

Table S1. Evaluation of radish accessions by morphological characteristics and productivity when growing under controlled conditions of artificial light.

Accession number	Catalog number	Accession	Origin	Type	Rosette Height, cm	Rosette Diameter, cm	Leaf Length, cm	Leaf Width, cm	Root Length, cm	Root Diameter, cm	Root Index (Length/Diameter)	Plant Weight, g	Root Weight, g	Productivity, kg/m ²	Duration of Vegetative Phase, Days	Number of bolted plants, %	Degree of pubescence, score
		Small radish															
1	1233	Dunganskiy	China	Red Giant	27.2	17.4	14.2	8.3	7.1	2.4	3.0	45.1	27.3	2.6	32.8	0.0	1*
2	1543	Rose red with white tip	Russia	Pink-red with a White Tip	20.5	16.4	10.5	6.2	3.3	2.9	1.2	32.1	16.3	2.0	21.0	38.0	2
3	1545	Ispanskiy	Russia	Saxa	19.3	14.4	11.6	7.3	4.0	2.9	1.4	28.4	21.4	3.5	19.8	6.5	1
4	1546	Moskovskiy parovoy	Russia	White Icicle	22.7	19.9	12.6	7.2	9.8	1.9	5.1	48.7	20.3	2.5	25.3	0.0	1
5	1566	Ranniy sharlakhovyy	USA	Saxa	15.2	15.8	10.1	5.5	4.1	2.9	1.4	28.5	18.1	2.7	21.5	0.0	2
6	1666	Virovskiy white	Russia	Burpee's white	22.1	17.4	12.5	8.0	5.1	3.4	1.5	56.4	36.5	3.0	33.3	0.0	0
7	1667	Red giant	Russia	Red Giant	24.9	19.8	14.6	7.9	6.4	2.5	2.6	53.0	19.6	1.7	33.5	0.0	0
8	1705	Jigscap	Hungary	White Icicle	26.8	18.3	17.4	9.6	6.2	1.3	4.8	55.8	9.7	0.4	33.5	0.0	1
9	1742	Dreienbrunnen	Germany	Saxa	18.6	18.1	11.2	7.1	3.7	2.7	1.4	28.5	17.4	2.8	18.5	8.5	2
10	1762	Ohlsens Enke Halflong	Denmark	French Breakfast	17.8	15.1	9.6	5.6	4.2	2.6	1.6	26.4	23.4	4.2	20.5	0.0	2
11	1826	Rund rosenrod vetspetsig	Sweden	Pink-red with a White Tip	23.7	16.9	14.3	8.7	5.4	2.2	2.5	27.9	11.5	1.6	31.0	0.0	2
12	1858	Early Scarlet Globe	USA	Scarlet globe	18.1	12.2	9.5	6.5	2.9	2.3	1.3	15.6	6.6	1.1	20.5	0.0	2
13	1879	Long scarlet	India	Red Giant	27.1	18.9	15.5	8.4	11.3	1.5	7.5	50.2	22.0	1.5	32.5	33.5	1
14	1921	White round	China	Burpee's white	21.4	14.3	12.7	7.9	3.5	2.8	1.2	33.0	18.3	2.4	32.5	0.0	0
15	1923	Local white	China	Burpee's white	21.5	16.6	12.9	8.1	5.4	2.8	1.9	47.4	26.0	3.9	32.5	0.0	0
16	1933	Icicle	Canada	White Icicle	21.9	18.5	11.1	6.6	7.0	1.5	4.8	26.1	11.1	1.0	25.5	0.0	1

17	1936	Early Comet	Canada	Scarlet globe	16.1	13.4	9.6	5.5	4.1	2.1	2.0	17.1	10.8	1.7	20.5	0.0	2
18	1939	French Breakfast	Pakistan	French Breakfast	16.3	13.9	11.3	6.1	4.1	1.9	2.1	19.8	13.8	2.3	23.5	25.0	3
19	1941	Cavalier bright scarlet	Canada	Scarlet globe	15.2	13.0	9.4	5.5	3.9	2.5	1.6	18.6	11.6	1.2	21.5	5.0	2
