

Table S3. Two-way ANOVA analysis of the significance of pairwise interactions of among: *Helianthus verticillatus* genotype, explant source, and induction medium on plant regeneration frequency and the number of explants producing shoot.

Tested parameters	Variation source	Sum of Squares	F value	P value [Pr(>F)]
<i>Genotype × Induction Medium</i>				
Explants forming shoots (%)	Genotype	100694.0	78.3	<2.20E-16***
	Induction Medium	941.0	1.5	2.34E-01ns
	Genotype × Induction Medium	12242.0	4.7	2.05E-05***
Number of shoots per explants	Genotype	348.7	54.2	<2.20E-16***
	Induction Medium	3.7	1.2	3.16E-01***
	Genotype × Induction Medium	27.2	2.1	3.56E-02*
<i>Genotype × Plant Source</i>				
Explants forming shoots (%)	Genotype	100694.0	74.7	<2.20E-16***
	Plant Source	4358.0	12.9	3.97E-04***
	Genotype × Plant Source	3624.0	2.7	3.21E-02***
Number of shoots per explants	Genotype	348.7	74.0	<2.20E-16***
	Plant Source	36.9	31.3	6.22E-08***
	Genotype × Plant Source	85.1	18.1	6.50E-03*
<i>Induction Medium × Plant Source</i>				
Explants forming shoots (%)	Induction Medium	941.0	0.6	5.41E-01ns
	Plant Source	4358.0	5.7	1.78E-02*
	Induction Medium × Plant Source	1989.0	1.3	2.74E-01ns
Number of shoots per explants	Induction Medium	3.7	0.6	5.36E-01ns
	Plant Source	36.9	12.4	5.25E-04***
	Induction Medium × Plant Source	2.9	0.5	6.18E-01ns

*Significant at $p < 0.05$; **significant at $p < 0.01$; ***significant at $p < 0.001$; ns not significant.

Due to lack of significance for the triple interaction “genotype × plant source × induction medium” on plant regeneration frequency and the number of explants producing shoot, all possible pairwise interactions of studied factors (genotype, plant source, induction medium) were investigated separately using two-way ANOVAs, followed by post-hoc Tukey HSD tests ($\alpha = 0.05$).