.

The agro-forestry models would be perfected to make the neem plantation economically viable. Various models will be experimented depending upon the local conditions by FRI, AFRI, IFGTB, CAZRI, NBRI, HAU & NF.

It is planned to develop a national data base through NBRI on neem research, information, market and resource availability in the country.

The post harvest technological tools like depulper, decorticators, dehuller and extraction etc. would be developed by IIT. This will optimize quality of seed collection and extraction of oil and other products.

Neem Foundation will take leading role in developing packages, booklets, news letters and training programmes in consultation with NOVOD Board.

All the institutions would be associated in organizing training programmes for field functionaries.

A national seminar has been proposed to identify the resources, needs and opportunities.

Liaison with industry has been identified as a crucial activity.

For utilization of existing potential for oil, pesticides and bio-pesticides, a interlinked programme would be formulated with KVIC, TRIFED, OILFED etc.

The Neem Foundation is deeply proud to be a part of this national effort and congratulates NOVOD Board for taking this decisive step.

Keeping up with Neem

It condemned the strategy of MNCs trying to obtain patents of genetic parts of plants acquire monopoly over their use and increase economic dependence of the third world.

EC backs India on Neem Patent

Strassbourg: India has received support at the European Council for protection against piracy of its natural patents with the Council condemning what it describes as the phenomenon of "biocolonialism" in regard to gene patents. The criticism is, obviously, directed at the US, where producers have already begun cultivating rice grains that resemble India's basmati and are now contemplating patenting the Indian neem whose natural medicinal properties have attracted the attention of a number of pharmaceutical companies. Neem is becoming increasingly popular in many Western countries, and German experts feel Indian cultivators should take steps to safeguard their patent rights. "Our past warnings on piracy of patent rights for neem have gone unheeded by the Indian government. It is only recently, when foreign companies started to patent the plants, the authorities in India have woken up only to find that it is a bit too late in the day to redress the situation," an expert said. In a near unanimous resolution, the EC condemned the strategy of internationally operating companies which tried to obtain patents of genetic parts of plants, acquired a monopoly over their medicinal and agricultural use and so increased the economic dependence of the third world. A German Parliamentarian, Wolfgang Wodarg, who on behalf of the agricultural committee had been instrumental in preparing the resolution called "Biotechnology and intellectual Property", made a passionate plea to the EC on behalf of India. He said, without explicitly naming anyone, that a corporation had undertaken research on the healing properties and gene substances of the Indian neem tree and had obtained a patent for this discovery. This meant, Mr. Wodarg said, that if India wanted to use this traditional herbal plant for medicinal purposes, it would have to pay outrageous licence fees for a plant that was growing in its own yard. (India Abroad News Service)

Source : The Business Age
27th Sept. 1999

ISI Mark for Neem-Based Pesticides

In a significant step towards promoting the use of eco-friendly and biodegradable pesticides, the first ISI mark for neem-based pesticides has

been granted to the Belgaum-based Mukumbi Manufacturing Co. The product is covered under IS 14300 : 1995 Indian standard specification for neem-based EC containing azadirachtin. This pesticide is a natural plant product extracted from neem seed/kernels which contains azadirachtin for insect repellent activity, a release by the Bureau of Indian Standards said. The use of neem-based pesticides is commercially viable in India because of the abundance of neem trees. The pesticide is extremely effective for agricultural crops such as cotton, paddy and pulses. The neem seeds/kernels contain triterpenes which are known to have active derivatives including azadirachtin. Unlike the chemical pesticides, the neem-based pesticide does not leave behind any residue.

