Genotype × year interaction and broad-sense heritability of architectural characteristics in rose bush

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Titre	Genotype × year interaction and broad-sense heritability of architectural characteristics in rose bush
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Mots-clés	ornamental woody plant [5], phenotypic variation [6], Plant architecture [7], Rosa [8], Shape [9]
Résumé en anglais	The effect of genotype factors, year and their interaction was assessed on six architectural variables of eight cultivars of rose bush. Plants were grown in pots in a greenhouse in the spring of 2011 and 2012, two highly contrasted years in terms of the quantity of cumulative radiation, with a relative deviation (for 2012 compared to 2011) ranging from −24.6% (April) to +13.7% (March). Their architecture was digitized at two observation scales, the plant and the axis. Highly significant genotype (G) and year (Y) effects were revealed for all of the variables measured, as well as a G × Y interaction. Concerning the year effect, it was significantly higher in 2012 and for all of the variables measured. The G × Y interaction was due to (i) different genotype groupings according to year, (ii) difference response amplitudes between years according to genotype. Broad-sense heritability was calculated for each of these variables. It was moderate to high, ranging from 48% for the length of long axes to 98% for the number of metamers on long axes.
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