

COLLEGE OF MICRONESIA-FSM YAP CAMPUS

AGRICULTURAL EXPERIMENT STATION

INFORMATION
BULLETIN

ISSUE NO. 5
AUGUST 2008
(FOCUS ON NONI)

Pests and Diseases of Noni

Just like any other plant, noni is also susceptible to pests and diseases. Yield can be significantly reduced by pests and diseases. Combating these problems more effectively and with innovative methods will help improve crop yields. It can also improve environmental health by reducing the application of any chemicals. Some of the most common pest and diseases problems found in noni plants in Yap are detailed below.

Anthracnose is a common leaf spot disease that is caused by a plant pathogenic fungus called *Colletotrichum*, favored by humid



Anthracnose leaf spot disease

climate. The disease is characterized by tan colored lesions with typical "target spot" appearance, i.e., visible concentric rings in the lesions. Infected leaves may fall off prematurely. Fruits and stems are not susceptible to this fungal infection. Noni anthracnose is usually severe during warm, wet weather and high relative humidity. Symptoms are often most severe within dense canopies. Therefore, adequate plant spacing and cautious pruning are best way to control the spread of this disease.

Croton caterpillar - (*Achaea janata*) – This is a very common pest on noni seedlings in nursery. Caterpillars feed on leaves and if unnoticed, can consume the entire foliage of a plant within a day or two. Severe infestation results in stunted growth of seedlings. Adult moth is widespread throughout the tropical and subtropical Pacific and has a wide host range. It lays several

eggs under developing leaves



Caterpillar feeds on the leaf (above).
Adult moth (inset) lays hundreds of
eggs at a time (below)

and caterpillars emerge from eggs within few days. Physical means of control measures like hand-picking and destruction is effective in nursery setting.

...contd. on Page 2

Pest and Disease Management

Generally mere presence of pests does not spell trouble. In a diversified garden (mixed planting like in agro forest), most insect pests are kept in check by natural forces (such as predators and weather). Only when pests reach seriously damaging levels do we have an indication that natural controls are temporarily unbalanced - suggesting temporary intervention by the grower. Because of this natural system of checks

and balances in a garden, it makes sense to determine which form of intervention will return the situation to a normal balance with the least risk of also destroying the helpful (as well as harmless) organisms that maintain the equilibrium. Our action choices range from doing nothing (giving nature a chance to correct the imbalance), to using restraints (repelling or physically destroying the damagers), to biological controls (improving the helpful side of nature's control system), to chemical controls.



Sweet potato hornworm (*Agrius convolvuli*) - is yet another leaf destructing common



pest encountered in our nursery. Caterpillars feed on foliage, leaving large gaping holes in the leaves with just veins and leaf stalk. Again, hand-picking and destruction of caterpillars found to be most effective in nursery. (to be continued in the next issue)

"If we could give every individual the right amount of nourishment and exercise, not too little and not too much, we would have found the safest way to health."

Hippocrates, Father of Medicine

Complementary and Alternative Medicine

CAM is a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of standard care. Standard care is what medical doctors and allied health professionals, such as registered nurses and physical therapists, practice. Alternative medicine means treatments that you use instead of standard ones. Complementary medicine means nonstandard treatments that you use along with standard ones. Examples of CAM therapies are acupuncture, chiropractic, herbal medicines, naturopathy, traditional medicine and homeopathy.

The best way to achieve and maintain good health is by developing

Medicinal plants for life

Noni is arguably the most important medicinal plant in Pacific, based upon the number of indications reported and the breadth of usage across various cultures. Modern scientists identified over 160 chemical compounds in noni and the list grows constantly as they characterize new molecules. Robert Keith-Reid, one of the late most respected journalists of the South Pacific region once quoted, "medicinal plants like noni are remedy for Pacific Islands' economic ills." With renewed interests for herbal products, demand for noni is expanding in Japan, Korea, Taiwan, Germany, Spain,

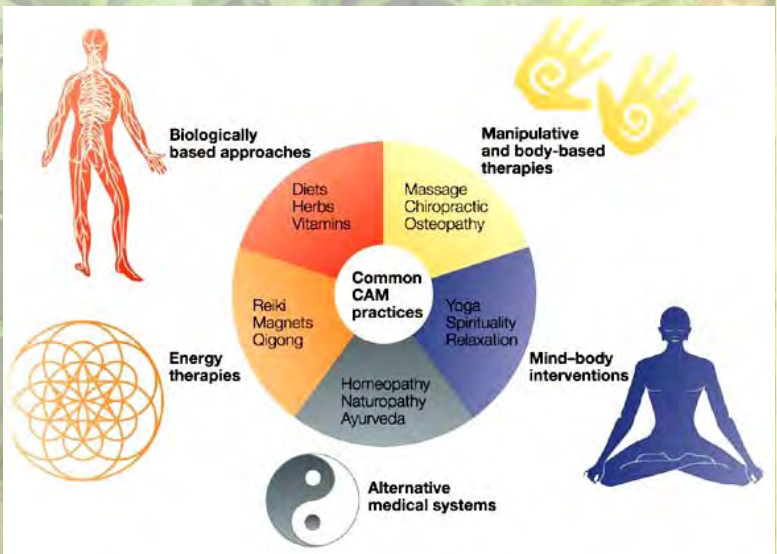
China and other countries. Utah-based Tahitian Noni International claims it brings in close to \$500 million annually in sales.

Allopathic or 'modern' medicine also owes a great deal to medicinal plants.

As many as 50 percent of prescription drugs are based on a molecule that occurs naturally in a plant, with some 25 percent of prescription drugs derived directly from flowering plants or modeled on plant molecules.



a whole-health strategy, which includes regular exercise, a good diet and overall healthy living. CAM may offer you additional help in achieving your health goals, whether you use it as a substitute for a conventional remedy or in conjunction with mainstream medicine. Noni is one such multipurpose CAM treatment that has received considerable attention in recent years. **Stay healthy!**



Disclaimer: The information provided in this information sheet is meant for educational purpose only. For any medical conditions, always consult a qualified medical practitioner.

Published by: Agricultural Experiment Station, College of Micronesia-FSM, Yap Campus, P.O. Box 1226, Colonia, Yap, FM 96943. Tel: 350-5752; Fax: 350-2325; E-mail: muru@comfsm.fm