

Supplementary Material

Supplementary Table S1. Characteristics of phenological phases of 280 soybean genotypes in trails conducted in 2022 and 2023

Supplementary Table S2. Yield of 280 soybean genotypes in 2022 and 2023 in field experiments at three locations

Supplementary Table S3. Protein and fat content of 280 soybean genotypes in 2022 and 2023 in experiments at three locations.

Table S1. Characteristics of phenological phases of 280 soybean genotypes in trails conducted in 2022 and 2023

No.	Genotype	2022						2023					
		Dłoń		Szelejewo		Strzelce		Dłoń		Szelejewo		Strzelce	
		Length of period from sowing to flowering [days]	Length of period from sowing to flowering [days]	Length of period from sowing to flowering [days]	Length of period from sowing to flowering [days]	Length of period from sowing to flowering [days]	Length of period from sowing to flowering [days]	Length of period from sowing to flowering [days]	Length of period from sowing to flowering [days]	Length of period from sowing to flowering [days]	Length of period from sowing to flowering [days]	Length of period from sowing to flowering [days]	Length of period from sowing to flowering [days]
1	X879-1-B	52	129	52	125	66	152	54	119	54.5	132	47	101
2	99/2011	52	133	54	162	65	154	56	127	57	135	45	103
3	97/2011	50	133	49	120	64	151	56	131	57	135	46	98
4	Fiskeyby	48	133	48	121	62	148	56	119	55	138	43	103
5	X827 A 5 B	50	133	47	134	54	148	50	131	55	139	45	103
6	82/2011	48	136	53	127	52	147	56	134	55.5	139	46	101
7	83/2011	52	133	53	123	53	146	56	131	58.5	138	45	103
8	81/2011	52	133	57	165	58	151	56	131	58.5	139	47	104
9	49/2011	52	133	49	142	55	146	58	138	59	138	48	103
10	X831 B 4 B	52	133	59	168	53	144	58	131	58	146	46	130
11	84/2011	50	133	48	148	57	149	56	131	58	135	47	104
12	96/2011	52	133	52	124	61	152	56	131	59	135	46	101
13	Annushka	52	133	53	123	50	144	54	140	55	139	43	115
14	Jutro	50	133	57	164	53	148	55	121	56	134	45	101
15	32/2011	52	133	54	159	54	146	58	131	60	138	47	103
16	69/2011	52	136	51	120	61	150	58	141	60	139	48	126
17	J 123	48	133	44	141	51	145	49	141	53.5	139	46	129
18	Pripyat	48	147	52	134	51	147	54	141	53.5	143	47	115
19	90 B 43	64	149	49	123	65	149	68	138	69	139	52	129
20	X1559b	55	140	47	143	62	150	58	138	57.5	137	49	117
21	39/2011	50	133	52	119	50	147	50	138	53.5	139	48	112

