



"Solidarity in a competing world fair use of resources"

## Production and Distribution of Food Crop Diversity in Urban Horticultural Plots in Havana (Cuba)

MARIA LAVINIA MAYRHOFFER, FRIEDRICH LEITGEB, CHRISTIAN R. VOGL

University of Natural Resources and Life Sciences (BOKU), Dept. of Sustainable Agricultural Systems, Austria

## Abstract

Urban horticultural plots have been a major element of Cuba's national strategy to ensure food security for citizens. Urban horticulture in Havana has become an internationally recognised popular movement, especially since production focuses on local, selfsufficient and ecological approaches. This study explores production conditions of selected horticultural plots in Havana (Cuba). The plant species composition, yields, the management of the plots and socio-economic factors that influence production were examined. The selection of horticultural plots occurred via judgment sampling. In the year 2013, thirty structured interviews with producers, administrators and workers were conducted. On-site observation of work processes, direct marketing and visits to farmers' markets completed this data. The results show no significant differences in appearance (e.g. structure of the plant beds, fencing) of horticultural plots and their production methods (irrigation, plant protection, fertilisation, tillage), however, the size of the plots differ. All plots used agroecological cultivation methods. Specifically in 25 of 30 plots compost and so-called biopreparados (prepared from Nicotiana tabacum, -rustica, Azadirachta indica and agricultural lime) were applied. The diversity of food crops is high, 47 food crop species from 27 families were identified in all plots. Species grown provided yields from 4.5–348 tonnes ha<sup>-1</sup> year<sup>-1</sup> in total in all plots, with leafy-vegetables being the most cultivated species. Horticultural production in Havana exemplifies a system that generates high production volumes through relatively low input of production factors in urban land use. The variability of data obtained did not allow an economic benefit calculation of individual plots. Further studies will be required.

**Keywords:** Agrobiodiversity, agroecology, organic farming, urban farming, urban gardening, urban agriculture

Contact Address: Christian R. Vogl, University of Natural Resources and Life Sciences (BOKU), Dept. for Sustainable Agricultural Systems, Gregor-Mendel-Strasse 33, 1180 Vienna, Austria, e-mail: christian.vogl@boku.ac.at