20	1946	Darozi surx	Tajikistan	Red Giant	24.8	18.1	15.1	8.2	7.9	2.3	3.4	40.2	21.2	2.3	33.5	0.0	0
21	2010	Round Red white Tip	Denmark	Pink-red with a White Tip	21.5	13.8	12.0	7.2	3.1	2.9	1.1	27.6	13.4	0.8	20.5	17.3	2
22	2019	Early scarlet turnip	USA	Pink-red with a White Tip	22.9	14.2	12.4	9.1	5.7	2.7	2.1	56.4	18.1	2.9	20.5	20.0	1
23	2027	Roem van Zwijndrecht	Netherlands	Saxa	22.6	17.7	13.2	7.9	4.1	2.9	1.4	28.5	13.3	1.6	28.0	0.0	2
24	2057	№ 128	Mongolia	Burpee's white	24.4	18.3	15.4	8.1	4.2	2.8	1.5	28.9	14.4	1.5	28.0	30.0	2
25	2083	Saxa	Chile	Saxa	15.6	14.9	8.8	5.4	2.9	2.6	1.1	15.3	10.5	1.2	22.5	25.0	1
26	2086	Perondo punta blanca	Chile	Pink-red with a White Tip	19.9	12.9	10.1	6.6	3.2	2.4	1.3	21.3	11.7	1.4	20.5	22.0	2
27	2087	White Icicle	Chile	White Icicle	24.5	17.1	12.7	8.0	8.9	2.1	4.3	49.2	27.9	2.4	25.5	15.0	1
28	2097	Scarlet turnip white tip	Chile	Pink-red with a White Tip	20.6	13.7	11.2	7.0	3.8	2.5	1.5	29.5	20.2	2.8	20.5	13.0	2
29	2106	White Globe Hailstone	Chile	Hailstone	24.1	15.4	12.5	8.6	5.7	2.7	2.1	45.7	21.2	2.1	24.5	100.0	3
30	2111	Champion	Chile	Saxa	18.1	13.4	12.2	8.1	3.7	3.0	1.2	29.2	17.7	2.9	20.5	10.0	2
31	2120	Local	Turkey	Saxa	16.7	14.6	10.1	6.2	3.3	3.0	1.1	27.5	18.6	3.4	20.5	48.0	2
32	2122	IstapN 1687	Turkey	White Icicle	19.6	17.4	11.7	7.5	7.5	1.9	4.0	29.6	17.1	2.6	25.5	5.0	2
33	2127	Rosso Quarantino	Italy	Saxa	17.8	12.5	11.3	7.1	3.6	3.1	1.2	29.7	16.9	3.2	20.5	0.0	2
34	2130	Local	Azerbaijan	Pink-red with a White Tip	21.3	16.1	12.3	7.1	3.4	3.1	1.1	38.2	26.1	4.0	20.5	48.0	2
35	2133	Cherry Belle	Tanzania	Saxa	13.7	12.9	8.9	5.0	3.3	2.6	1.3	17.4	13.9	2.5	20.5	0.0	2
36	2136	Balady	Hungary	White Icicle	21.6	19.1	13.1	8.1	7.9	2.1	3.8	46.4	26.1	3.6	25.5	10.0	1

37	2141	Local	Iran	Würzburg	16.8	16.2	10.2	6.7	2.7	2.6	1.0	25.3	15.9	2.1	23.5	10.0	1
38	2154	Saxa 455 Extra chort Top Osená	Denmark	Saxa	16.9	10.9	9.4	5.9	3.6	3.0	1.2	22.7	15.9	3.0	20.5	0.0	3
39	2156	National rond rose about blanc	Algeria	Pink-red with a White Tip	15.6	15.0	9.9	5.2	2.6	2.3	1.1	13.6	6.8	0.7	20.5	0.0	2
40	2165	Novi red Sel	Netherlands	Saxa	20.0	16.4	11.3	6.2	3.1	2.9	1.1	24.7	15.0	1.8	20.5	12.0	2
41	2166	Neoro	Netherlands	Saxa	15.9	12.9	11.7	7.7	3.6	2.9	1.2	32.8	19.1	3.2	20.5	12.0	1
42	2167	KD	Netherlands	Saxa	16.0	14.6	11.8	7.5	4.1	3.3	1.3	27.6	20.6	3.8	20.5	0.0	2
43	2168	Gaudry	Netherlands	Pink-red with a White Tip	23.6	14.5	11.5	7.1	3.6	3.3	1.1	32.6	14.9	2.2	20.5	14.0	3