22	80/2011	57	133	50	119	63	151	65	138	58	139	56	125
23	102/2011	55	133	56	144	67	155	58	131	60	135	46	117
24	Salnser	50	140	47	118	50	147	54	141	54	146	47	130
25	Oressa	55	133	50	123	58	152	58	138	56	144	48	118
26	Augusta	55	133	52	121	65	153	58	131	58	135	47	117
27	Oac Vision	48	133	56	161	49	145	49	138	53.5	139	45	117
28	Cujbysevscaja 77	48	133	51	150	50	144	49	138	53.5	139	43	118
29	Ambela	48	133	49	124	49	145	49	119	54	139	46	112
30	Popiel	55	133	45	121	65	149	61	131	60.5	139	53	117
31	Nawiko	55	133	47	142	57	147	61	138	59.5	141	50	115
32	X 1592	48	140	49	121	49	145	50	141	54	146	45	117
33	Ke 73042	52	140	48	137	51	144	49	141	54.5	143	48	116
34	Lajma	52	134	52	141	49	146	54	141	55	139	45	115
35	Viscount	50	140	52	135	49	143	54	141	54	150	47	129
36	Sussex	55	140	47	124	64	149	61	145	60	147	49	126
37	Obelix	50	140	50	131	50	145	54	145	54	149	46	131
38	Magnolia PZO	55	134	50	135	62	147	63	141	59	146	50	126
39	R 10	62	147	45	144	62	150	65	145	65.5	147	56	130
40	X 1566 B	55	133	54	123	64	149	58	141	57.5	147	53	130
41	Adams	55	134	52	119	67	152	56	141	57.5	143	52	129
42	Mazowia	52	140	50	120	54	148	54	147	54.5	150	46	129
43	Nessie PZO	50	146	51	129	50	146	54	141	54.5	147	43	126
44	Merlin	48	140	51	142	53	145	54	147	54.5	148	45	129
45	Madlen	59	140	55	142	67	149	65	138	64	141	59	129
46	Szd 2416	48	133	52	121	51	147	54	141	54	148	47	126
47	Szd 1621	48	133	47	143	49	146	50	138	54.5	137	46	130
48	Maple Presto Hp	55	140	50	130	71	156	63	138	58.5	139	50	126
49	Aligator	48	140	51	143	54	157	54	147	54	150	48	129
50	Aldana	48	134	52	129	49	152	54	141	54	146	47	130
51	Moravians	48	140	54	168	51	156	50	141	54	148	45	132
52	Erica	48	134	47	121	50	149	50	141	54	137	47	126
53	Smsr 17046	48	140	47	129	49	152	54	147	54	146	46	129
54	Gaj	52	134	56	145	68	159	56	138	58.5	139	49	131
55	Oriana	59	134	45	124	70	159	65	138	61.5	143	56	126
56	Dono 36	48	140	56	126	50	155	54	145	55	150	50	130
57	Kievskaja 48	55	140	58	166	69	159	61	141	60	148	49	115
58	Viola	48	134	52	124	50	150	54	147	54.5	145	45	117

59	C 20950	64	140	53	137	68	158	68	138	63	146	50	125
60	Vzlyot	52	140	51	121	70	157	61	141	55	146	47	126
61	88./2011	55	140	47	127	65	157	61	141	58	142	49	129
62	Oac Vision	48	134	54	143	52	156	50	141	54	142	45	125
63	Sieelia	48	140	49	143	67	158	56	141	56	145	48	122
64	Szd 518	50	149	49	122	51	153	56	152	54.5	153	47	125
65	Rgt Sigma	50	140	56	131	50	156	56	145	55.5	148	46	126
66	Amorok	52	140	58	163	49	149	54	141	55	148	46	129
67	Esg 152	50	147	53	125	58	155	54	145	53.5	149	45	126
68	Ch 20950	50	147	44	139	50	156	54	141	54	148	48	129
69	Es Comandor	49	139	53	120	51	153	56	147	54.5	148	47	130
70	Mayrika	55	134	44	122	55	152	63	138	57	149	50	126
71	Rgt Stepa	52	140	47	141	54	157	54	145	55.5	150	46	129
72	Sultana	52	140	59	174	51	155	54	145	54.5	150	47	129
73	Hidaka	52	140	54	164	54	152	54	145	54.5	148	48	129
74	Adsoy	57	136	55	153	64	157	63	141	57	148	50	126
75	Silesia	48	153	52	127	55	157	56	145	54	151	45	130
76	Vera	62	134	49	123	68	158	68	138	60	144	62	126
77	Melanie	52	137	53	165	55	152	56	145	56	149	46	126
78	Sculptor	55	134	44	124	64	157	58	138	57	148	50	129
79	Sm Sr 16050	50	134	49	145	50	153	54	145	54.5	151	48	125
80	Bc-10-1-10	55	134	58	158	68	155	56	141	55	150	47	126
81	X 1564b	57	140	55	162	72	158	61	138	56	148	50	125
82	Herb 620	59	136	58	166	65	157	63	141	61	154	53	130
83	Ceres PZO	50	134	52	143	64	156	54	152	53.5	152	43	129
84	Es Governor	52	140	45	137	50	153	56	147	54.5	149	46	129
85	Amiata	50	147	47	135	50	152	54	152	54.5	150	47	130
86	Sirelia	55	140	51	124	54	151	54	147	54.5	150	46	126
87	Maple Arrow	52	140	54	170	49	152	56	147	54.5	150	47	129
88	Sully	50	140	53	133	50	152	56	152	54	151	45	130
89	Es Mentor	52	140	45	127	54	152	56	145	54.5	148	46	130
90	Regina	52	147	55	157	49	155	56	147	55	154	45	132
91	Toiku 73	64	140	54	138	67	155	61	141	65.5	148	50	133
92	Karok	52	140	52	134	51	152	56	145	55.5	151	46	129
93	Glacer	48	140	43	147	49	149	56	141	54.5	151	49	130
94	Abelina	48	140	45	136	50	152	50	145	54	153	45	129
95	Es Governor	50	153	45	124	68	156	54	145	54	147	46	129

