

EVALUATION OF GROWING CHARACTERS AND PARAMETERS IN SUNFLOWER SEEDLINGS  
(*Helianthus annuus* L.)

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Seedlings' growing characters and parameter of 26 sunflower hybrids were evaluated together with the possibility of using them as vigour indicators. The observations included the thickness and length of hypocotyl under free growing conditions (without weight) and with progressive weight of 5, 10, 15 and 20 grams. We recorded the seedlings' capacity for lifting and supporting each weight imposed during the growing after 7 days, in terms of work units (Joules). Besides, the seedlings' weight elevation capacity was determined and we elaborated an index relating the weight elevation height and the hypocotyl length. We found a strong tendency for all cultivars to increase the variability of the characters and parameters studied -expressed by the variation coefficient (CV.)- when were subjected to increasing efforts. Therefore, the hypocotyl thickness character presented CV. values of 11,7 % and 13,7 %. The weight elevation capacity presented CV. values comprised between 15,25 % and 165,6 %. The work done by seedlings presented CV. values between 15,24 % and 100,4 %. The index registered significant correlations between the 1000 seeds weight and the hypocotyl thickness and length with progressive weight. The correlations between the 1000 seeds weight in respect with: work done by seedlings, weight elevation capacity and the index value, were also no significant. The hypocotyl length character under growing with weight had no significant correlation neither with seedlings work nor with weight elevation capacity. None correlation was founded between the hypocotyl thickness and length under free growing and growing with different weight. Only the hypocotyl thickness character under growing with weight presented a positive correlation tendency ( $r = 0.66$ ) related with the work done by the seedlings. None of the characters and parameters studied might be used as certain vigour index.