Strengths, weaknesses and future prospects of plant pathology in West Zone*

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Distinguished guests, fellow delegates, ladies and gentlemen. At the outset, I sincerely thank the members and the national executive for nominating me as a Zonal President of Indian Phytopathological Society. It gave me an unique opportunity to organize 7th Zonal Meeting and Symposium on “Management of Plant Diseases for Sustainable Agriculture” for the first time in Gujarat.

We, at Anand, have been thinking to do something to remember stalwarts in the field of Plant Pathology in our zone who are known internationally, for instance Dr. N. Prasad, the founder Professor of Plant Pathology at Anand, Dr. M.K. Patel renowned bacteriologist, Professor J.F. Dastur, Dr. M.N. Kamat, Dr. Kulkarni, Dr. B.N. Uppal and many others. The list is quite long and I proudly say that west zone had a glorious past. We think of instituting some medals/lecture awards at the zonal/university level in memories of our stalwarts to inspire young generation of pathologists.

My learned predecessors have dwelt on special themes for their presidential addresses. I wish to analyse our strengths, weaknesses and future prospects in the fast changing world.

THE STRENGTH

Today, we have a vast pool of plant pathologists in our zone coupled with industrious and enterprising farmers of Gujarat and Maharashtra. Agricultural colleges of Poona and Anand had a leading place in plant pathology in the country before the advent of Agricultural Universities, when triple functions viz., teaching, research and extension took a vigorous shape. As a result strong teams of mycology and plant pathology have developed in the zone.

THE WEAKNESSES AND FUTURE OUTLOOK

Due to fast developments of technologies in the western countries, we seem to lag behind. It is true that in the past, scientists contributed largely due to their dedication, devotion and hard work with meagre facilities. However, presently the cost of equipments, chemicals, glasswares etc. are so exhorbitant that mere enthusiasm is not of much help. Academic standard has also deteriorated.

In the present context, it seems that updating of syllabi should be done more frequently and also to cater the needs of farmers. A phytomedicine course developed in Germany covering applied plant pathology, entomology and weed science is considered excellent one so far.

The farmers of our zone are very enterprising, innovative and grow high value crops. They ex-
pect district, taluka level and mobile plant disease clinics supported by government, with an expectation to diagnose the plant disease problems timely/rapidly to save their crops.

Often an ineffective chemical is sold to innocent farmers merely to push the sale of a product as the handling and marketing of agrochemicals are not done by qualified/trained persons. It is, therefore, necessary to have a licence system to degree/diploma holders on the pattern of human medicine.

After the WTO coming into force and the easy entry of multinationals in seed industry, prices of seed and introduction of seed-borne pathogens have become very important from the farmers point of view. The number of seed-transmitted viruses are ever increasing. Though we have succeeded in developing detection techniques and management strategies for seed-borne disease of fungal, bacterial and nematode origin, there is an urgent need to develop a very strong regional centre with a repository of antisera of important viruses for serodiagnosis.

At present, only 21.5% of total area is under irrigation in Gujarat. With commissioning of Narmada Project, area under irrigation in western zone will increase many folds and it will have an enormous impact on the incidence of various plant disease problems due to change in microclimate. Under such emerging scenario, plant pathologists of this zone will have to share greater responsibility.

Development of resistance in fungal pathogens against fungicides is one of the major current problems arising out of repeated and irrational use of fungicides which mostly goes undetected and leads to failure of fungicides even after timely application at correct concentration. Therefore, regular monitoring and detection of resistance build up is necessary.

There are no definite developed models using several methods for management of a disease or all the diseases of a crop. Hence, it is the present day need to be fine tuned with the overall concept of IDM. To reduce the use of chemicals in IPM approach, it would be expedient to integrate several agrochemicals like insecticides, fungicides, acaricides, antibiotics, nematicides, weedicides, hormones etc. under a given set of situations to reduce application cost. It would require comprehensive studies on compatibility, synergism and toxicity to plants and animals. To do this a nodal agency could be identified and assigned this responsibility.

Molecular biology techniques are powerful tools and have opened tremendous possibilities for genetically engineered resistance. We have to catch up with the advanced countries in the area of tissue culture, transgenic plant etc., otherwise importing the technology will be costly. For collaborative research programmes/joint ventures, can we not think of having inter-institutional programmes between universities to give philip to biotechnological research?