96	Szd 5729	52	147	55	145	54	161	54	147	54	148	47	126
97	Amsoy 71	55	153	48	142	70	158	63	147	58.5	146	46	130
98	Es Favor	50	155	55	124	51	154	54	147	55	148	45	129
99	Cordoba	50	163	46	122	50	169	56	152	54	150	48	129
100	Zlotka	52	140	52	161.5	50	159	56	145	53.5	147	46	126
101	Protina	50	140	44	123	50	172	54	147	54	149	52	132
102	Minga B	59	136	58	163.5	72	159	65	138	56.5	143	49	132
103	Heihe 5	57	140	46	156	68	174	61	145	58	140	50	130
104	Sg Anser	50	140	48	127	54	158	54	147	53.5	148	46	131
105	Beifeng 16	64	167	54	125	79	168	65	152	60.5	159	48	157
106	Kichirin 5	55	134	57	130.5			56	138	58	140	56	125
107	Maple Presto	59	134	55	127.5	72	171	63	138	56.5	140	53	131
108	Mavka	57	134	45	121	67	175	58	141	56	144	50	129
109	131/2011	50	134	49	136	49	157	50	138	54	140	45	126
110	Pgr 4172	55	153	47	143	54	169	56	147	58	148	50	129
111	Pgr 4172	55	146	45	143.5	55	175	56	147	59	148	55	130
112	Lissabon	55	136	58	165	49	177	56	152	55.5	148	50	126
113	Fiskeby No. 843-15-4	64	153	50	148	70	161	58	145	60.5	143	49	126
114	Seroglazka	59	146	51	141.5	76	162	65	145	63	148	50	124
115	Heihe 51	57	136	54	159	50	168	56	145	57	145	47	126
116	Orpheus	52	153	54	149	50	162	56	156	55	149	46	129
117	Es Conductor	50	140	58	164.5	48	156	56	156	55	147	46	130
118	Sahara	52	153	58	163.5	51	162	56	154	54.5	148	48	130
119	Abaca	50	163	47	143.5	49	159	50	159	54	144	46	133
120	Es Compositor	52	163	54	153	49	155	54	159	55	151	48	133
121	Antigua	48	134	56	163.5	51	155	50	138	54	135	47	132
122	Ancona	48	163	51	148	48	167	54	156	53.5	150	46	132
123	Funke	52	167	59	160.5	51	157	54	156	53.5	151	48	131
124	Acardia	52	163	59	154.5	48	177	54	159	53.5	148	47	133
125	Coraline	52	156	48	141	54	171	54	152	54.5	150	46	129
126	Rgt Shouna	48	155	44	123	50	159	50	159	53.5	149	47	130
127	No940	52	155	55	142.5	57	169	58	152	57	153	50	132
128	Coraline	50	153	45	144.5	50	156	54	152	54	149	46	126
129	Brunensis	52	155	50	146	51	174	54	152	54.5	152	47	129
130	Josefine	52	153	55	166	50	176	54	145	54	151	46	132
131	Pgr 3866	52	136	50	139.5	54	172	58	152	58.5	148	50	129

