

# Does shoot age influence biological and chemical properties in black currant (*Ribes nigrum* L.) cultivars?

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Content: **Table S1.** Average data (2018/2109) for 13 studied black current cultivars studied

Table S1. Average data (2018/2109) of all analyzed traits in 13 black current cultivars studied.

N o	Variables	Samples																									
		Ben sarek		Ben nevis		Bona		Ben lomond		Ometa		Tenah		Silmu		Titania		Moling juel		Ojebin		Tsema		Triton		Čačanska crna	
		3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2
		year	year	year	year	year	year	year	year	year	year	year	year	year	year	year	year	year	year	year	year	year	year	year	year	year	year
		BS 3#	BS 2	BN 3	BN 2	BO 3	BO 2	BL 3	BL 2	O M3	O M2	TE 3	TE 2	SI3	SI2	TI3	TI2	MJ 3	MJ 2	OJ 3	OJ 2	TS 3	TS 2	TR 3	TR 2	CC 3	CC 2
1	Bud burst Beginning of blooming	59.	62.	61.	63.	56.	58.	61.	65.	60.	64.	61.	63.	60.	64.	67.	73.	59.	63.	60.	63.	60.	65.	59.	62.	60.	63.
†		50	50	00	00	50	50	50	50	50	00	00	50	50	00	50	50	00	50	00	00	00	50	00	00	00	
2		84.	88.	84.	88.	81.	84.	82.	87.	83.	86.	84.	86.	84.	87.	84.	87.	83.	84.	83.	85.	81.	86.	83.	85.	81.	85.
		00	50	00	00	50	00	00	00	00	50	50	50	50	00	00	00	00	50	50	50	00	50	50	50	00	00
3	Full blooming Beginning of	99.	102	100	103	94.	99.	97.	101	101	104	100	104	101	103	101	104	95.	97.	101	104	95.	99.	98.	102	94.	97.
		50	.00	.00	.50	50	00	00	.50	.00	.00	.50	.00	.00	.50	.00	.00	00	00	.50	.00	00	00	50	.50	00	00
4	harvest Cluster weight	167	172	173	178	160	165	176	179	182	187	172	175	169	173	170	174	175	179	175	179	172	177	170	173	172	175
		.50	.00	.50	.00	.00	.00	.50	.00	.00	.50	.00	.00	.00	.50	.00	.00	.00	.00	.00	.00	.00	.50	.00	.50	.00	.50
5	(g)	9.6	7.4	7.3	5.4	12.	8.8	7.2	5.8	7.1	5.8	9.3	7.8	7.9	6.6	10.	7.8	9.1	7.3	7.0	5.9	11.	8.6	7.3	6.0	9.0	7.3
		5	5	5	0	35	0	5	0	0	0	0	0	0	0	30	0	0	0	0	80	0	0	5	5	5	5
6	Cluster length Number of	5.7	5.4	5.3	4.9	5.5	4.4	7.0	6.6	6.3	5.7	6.4	5.9	5.7	5.9	6.2	5.6	7.7	6.6	5.3	5.3	8.5	7.7	6.2	5.7	8.5	7.5
		0	5	5	0	0	5	0	0	5	0	5	5	0	5	5	0	0	5	5	0	0	0	0	5	0	0
7	flowers per cluster Number of	8.3	6.8	7.2	6.5	8.7	8.0	8.2	7.4	9.4	8.3	8.9	8.2	11.	9.3	10.	8.8	10.	8.6	6.9	6.6	13.	11.	9.6	8.4	10.	9.6
		0	5	5	5	5	5	0	5	5	0	5	0	40	0	20	5	00	5	0	0	85	15	0	5	75	0
8	berries per cluster	6.4	5.5	4.7	4.4	6.4	5.9	7.1	6.3	7.1	6.9	6.4	6.0	7.3	6.0	8.8	7.7	7.8	6.6	5.9	5.9	9.4	8.3	6.8	6.0	8.6	7.4
		5	0	5	5	5	0	5	5	5	5	0	5	0	5	0	5	0	5	5	5	5	0	5	5	0	0
9	Fruit set	78.	80.	65.	67.	76.	75.	87.	85.	76.	83.	71.	73.	64.	65.	86.	86.	79.	77.	85.	88.	68.	74.	71.	73.	80.	76.
