

## ANALYSIS OF SIMILARITY IN MORPHOLOGY OF SPECIES AND INDIVIDUALS OF THE SUBGENUS *Persea*

E.Campos<sup>1</sup>, T.Terrasas<sup>2</sup>, L.López<sup>2</sup> and M.C Espíndola<sup>1</sup>

<sup>1</sup>Programa de Fruticultura. Colegio de Postgraduados, Montecillo 56230, Estado de México, México. [educamro@yahoo.com.mx](mailto:educamro@yahoo.com.mx)

<sup>2</sup>Programa de Botánica, Colegio de Postgraduados, Montecillo 56230, Estado de México, México

The main goal of this analysis was to determine the morphological similarities among species of the subgenus *Persea* and characters of horticultural interest for genetic improvement. Based on the Main Components Analysis (MCA), 17 quantitative characters caused a variation in 46.21% of the cases. When only flower and fruit characters are used, 14 characters caused a variation in 58.19% of the cases. Flowers and fruits are informative organs to be incorporated in genetic improvement programmes by selecting materials of either small seed and big fruits, or bigger number of flowers for inflorescence, with more flowers. Similitude Analysis (SA) limited the distinction of the subgenus *Persea* species; however, it revealed the likeness among morphological structures, which facilitates decision-making for breeding programs. To determine the similarity among the species of *Persea* when qualitative characters are used, it is better to consider flower, fruit and seed characters or the combination of fruit and seed characters. SA and MCA are methods that can be useful to determine associations and delimitation of species in breeding programmes of subgenus *Persea*; however, these methods are not useful to determine the character status that makes differences among materials, for which a phylogenetic analysis is more informative.