132	A 438	57	147	56	163	58	163	58	145	60	144	48	130
133	A 386	52	153	55	127	50	160	61	152	61	144	49	129
134	Achilea	52	153	54	148.5	54	161	54	152	54.5	153	48	130
135	Meridan	57	163	47	156	57	177	61	152	59	153	49	138
136	Medium Green	59	136	54	158	75	175	65	138	61	145	50	125
137	Rouest 117	55	140	47	134	69	162	65	145	61	146	50	129
138	93/2011	57	140	45	140	68	163	65	138	66	139	59	126
139	Es Tenor	55	155	56	168.5	53	159	58	147	58.5	154	49	130
140	Faworit	52	163	45	129	51	161	54	152	56	149	48	132
141	150	55	155	47	130.5	72	167	58	147	58	151	50	129
142	Alexa	48	153	47	145.5	70	169	54	145	54	147	48	126
143	Houten Hakubi	55	156	54	164	53	175	58	147	55.5	148	52	132
144	Warszawska	55	163	55	141	64	174	58	134	54.5	138	49	137
145	Heihe 45	48	147	54	144.5	68	171	58	152	55.5	148	47	131
146	Christine	55	155	56	166.5	69	168	58	152	56	150	46	138
147	Polux	55	153	59	169.5	57	177	58	152	55	149	49	133
148	Bekaja Vu 4107	59	163	60	170	72	176	65	159	59	152	53	133
149	Petrina	55	153	58	164.5	69	172	54	156	54.5	150	48	134
150	Comet/Pagoda Mandarin	55	140	55	175.5	67	169	56	147	57	148	49	143
151	Dindone 1	55	140	54	151.5	70	175	54	147	54.5	146	48	132
152	Es Senator	50	147	57	164.5	69	169	56	147	55	148	47	131
153	Aurelina	55	140	55	125.5	50	177	54	147	54.5	144	50	130
154	Terezikskaja 24	62	140	56	158	73	176	68	145	61	145	54	131
155	Vezha	55	147	45	145	68	175	65	152	57	143	49	131
156	Amandine	55	155	54	158	69	175	54	152	54	151	52	133
157	Canatto	59	134	51	126	75	174	65	138	62	138	54	133
158	76./2011	59	147	47	148	72	172	61	145	61	146	53	134
159	Dongnong 58	52	149	52	154	69	171	56	147	58	148	48	139
160	79 /2011	62	147	56	157	70	167	63	152	60.5	150	53	129
161	Antonia	55	163	55	148	71	169	56	159	54.5	150	49	131
162	Tung Nong 78- 34	64	153	50	130.5	72	175	65	138	60	140	47	130
163	12./2011	62	153	48	150.5	70	168	68	159	61	145	56	130
164	Mazowiecka 2	59	150	54	164.5	75	173	68	138	59.5	136	55	126
165	Tokei 232	55	140	51	122.5	72	172	58	131	58.5	135	53	143
166	Es Chancellor	52	140	49	139.5	72	177	56	159	54.5	150	48	133