44	2170	Early red	Russia	Saxa	19.4	13.5	10.9	7.5	3.3	2.8	1.2	27.0	15.1	2.4	20.5	14.0	2
45	2175	Pernot OJO/52	Sweden	French Breakfast	16.6	14.6	9.9	5.7	5.7	1.8	3.2	17.7	10.3	1.6	20.5	10.0	1
46	2176	Delikat	Sweden	French Breakfast	21.7	14.4	11.2	8.4	5.9	2.3	2.6	34.5	18.1	3.3	20.5	0.0	1
47	2185	Ognista kula	Poland	Saxa	16.1	11.9	9.4	5.8	2.9	2.3	1.3	12.5	7.1	0.7	20.5	0.0	2
48	2187	Local	Azerbaijan	Red Giant	24.7	17.2	14.1	7.8	4.4	2.3	1.9	39.1	11.6	0.7	33.5	0.0	0
49	2188	Candela di ghiaccio	Italy	White Icicle	24.1	16.5	12.1	7.6	7.4	1.8	4.1	34.1	20.1	0.9	25.5	38.0	0
50	2192	Vetomag	Hungary	Saxa	15.6	11.4	9.6	5.9	3.5	2.9	1.2	22.6	14.6	2.6	20.5	0.0	1
51	2193	Izyashchnyy	Bulgaria	Saxa	15.9	11.0	9.3	6.1	3.4	2.6	1.3	20.3	11.1	1.9	20.5	8.0	1
52	2196	Local	Lebanon	Würzburg	18.2	13.6	9.1	5.0	3.4	2.5	1.4	19.5	12.6	1.6	23.5	34.0	1
53	2197	De Pontvil	France	French Breakfast	15.9	14.3	9.8	5.8	5.9	2.1	2.7	23.4	16.1	2.8	20.5	0.0	2
54	2198	Korall	Czech	Saxa	20.4	14.3	10.3	6.9	4.4	2.1	2.1	20.1	12.5	1.7	20.5	4.0	1
55	2199	De Pomtaise demi-long rose about blanc	France	French Breakfast	22.5	14.6	11.5	8.1	7.1	2.1	3.4	31.7	18.1	3.1	20.5	12.0	2
56	2202	Inca	Netherlands	Saxa	13.1	11.1	8.1	4.9	2.8	2.4	1.1	13.5	8.8	1.2	18.5	5.0	1

57	2210	Saratovskiy	Russia	Saxa	22.6	21.2	13.1	8.1	3.3	3.5	0.9	46.1	25.6	3.6	22.5	80.0	2
58	2217	Local	Afghanistan	Red Giant	26.6	17.0	13.6	8.6	9.6	1.7	5.6	55.4	24.7	2.8	32.5	12.0	2
59	2219	Lubimi	Bulgaria	Saxa	22.4	15.4	13.4	8.9	3.6	2.8	1.3	35.6	17.6	2.6	20.5	18.0	2
60	2220	Local	Syria	Saxa	22.6	16.1	11.9	7.9	5.7	2.5	2.3	41.5	22.1	0.9	32.5	15.0	1
61	2222	Janosnapi	Hungary	Yellow	18.9	13.4	10.1	5.7	2.9	2.4	1.2	19.4	10.3	1.4	23.5	25.0	2
62	2228	Revosa	Netherlands	Saxa	16.1	11.2	8.6	5.4	2.9	2.4	1.2	13.5	8.7	1.3	20.5	0.0	2
63	2234	Sermino	France	French Breakfast	20.8	13.7	11.1	7.1	6.7	1.9	3.5	25.9	12.2	2.0	20.5	0.0	1
64	2239	Eroica	Netherlands	Saxa	19.6	15.4	11.5	6.7	3.1	2.4	1.3	26.6	11.9	1.5	22.5	22.0	2
65	2241	Kokarde	Netherlands	Saxa	19.7	15.6	11.1	7.2	3.9	2.7	1.4	27.5	14.3	1.1	21.5	40.0	2
66	2245	Local	Argentina	French Breakfast	14.7	14.2	10.1	5.2	7.5	2.6	2.9	33.1	23.2	3.3	22.5	14.0	2
67	2246	Amora	Netherlands	Saxa	21.6	22.2	14.2	8.2	3.9	3.3	1.2	42.2	22.0	0.9	20.5	70.0	2
68	2248	Cherry Belle	Netherlands	Saxa	16.5	14.5	9.5	6.5	3.3	2.4	1.4	30.0	15.5	2.5	30.0	0.0	2