Source: Business Line August

1999

Drink herbal and stay healthy

Every morning, at 5 am sharp Sanjay Naik, loads 80 cans of fresh herbal juice into his van and sets off to 10 different suburban parks in Mumbai. He sets up makeshift stalls in each park and displays an array of ayurvedic extracts, ranging from bitter gourd and neem juice to kokum and beetroot juice. Joggers and morning walkers complete their fitness regimen by drinking a glass of herbal juice, sugar free and salt free. Maybe, with just a dash of rock salt. By 8.30 am, his sales for the day are over. Naik struck on this idea of selling juice only a year ago. "I roped in a friend who is an ayurvedic doctor and then with some modest investment in mixers and grinders began my business," he says. Initially, he had difficulty attracting people to drink extracts of neem and bitter gourd. But he persevered and soon it became a fad and then a passion with his customers. Naik divides his customers according to various health categories. The common ailments are chronic cough and cold, acidity and indigestion. As soon as he spots a familiar group of portly 40-plus walkers advancing toward him he hurriedly prepares glasses of neem juice. That's the diabetic group. And some of who have complained of asthma are given a mix of neem, tulsi and mint. While neem will take care of diabetes and blood purification, tulsi and mint will address the asthma problem, he says.

*Source: Bombay
Times*

13th Oct '99

The Versatile Neem Tree

It can solve most of your beauty as well as global problems

Nature and Wisdom say the same thing :

Modern science has rediscovered immense potential of the NEEM TREE, capable of bettering the lot of mankind in many a ways. Grown throughout the length and width of India, the Neem Tree not only takes care of your skin and hair problems, but also it is used as a traditional medicine in herbal cosmetic industry. It protects the environment by neutralising polluted air, aids agriculture and owns pesticidal properties as well. Yes, it's a plant with a promise. It is capable of solving most of our global problems as well.

Natural and National Wealth:

Before I start enumerating the wonderful qualities of this tree, it has to be understood that trees are our natural and national wealth. Trees not only provide us with firewood, timber and industrial raw material. Remember they cause rainfall, reduce air pollution and soil erosion, control floods and protect animal life as well. At times, they act as health resort centres and the greenery of Nature is soothing to tired eyes. "A journey of a thousand miles must begin with a single step" and hence it is my sincere wish that all of us should take care of Nature in whatever little way we can, by protecting it, preserving it and teaching little children, right from childhood. They need to be encouraged to love and value trees and grow saplings. Efforts are going on to make the NEEM TREE OUR NATIONAL TREE. The tree grows upto a height of 30 feet or more and can attain full productivity within 10 years, its fruit-bearing period between 3-5 years which produces 30 to 50 kg of fruit every season. All parts of the Neem Tree - be it leaves, flowers, fruit, bark and roots have medicinal properties.

Neem Paste - An Excellent Mask for the Skin:

Powder a small bunch of Neem leaves and make a thick paste with water. Apply this paste daily to your face and neck. Slowly but surely over the months, the colour and texture of your skin will improve considerably. When steaming your face, you can either add 15-20 leaves to the boiling water or a tablespoon of the paste as mentioned above. It will perk up dull complexion.

People suffering from eczema and other related skin problems can dab the paste on the affected area. If any part of the leg is affected and you are the type to always wear sarees, salwar and pants, then you can dab the paste daily and let it dry before wearing the above and keep the same for the whole day. Always wash off with tap water followed by splashes of cold water as far as your face is concerned. Neem is a blood purifier detoxifying the system and is useful in destroying worms from the intestinal tract. A Neem water enema is recommended by Naturopaths for patients suffering

from intestinal worms. Though a wee bit constipative, its regular ingestion is efficacious in coughs, colds and fevers too.

Hairfall and Neem:

Boil neem leaves in a tumbler of water for 5 minutes. The water will acquire a greenish hue. Wash hair with this water. After prolonged use, hair will not only stop falling but hair growth will increase, killing lice and insects too; at the same time and helping to keep hair soft while cooling the brain.

Neem datun's is an all time favourite. My Hindu friends tell that it is a practice in their homes to keep a few leaves in every box of stored grain to preserve the grains from insects. Neem juice in warm water with a little honey, every morning is efficacious in the treatment of jaundice.

Neem juice applied on the forehead gives relief in headaches too. There is no harm in trying our natural remedies. Even if there is no cure, there will never be any harmful or side effects.

