

RESEARCH NEWS

TRUE POTATO SEED: AN ALTERNATIVE PLANTING MATERIAL OF POTATO FOR SRI LANKA

P. MALATHY, M.M. NUGALIYADDE and D.D.I. KAPUGAMA

Agricultural Research Station, Sita Eliya

In Sri Lanka, unavailability of quality seed at affordable price has led to decline in productivity and an increase in the cost of production of potato. However, usage of true potato seed (TPS) as planting material is found to be technically and economically feasible. Hence, it is essential to promote TPS technology to sustain potato system in Sri Lanka.

Exotic TPS progenies received from International Potato Center (CIP) were evaluated for desirable traits in terms of high yield, tolerance to late blight, early maturity and plant and tuber uniformity at the Agricultural Research Station, Sita Eliya since 1994. The performance of promising progenies was studied in farmers' fields of up country wet and intermediate zones. In order to introduce low cost, high quality self seed production among resource-poor farmers, TPS was introduced in the informal seed system. Steps involved in this activity were production of seedling tubers, seed tubers and ware potato.

It was found that HPS II/67 is one of the progenies identified as suitable for the TPS seed system as it produced high tuber yield of >25t/ha in the UCWZ and a moderate yield of 10-12 t/ha in the UCIZ. It also showed tolerance to late blight, plant and tuber uniformity and good palatability accepted by farmers and consumers. This progeny matures in 3- 3 ½ months, therefore, adapting well into the existing cropping system of UCWZ and highlands of UCIZ.

The cost of seeds for the production of seedling tubers was 7.5% in the TPS technology where as it costs 60% in the conventional seed system. Further, about 2000-2500 seedling tubers produced from 1g of TPS in 5 m² nursery area, which is equivalent to the number of conventional seed tubers in 100 kg. The cost of production of ware potato through true potato seed was about SL RS. 10 /kg, which is three times lower than the conventional system. Therefore, TPS could be used successfully in the seed system in Sri Lanka, and poor farming community will be gratefully benefited.