SOME PRELIMINARY RESULTS OF AN EIP-AGRI PROJECT ON SWEET POTATO CULTIVATION

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The main objective of our EIP-AGRI project is to eliminate the yield stability problems regularly occurring in sweet potatoes, by elaborating site- and cultivar- specific technological solutions based on experimental results covering most aspects of cultivation. In parallel, the cultivar-specific adaptation and integration of the *in vitro* micropropagation method can make the first step towards establishing a pathogen-tested production system of the propagating material. During the first two years (2019-2021) of the 3-year project, the following preliminary results were recorded:

- Under the climatic conditions of South-East Hungary, the cultivation of sweet potato in greenhouse is not recommended due to the extremely poor storage root yields achieved. At a large foliage of all the 8 genotypes involved, the yield per plant values were between merely 358 grams (cv. 'Tápió 96') and 18 grams (cv. 'Purple'). In general, the white-fleshed genotypes tolerated the protected growth conditions better.
- The beneficial effect of flat planting compared to ridge planting without mulch cover was detected on sandy soil. The cv. 'Ásotthalmi12' yielded 579 vs. 474 g plant^{-1} in the two cultivation systems, respectively, but the difference was not statistically significant.
- Omission of irrigation had significantly negative influence on the storage root yield of cv. 'Purple' (drip-irrigated: 2,690 vs. non-irrigated: 1,455 g plant^{-1}). The over-average yield, however, could be achieved due to a beneficial distribution of precipitation in the crop-year.
- The hormone composition of the induction media can influence the multiplication rate in *in vitro* micropropagation. MS-based media both with and without the addition of BAP can result in better results, depending on the sweet potato genotype.

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