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MAKING SPACE: *Weed management is a crucial step and needs more research.* PHOTO: K.K. MUSTAFAH

Less weed, more food

The WIKWIO project, with the French Institute of Pondicherry as a collaborator, seeks to enhance food security through weed management.

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Right from biblical times, much has been written about weeds as the bad guys. Two millennia later, farmers are struggling to win the battle in their backyards to improve the production of foodgrains. A recently launched one-million-Euro project, with the French Institute of Pondicherry (IFP) as the Indian face, will look at increasing food production by identifying and documenting weeds and weed management practices.

Weed management

The Weed Identification and Knowledge in the Western Indian Ocean (WIKWIO) project is focuses on the islands of the West Indian Ocean and South East Africa, and is funded by the European Commission's Africa, Caribbean and Pacific (ACP) science and technology programme. But as Pierre Grard, botanist and director of the IFP, says, "Species are common everywhere, so the project has significance in the Indian scenario, though it has to be interpreted in a different framework here."

The ultimate aim of the project is to enhance food security and increase food productivity by giving farmers better control over their crops. "There is almost 40 per cent to 60 per cent loss in food production in these areas due to weed infestation," says Mr. Pierre Grard. The project, coordinated by Thomas le Bourgeois from the French Agricultural Research Centre for International Development (CIRAD), is a collaboration between research institutes across nations including the IFP.

The other partners are Mauritius Sugarcane Industry Research Institute, Centre national pour le Developpment Rural in Madagascar and the Centre National de Documentation et de Recherche Scientifique in the Comores.

The team from IFP including senior botanist B.R. Ramesh and systems analyst D. Balasubramanian will lend its expertise in developing the web portal for the project. The species identification software developed by the IFP for documenting the biodiversity in the Western Ghats (www.indiabiodiversity.org) will be used to match weeds with an existing database. The current database lists 200 weeds in the region, but weed scientists involved in the project are confident of identifying 400 species.

Ground work

Researchers will work with farmers and extension workers to spot, photograph and upload images of weeds among paddy, sugarcane and other crops. "Even if weeds are common, their behaviour varies with the crop and geographical area. So, documenting them is important for getting a comprehensive knowledge base," says Mr. Pierre Grard. Extension workers in the islands have been trained in taking clear images of weeds, important for description and identification. The portal developed by IFP also geographically categorises weeds through mapping techniques.

Farmers may not have scientific knowledge of weeds, but they are familiar with behavioural patterns and usually come up with their own measures to protect crops and increase harvest, though the success of these measures may vary.

The project will record the damage control measures employed by individual farmers in these regions. Such knowledge can have far-reaching benefits for food growers even in India. Ten years ago, the IFP had come up with a prototype-limited scope project for weed management in the Indo-gangetic plains. On completion, the IFP hopes to extend the current project to India.

For more details, visit http://www.wikwio.org