

Supplementary Materials (horticulturae-1904925)

Table S1. Data from two-way ANOVA analysis of variance of debris contamination of microspore culture preparations depending on the method of microspore isolation, linear size of buds, and genotype on the first day of cultivation.

genotype	ANOVA	Df	SS	MS	F	<i>p</i>
spring rapeseed 'Ratnik'	intercept	1	425.91	425.91	993.10	0.000000
	isolation method	2	178.71	89.35	208.35	0.000000
	bud size	3	46.86	15.62	36.42	0.000000
	isolation method × bud size	6	27.13	4.52	10.55	0.000009
	Error	24	10.29	0.43		
	Total	35	262.99			
European radish 'RBK'	intercept	1	4732.12	4732.12	1175.96	0.000000
	isolation method	2	4279.00	2139.50	531.68	0.000000
	bud size	4	576.76	144.19	35.83	0.000000
	isolation method × bud size	8	1673.81	209.23	51.99	0.000000
	Error	30	120.72	4.02		
	Total	44	6650.29			

Note: Df - Degrees of freedom; SS - sum-of-squares; MS - Mean squares; F - F ratio; *p* - P values.

Table S2. Data from two-way ANOVA analysis of variance of ratio of different fractions of microspores in spring rapeseed 'Ratnik' and the European radish 'RBK' microspore population according to bud size and method of isolation.

genotype	fraction	ANOVA	Df	SS	MS	F	<i>p</i>
spring rape- seed 'Ratnik'	№1	intercept	1	28,500.19	28,500.19	2864.99	0.000000
		isolation method	2	134.02	67.01	6.77	0.004764
		bud size	3	25,228.80	8409.60	845.38	0.000000
		isolation method*bud size	6	1623.28	270.55	27.20	0.000000
		Error	24	238.75	9.95		
		Total	35	27,224.84			
	№2	intercept	1	77,284.00	77,284.00	5639.11	0.000000
		isolation method	2	2175.94	1087.97	79.38	0.000000
		bud size	3	5966.10	1988.70	145.11	0.000000
		isolation method*bud size	6	963.76	160.63	11.72	0.000004
		Error	24	328.92	13.71		
		Total	35	9434.72			
	№3	intercept	1	21,146.01	21,146.01	1220.69	0.000000
		isolation method	2	1883.91	941.95	54.38	0.000000
		bud size	3	18,231.57	6077.19	350.82	0.000000
		isolation method × bud size	6	2243.99	374.00	21.59	0.000000
		Error	24	415.75	17.32		
		Total	35	22,775.22			
European rad- ish 'RBK'	№1	intercept	1	187,972.49	187,972.49	8912.51	0.000000
		isolation method	2	958.38	479.19	22.72	0.000001
		bud size	4	20,732.35	5183.09	245.75	0.000000
		isolation method × bud size	8	1946.44	243.30	11.54	0.000000
		Error	30	632.73	21.09		
		Total	44	24,269.90			
	№2	intercept	1	33,929.57	33,929.57	2164.61	0.000000
		isolation method	2	1902.96	951.48	60.70	0.000000
		bud size	4	9350.82	2337.71	149.14	0.000000
		isolation method × bud size	8	1768.04	221.00	14.10	0.000000
		Error	30	470.24	15.67		
		Total	44	13,492.06			
	№3	intercept	1	2604.19	2604.19	469.09	0.000000
		isolation method	2	426.56	213.28	38.42	0.000000
		bud size	4	3993.61	998.40	179.84	0.000000
		isolation method × bud size	8	610.04	76.26	13.74	0.000000
		Error	30	166.55	5.55		
		Total	44	5196.76			

Note: Df - Degrees of freedom; SS - sum-of-squares; MS - Mean squares; F - F ratio; *p* - P values.

spring rapeseed 'Ratnik'

	Df	SS	MS	F	p
intercept	1	760,144.5	760,144.5	770.199	0.000000
isolation	1	206,724.5	206,724.5	209.459	0.000000
bud size	2	459,140.3	229,570.2	232.607	0.000000
isolation × bud size	2	87,440.3	43,720.2	44.299	0.000003
Error	12	11,843.3	986.9		
Total	17	765,148.5			

spring rapeseed 'Hurma'