69	2250	Ronde helderrode broei	Netherlands	Saxa	21.2	19.1	12.4	8.1	3.6	2.7	1.3	33.0	17.9	1.8	21.5	50.0	2
70	2255	Scarlet Knight	USA	Saxa	19.2	16.9	11.7	7.2	2.9	2.5	1.2	24.1	11.4	0.9	20.5	35.0	3
71	2260	Local	Russia	Red Giant	24.5	15.4	12.6	6.9	9.8	1.7	5.9	30.9	21.4	2.2	32.5	0.0	2
72	2283	Mokhovskoy	Russia	Hailstone	20.3	14.4	13.3	7.5	3.4	2.8	1.2	38.8	19.3	2.1	30.5	0.0	0
73	2325	Gyochel	Moldova	Saxa	20.1	15.1	11.1	6.7	3.5	2.5	1.4	30.9	16.2	2.3	20.5	22.0	2
74	2343	Saxa	Iceland	Saxa	14.7	12.2	8.5	4.9	3.5	2.5	1.4	19.1	13.6	2.3	19.5	19.0	1
75	2347	Syla	Denmark	White Icicle	21.2	17.2	11.4	7.1	8.4	2.1	4.1	47.1	18.6	3.0	24.5	0.0	0
76	2360	Helios	Czech	Yellow	17.9	12.4	11.1	6.1	3.7	2.8	1.3	27.1	16.7	3.0	23.5	27.0	2
77	2366	Pernot	France	French Breakfast	18.9	17.2	10.0	6.6	4.8	2.0	2.5	19.4	10.8	1.4	20.5	13.0	2
78	2369	Flevo	Netherlands	Saxa	22.4	16.1	13.1	7.4	4.5	2.9	1.6	38.2	17.9	2.7	20.5	43.0	2

79	2371	Safir	Denmark	French Breakfast	12.8	10.6	8.1	4.8	4.8	1.8	2.7	12.4	9.8	0.5	20.5	11.0	2
80	2375	Rund halbrød halbweiss	Denmark	Pink-red with a White Tip	24.5	19.1	13.0	7.6	3.3	3.1	1.1	42.9	15.9	2.4	20.5	0.0	3
81	2379	No name	Lebanon	White Icicle	24.1	18.0	13.2	8.9	8.5	2.1	4.1	46.8	20.2	1.6	25.5	4.0	2
82	2380	Rund rosen rod Vitspetsig	Sweden	Pink-red with a White Tip	23.2	14.9	10.9	8.2	3.1	2.6	1.2	33.3	13.7	1.8	20.5	10.0	2
83	2383	Jegcsap	Hungary	White Icicle	22.9	19.5	13.1	8.7	7.9	2.1	3.9	40.6	22.9	3.2	24.5	0.0	2
84	2393	Crimson Giant	Canada	Pink-red with a White Tip	24.9	13.9	11.3	7.7	2.9	2.6	1.1	32.9	12.8	1.7	20.5	18.0	2
85	2394	Nobo Chind- Criollo	Peru	Saxa	18.6	14.6	10.5	6.5	4.5	3.1	1.5	28.0	18.3	3.0	28.5	0.0	2
86	2402	Rabanito	Argentina	Pink-red with a White Tip	21.1	16.3	10.8	5.9	3.9	3.1	1.3	36.9	22.4	2.9	20.5	55.0	1
87	2404	Bov	Netherland s	Saxa	14.1	9.8	8.1	4.8	2.9	2.1	1.4	11.6	6.9	0.7	20.5	0.0	2
88	2405	Minitas	Netherland s	Saxa	14.9	11.9	9.2	5.8	2.6	2.6	1.0	15.0	8.8	1.7	20.5	0.0	2
89	2408	Notar	Netherland s	Saxa	14.1	11.0	8.8	5.2	2.9	2.8	1.1	15.9	9.9	1.7	20.5	0.0	2
90	2415	Local	Turkey	Saxa	15.2	15.0	9.0	5.9	3.1	2.9	1.1	21.1	14.9	2.1	20.5	11.0	1
91	2424	Local	France	White Icicle	29.8	22.2	14.4	9.1	5.1	1.9	2.7	54.1	14.9	1.2	24.5	0.0	0
92	2441	Rocco	Netherland s	Saxa	15.4	12.2	8.9	5.0	3.7	3.1	1.2	32.2	21.6	3.3	28.5	0.0	2
93	2445	Slavia	Czech	French Breakfast	19.6	14.3	11.9	7.4	9.4	2.2	4.3	30.4	20.9	3.2	23.5	11.0	1
94	2450	Sparcler	Japan	Saxa	20.3	15.6	12.4	6.3	4.1	3.2	1.2	30.5	17.7	2.6	28.5	0.0	2
