

**Table S1.** Composition of Murashige – Skoog's medium (MS) and its modifications, AMS and ABMS media.

Component	Amount in MS medium, mg L <sup>-1</sup>	Amount in AMS medium, mg L <sup>-1</sup>	Amount in AMS medium, mg L <sup>-1</sup>
NH <sub>4</sub> NO <sub>3</sub>	1650.00	825.00	825.00
KNO <sub>3</sub>	1900.00	1900.00	950.00
CaCl <sub>2</sub> · 2H <sub>2</sub> O	440.00	440.00	440.00
MgSO <sub>4</sub> · 7H <sub>2</sub> O	370.00	370.00	370.00
KH <sub>2</sub> PO <sub>4</sub>	170.00	170.00	170.00
NaH <sub>2</sub> PO <sub>4</sub> · H <sub>2</sub> O	170.00	170.00	170.00
H <sub>3</sub> BO <sub>3</sub>	6.20	6.20	6.20
MnSO <sub>4</sub> · 4H <sub>2</sub> O	16.90	16.90	16.90
ZnSO <sub>4</sub> · 7H <sub>2</sub> O	8.60	8.60	8.60
KI	0.83	0.83	0.83
Na <sub>2</sub> MoO <sub>4</sub> · 2H <sub>2</sub> O	0.25	0.25	0.25
CoCl <sub>2</sub> · 6H <sub>2</sub> O	0.025	0.025	0.025
CuSO <sub>4</sub> · 5H <sub>2</sub> O	0.025	0.025	0.025
FeSO <sub>4</sub> · 7H <sub>2</sub> O	27.84	27.84	27.84
Na <sub>2</sub> EDTA · 2H <sub>2</sub> O	37.26	37.26	37.26
Mesoinosit	100.00	100.00	100.00
Thiamine chloride*	0.50	0.50	0.50
Pyridoxine chloride	0.50	0.50	0.50
Nicotinic acid	0.50	0.50	0.50

\* 0.1 mg L<sup>-1</sup> is given by Murashige and Skoog (1962)

**Table S2.** Analysis of variance of the seed infection rate during in vitro establishment, as influenced by disinfection treatment.

Source of variation	Sum of squares	DF	F-value	P-value
Seed treatment	0.22	4	12.84	<0.001
Replication	0.01	3	0.79	0.52
Residuals	0.05	12		

**Table S3.** Analysis of variance of the origin on *Eryngium maritimum* in vitro germination rate.

Source of variation	Sum of squares	DF	F-value	P-value
Seed origin	6714.2	6	6.16	0.001
Replicate	572.4	3	1.05	0.395
Residuals	3271.9	18		

**Table S4.** Analysis of variance of the impact of basal media composition and supplementation of media with various cytokinins and the concentration of the cytokinins on the number of regenerated axillary shoots.

Source of variation	Sum of squares	DF	F-value	P-value
PGR	1205.00	4	124.93	<0.001
M	19.31	2	4.00	0.02
C	0.00	1	0.00	0.99
PGR : C	3.19	4	0.33	0.86
PGR : M	27.04	8	1.40	0.19
M : C	8.43	2	1.75	0.18
Residuals	711.33	295	-	-

PGR—plant growth regulator; M—medium; C—cytokinin concentration

**Table S5.** Analysis of variance of the impact of basal media composition and supplementation of media with various cytokinins and the concentration of the cytokinins on the number of >16 mm long regenerated axillary shoots.

Source of variation	Sum of squares	DF	F-value	P-value
PGR	28.10	1	4.79	0.03
M	41.82	2	3.56	0.03
C	8.57	1	1.46	0.23
PGR : C	0.00	1	0.00	0.99
PGR : M	14.28	2	1.23	0.30
M : C	18.68	2	1.59	0.21
Residuals	3271.9	18		

PGR—plant growth regulator; M—medium; C—cytokinin concentration

**Table S6.** Analysis of variance of the impact of basal media composition and supplementation of media with various cytokinins and the concentration of the cytokinins on the number of 10 - 15 mm long regenerated axillary shoots.

Source of variation	Sum of squares	DF	F-value	P-value
PGR	31.50	1	4.13	0.04
M	2.60	2	0.17	0.84
C	220.34	1	28.90	<0.001
PGR : C	8.19	1	8.19	0.30
PGR : M	21.15	2	10.58	0.25
M : C	4.13	2	2.06	0.76
Residuals	724.23	95	7.62	

PGR—plant growth regulator; M—medium; C—concentration

**Table S7.** Analysis of variance of the impact of basal media composition and supplementation of media with various cytokinins and the concentration of the cytokinins on the shoot basal callus size.

