Supplementary Datasheet 2. Results of the statistical analysis.

Datasheet 2.1 Results of the independent samples *t*-test and of Levene's test on the radicle volume (mm^3) data of the seedling with hypocotyl grown in the substrate with nutrient in GRE and in ISS.

T Test: Two Independent Samples

					Levene's test
					H_0 = variances of all treatments are equal

SUMMARY			Hyp Mean Diff	0	$F<F$critical $\leftrightarrow$ p-value$>\alpha$
Groups	*Count*	*Mean*	*Variance*	*Cohen d*	type · p-value
GRE	10.0000	0.5670	0.0654		means · 0.2279
ISS	6.0000	0.4845	0.0324		medians · 0.2312
Pooled			0.0536	0.3564	trimmed · 0.2279

T TEST: Equal Variances — Alpha 0.0500

	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	0.1195	0.6901	14.0000	0.2507	1.7613			no	0.1814
Two Tail	0.1195	0.6901	14.0000	0.5014	2.1448	-0.1739	0.3389	no	0.1814

T TEST: Unequal Variances — Alpha 0.0500

	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	0.1093	0.7551	13.4685	0.2318	1.7709			no	0.2015
Two Tail	0.1093	0.7551	13.4685	0.4636	2.1604	-0.1535	0.3185	no	0.2015

Datasheet 2.2 Results of the independent samples *t*-test and of Levene's test on the radicle mean diameter (mm) data of the seedling with hypocotyl grown in the substrate with nutrient in GRE and in ISS.

T Test: Two Independent Samples

					Levene's test
					H_0 = variances of all treatments are equal

SUMMARY			Hyp Mean Diff	0	$F<F$critical $\leftrightarrow$ p-value$>\alpha$
Groups	*Count*	*Mean*	*Variance*	*Cohen d*	type · p-value
GRE	10.0000	0.3633	0.0042		means · 0.9157
ISS	6.0000	0.3188	0.0046		medians · 0.9090
Pooled			0.0044	0.6741	trimmed · 0.9157

T TEST: Equal Variances — Alpha 0.0500

	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	0.0341	1.3053	14.0000	0.1064	1.7613			no	0.3294
Two Tail	0.0341	1.3053	14.0000	0.2128	2.1448	-0.0286	0.1176	no	0.3294

T TEST: Unequal Variances — Alpha 0.0500

	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	0.0345	1.2902	10.2836	0.1130	1.8125			no	0.3732
Two Tail	0.0345	1.2902	10.2836	0.2260	2.2281	-0.0323	0.1213	no	0.3732

Datasheet 2.3 Results of the independent samples *t*-test and of Levene's test on the radicle length (mm) data of the seedling with hypocotyl grown in the substrate with nutrient in GRE and in ISS.

T Test: Two Independent Samples										Levene's test	
										H_0 = variances of all treatments are equal	
										$F<F$critical ↔ p-value>α	
SUMMARY			Hyp Mean Diff		0						
										type	p-value
Groups	Count	Mean	Variance	Cohen d							
GRE	10.0000	5.4899	1.1943							type	p-value
ISS	6.0000	7.2075	17.5673							means	0.0567
Pooled			7.0418	0.6473						medians	0.1949
										trimmed	0.0567

T TEST: Equal Variances				Alpha	0.0500				
	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	1.3703	1.2534	14.0000	0.1153	1.7613			no	0.3176
Two Tail	1.3703	1.2534	14.0000	0.2306	2.1448	-4.6567	1.2215	no	0.3176

T TEST: Unequal Variances				Alpha	0.0500				
	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	1.7457	0.9839	5.4112	0.1852	2.0150			no	0.3896
Two Tail	1.7457	0.9839	5.4112	0.3703	2.5706	-6.2049	2.7697	no	0.3896

Datasheet 2.4 Results of the independent samples *t*-test and of Levene's test on the radicle tortuosity data of the seedling with hypocotyl grown in the substrate with nutrient in GRE and in ISS.

T Test: Two Independent Samples										Levene's test	
										H_0 = variances of all treatments are equal	
										$F<F$critical ↔ p-value>α	
SUMMARY			Hyp Mean Diff		0						
										type	p-value
Groups	Count	Mean	Variance	Cohen d							
GRE	10.0000	1.1615	0.0107							type	p-value
ISS	6.0000	1.2223	0.0187							means	0.2879
Pooled			0.0136	0.5222						medians	0.2794
										trimmed	0.2879

T TEST: Equal Variances				Alpha	0.0500				
	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	0.0601	1.0113	14.0000	0.1645	1.7613			no	0.2609
Two Tail	0.0601	1.0113	14.0000	0.3290	2.1448	-0.1897	0.0681	no	0.2609

T TEST: Unequal Variances				Alpha	0.0500				
	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	0.0647	0.9393	8.4538	0.1875	1.8595			no	0.3074
Two Tail	0.0647	0.9393	8.4538	0.3751	2.3060	-0.2101	0.0885	no	0.3074

Datasheet 2.5 Results of the independent samples *t*-test and of Levene's test on the radicle volume (mm^3) data of the seedling with hypocotyl grown in ISS in the substrate with nutrient (N) and in that with water only (W).