95	2451	Flamingo rozovyy	Russia	Pinkie	20.3	14.1	10.4	7.3	4.1	2.7	1.5	30.9	16.9	3.2	20.5	0.0	2
96	2453	Estella	Netherland s	Saxa	13.4	13.3	7.9	5.6	3.5	3.4	1.0	26.1	19.7	3.2	28.5	0.0	2
97	2466	Pernot	Denmark	French Breakfast	17.4	16.6	8.9	5.8	8.6	2.2	3.9	25.0	16.5	2.5	23.5	10.0	2
98	2476	Early scarlet globe	USA	Scarlet globe	24.0	16.1	12.2	8.4	4.2	2.6	1.6	38.8	16.5	1.8	20.5	25.0	2

99	2550	Duro	Russia	Saxa	22.3	15.6	11.4	7.8	3.4	2.9	1.2	39.3	17.4	2.5	28.5	25.0	2
100	vr. 3217	18 days	Russia	French Breakfast	20.4	15.6	12.9	7.8	7.9	2.2	3.6	41.1	20.8	2.4	28.5	40.0	2
101	vr. 3362	Riesenbutter	Russia	Saxa	17.6	16.2	11.4	6.1	3.8	3.4	1.1	30.4	18.2	2.7	24.5	10.0	2
102	vr. 3452	Zhara	Russia	Saxa	21.3	17.4	13.8	7.4	3.4	3.1	1.1	42.7	15.7	1.6	28.5	55.0	2
103	vr. 3454	Aleks	Russia	Saxa	20.7	16.8	13.2	7.2	3.8	3.1	1.2	41.8	16.4	2.1	28.5	60.0	2
104	vr. 3521	Sprinter	Russia	Saxa	20.4	17.2	13.0	5.8	4.1	3.2	1.2	33.4	18.3	2.4	24.5	20.0	2
105	vr. 3529	Faraon	Russia	Saxa	22.2	15.7	13.4	6.3	4.1	2.9	1.4	42.1	16.6	1.8	24.5	25.0	2
106	vr. 2948	French Breakfast	Lithuania	French Breakfast	19.7	16.1	10.5	6.2	5.0	2.0	2.5	21.0	11.1	1.9	21.5	0.0	2
107	vr. 2961	Presto	Russia	Saxa	17.9	15.3	11.1	6.2	3.7	3.4	1.1	35.5	18.8	2.7	28.5	75.0	2
108	vr. 3161	Viola	Russia	Purple	16.6	14.2	8.8	6.3	3.8	3.3	1.2	25.1	14.5	2.3	24.5	0.0	0
109	vr. 3194	Gusar	Russia	Saxa	18.8	16.3	12.2	6.3	3.3	2.9	1.1	30.3	16.4	2.3	28.5	20.0	2
110	vr. 3221	Champion	Russia	Saxa	18.7	16.8	12.6	8.2	4.2	2.8	1.5	40.5	17.6	2.3	28.5	70.0	2
111	vr. 3447	Duet	Russia	French Breakfast	15.3	12.6	7.6	5.6	5.0	2.2	2.3	27.3	14.1	2.5	30.0	0.0	2
112	n/n	Octava	Russia	Hailstone	20.6	22.1	15.8	8.4	4.3	3.5	1.2	40.8	21.1	2.3	25.0	0.0	0
		Radish															
113	1887	Chensubanzhy	South Korea	Unknown	23.9	28.9	18.2	6.6	9.0	1.2	7.5	40.4	6.0	0.0	>42.0	0.0	2
114	1941	Bansei sacuragima	Japan	Sakurajima	24.3	27.2	17.6	6.6	6.6	2.2	3.0	35.8	10.4	0.4	>42.0	0.0	2
115	1948	Miashige soluto	Japan	Miashige	21.1	26.2	17.3	7.7	9.0	1.4	6.4	32.6	9.3	0.2	>42.0	0.0	2
116	vr. 2400	Himani	India	Unknown	24.3	28.8	17.0	7.3	10.4	2.1	5.0	56.8	32.4	1.5	42.0	0.0	2
117	bp.3337	Peterburgskiy	Russia	Miashige	22.3	26.9	16.1	8.2	11.2	2.8	4.0	90.8	47.2	2.5	42.0	0.0	1
118	n/n	White Icicle Daikon	Canada	Minowase	21.7	28.4	16.6	7.6	10.3	1.5	6.9	37.6	12.4	0.5	>42.0	0.0	2

* Degree of leaf pubescence: 0 – no pubescence; 1 – low; 2 – medium; 3 – strong.