

Supplementary materials

Table S1. Numbers of different callus types in each Substrate Sterilization combination for each variety, scored after eight months of culture, losses due to infection were excluded.

Cultivar	Callus types	C - LS	C - HS	NC - LS	NC - HS	Total
Italia	● Flower	1295	525	1365	455	3640
	● Total callus (TC)	174	56	131	39	400
	● Friable callus (FC)	150	46	122	33	351
	● Hard callus (HC)	23	6	5	2	36
	● Embryogenic callus (EC)	1	4	4	4	13
Aglianico	● Flower	490	210	490	210	1400
	● Total callus (TC)	96	61	47	54	258
	● Friable callus (FC)	62	26	23	40	151
	● Hard callus (HC)	20	33	12	12	77
	● Embryogenic callus (EC)	14	2	12	2	30
Chardonnay	● Flower	140	280	210	210	840
	● Total callus (TC)	50	163	30	81	324
	● Friable callus (FC)	21	66	11	44	142
	● Hard callus (HC)	3	14	11	12	40
	● Embryogenic callus (EC)	26	83	8	25	142

Table S2. Analysis of Variance for callus types with three factors.

Callus types	Cultivar (DF = 2)				Substrate (DF = 1)				Sterilization (DF = 1)			
	SumSq	MeanSq	Fvalue	Pr(>F)	SumSq	MeanSq	Fvalue	Pr(>F)	SumSq	MeanSq	Fvalue	Pr(>F)
CT	1.024	0.512	15.345	$4 \times 10^{-6} ***$	0.261	0.261	7.813	0.007 **	0.081	0.081	2.423	0.125
FC	0.088	0.044	1.352	0.267	0.129	0.129	3.959	0.051	0.028	0.028	0.852	0.360
HC	0.268	0.134	8.898	$4 \times 10^{-4} ***$	0.023	0.023	1.529	0.221	0.002	0.002	0.146	0.704
EC	1.199	0.599	88.695	$2 \times 10^{-16} ***$	0.028	0.028	4.195	0.045 *	0.047	0.047	6.894	0.011 *
Factor Interaction												
Callus types	Cultivar*Substrate (DF = 2)				Cultivar*Sterilization (DF = 2)				Substrate*Sterilization (DF = 1)			
	SumSq	MeanSq	Fvalue	Pr(>F)	SumSq	MeanSq	Fvalue	Pr(>F)	SumSq	MeanSq	Fvalue	Pr(>F)
CT	0.083	0.041	1.237	0.298	0.236	0.118	3.530	0.036 *	0.015	0.015	0.453	0.504
FC	0.019	0.009	0.292	0.748	0.125	0.062	1.918	0.156	0.054	0.054	1.650	0.204
HC	0.030	0.015	0.992	0.377	0.043	0.021	1.412	0.252	0.005	0.005	0.312	0.579
EC	0.208	0.104	15.376	$4 \times 10^{-6} ***$	0.067	0.033	4.931	0.011 *	2×10^{-4}	2×10^{-4}	0.025	0.875

*** = $p < 0.001$; ** = $p < 0.01$; * = $p < 0.05$

Table S3. Analysis of Variance of embryogenic calluses (EC) on each Cultivar

Cultivar	Substrate (DF = 1)				Sterilization (DF = 1)				Substrate*Sterilization (DF = 1)			
	SumSq	MeanSq	Fvalue	Pr(>F)	SumSq	MeanSq	Fvalue	Pr(>F)	SumSq	MeanSq	Fvalue	Pr(>F)
Italia	3×10^{-4}	3×10^{-4}	0.092	0.763	0.0230	0.0230	7.812	0.008 **	2×10^{-6}	2×10^{-6}	8×10^{-4}	0.978
Aglianico	0.003	0.003	0.273	0.611	0.008	0.008	0.779	0.395	0.006	0.006	0.579	0.461
Chardonnay	0.246	0.246	12.492	0.008 **	0.069	0.069	3.545	0.096	0.003	0.003	0.152	0.706

*** = $p < 0.001$; ** = $p < 0.01$; * = $p < 0.05$