Farmer and youth groups in Niger get acquainted with biological pest control in cowpea

An initiative spearheaded by Dr. Ibrahim Baoua and his collaborators from l’Institut National de la Recherche Agronomique du Niger, with financial support from the Feed the Future Legume Innovation Lab (formerly the Dry Grain Pulses CRSP) and in collaboration with the University of Illinois at Urbana-Champaign, is helping improve the agricultural skills of unschooled youth from 9 to 14 years of age through modified Farmer Field Schools in the villages of Boutotchi and Garin Jari in southern Niger.

Through this nonformal education, more than 500 youth (50 percent girls) have completed various in-field training sessions to learn how to use neem extracts in combination with the pod borer-(*Maruca vitrata*) specific virus to kill cowpea pests in the field. Many of these children work with their parents on the family farm, where cowpeas are grown, and have more time to learn. Teaching these skills to young people who are often more open to new technologies, helps bring these innovations into their families’ cropping and management systems—and helps ensure greater pest management on these farms in the future, when they’ll play a more active role in the farm’s management.

Neem spay is a liquid insecticide processed from the seeds of the neem tree (*Azadirachta indica*), a drought-tolerant tree widely available in parts of Sub-Saharan Africa, and the virus is not only specific to the target pest—the pod borer—but is environmentally benign and completely safe for use by humans, resulting in a health and environmental win-win versus traditional pesticides. This inexpensive and accessible approach to dealing with *Maruca vitrata* is of particular importance in these regions because the *Maruca vitrata* is responsible for significantly decreased cowpea yields and access to commercial pesticides is often financially prohibitive to these people. Cowpea is a staple crop that helps ensure food security in many parts of Niger.

In addition to providing youth with a practical agricultural skill, these lessons and programs have produced considerable interest in this novel and safe technique for fighting cowpea pests, both in these villages and in surrounding communities, helping make the affordable technique useful to a greater number of cowpea farmers.
In addition to this youth initiative, a neem and virus combination has been demonstrated with 157 farmers (70 women) in 16 other villages in Southern Niger. Overall, farmers were astonished that with simple techniques and naturally available resources they were able to achieve crop yields similar to those obtained with chemical control. And this neem-pod borer virus combination offers a pest management technique that is healthy for them, their families, their environment, and their pocket books.