*Source: My DOCTOR
28th Nov '1998*

FROM THE INTERNET

NEEM AND PERIODONTAL DISEASE:

Neem has been used in India and all of south Asia for thousands of years as the preferred method for maintaining healthy teeth and gums. The people of India chew a neem twig until the end becomes bristles then brush with the natural "toothbrush" to clean their teeth after meals. The bark and sap within the twig help clean the teeth and protect the mouth from disease. For those not inclined to chew neem twigs, toothpastes and mouthwashes containing neem are now available. Neem toothpastes and mouthwashes prevent cavities, heal gum diseases and rejuvenate the tissues of the mouth, verifying the Ayurvedic practice of prescribing neem for dental care.

In a study to determine the most effective method for reducing plaque formation and the level of bacteria on tooth surfaces researchers compared antibiotics to a number of plant materials with known antibacterial properties, including neem. They found that microorganisms found in inflamed gums and resistant to penicillin (44%) and tetracycline (30%) but were not resistant to antibacterial plant extracts like neem. And unlike antibiotics, antibacterial plant extracts produced no allergy in the gingiva that could inhibit their effectiveness.

In a follow-up clinical study fifty patients with confirmed gingivitis were selected, forty of whom had showed severe bleeding and pustular discharges from the gums. After just three weeks of brushing twice a day with a paste that included leaf extracts 80% showed significant improvement. The patients also showed a 50% reduction in bacterial populations, elimination of halitosis (bad breath) with no side effects.

NEEM AND PYORRHEA:

Pyorrhea is characterised by an inflammation of the gums and membranes that cover the roots of the teeth. More teeth are lost by people over age 35 because of this disease than any other cause. In a German study of 70 patients with pyorrhea of varying stages, after just 5 to 10 treatments with a neem-based toothpaste and mouthwash there are significant improvement. Bleeding gums are healed and the secretion from pockets around the teeth had stopped. The bluish coloured gums returned to a healthy pale pink color. Neem bark is more active than the leaves against certain bacteria and is considerably less bitter making it the neem ingredient of choice in toothpastes and mouthwashes.

FROM THE INTERNET

NEEM AND CAVITIES:

Neem extracts have helped millions of people in south Asia avoid cavities despite a very limited access to modern dental care. Brushing with neem twigs and chewing neem leaves and seeds after a meal has been the traditional dental care practice in this area. With available modern preparations many people are now using commercial products that contain the same basic neem compounds.

GINGIVITIS (*bleeding gums*):

Neem bark extracts can reduce the ability of some streptococci to colonize tooth surfaces. Gingivitis has been prevented or even reversed with regular use of neem toothpaste and mouthwash. One person even reported a reversal of the loss of gum tissue by chewing fresh neem leaves. Scientists believe that antibacterial compounds and neem's ability to improve the immune response in the gums and tissues of the mouth account for these results.

NEEM HELPING FARMERS IN DEVELOPING COUNTRIES:

Neem's "soft" pesticide is improving the lives of impoverished farmers throughout the tropical range of the neem tree. Substituting crude neem extracts for expensive chemical controls saves both money and lives. In developing countries, it is estimated 500,000 people are poisoned and up to 20,000 die annually from using agricultural chemicals. To protect their crops, most of the earnings of farmers in developing countries are spent on these chemicals, producing a cycle that leads not to more food and a better life, but to continued poverty, ill health and environmental degradation.

To break this cycle and to improve the farmer's lives, agencies such as CARE, AID and AFGRO are actively promoting the introduction and use of neem in Southeast Asia, Africa, the Caribbean and both South and Central America. Seedlings and educational programs give the farmers the means and methods for easily making a cheap safe and effective product that protects their crops from over 200 different insect pests, including the desert locust.

Farmers in Mexico and Haiti and shepherds in Australia have begun switching to simple neem-based sprays from the synthetic chemical pest controls. This has allowed the farmers to export mangoes and other fruit to the United States without the chemical residues that often stopped their shipments at inspection stations. Neem-based sprays have similarly

allowed the shepherds in Australia to produce a pesticide-free wool that is being sold to European buyers for a considerable premium over the standard wool impregnated with chemical pesticides.

