NEW ISCI’S POTATO VARIETIES SUITABLE TO BE GROWN IN MEDITERRANEAN EXTRA-SEASONAL CROPS

B. PARISI, F. GOVONI, P. RANALLI

Research Institute for Industrial Crops, ISCI, Via di Corticella 133, 40129 Bologna (I)
b.parisi@isci.it

Solanum tuberosum, breeding, earliness, tuber dormancy, Andean germplasm

In the year 2002 the economic return of extra-seasonal potato has been estimated in € 48.6 mln and the crop was grown on 24,000 ha. The Italian Regions more interested to these productions are: Apulia, Campania, Sardinia, Sicily and Molise.

During the cultivation the plants are subjected to different abiotic stress (heat, cold and drought) which reduce the performance of genotypes and their stability. The poor adaptability to Mediterranean areas exhibited by the current cultivar depends on their origin, which usually come from Northern countries. In order to improve the productivity of the extra-seasonal crops is necessary to perform the selection of new cultivar directly in Southern Regions.

In the frame of a potato research project granted by Italian Ministry of Agricultural and Foresty (MiPAF), a breeding programme is in progress at our Institute and new varieties developed.

This program has made large use of Andean germplasm in order to introgress genes for tolerance to abiotic stress into Solanum tuberosum L. Traditional and innovated methodologies have facilitated such process of selection. The advanced clones have been included in regional trials of Southern areas of our country and their performance evaluated.

Two promising breeding clone ‘ISCI 67’ and ‘ISCI 4052’ (named ‘Elmas’ and ‘Rubino’, respectively) have been submitted to the National Register Bureau for approval and released for large scale cultivation.