

The task of blending genetic materials well adapted to local growing conditions with high-yielding disease-resistant plasma from local and foreign sources is a skilled and time-consuming task. It is also a never-ending one. Mutations of infective agents occur, making modified varieties necessary. As more water, fertilizer, and better practice become common, new and better seeds can profitably be employed. As mechanization of agriculture takes place, adaptations of plants may be required. As intensity of cultivation increases, and also as it becomes necessary to use the high river flows during the monsoon period more efficiently, crops will be needed which mature more quickly. As development of areas with salty underground water occurs, high-yielding, salt-resistant stocks will be desirable. Selection and breeding for quality of product become important. This need for quality ranges from nutritive requirements, to ease of baking, to fiber quality for export and manufacture.

The required expansion must take place in the Provincial centers, as well as in the project areas. The primary breeding effort should be concentrated in the main educational and research centers, combined with localized breeding and field testing in project areas to test local adaptability. There needs to be a two-way flow between these two activities.

Foreign personnel will be required for a considerable period, a decade or more, to help until Pakistani scientists acquire training and experience. Key foreign personnel in this part of the program should be assigned on a task basis, rather than for fixed periods of rotation.

At all stages, but especially in the first years, extreme care should be used in the release of improved or new seeds for use by the farmers. To maintain momentum of development, increasing cooperation of the farmers is of the greatest importance. A new variety that might fail unexpectedly would be a serious blow to the confidence of the farmers in the area authority.

Pest Control and Plant Protection

Crop pests in West Pakistan are a major contributing factor to the current low yields of production. Field experience demonstrates the economic efficacy of chemical treatment. For administrative purposes, plant protection measures in the field can be divided into two classes - those undertaken communally, and those undertaken individually.