FOOD STORAGE:

Throughout the tropics much of the food harvested is lost during storage. More affluent farmers can and do spray their stored food crops with chemical pesticides to prevent worms, beetles and other infestations. Neem offers the impoverished farmers and even affluent farmers wanting to replace pesticides a natural and inexpensive alternative. A light coating of neem oil protects stored food crops for up to twenty months from all types of infestations with no deterioration or loss of palatability.

MAIL FROM CANADA:

Can you connect me with an integral person who can provide me with a sample of quality non chemical or heat extracted oil in fresh condition. I wish to impress upon the Government here the power of neem. They have been stalling passing approval of neem and now I find out it can be viewed as religious discrimination one of the Canadian Charter rights that put Turbans on the RCMP. Please pursue this Godsent loophole that may redeem our soils and people from the devastating effects of chemicals. Sections 15 of our Charter prohibits discrimination on a religious level. The preamble to our Charter Declares God is Supreme. Read genesis 1:29 of the Christian Bible. I am sure that most religious texts around the world concur that Gods gift was all vegetation. That Gift must not be restricting to non harming agents. The answers are obviously Money and they will not change. Religion is the only power they cannot overcome, it is the peoples last refuge. Please help me find suitable oil for testing and for publicity purposes. I do not have much money but have phenomenal conviction courage passion and tenacity when it is involving supresses truth. I have a fast Computer, Fax, Modem, Printer, Scanner Software and would like to make career out of promoting this inspiring plant. I have twenty years study of holistic natural medicine. I also have three years of Art College and a degree in Philosophy. I have a dream that using children as a medium and religion as a universal canvas the common picture they paint will be so large and vivid that Monsanto and the Alimentarius commision will fade into oblivian. "The Squeaky Wheel will get the Oil as nature and God would have it!"

*Received via. email - Robin Belanger
<01711714@3web.net>*

FROM THE INTERNET

Neem in Kenya Wamirithu Herbal Clinic

In rural Kenya there are few hospitals and a limited access to Western medicines. There are, however, fine doctors and medical practitioners who want to help people and who use whatever they have available that can help heal. Kenya and the rest of Africa has a long tradition of using the many medicinal plants of the region. In addition, in the last century neem trees were introduced by Indian immigrants to the area.

AFTER ONE YEAR OF USING NEEM FOR SOME OF THE AILMENTS THE WAMIRITHU HERBAL CLINIC REPORTED THE FOLLOWING:

ULCERS:

Resolution of 80% of the cases. Drink one glass three times a day of neem leaf extract made by boiling 5gms of neem leaves, 15gms of brown olives (for taste) in 3 liters of water for 20 minutes.

GOUT:

Elimination of the problem within one week. Drink one glass three times a day of neem leaf extract made by boiling 5gms of neem leaves in 2 litres of water for 20 minutes.

DIABETES:

Effective at managing the disease and in some cases healing after sometime. Drink one glass a day of neem leaf extract made by boiling 10gms of neem leaves in 2 litres of water for 20 minutes.

PNEUMONIA:

Completely cured in 3 weeks. Drink one glass a day of hot neem leaf extract made by boiling 2gms of neem leaves in one cup of water for 20 minutes.

CHEST RELATED CASES:

Clears the chest within 3 days. Drink one glass a day of hot neem leaf extract made by boiling 2gms of neem leaves in one cup of water for 20 minutes.

MALARIA:

Cures the disease completely in one week, very good in persistent cases. Drink one glass three times a day of neem leaf extract made by boiling 30gms of neem leaves in 3 liters of water for 20 minutes

FROM THE INTERNET

The Kenya Herbal Clinic continues to use neem as a part of their pharmacopia and have treated other diseases with neem which are being documented for future reports.

NEEM EVENT

NATIONAL WORKSHOP ON "NEEM BASED INDUSTRY TECHNO COMMERCIAL ASPECTS & EXPOSITION".

