

European Network for Blackcurrant Cultivar Evaluation

Table 1. Ripening and flowering time and number of strigs of blackcurrant cultivars

Cultivars	Ripening time (scores)						Time of beginning of flowering (scores)						Number strigs per node (scores)					
	LT	LV	EE	N	DK	RO	LT	LV	EE	N	DK	RO	LT	LV	EE	N	DK	RO
'Almiai'	4	4	5		5		4	4	5		5		1	1	1		1	
'Ben Alder'	7	6	7	5	7		5	5	5	5	5		1	1	1	1	1	
'Ben Gairn'	7	8		5	3	5	7	9		5	5	5	1	1		1	1	1
'Ben Hope'	7	7		7	7	7	7	8		5	5	5	1	1		1	2	1
'Gagatai'	5	6	5		5		5	5	5		3	5	2	2	1		2	
'Intercontinental'	5	5	5	3			3	3	5	3			1	1	1	1		
'Polar'	4	4	3	3			3	2	5	3			1	1	1	1		
'Ruben'	5	6	5		6	5	5	6	5		5	5	1	1	1	1	1	1
'Tiben'	5			3	5	5	5			5	5	3	2				2	1
'Titania' /control	5	5	7	5	4	7	5	4	5	5	5	7	1	1	1	1	2	1
Average	5	6	5	4	5	6	5	5	5	4	5	5	1	1	1	1	2	1

Table 2. Vigor, habit and number of basal shoots of blackcurrant cultivars

Cultivars	Vigor (scores)						Habit (scores)						Number of basal shoots (scores)					
	LT	LV	EE	N	DK	RO	LT	LV	EE	N	DK	RO	LT	LV	EE	N	DK	RO
'Almiai'	5	5	5		3		5	5	3		7		4	3	5		5	
'Ben Alder'	6	5	5	5	3		5	5	5	5	5		5	3	5	3	5	
'Ben Gairn'	5	5		5	3	3	5	5		3	7	3	4	4		3	7	3
'Ben Hope'	5	5		5	4	5	5	5		3	7	3	3	3		5	5	3
'Gagatai'	5	6	5		7		5	6	3		5		5	3	5		7	
'Intercontinental'	5	5	5	3			5	3	5	5			5	5	5	3		
'Polar'	4	5	3	3			5	6	5	5			4	3	5	3		
'Ruben'	5	5	5		5	6	4	4	3		5	5	4	3	5		7	3
'Tiben'	5			5	5	6	5			3	5	7	5			3	7	7
'Titania' /control	7	7	7	7	7	7	5	5	5	3	4	7	5	5	5	5	7	3
Average	5	5	5	5	5	5	5	5	4	4	6	5	4	4	5	4	6	4

Table 3. Yield and weight of berries of blackcurrant cultivars

Cultivars	Yield (kg/bush)						Weight of 100 berries (g)					
	LT	LV	EE	N	DK	RO	LT	LV	EE	N	DK	RO
'Almiai'	3.5	1.8				4.1	124	100	80		112	
'Ben Alder'	3.3	2.5			3.5	4.0	105	82	150	91	55	
'Ben Gairn'	1.0				1.2	1.7	0.1	118		85	77	79
'Ben Hope'	1.2				2.6	3.4	0.2	90		110	78	82
'Gagatai'	2.2	1.2				2.9	126	111	140		85	
'Intercontinental'	2.0	2.3	1.4	2.6			144	128	140	205		
'Polar'	1.5	1.3	1.5	2.8			114	99	160	105		
'Ruben'	2.9				2.8	1.8	98		130		85	90
'Tiben'	2.5				4.2	2.6	2.5	64		140	79	85
'Titania' /control	2.7	2.1	1.1	4.5	1.7	0.3	88	104	100	135	93	101
Average	2.3	1.9	1.3	3.1	2.9	1.0	107	104	129	124	83	87