	Df	SS	MS	F	p
intercept	1	16,754,331	16,754,331	8,143.419	0.000000
isolation	1	98,272	98,272	47.765	0.000016
bud size	2	2,491,275	1,245,637	605.440	0.000000
isolation × bud size	2	103,531	51,766	25.161	0.000051
Error	12	24,689	2,057		
Total	17	2,717,767			

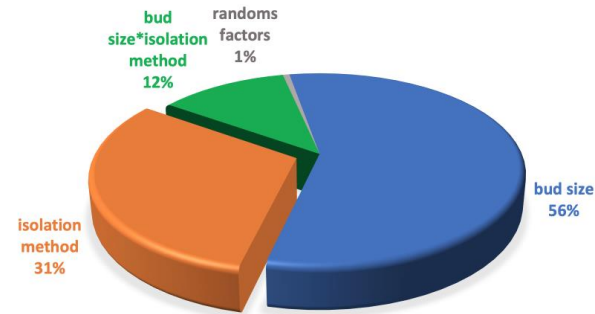
European radish 'RBK'

	Df	SS	MS	F	p
intercept	1	117.556	117.556	29.803	0.000145
isolation	1	32.000	32.000	8.113	0.014670
bud size	2	23.111	11.556	2.930	0.092028
isolation × bud size	2	36.000	18.000	4.563	0.033581
Error	12	47.333	3.944		
Total	17	138.444			

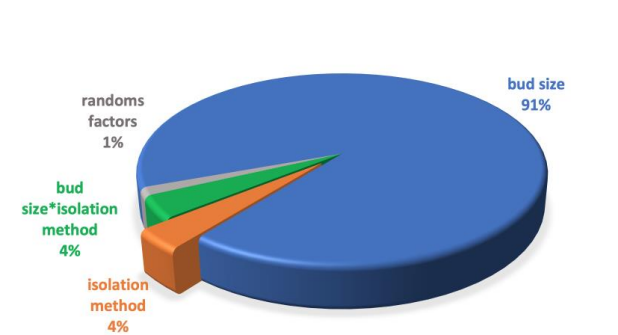
white cabbage 'Parus'

	Df	SS	MS	F	p
intercept	1	1,290.667	1,290.667	356.046	0.000000
isolation	1	192.667	192.667	53.149	0.000002
bud size	3	749.000	249.667	68.874	0.000000
isolation × bud size	3	151.667	50.556	13.946	0.000099
Error	16	58.000	3.625		
Total	23	1,151.333			

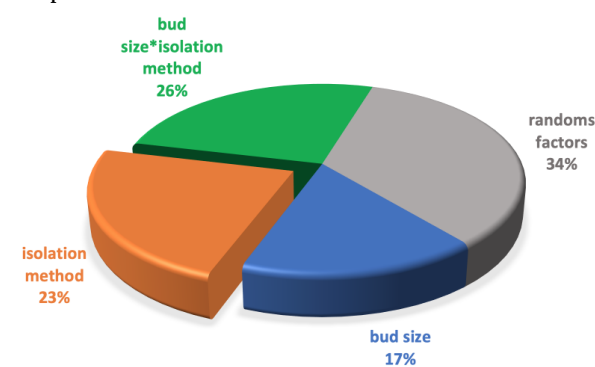
spring rapeseed 'Ratnik'



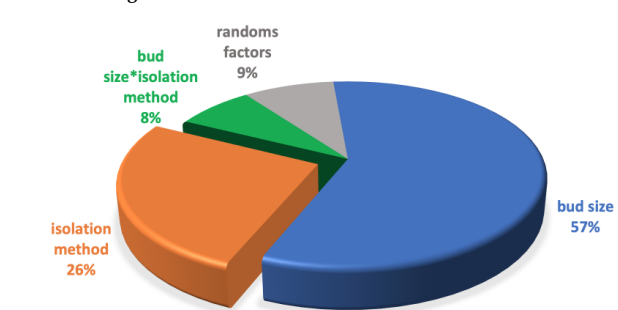
spring rapeseed 'Hurma'



European radish 'RBK'



white cabbage 'Parus'



Sareptian mustard 'Sudarushka'

	Df	SS	MS	F	p
intercept	1	2,713.389	2,713.389	117.406	0.000000
isolation	1	346.722	346.722	15.002	0.002215
bud size	2	492.444	246.222	10.654	0.002187
isolation × bud size	2	7.111	3.556	0.154	0.859068
Error	12	277.333	23.111		
Total	17	1,123.611			