Fragrance & Flavour Development Centre in collaboration with Defence Materials Store Research and Development Establishment (DMSRDE), Kanpur, Directorate of Industries, Kanpur and National Botanical Research Institute (NBRI), Lucknow is organizing a National Workshop on "**Neem Based Industry - Techno Commercial Aspects & Exposition**" on 26th - 27th Oct. '99 at Kanpur, Uttar Pradesh. This programme is being sponsored by Development Commissioner (Small Scale Industries), Dept. of SSI & ARI, Ministry of Industry, Govt. of India, New Delhi.

It is hoped that such an event would help in giving new directions to rural economy by inspiring collection of neem seeds and their gainful utilization in production of neem oil and isolates by small scale industries.

NEEM IN NEMATODE MANAGEMENT

By : Dr. Mohammad Akhtar
*Institute of Agriculture,
Aligarh Muslim University, Aligarh.*

Research in pest management usually aims to improve our understanding of the underlying biological and ecological processes associated with pest problems or to develop specific control measures. During the past twenty years there has been increasing concern over the adverse effects that certain nematicides / insecticides might have on the environment. As with pesticides, there is now much greater emphasis on seeking natural nematicides (biopesticides) and natural enemies for controlling plant - parasitic nematodes.

Plant - parasitic nematodes are one of the major factors limiting agricultural productivity. Chemical nematicides, though effective in providing rapid kills of nematodes are now being reappraised concerning their environmental hazardousness high cost and limiting availability in India. Attention of nematologies is now focussed on alternative control strategies, including cultural and biological methods. Numerous cultural practices can be beneficial by reducing population densities of plant - parasitic nematodes. Plant products are receiving greater attention as an effective means of control for nematode pests mainly because of their presumed safety to non - target organisms. NEEM (*Azadirachta indica*) products including leaf powder, seed kernel, seed powder, sawdust, oil and oil cake, and a number of commercially available products have been effective in managing several species of plant - parasitic nematodes in commercial crops.

Interest in using plant - based products (biopesticides) for suppressing plant - parasitic nematodes in the soil is receiving attention in the recent past. Only, a few studies have investigated on the use of neem as a nematicide during past decades.

The objective of my research was to determine the effects of different amounts of neem - by - products and commercial neem - based products on populations of plant - parasitic nematodes and the growth of pulses and vegetables in agricultural soils. Research experiments are mainly categorized on the following topics:

1. Neem tree parts as soil amendments:

Every part or product of the neem tree (i.e. leaves, stem, barks, oils, oilcake, sawdust etc.) have been shown to have a significant role to play in nematode management.

2. Seed treatments with neem formulations and by-products:

Neem oil, oilseed cake extracts, commercial neem - based products such as Suneem, Suneem G, Nimin, Achook, and Jawan when used as a seed - coating were found to be highly effective as prophylactic and therapeutic against nematodes.

3. Bare - root - dip treatments with neem formulations and by - products:

Bare - root - dip treatments in neem oil and other neem - based products have been reported nematicidal.

4. Nitrogen fertilizer efficiency improvement:

Inorganic fertilizers containing ammonia, nitrogen or formulations releasing this form of nitrogen in the soil can suppress nematode populations. Triterpene compounds in neem cake and neem - based products inhibit the nitrification process and provide more available nitrogen in the form of ammonium to the plants for the same amount of nitrogen applied by the amendments.

5. Longevity of neem by-products:

Neem oilcakes, leaves, sawdusts and other by - products are heavy organic compounds, therefore their decomposition into simple substances takes place rather slowly and is a time consuming process. Thus application of such materials leads to sustained release of nutrients to the plants, which ultimately results in suppression of the population of plant - parasitic nematodes.

Mechanisms result in nematode control:

Nematode populations may have been affected by these treatments through leached chemicals, either coating the seeds or being absorbed by the roots during bare - root - dip treatment into rhizosphere which repelled or killed nematode juveniles that attacked the host root.

The mechanisms by which nematode pests are controlled by neem by - products amendments is not yet fully understood, mainly because the

complex nature of the soil environment hampers the elucidation of the different activities and interactions that occur. Presumably, nematode control resulted from a release of toxic compounds which either were present at sublethal concentrations in the rhizosphere of crop plants.