167	90b43	57	140	47	121.5	67	171	63	159	59	150	52	134
168	A 448	59	155	54	143	70	172	65	152	60.5	146	56	133
169	Hefeng 55	59	174	53	147	77	168	58	156	59	166	53	144
170	Albiensis	50	174	58	162.5	74	169	54	159	55	149	46	130
171	Tajfun	64	174	46	141	76	173	65	156	59	160	54	143
172	Manitoba Brown	64	155	44	152.5	79	174	68	152	59	151	52	126
173	Uniis 2	55	167	45	143	77	175	61	159	59.5	149	49	130
174	Ch 22429	52	153	54	151	78	170	54	152	54.5	152	48	132
175	Marzena	50	140	58	162	75	169	54	159	54.5	143	47	119
176	Strelka	50	163	58	160.5	71	169	54	159	55	154	46	143
177	Salut 216	64	163	52	155	83	173	71	159	64	154	56	134
178	No 828	55	155	55	166	79	169	63	156	59.5	151	49	126
179	Bydgoska 057	55	139	52	153	76	171	63	147	58	138	52	119
180	89/2011	52	139	54	162	77	171	58	131	58.5	135	47	116
181	NS - L -401088	67	167	48	144.5	84	171	75	152	55	166	62	158
182	Castetis	73	170	45	151	84	167	79	160	55	167	71	154
183	Pepita	59	167	48	152.5	84	167	61	152	59	164	53	144
184	Bahia	64	174	44	126	76	174	65	152	60.5	155	54	142
Soja55/60													
185	Dornburger Weiss	64	163	53	145	85	177	65	147	61	151	52	143
186	Triada	64	170	55	142	82	170	65	159	60.5	168	53	144
187	Hei 3-18	57	163	47	126	75	174	58	159	58	153	52	140
188	Gl Hermine	59	163	57	165	78	175	63	152	59.5	153	53	143
189	Naya	55	167	47	145.5	79	175	54	156	54.5	156	49	133
190	Kofu	55	155	55	156	82	173	56	159	56	157	48	134
191	Orion	55	167	47	132.5	86	175	58	159	58.5	161	54	144
192	Rounest	64	155	55	162	88	170	63	147	60.5	148	52	139
193	Chuppewa 64	59	155	54	159.5	85	176	63	147	61.5	147	54	136
194	Pgr 4207	55	163	53	161	88	170	58	159	58	152	49	138
Tong Shan													
195	Zheng Ji Dou	67	155	59	157	82	172	63	147	61.5	144	54	136
196	Bettina	52	155	48	138.5	78	176	54	159	54.5	150	53	139
197	Pgr 3890	59	163	54	162.5	81	176	58	159	58	152	48	136
198	Boryana	67	163	44	145	85	176	68	147	61.5	155	53	144
199	Fiskeby 856-3-34	67	163	49	139.5	88	171	58	152	58.5	153	52	137
200	Dengke 5	55	163	53	149.5	82	167	56	156	56.5	146	49	139

201	Kokusou	64	163	53	157	85	177	71	147	61.5	149	55	138
202	Heihe 48	57	175	54	150	78	172	58	147	57	148	50	143
203	Bzillmeyer	64	156	58	166	83	173	71	147	61.5	144	54	140
204	Heihe 3	55	163	47	125.5	82	175	58	152	59.5	146	54	138
205	Es Gladiator	64	163	49	145	85	172	65	152	58	149	56	143
206	Khutorianochka	64	156	54	161	88	172	65	152	61.5	150	54	140
207	Pgr 2998	70	170	54	130	85	174	75	152	63	158	68	143
208	301	70	167	56	168.5	85	169	75	152	65	158	71	164
209	G. Gracilis	59	156	59	162.5	84	173	58	152	57	138	51	123
210	Pompei	59	167	57	165.5	78	177	65	147	60	154	54	143
211	Kapral	64	167	57	161.5	86	176	65	147	60.5	154	53	144
212	Tertia	57	167	54	169.5	81	168	56	147	57.5	152	52	140
213	Ventis	64	170	47	141	84	174	79	152	66	160	72	160
214	Little Wonder	64	167	44	126	83	169	65	147	59	154	65	157
215	Adossa	64	174	50	152.5	85	168	71	156	63.5	168	56	161
216	Maple Arrow H.P	62	167	55	162.5	84	167	68	156	63.5	160	62	146
217	D 80	64	163	44	137	85	167	63	152	59.5	155	53	148
218	Asijskaja Aklimatyrowana	62	163	47	152.5	85	168	71	152	64.5	152	50	154
219	Fengshou 10p	64	170	47	138.5	85	177	63	152	61.5	149	56	148
220	5912	59	174	56	164.5	83	177	65	152	60.5	155	56	149
221	Mengdou 30	62	174	51	143	84	173	61	152	58	156	52	147
222	Heihe 36	55	167	56	163.5	81	171	58	152	58	150	50	147
223	Povodovskaja	67	170	48	141	81	174	65	156	62	158	55	146
224	Dongnong 52	65	167	57	169.5	84	176	58	147	59	157	53	148
225	A 383	65	167	44	138	81	168	65	152	58.5	154	54	144
226	Suen Wu Dah Bai Mee	67	163	45	149	82	170	68	147	66.5	157	56	138
227	Giant Green	64	167	48	145	86	170	79	156	65	156	61	140
228	Mainland China	64	174	57	164	84	167	71	152	60	154	53	139
229	Grant Lincoln Seneka	62	174	49	150.5	88	175	79	152	65	160	56	143
230	Keshan	55	174	44	151.5	83	168	56	159	56.5	150	52	136
231	Harosoy	65	170	52	137.5	84	177	75	156	65	160	64	143
232	No 534	65	167	56	158	83	173	71	152	65	156	59	138
233	Habarovskaja 53	55	170	56	162	82	171	63	159	63.5	147	53	144