Table 4. Chemical composition of blackcurrant cultivars

Cultivars	Soluble solids (Brix, %)						Ascorbic acid (mg 100g ⁻¹)						Anthocyanins (mg 100g ⁻¹)			
	LT	LV	EE	N	DK	RO	LT	LV	EE	N	DK	RO	LT	LV	EE	DK
'Almiai'	13	13	16		13	130	163	156		121		258	162	182	346	
'Ben Alder'	16	14	16	16	13	119	160	160		99		355	263	172	341	
'Ben Gairn'	15			14	15	110				140	94	348			369	
'Ben Hope'	13			13	13	251				189	134	339			295	
'Gagatai'	14	15	15		13	121	152	115		91		301	188	164	303	
'Intercontinental'	15	18	16	13		110	111	174				125	130	95		
'Polar'	13	11	17	15		97	114	144				215	223	218		
'Ruben'	15		16		13	179		239		154		490		187	338	
'Tiben'	13			13	14	209				145	167	645			200	
'Titania'	15	15	18	17	13	115	123	148	145	73		175	171	183	216	
Average	14	14	16	14	13	144	119	162	155	117		325	190	172	301	

INTRODUCTION

Within the framework of the European network for blackcurrant cultivar evaluation trials were planted in 6 countries. The trials allow the evaluation of cultivar performance regarding phenological, morphological, production potential, berry quality and disease resistance characteristics in various climatic and geographical conditions.

MATERIALS AND METHODS

The following parameters using scale from 1 to 9 were evaluated for each cultivar:

plant data - ripening time, vigour, habit, number of basal shoots, number strigs per node, time of beginning of flowering; fruit data - firmness, uniformity of ripening, strigs length; chemical compounds in fruits - soluble solids (Brix, %), ascorbic acid (mg 100g⁻¹), anthocyanins (mg 100g⁻¹); productivity - yield (kg/bush) and weight of 100 berries (g); susceptibility to pest and diseases - gall mite (*Cecidophyopsis ribis*), leaf spot (*Septoria ribis*) and anthracnose (*Pseudopeziza ribis*).

RESULTS

* The earliest flowering time was observed on bushes of cvs. 'Intercontinental' and 'Polar'.

* More than two strigs per node had only cv. 'Ben Hope', 'Gagatai', 'Tiben' and control cv. 'Titania'.

* 'Titania' is more vigorous in all countries. Compact bush habit distinguished on cv. 'Ruben'. Bushes of Scotland cvs. 'Ben Gairn' and 'Ben Hope' grew less basal shoots.

* Short strigs length had cvs. 'Ben Gairn', while 'Almiai' and 'Polar' - longer.

* Cvs. 'Almiai', 'Ben Alder', 'Ruben' and 'Tiben' produced a higher yield during cropping years.

* The largest berries was observed in the cvs. 'Almiai', 'Gagatai', 'Intercontinental', 'Polar' and 'Titania'.

* The biggest amount of soluble solids was observed in the berries of 'Ben Alder', 'Ben Gairn', 'Intercontinental', 'Ruben' and 'Titania'.

* Berries of 'Almiai', 'Ben Hope', 'Ruben' and 'Tiben' had the bigger amount of ascorbic acid.

* The berries of cvs. 'Ben Gairn', 'Ben Hope', 'Ruben' and 'Tiben' accumulated the biggest amount of anthocyanins.

* Cvs. 'Ruben', 'Tiben', 'Ben Hope' and 'Ben Gairn' were almost free from gall mite.

* Cvs. 'Ruben' and 'Tiben' demonstrated the highest resistance to anthracnose.

* The highest resistance to leaf spot was observed in cv. 'Ruben'.

CONCLUSIONS

Based on results of General Value, 'Almiai', 'Ben Alder' and 'Ben Hope' were ranked better and can be recommended for the market in the investigated region. More information needed for blackcurrant cvs. 'Ben Gairn', 'Gagatai', 'Ruben' and 'Tiben'.