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## Characterization of *Cucurbita* spp. germplasm to broaden squash and pumpkin genetic background

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*Cucurbita* spp. (gourds, squashes, and pumpkins) are important genetic resources to broaden not only the genetic background of the commercially important summer squash types like Zucchini, but also to develop new rootstocks to manage and control soil-borne diseases in other cucurbits like watermelon and melon. The characterization of landraces and wild *Cucurbita* accessions searching for resistances to the main pathogens affecting cucurbit crops is of great interest, mainly with the aim to adapt and reintroduce highly appreciated local varieties in more sustainable production systems and to introduce new resistant rootstocks. In the framework of the project presented, a screening for resistance to Zucchini Yellow Mosaic Virus (ZYMV) and for two emerging species from *Fusarium solani* species complex (FSSC), *Neocosmospora falciformis* and *N. keratoplastica*, is being carried out. Among a germplasm collection previously characterized by RNA-seq, a first subset of genotypes (including *Cucurbita moschata*, *C. maxima*, *C. pepo*, *C. cordata*, *C. argyrosperma*, *C. foetidissima*, *C. pedatifolia*, *C. ecuadorensis*, *C. lundelliana* and *C. okeechobensis*) have been selected based on the genetic relationships obtained with the Neighbour Joining cluster analysis carried out with the 96-accessions whole collection. Until now, a total of thirty-four and twenty accessions have been assessed based on symptom severity after artificial inoculation with ZYMV (isolate Courgette) and with *N. falciformis* and *N. keratoplastica* (isolates MYC-1450 and MYC-1256), respectively. Despite the high susceptibility found, some accessions belonging to *C. moschata*, like the well-known virus-resistant Nigerian Local accession, and to *C. ecuadorensis* have been considered of interest for future studies about the genetic control and mechanisms of their resistance/tolerance that will enable their introgression in other genetic backgrounds.

Key words: *Cucurbita* genus, germplasm collection, screening for genetic resistance, ZYMV, FSSC, *Neocosmospora*