		95	05	35	85	70	30	00	10	95	55	40	80	40	15	30	70	10	95	65	75	60	45	60	60	20	50
1	Berry weight (g)	1.6	1.2	1.6	1.2	2.0	1.4	1.0	0.9	1.0	0.8	1.5	1.2	1.0	1.0	1.1	1.0	1.2	1.1	1.2	1.0	1.1	1.0	1.1	0.9	1.1	0.9
0		0	5	5	0	5	5	5	0	5	0	0	0	5	5	5	0	0	0	5	0	5	5	5	5	0	5
1	Berry diameter (mm)	14.	12.	14.	12.	15.	14.	12.	10.	12.	11.	13.	13.	12.	11.	12.	11.	12.	11.	12.	11.	12.	11.	12.	10.	12.	11.
1		00	60	00	95	45	80	05	85	05	05	75	30	55	20	75	95	60	85	70	60	30	90	55	90	55	80
1	Length of shoot (cm)	64.	94.	78.	114	72.	110	107	146	79.	125	66.	114	96.	146	81.	135	98.	153	69.	110	101	130	58.	119	80.	126
2		40	80	50	.75	15	.40	.15	.25	50	.95	65	.45	20	.20	00	.95	60	.15	10	.40	.95	.25	35	.55	65	.70
1	Number of clusters per shoot	19.	62.	17.	66.	16.	53.	22.	53.	16.	53.	21.	47.	16.	53.	16.	57.	32.	65.	8.6	26.	30.	54.	17.	47.	20.	58.
3		45	95	00	20	30	35	90	70	00	80	15	75	25	40	20	10	20	40	5	50	00	60	15	45	10	30
1	Yield per shoot (kg)	188	504	125	403	200	469	165	311	112	312	194	370	128	358	167	445	288	473	61.	156	350	469	125	286	183	429
4		.65	.45	.90	.80	.45	.55	.90	.00	.35	.05	.05	.95	.30	.05	.60	.70	.45	.50	40	.35	.40	.65	.00	.10	.15	.85
1	% of shoot yield in total yield	27.	72.	23.	76.	29.	70.	34.	65.	26.	74.	34.	65.	27.	72.	28.	71.	38.	61.	27.	72.	42.	57.	29.	70.	30.	69.
5		20	80	60	40	95	05	75	25	00	00	15	85	30	70	30	70	35	65	90	10	60	40	95	05	35	65
1		212	177	189	169	172	154	221	194	250	229	160	148	157	138	151	138	205	182	166	139	189	162	171	152	211	193
6		.30	.80	.60	.30	.30	.25	.95	.95	.30	.75	.60	.45	.25	.75	.25	.25	.30	.25	.25	.80	.10	.35	.30	.05	.90	.85
1	total antoc aglicones	609	517	662	466	569	485	679	475	963	682	439	328	607	529	539	492	626	460	523	472	602	430	551	520	553	485
7		.70	.90	.55	.70	.05	.80	.55	.15	.30	.00	.50	.85	.45	.20	.45	.90	.95	.25	.55	.70	.35	.65	.95	.30	.45	.10
1		254	200	250	203	243	189	260	198	382	272	218	158	253	198	218	197	240	179	218	191	240	151	218	191	262	223
8		.70	.30	.80	.60	.50	.10	.15	.40	.25	.20	.05	.00	.10	.70	.60	.25	.95	.20	.60	.95	.95	.90	.60	.95	.70	.20
1	del 3 glu	115	85.	112	98.	104	78.	136	91.	196	103	45.	26.	113	87.	99.	73.	136	106	93.	67.	124	93.	108	82.	88.	63.
9		.25	50	.30	15	.05	05	.90	15	.20	.75	50	10	.65	65	15	15	.90	.15	85	85	.60	85	.05	05	75	75
2		221	218	255	134	210	207	234	164	317	241	152	127	220	222	205	207	215	145	200	202	203	155	200	221	170	172
0		.95	.90	.25	.35	.75	.70	.50	.70	.15	.90	.95	.70	.35	.30	.85	.80	.30	.50	.55	.50	.00	.50	.55	.70	.00	.80
2	cya 3 rut	17.	13.	44.	30.	10.	10.	48.	20.	67.	64.	23.	17.	20.	20.	15.	14.	33.	29.	10.	33.	29.	24.	24.	32.	25.	
1		80	20	20	60	75	95	00	90	70	15	00	05	35	55	85	70	80	40	55	40	80	40	75	60	00	35