T Test: Two Independent Samples					Levene's test	
					H_0 = variances of all treatments are equal	
SUMMARY			Hyp Mean Diff	0	$F < F$critical ↔ p-value > α	
Groups	*Count*	*Mean*	*Variance*	*Cohen d*	type	p-value
W	6.0000	0.5549	0.0693		means	0.2197
N	6.0000	0.4845	0.0324		medians	0.2261
Pooled			0.0508	0.3122	trimmed	0.2197

T TEST: Equal Variances				Alpha	0.0500				
	std err	*t-stat*	*df*	*p-value*	*t-crit*	*lower*	*upper*	*sig*	*effect r*
One Tail	0.1302	0.5407	10.0000	0.3003	1.8125			no	0.1685
Two Tail	0.1302	0.5407	10.0000	0.6006	2.2281	-0.2197	0.3605	no	0.1685

T TEST: Unequal Variances				Alpha	0.0500				
	std err	*t-stat*	*df*	*p-value*	*t-crit*	*lower*	*upper*	*sig*	*effect r*
One Tail	0.1302	0.5407	8.8361	0.3009	1.8331			no	0.1790
Two Tail	0.1302	0.5407	8.8361	0.6018	2.2622	-0.2241	0.3649	no	0.1790

Datasheet 2.6 Results of the independent samples t-test and of Levene's test on the radicle mean diameter (mm) data of the seedling with hypocotyl grown in ISS in the substrate with nutrient (N) and in that with water only (W).

T Test: Two Independent Samples					Levene's test	
					H_0 = variances of all treatments are equal	
SUMMARY			Hyp Mean Diff	0	$F < F$critical ↔ p-value > α	
Groups	*Count*	*Mean*	*Variance*	*Cohen d*	type	p-value
W	6.0000	0.2953	0.0021		means	0.7206
N	6.0000	0.3188	0.0046		medians	0.7403
Pooled			0.0033	0.4063	trimmed	0.7206

T TEST: Equal Variances				Alpha	0.0500				
	std err	*t-stat*	*df*	*p-value*	*t-crit*	*lower*	*upper*	*sig*	*effect r*
One Tail	0.0333	0.7037	10.0000	0.2488	1.8125			no	0.2172
Two Tail	0.0333	0.7037	10.0000	0.4977	2.2281	-0.0977	0.0508	no	0.2172

T TEST: Unequal Variances				Alpha	0.0500				
	std err	*t-stat*	*df*	*p-value*	*t-crit*	*lower*	*upper*	*sig*	*effect r*
One Tail	0.0333	0.7037	8.7220	0.2497	1.8331			no	0.2318
Two Tail	0.0333	0.7037	8.7220	0.4994	2.2622	-0.0988	0.0519	no	0.2318

Datasheet 2.7 Results of the independent samples t-test and of Levene's test on the radicle length (mm) data of the seedling with hypocotyl grown in ISS in the substrate with nutrient (N) and in that with water only (W).

T Test: Two Independent Samples								Levene's test	
								H_0 = variances of all treatments are equal	
SUMMARY			Hyp Mean Diff	0				$F<F$critical $\leftrightarrow$ p-value$>\alpha$	
Groups	Count	Mean	Variance	Cohen d				type	p-value
W	6.0000	9.6446	8.9035					means	0.7702
N	6.0000	7.2075	17.5673					medians	0.9982
Pooled			13.2354	0.6699				trimmed	0.7702

T TEST: Equal Variances				Alpha	0.0500				
	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	2.1004	1.1603	10.0000	0.1364	1.8125			no	0.3445
Two Tail	2.1004	1.1603	10.0000	0.2729	2.2281	-2.2429	7.1172	no	0.3445

T TEST: Unequal Variances				Alpha	0.0500				
	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	2.1004	1.1603	9.0324	0.1379	1.8331			no	0.3602
Two Tail	2.1004	1.1603	9.0324	0.2758	2.2622	-2.3143	7.1887	no	0.3602

Datasheet 2.8 Results of the independent samples t-test and of Levene's test on the radicle tortuosity data of the seedling with hypocotyl grown in ISS in the substrate with nutrient (N) and in that with water only (W).

T Test: Two Independent Samples								Levene's test	
								H_0 = variances of all treatments are equal	
SUMMARY			Hyp Mean Diff	0				$F<F$critical $\leftrightarrow$ p-value$>\alpha$	
Groups	Count	Mean	Variance	Cohen d				type	p-value
W	6.0000	1.5966	0.1761					means	0.1278
N	6.0000	1.2223	0.0187					medians	0.2533
Pooled			0.0974	1.1992				trimmed	0.1278

T TEST: Equal Variances				Alpha	0.0500				
	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	0.1802	2.0771	10.0000	0.0323	1.8125			yes	0.5490
Two Tail	0.1802	2.0771	10.0000	0.0645	2.2281	-0.0272	0.7758	no	0.5490

T TEST: Unequal Variances				Alpha	0.0500				
	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	0.1802	2.0771	6.0518	0.0415	1.9432			yes	0.6451
Two Tail	0.1802	2.0771	6.0518	0.0831	2.4469	-0.0666	0.8152	no	0.6451

Datasheet 2.9 Pearson correlation coefficients and p-values between the seed volume (mm^3) data and the morphometric parameters of radicles.

	Radicle volume mm^3	Radicle mean diameter mm	Radicle length mm	Radicle tortuosity
Pearson coefficient	0.304	0.186	0.101	0.054
p-value	0.169	0.406	0.655	0.811