Sareptian mustard breeding accession №72

	Df	SS	MS	F	p
intercept	1	1,027.556	1,027.556	194.695	0.000000
isolation	1	696.889	696.889	132.042	0.000000
bud size	2	250.778	125.389	23.758	0.000067
isolation × bud size	2	119.444	59.722	11.316	0.001731
Error	12	63.333	5.278		
Total	17	1,130.444			

red cabbage breeding accession №128

	Df	SS	MS	F	p
intercept	1	364.500	364.500	1,093.500	0.000000
isolation	1	364.500	364.500	1,093.500	0.000000
bud size	2	201.000	100.500	301.500	0.000000
isolation × bud size	2	201.000	100.500	301.500	0.000000
Error	12	4.000	0.333		
Total	17	770.500			

red cabbage breeding accession №139

	Df	SS	MS	F	p
intercept	1	1,233.389	1,233.389	331.358	0.000000
isolation	1	329.389	329.389	88.493	0.000001
bud size	2	1,430.778	715.389	192.194	0.000000
isolation × bud size	2	388.778	194.389	52.224	0.000001
Error	12	44.667	3.722		
Total	17	2,193.611			

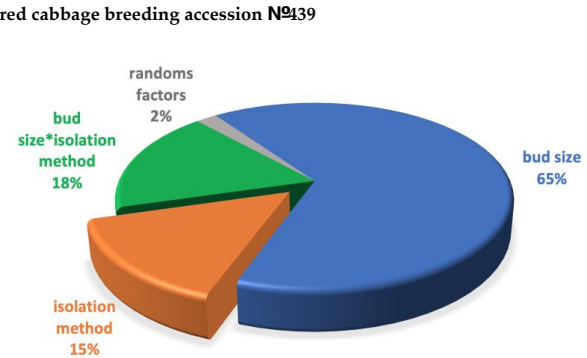
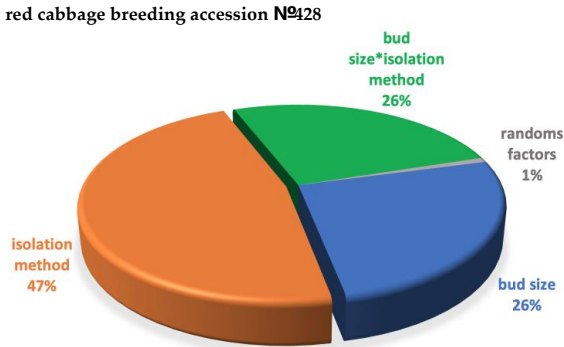
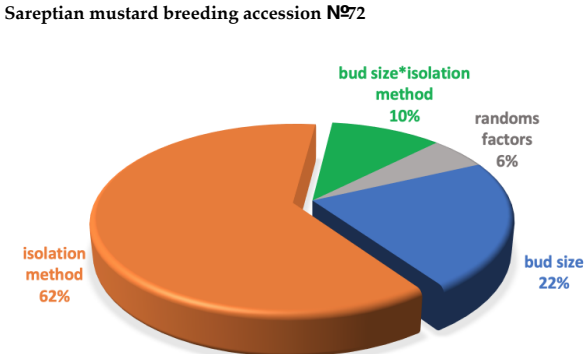
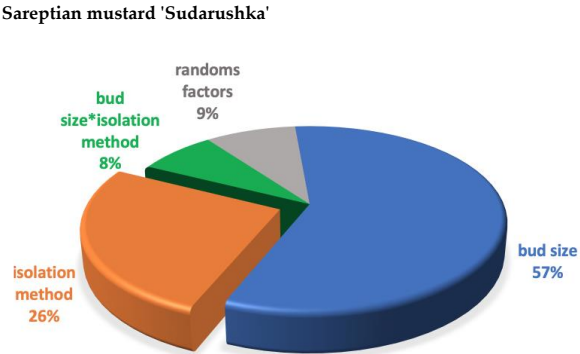


Figure S1. Data from two-way ANOVA analysis of variance and the contribution of the influence of factors of embryoid yield at day 30 of culture depending on the method of isolation method, linear size of buds, and genotype (The contribution of the influence of factors was calculated as the ratio of the SS of each factor to the total SS). Note: Df - Degrees of freedom; SS - sum-of-squares; MS - Mean squares; F - F ratio; p - P values.