Source of variation	Sum of squares	DF	F-value	P-value
PGR	169.55	4	409.2	<0.001
M	2.21	2	10.7	<0.001
C	14.73	1	142.2	<0.001
PGR : C	5.19	4	12.5	<0.001
PGR : M	1.38	8	1.7	0.106
M : C	0.05	2	0.2	0.798
Residuals	30.56	295	-	-

PGR—plant growth regulator; M—medium; C—cytokinin concentration

**Table S8.** Analysis of variance of the impact of media macrosalt content and concentration of indole-3-acetic on number of roots formed.

Source of variation	Sum of squares	DF	F-value	P-value
M	4.4	1	0.57	0.448
C	223.5	1	29.25	<0.001
M : C	63.6	1	8.32	0.004
Residuals	11513	1507	-	-

M—medium; C—concentration of indole-3-acetic acid; DF—degrees of freedom

**Table S9.** Analysis of variance of the impact of mericlone on the root development of *E. maritimum* in vitro plantlets.

Source of variation	Sum of squares	DF	F-value	P-value
Mericlone	2.28	2	3.293	0.039
Replication	1.55	3	1.497	0.216
Residuals	87.6	253	-	-

**Table S10.** Analysis of variance of the impact of mericlone on the survival of *E. maritimum* in vitro plantlets 21 days after ex vitro transplantation.

Source of variation	Sum of squares	DF	F-value	P-value
Mericlone	0.005	2	0.296	0.744
Replication	0.008	2	0.498	0.608
Residuals	1.972	254	-	-

**Table S11.** Analysis of variance of the impact of mericlone on the number of leaves of *E. maritimum* in vitro plantlets 21 days after ex vitro transplantation.

Source of variation	Sum of squares	DF	F-value	P-value
Mericlone	16.7	2	2.115	0.125
Replication	7.2	2	0.907	0.405
Residuals	996.2	252	-	-

**Table S12.** Analysis of variance of the impact of artificial light quality on the number of leaves of *E. maritimum* ex vitro plantlets 21 days after ex vitro transplantation.

Source of variation	Sum of squares	DF	F-value	P-value
L	11.2	2	1.305	0.274
Residuals	707.1	165	-	-

L—artificial light quality; DF—degrees of freedom

**Table S13.** Analysis of variance of the impact of artificial light quality on the survival of *E. maritimum* ex vitro plantlets 21 days after ex vitro transplantation.

Source of variation	Sum of squares	DF	F-value	P-value
L	1.55	2	0.3	0.746
Residuals	30.94	12	-	-

L—artificial light quality; DF—degrees of freedom

**Table S14.** Analysis of variance of the impact of substrate on the number of leaves of the mericlone M2 plantlets 21 days after ex vitro transplantation.

Source of variation	Sum of squares	DF	F-value	P-value
S	32.7	1	8.775	0.003
Residuals	659.9	177	-	-

S—substrate; DF—degrees of freedom

**Table S15.** Analysis of variance of the impact of substrate on the plantlet survival of the mericlone M2 21 days after ex vitro transplantation.

Source of variation	Sum of squares	DF	F-value	P-value
L	1.55	2	0.3	0.746
Residuals	30.94	12	-	-

S—substrate; DF—degrees of freedom

**Table S16.** Analysis of variance of the impact of pot cell diameter on the survival of *E. maritimum* ex vitro plantlets 21 days after transplantation.

Source of variation	Sum of squares	DF	F-value	P-value
M	2.8	1	0.153	0.705
P	1455.6	1	79.207	<0.001
R	115.3	3	2.092	0.172
M : P	0.1	1	0.007	0.937
Residuals	165.4	9	-	-

M—mericlone; P—pot size; R—replication; DF—degrees of freedom

**Table S17.** Analysis of variance of the impact of pot cell diameter on the number of leaves of *E. maritimum* ex vitro plantlets 21 days after transplantation.

Source of variation	Sum of squares	DF	F-value	P-value
M	415.3	1	39.765	<0.001
P	658.6	1	63.060	<0.001
R	24.1	3	0.768	0.513
M : P	7.0	1	0.668	0.415
Residuals	2715.6	260	-	-

M—mericlone; P—pot size; R— replication; DF—degrees of freedom

**Table S18.** Analysis of variance of the impact of planting date and cultivation length on field survival rate.

Source of variation	Sum of squares	DF	F-value	P-value
P	7252	1	194.3	<0.001
T	2269	1	60.8	<0.001
R	122	2	1.633	0.271
P : T	102	1	2.735	0.149
Residuals	224	6	-	-

P—planting date; T—cultivation time; R—replication; DF—degrees of freedom

**Table S19.** Analysis of variance of the impact of mericlone and cultivation length on field survival rate.

Source of variation	Sum of squares	DF	F-value	P-value
M	250.7	2	2.063	0.178
T	1467.0	1	24.143	<0.001
R	104.9	2	0.863	0.451
M : T	42.4	2	0.349	0.714
Residuals	607.6	10	-	-

M—mericlone; T—cultivation time; R—replication; DF—degrees of freedom