Abstract

This book complements the traditional approach to plant breeding by addressing a number of issue specifically related to the participation of farmers in a plant breeding programme, and provides a comprehensive description and assessment of the use of participatory plant breeding in developing countries. It is aimed at plant breeders, social scientists, students and practitioners interested in learning more about its use, with the hope that they all will find a common ground to discuss ways in which plant breeding can be beneficial to all and can contribute to alleviate poverty.

Item Type: Book

Functional Participation. Plant breeders can direct their research according to the needs of the specific groups of farmers (women, men, rich, poor). The physical and economic resource bases of different people necessitate tailored research approaches. Farmers can assure plant breeders that they are assessing tradeoffs among traits correctly. On-farm research assures that varieties will produce well under “real life” conditions. Increasing farmer knowledge and skills so that farmers can participate more fully in the collaborative breeding efforts and be better at their own, personal efforts. What activities can PPB include? Identifying breeding objectives. Generating genetic variability (including the provision of plants to be included in breeding program). Participatory Plant Breeding (PPB) Participatory Variety Selection (PVS) A general model of participatory plant breeding Decentralized plant breeding. HOW TO GET STARTED: ORGANIZATIONAL ISSUES Setting criteria to identify target environments and target users Type of participation Choice of genetic material Choice of parental material Choice of breeding method When farmer participation should start Naming of varieties Management of trials in farmers’ fields Managing equipment Farmer selection Visits to farmers Managing the transition phase Sharing. In several sections the Manual draws on a recently published book: Plant Breeding and Farmer Participation (Ceccarelli, Guimaraes and Weltzien, 2009). Participatory research, particularly participatory plant breeding (PPB), can increase the relevance of public-sector research to the agricultural community. PPB has mostly been used in developing countries with resource-poor farmers, but there is increasing interest among farmers in developed countries who are dissatisfied with the performance of available varieties. In 2006, scientists associated with the winter and spring wheat breeding programs in the Department of Crop and Soil Sciences and the Department of Community and Rural Sociology at Washington State University (WSU) conducted a sur... Collaboration of farmers and breeders: Participatory crop improvement in perspective. Euphytica 122:425–438.