Echos From our Network

One More on SRI

Dave Askin in Papua New Guinea wrote to Norman Uphoff with a question on SRI and stem borer. "Dear Norman, Greetings. I read the SRI article in Echo Development Notes. Very interesting. I wondered about the wisdom of very low populations of rice where considerable stem borer problems exist–and no insecticides–I am referring to some places in Papua New Guinea where I work. My concern is the farmers could end up with no crop as each tiller is destroyed. At least with lots of plants established some deaths is not too bad. I am interested in your comments."

Norman Uphoff replied as follows: "Dear David, Your question further illustrates why we say that SRI is a set of principles to be tested and adapted rather than a technology to be implemented mechanically. I would suggest trying this out. Farmers in Bangladesh told me in December that they had less problem with stem borer using SRI methods because of the plants' health and vigor. Generally farmers report that SRI rice is more robust and resistant to pests and disease. But this is always an empirical question. Good luck, and keep us informed on any experience, good or bad."

Loss of Mango Crop

Wes Tenney in the Philippines wrote to us with a question about mangos. "Perhaps you can provide us with some help. I am in the central Philippines around 600 m above sea level. The farmers have lost their entire mango crop this year. They always spray potassium nitrate as a flowering inducer late January or early February of each year. This year after spraying, the tree leaves reverted to a young state and did not flower.

"Many of these trees have not been sprayed for more than two years, so they did not induce flowering too soon. I looked at the leaves and they were the proper maturity for spraying the chemical flower inducer. The trees were fertilized twice last year (in June and again in the last week of December).

"Some of the trees were not fertilized at all last year. All the trees had the same problem of no flowers after the inducer was sprayed. The trees range in age from 10 to 40 years old. There was no pruning done before induction that could have caused the problem.

"This is a VERY SERIOUS problem because around 1000 families rely on income from the mango harvest every year. We need to find out what happened so it does not happen again next January. There are a small number of trees that will be

induced to flower in June of this year. We do not want the farmers to lose those mangoes also. The local agricultural officials do not know the answer. Thank you for any assistance you can provide."

We contacted Dr. Tom Davenport, a plant physiologist at the University of Florida. Here is his response: "Without being there to look at all possible causes of the problem, I hesitate to give a definitive answer. I can, however, suggest that the overall reason why potassium nitrate (or any mango induction product) fails to work is due to immature terminal stems on the branches. Is it possible that the trees grew vegetatively following the June fertilization, or did rains occur in the fall to stimulate a flush of growth?

"The age of the last flush is critical. In easy-flowering cultivars, stems must be at least 4 or 5 months old since the limp red leaf stage of development, and at least one month additional time is needed for hard-to-induce cultivars. It is not clear to me whether the comment "The trees' leaves reverted to a young state and did not flower" indicates a vegetative flush occurred after the potassium nitrate spray or if nothing occurred. If a vegetative flush occurred it indicates the stems were definitely too young (nitrate simply stimulates growth—not flowering per se). If nothing (no new growth) occurs, then 4% KNO3 sprays should be repeated every other week until flowering buds are observed. Sufficient age of the previous vegetative flush is critical."

Dr. Davenport will be one of the speakers at AMC 2001, our eighth annual Agricultural Missions Conference here at ECHO.

We wrote in Amaranth to Zai Holes (p. 125-6) about a different scenario in a location in Venezuela where flowering—but no fruit set—occurred on large, mature mango trees. In that instance, Dr. Carl Campbell commented that where trees bloom during periods of high humidity and temperature, flowers can be infected with anthracnose and no fruit will set. Anthracnose can be controlled by spraying with fungicides.

Mole Repellent Effective

Terry Mason, Lesotho, Africa.

"In a recent EDN (Issue 68) you gave an easy recipe for mole repellent on page 7. Thanks; it really works well for us! Sonke notes not knowing of moles (family Talpidae) being considered pests outside North America, but here in the Lesotho Highlands we have a lot of problems in gardens with moles in the family *Chrysochloridae*. We used the first recipe given via a sprinkle can. The formula works very effectively for up to several weeks. Once the formula is applied around a perimeter, the moles will not enter that area."

The recipe mentioned above, from the April 1998 issue of Organic Gardening, calls for 1/8 cup (1 oz or 29.5 ml) of castor oil per gallon (3.8 liters) of warm water, with a few drops of dish detergent added to help mix the oil with the water.

