

A woman of substance

By Faiza Ilyas



With over 200 research papers published internationally in many languages throughout the world and the recipient of Rural Creativity Award, Gold Medal of Honor from the US and the UN Best Practice Award, Farzana Panhwar stands prominent in a society lacking far behind in education.

At 47, with 24 years of experience, her work is extraordinary, to say the least. She is among the few researchers who have explored many fields of sciences, including agriculture, biotechnology, health, nutrition, enzymology, education, gender, environment and pollution. However, Farzana feels that her major contribution has been at her family farm in Hyderabad. Being the wife of an eminent engineer, agriculturist and scholar M.H. Panhwar, she, along with her husband has the credit of establishing the first organic farm in the country.

Farzana deciphered the formulas of all chemical fertilizers, found their organic replacements and worked on compost and mulching.

The Panhwars also used modern diagnostic techniques keeping in mind the pH, NPK percentages and mineral requirements. The result was an organic farm, from which they get considerably higher than usual yields of quality fruit.

"At the farm we are using sustainable methods for raising fruit crops. Since there was hardly any literature available here for fruit production, we tried out various approaches featuring mulching, composting, mowing, use of manure, etc. We concluded that organic farming mostly gives the best results," says Farzana.

Describing the disadvantages of synthetic fertilizers, she says that synthetic fertilizers are not completely absorbed by roots, pollute the environment and at times burn roots because of high concentration. At the farm, they spray the leaves with a mixture of micro and macro nutrients, which means immediate absorption and less harmful effects on the soil.

"Pakistan imports almost all plant protection chemicals from abroad. Chemicals such as Dicofol, Benomyl, Captan, Chlorothalonil, Copper compound Mancozen, Copper Oxinate, Copper Hydroxide, Cuprous oxide, Metiram, Thiophanate Methyl, Triadimefon, Ametryn+Atrazine Meolachlor, Thidiazuron and Amitraz are responsible for serious diseases in human beings, polluting groundwater used for drinking purposes for both human and animals," she observes.

Referring to a survey of 202 chemicals that she conducted on the standardized list of the government published in the official gazette on September 14 1994, she found that out of 202 chemicals for local use, 63 are banned or their use has been restricted in the United Kingdom and USA since 1982. However, they are still imported and sold in Pakistan.

"It is ironic that developed countries are still manufacturing and exporting the 63 harmful chemicals to Third World countries," says Farzana.

She also feels that the government should seriously take up the improvement of crop varieties that can deliver higher yield per acre, are disease-resistant and meet export requirements with the help of WTO.

"For instance, old mango varieties don't have any shelf life, therefore can't be sent abroad in good shape and are also prone to various diseases. Some of them are not appreciated abroad because they are too sweet and have a lot of fibre. Before we lose the market, we should evolve new varieties, which are better in color, shape and taste. The use of biotechnology is the need of the hour that ensures greater export potential and 20 times more yield than through conventional methods. Awareness should be created about this technology and fruits should be tagged as organic or inorganic," opines Farzana.

One has to wonder why she's promoting bio-technology when she's practicing organic cultivation at the farm. To this effect, Farzana feels that no technology is completely safe and has some negative and positive

aspects. The population explosion and drought conditions leave one with no other alternative but to use this modern technology.

In spite of being the author of a large number of articles and research papers, Farzana works free of cost for any organization that requests her do research on any particular topic. Despite receiving many offers, she is unwilling to get associated full-time with any university or institute.

"My thirst for knowledge provokes me to research. I want to investigate and bring out the truth. This can be done only when I am free to think, without any pressures," she adds.

Acknowledging her husband's support in her academic and scholarly pursuits, she admitted that "without Panhwar sahib's assistance I could never materialize my dreams." She is all praise for her husband to whom she gives credit for making her what she is today. They were the first people to grow jojoba in Sindh and with their cooperation, the first jojoba research centre was established in Bhawalpur.

Among many others who have inspired Farzana, the names of Dr Louis Flam and Dr Kenoyer are prominent, both of them archeologists who have done extensive work in Sindh. "They are a source of great inspiration for me as they used their knowledge, money and skills to make us aware of our past through excavations," she explains. She is also impressed by the achievements of Dr Olmo and Dr Wyne Sharma who have invented new varieties of grapes and peaches which the Panhwars have cultivated at their farms.

The writer is a freelance journalist