

# EXTENSIVE MANAGEMENT SYSTEM ENHANCES MARKETABLE YIELD OF TOMATO LANDRACES

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Landraces are valuable part of World agricultural heritage, however, the production of them requires compromises from consumers in terms of visual characteristics. In contrast with that of modern varieties, their so-called untouched genetic background still contains traits which contribute to the development of serious abiotic disorders; this characteristic severely ruins their marketability. In the past, these landraces were managed by extensive cultivation practices without any drastic intervention to the vegetative development of individual plants.

In the present study, a previously developed and tested extensive cultivation system was applied on three Hungarian tomato accessions ('Cegléd', 'Mátrafüred', and 'Gyöngyös') to compare the impact of pruning on the qualitative and quantitative yield parameters. For this, an experiment was set up in 2019 at the Experimental and Educational Field of Hungarian University of Agriculture and Life Sciences, Soroksár, Budapest. The main elements of the system are a manure layer on the soil, woven plastic fabric soil coverage, 2×2m plant spacing, and wooden frames for the support of tomato plants. The cultivation was done without any irrigation or additional nutrients. The results showed that the yield of 'Gyöngyös' is less influenced by pruning, while 'Cegléd' and 'Mátrafüred' showed nine- and fourteen-fold higher marketable yield, respectively, when not pruned in the applied extensive system. On the other hand, the weight of infected fruits was 2-5 times higher, possibly due to denser plant foliage. Nutritional analyses and replication of the open-field experiment will follow the present results.