2		3.5	4.2	3.6	4.1	4.1	4.4	2.8	3.1	3.2	3.5	4.4	4.8	3.8	4.2	5.0	5.6	3.7	4.1	5.0	5.3	3.3	3.6	2.6	2.7	3.5	3.8
2	dpph	0	0	0	5	0	0	5	5	5	5	0	0	0	5	5	0	0	0	5	0	5	5	0	5	5	5
2		2.0	1.8	2.2	1.9	1.2	1.1	1.3	1.2	1.5	1.0	1.7	1.2	1.1	1.0	1.1	0.8	1.4	1.3	1.0	0.8	1.2	1.2	1.0	0.9	0.9	0.8
3	kempfer	0	5	0	0	0	0	0	0	5	0	5	0	5	0	0	0	5	0	5	5	0	5	5	5	5	5
2		3.0	3.2	3.2	3.0	2.8	2.5	2.7	2.7	2.1	1.9	2.8	2.6	2.9	2.5	2.6	2.8	2.2	2.4	2.0	2.2	3.4	3.0	2.0	1.8	2.4	2.3
4	myricetin	5	0	0	0	0	0	0	0	0	0	5	5	0	5	0	5	0	5	0	5	5	5	0	5	5	0
2		7.1	6.2	7.3	5.8	7.3	6.5	5.4	5.1	8.3	7.2	8.1	7.0	5.8	5.5	4.1	3.8	7.3	7.0	6.4	5.3	8.2	7.6	5.2	5.3	7.2	7.2
5	quercetin	5	5	0	5	0	0	0	5	0	0	0	0	0	0	5	5	5	5	0	0	5	5	0	5	0	0
2		12.	11.	12.	10.	11.	10.	9.4	9.1	11.	10.	12.	10.	9.8	9.0	7.8	7.5	11.	10.	9.3	8.3	12.	11.	8.2	8.0	10.	10.
6	total flavanoids	20	25	70	75	25	10	0	0	95	10	65	80	5	5	5	0	00	80	5	5	90	95	5	5	50	35
2	Total soluble	12.	11.	12.	11.	11.	9.7	13.	11.	17.	14.	13.	11.	14.	12.	13.	10.	14.	11.	13.	10.	13.	11.	14.	12.	14.	11.
7	solids (%)	40	10	65	10	10	5	60	60	25	45	55	35	85	10	30	40	35	45	40	75	55	00	20	70	25	75
2		2.2	2.2	2.3	2.3	1.7	1.8	1.6	1.6	2.4	2.4	1.8	1.9	1.7	1.6	1.3	1.4	1.8	2.0	2.1	2.1	1.8	1.8	1.8	2.0	1.8	2.0
8	Total Acids (%)	5	0	0	0	5	0	0	5	0	0	5	0	0	5	5	0	5	5	0	0	5	0	0	0	0	0
2		8.8	8.0	9.0	7.1	8.7	7.0	8.3	7.7	13.	10.	9.4	8.3	10.	9.4	9.2	8.0	10.	8.7	9.0	7.4	9.4	7.6	10.	9.7	11.	8.1
9	Total sugars (%)	0	5	5	0	5	5	5	0	40	25	0	5	30	0	0	5	20	0	0	0	5	5	65	5	85	5
3		3.9	3.6	3.9	3.2	5.8	4.6	5.2	4.7	6.0	4.8	5.0	4.5	6.1	6.0	6.9	5.7	5.7	4.3	4.4	3.9	5.3	4.4	6.1	5.4	7.4	4.6
0	Sweetness	0	5	0	0	0	0	0	5	5	0	0	0	0	5	5	0	0	0	0	0	5	5	0	5	0	0
3	Ascorbic acid	125	134	149	113	130	113	142	136	137	123	132	126	135	119	133	123	149	153	115	100	158	123	140	113	152	153
1	(mg/100 g)	.00	.30	.55	.20	.45	.80	.00	.95	.90	.95	.90	.80	.00	.05	.35	.90	.00	.40	.75	.80	.40	.90	.90	.60	.75	.30

‡ Abbreviations correspond to the score plots in PCA analysis (Fig 2A).

† Abbreviations correspond to the factor loadings in PCA analysis (Fig 2B).