Since neem is known to contain several chemicals (e.g. azadirachtin, nimboicinol, nimbin, etc.), that have been reported to have nematocidal properties. Crop protection is an integral part of current food production. High losses are incurred in some economically important crops as a result of plant - parasitic nematodes, because of this, they are considered a serious constraint to agricultural production - particularly where intensive levels of some plant - parasitic nematodes ?

Knowledge of the extent of yield losses caused by various pests including plant - parasitic nematodes in a cropping systems provides baseline information which can be used to determine priorities for Research and Development in pest management, to assess the likely costs and benefits and control and as a decision making aid to governments and farmers. The future of crop protection in developing countries like India, depends upon the use of integrated pest management approaches within the context of holistic development of natural resource production systems. It is important that biopesticides like those derived from NEEM need to be studied extensively and their potential benefits brought to the attention of farmers.

ACKNOWLEDGED WITH THANKS!

Prof. Murray B. Isman, Meeting Chairman,
*Faculty of Agricultural Sciences,
University of British Columbia,
Vancouver, Canada V6T 1Z4*

Dear Ms. Thakkar,

Please find enclosed a money order in the amount of US\$ 670.15 (the total following conversion from \$1,000 Canadian) that I wish to donate to the neem foundation. This donation arises from surplus funds remaining after accounts were settled for NEEM 99, the World Neem Conference held in Vancouver last May. The funds can be used completely at your discretion. I am sure that you will put them to good use.

It was a pleasure to have you participate in NEEM 99 and to have the opportunity to meet your family. I wish the Foundation every success in the future.

With best regards,

Murray B. Isman

In The Wake of NEEM FOUNDATION's Campaign ...

GOVERNMENT URGED TO DECLARE NATIONAL TREES:

Referring to the longstanding debate and indecision within the government on adopting a National Tree, WWF - India has urged the Ministry of Environment and Forests to declare the Banyan (*Ficus bengalensis*), Peepal (*Ficus religiosa*) and Neem (*Azadirachta indica*) as National Trees.

If we could declare a national animal - the tiger and a national bird - the peacock - long ago, there is no reason why we should indefinitely delay on such an important concept for conservation as National Trees, feels WWF - India.

Workshop on Development & Ecological Role of Neem

It is now widely acknowledged that the Neem Tree is an important input for integrated, people - centred development and for preserving the ecological balance. Keeping in view the fairly significant and useful Neem Research that lies unutilized, a Workshop was organised at the Indian Institute of Public Administration, New Delhi at the initiative of the Neem Foundation, Mumbai and Ambedkar Rural Industrial Technology Mission, Lucknow.

The Union Minister of State for Agriculture Shri. Som Pal inaugurated the Workshop.

The following are the Recommendations of the Workshop:

- 1) In order to utilize the vast potential of the neem tree for the benefit of India and its people an integrated approach should be adopted to evolve a National Plan. Concerned Ministries should draft additions and amendments in the existing policies to create a framework for a National Plan.
- 2) The Planting of neem should be encouraged on wastelands, common lands, panchayat lands and barren lands. Additionally Neem Plantations should get recognition on the lines of other plantation crops like rubber, spices, tea, coffee etc.
- 3) Neem seed collection should be included as a part of Employment Guarantee Schemes like Jawahar Rojgar Yojana, employment Assurance Scheme, DPAP, DDP, Wasteland Development etc.
- 4) To promote the use of eco-friendly products in Agriculture and Horticulture, Neem - Based Products should be exempted from central excise and sales tax, atleast for a period of five years.
- 5) Registration of neem products need to be viewed differently vis-a-vis chemical pesticides. This is important for all the aspects including toxicity, shelf life, bio-efficacy of products and residues in plants and soil. The policies of the Government of India should pave the way for developing guidelines in the global scenario.
For eg.: Registration of Bio-Pesticides still requires long- term toxicity data on carcinogenicity and residues.

In view of the long-term use of neem by a very large percentage of Indian population over centuries, Indian Authorities should waive off these requirements.

