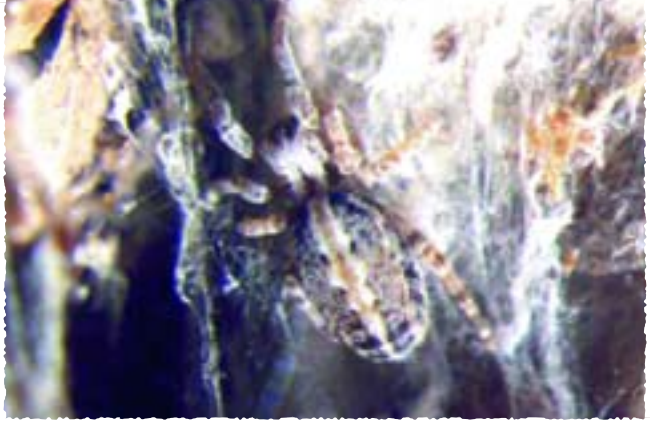
Experiments with spiders, ants and other indigenous practices



Some tribal communities are using social spiders (Stegodyphus sarisinorium) to control stem borers in paddy fields. Photo: K.J.N. Gowtham Shankar

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IDEA is a NGO working with tribal people in the northern Ghats in India. IDEA is a partner organisation in the COMPAS Programme for Endogenous Development (see LEISA Magazine Vol. 17, No2, p15).

During documentation of tribal indigenous knowledge in 1992, we found that some tribal people use spiders to control stem borers in paddy fields. This was interesting but needed further analysis. We identified the spider as *Stegodyphus sarisinorium* - a social spider. The spider is called differently in the local languages - *Patmakidi* in Oriya, *Salepurugu in* Telugu, and we call it *Bulu*. We also found that using spiders for pest control is an age-old practice of a specific tribal community - *Nooka Dora* - of Andhra Pradesh and Orissa, border villages in the north eastern Ghats, India. However, the knowledge was almost dying out as only 5-6 families were practising it in a remote village and that too only in paddy fields. We stimulated some young tribal farmers and senior farmers to conduct several small and simple experiments in the research centre of IDEA, which proved to be very effective. Based on the results, we did further experiments together with farmers in different villages for validation by the community. These were also successful. Then, we designed a systematic process for participatory action research and started studying various aspects of this spider - its habitat, feeding habits, breeding biology etc.

Simultaneously, we experimented with Bulu on horticulture crops (guava and pomegranate), vegetable crops (brinjal, ladies finger, cabbage, cauliflower and chilli) and floriculture crops (roses). We found out that this spider can successfully control fruit borers and mites in these crops.

This study helped us to disseminate the knowledge gained among more tribal communities and farmers. We developed training material on the experimentation and propagation techniques of Bulu and provided training to more than 500 farmers for conducting further on-farm experiments on different crops in their villages together with other farmer families.

The knowledge vested with just 5-6 families of a single community has now spread to more than 2000 farmers of 6-7 communities. It is spreading further to other areas due to regular farmer network interactions and farmer-to-farmer knowledge exchange, which we are facilitating through ongoing projects.

Control of black ants with domestic red ants

We also found that some of the *Konda dora* tribal farmers control black ants with tiny domestic red ants in their *Jawor* fields. Mountain farmers face a severe threat from black ants, which eat away the tender *Jawor* grains and damage the crop. Some of the senior farmers collect these domestic red ants from their houses and drop them in the fields affected by black ants. These red ants eat the eggs of black ants laid around the *Jawor* plant roots and attack the black ants. The black ants leave the fields within hours. We found this particularly simple technique of using red ants to control black ants very effective.

IDEA's research staff further tested this with other farmers for validation in different villages. The results were successful. We have systematically documented this knowledge and trained farmers in promoting it widely in other areas. Now, many farmers in the mountain villages are using this technique to control black ants in their *Jawor* and maize fields.

Experiments with botanical pesticides

We also did several experiments with indigenous knowledge of tribals on botanical pesticides. Thus, we have revived the use of many of these botanical pesticides. ■

Our tribal farmers' networks would like to interact with farmers of other countries for mutual exchange of information on indigenous knowledge and endogenous development approaches. We will be happy if you send your comments and suggestions to the following address

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Farmer Field Schools - emerging issues and challenges

The Farmer Field School (FFS) approach was first developed in the late 1980s for training rice farmers in Integrated Pest Management (IPM). The success of this discovery-learning approach based on the principles of adult education has contributed to its popularity. The FFS approach is now being applied and adapted in many regions of the world - Asia, Africa and Latin America. It is not limited to rice, but used in a variety of other crops and livestock. Farmer Field Schools are seen as entry points towards community strengthening and empowerment. As the FFS approach gains more ground, new issues and challenges emerge, i.e. maintaining quality in implementation, reflection of the core principles etc. These issues and challenges will be the focus of the International Learning Workshop on "Farmer Field Schools - Emerging Issues and Challenges" to be held in Indonesia in October 2002. This issue of LEISA will include the findings of this workshop and highlight some of the interesting cases. We invite articles on experiences in applying/adapting FFS to various agro-ecological, socio-cultural and economic situations, monitoring and evaluation of FFS, upscaling FFS approaches etc. that would be interesting to field practitioners and add to the knowledge generated at this workshop.

You are invited to contribute to these issues with articles (about 800, 1600 or 2400 words + 2-3 illustrations and references), suggest possible authors, and send us information about publications, training courses, meetings and web sites. Editorial support is provided by ILEIA. Authors of published articles are entitled to a standard fee of USD 75,–.