

PARTICIPATORY EVALUATION OF NEW DISEASE RESISTANT AND ANDEAN LANDRACE POTATOES IN ETHIOPIA

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Advanced, disease resistant tetraploid clones with highest Fe and Zn concentrations and selected diploid group *Phureja* accessions were evaluated by farmers and researchers in Ethiopia in 2013 to gain their appreciation of tuber yield and consumption traits using a participatory approach. Nineteen farmers (10 female and 9 male) and five research technicians participated in the evaluation. Participants were asked to list traits for describing and discussing potato varieties at harvest of tubers and after cooking for consumption and rank the best clones from all the clones harvested from the field trial for the traits they identified. Farmers identified five attributes: tuber color, tuber size, tuber number, tuber shape and freeness from any tuber disease and insect pest attack as important criteria for evaluating new varieties at harvest. For both men and women, the most important criterion was freeness from damage of any pest and disease, followed by tuber number and tuber size. However, in ranking of potato tuber characteristics, women placed a higher value on tuber shape, and men did so on tuber color. Farmers also assessed the clones for appearance of boiled potatoes on plates. In this assessment, the recently-released local variety 'Belete' (CIP393371.58) and the new introductions CIP397067.2 and CIP703295 were the top three clones, rated excellent for appearance after boiling by men whereas for women, clones CIP703295, CIP706828 and CIP397067.2 were ranked as excellent. Clone CIP704205 was rated excellent for both taste and texture. This clone produced 27.31 tons ha⁻¹ total tuber yield and 22.96 tons ha⁻¹ marketable tuber yield. Other clones most preferred were CIP397067.2 and CIP706828 for taste and CIP704227 for texture. The Andean landrace cultivar group *Phureja* accession, CIP706828 was favored for its good taste by majority of the panelists and also produced good tuber yield (33.44 tons ha⁻¹ total tuber). *Phureja* cultivars are characterized by short dormancy which could enable year-round harvests in Ethiopia as a contribution to food security. From this preliminary participatory exercise with farmers, we learn that farmers are open to test new types of potatoes in their farming system. The conventional approach of developing varieties that have the same appearance as those farmers are accustomed to growing may actually restrict the introduction and exposure of farmers to novel, attractive and adapted germplasm.