- 6) Registration of neem products for domestic as well as for export market is required to be done separately by the Central Insecticide Board. It may be noted that data requirement for domestic market is quite extensive and elaborate and hence if registration is granted for domestic market the registration for export should be automatic, moreover the data requirement for export should be left to importing country.
- 7) In view of the highly significant positive response of neem - coated urea, sale of neem coated urea should be permitted expeditiously along with the extension of the subsidy component, on the lines similar to that available for zincated urea.
- 8) Sufficiently large body of data from ICAR as well as Universities exists on efficacy of neem coated urea which should form the basis for approval and higher price for neem coated urea vis-a-vis uncoated urea.
- 9) A census of neem trees should be carried out in the country to catalogue tree resources. Model orchards of neem should be established at selected sites to create awareness about it and to popularise its usage.
- 10) As neem also helps in restoring and maintaining soil fertility it should be recommended as a priority species for agroforestry.
- 11) Since time immemorial Indian have learnt and made use of neem in a variety of ways both for personal and community health. It is time this heritage is appreciated and in area of promotional and preventive health care our indigenous knowledge and resources like neem are made use of on an increasing scale as low cost effective ingredient in public health.
- 12) In view of the fact that Neem originated in India and the country has a broad genetic base, which needs recognition and protection, neem should be declared 'The National tree of India'.

Setting Priorities for Neem in Forestry

India being the home of the Neem tree and repository of much neem related knowledge, we should strive to remain in the forefront by promoting and popularizing new applications and uses of neem for solving emerging problems such as agricultural production, pollution, global warming, poverty and preservation of floral and faunal diversity.

At the request of the Neem Foundation, the Ministry of Environment and Forests convened a Meetings on the 15th of January 1999 to set priorities for Neem in forestry. The Meeting which was held at Paryavaran Bhavan, New Delhi was attended by representatives of various state Forest Departments, Scientists from ICFRE, Dehradun, AFRI, Jodhpur, Officers of Central Ministries and a delegation of the Neem Foundation. The Meeting was chaired by the Hon. Minister for Environment and Forests, Shri. Suresh Prabhu and Shri. C.P. Oberai (IGF, Sp. Sec. MoEF). On behalf of the Neem Foundation, Chairman Dr. Ramesh Saxena made a presentation.

After due deliberation, the following suggestions for implementation recommendations were made:

- a) It was suggested that a National Census of Neem trees be undertaken to catalogue Neem resources. This could be undertaken by involving State Forest Departments. This may be co-ordinated by DG. ICFRE.
- b) Neem Foundation proposed that Neem should be declared as National Tree of India. The group interacted and requested the Ministry to follow up.
- c) The National Oilseeds & Vegetable Oils Development Board announced special incentives and Training programmes on Neem Seed Collection and Plantation. The group appreciated the initiatives of NOVOD Board. It was felt that this would open up new possibilities for Forest Depts. in collection, marketing and value addition of neem seed.
- d) NOVOD Board also announced the initiation of a co-ordinated National Neem Network programme under which large number of quality neem seedlings are to be raised from selected materials. It was suggested that the Forest Departments and Wastelands Departments might utilize this resource.
- e) Neem Foundation proposed that additional targets of Neem plantation be fixed by various forest departments to cover vast areas of wastelands available in the country. This will not only provide environmental gains but

will be a source of revenue for the forest in due course. Neem Foundation offered to assist in co-ordinating this programme.

f) A series of awareness material is prepared by Neem Foundation for dissemination all over the country, as the group felt a need for such material.

g) Neem Foundation and other NGO's should undertake Training and Awareness programmes on a wider scale. This could be organized under the aegis of NOVOD Board and Ministry of Environment & Forests.

h) It was proposed that a Working Group on Neem be formed involving ICFRE & CSIR (Research), NOVOD (Planting Resource and Training), Neem Foundation (Dissemination), MoEF (National Strategy on Afforestation). This group may pursue Neem related developments in an integrated approach under the Chairmanship of the Minister.

Neem Foundation Project, Nursery