234	Jao Teh Jar Ching	65	163	45	137	85	173	71	159	56.5	145	59	137
235	Beliuska 636	65	174	52	126	85	173	71	156	68	160	70	144
236	Dangke	55	163	47	146	83	168	58	147	65	152	55	143
237	Dongnong 50	65	167	54	158	85	168	58	152	60	152	54	150
238	Heihe 43	55	167	53	165.5	79	177	58	159	58	149	52	144
239	L 64-4584	62	167	47	151	85	177	68	159	62	148	53	145
240	Rouest 250	65	156	52	157	79	168	65	152	60	146	56	146
241	Fengshou 25	55	163	50	145	84	174	58	152	58	150	53	145
242	Ns - L - 401145	67	174	52	157	84	170	75	156	58.5	160	54	154
243	NS - L-201458	67	174	47	146.5	85	177	63	159	61	168	54	159
244	Hej Nung No 18	67	174	47	137	86	176	63	152	58.5	158	53	158
245	Suinong 22	67	174	47	130.5	88	177	63	152	58.5	160	55	153
246	Hodgson	65	170	46	141	84	171	71	152	60.5	160	56	150
247	Ch 50111	67	174	54	163	86	169	79	156	64	161	56	158
248	Corsoy	67	174	55	162	86	171	71	159	60.5	162	55	160
249	Ns Merkury	65	170	47	151	82	175	71	152	62.5	155	53	145
250	Rekord North	65	170	55	168	81	176	65	156	64	155	54	161
251	Portage	67	174	50	130	88	175	75	156	62.5	158	55	157
252	Henong 61	57	174	48	142	84	173	63	156	57	159	57	160
253	Suinong 24	65	170	47	125.5	86	170	63	152	61.5	149	56	158
254	Dongnong 54	65	170	59	169.5	84	174	63	159	58	154	55	159
255	Felix	65	170	54	157	85	177	63	152	58.5	157	62	152
256	Heihe 52	67	174	52	166.5	88	169	71	159	61.5	169	53	154
257	A-934	67	170	54	156.5	85	167	79	152	67	157	55	143
258	Henong 59	67	163	53	170.5	86	175	68	147	63	149	59	145
259	Norchief	65	174	62	166.5	83	175	71	152	63	154	54	157
260	Beidou 30	67	174	47	137	86	171	61	156	58	157	55	161
261	Henong 58	55	175	47	140	88	167	63	160	58.5	158	56	159
262	No 318	67	175	53	147	88	174	79	160	71	163	67	150
263	Ontario	67	174	46	152	85	170	71	156	61.5	156	56	152
264	Seneca	76	175	50	149	88	170	82	160	61	159	55	151
265	Atlanta	67	163	54	158	86	176	65	152	59	150	56	146
266	Genhoukin	67	175	55	153.5	88	169	68	156	62	157	56	154
267	Heihe 5	67	175	56	157.5	85	168	63	152	59.5	153	59	146
268	Kabine	67	175	62	166.5	88	175	63	160	61.5	155	62	144
269	Heihe 44	55	170	61	159	79	167	54	160	56	138	53	143

270	A 62- 2	59	175	51	156.5	84	172	65	156	63.5	155	56	159
271	Heinong	67	175	59	164	88	169	63	152	64.5	154	56	157
272	Houshuu 11	59	175	46	140	88	172	63	159	65.5	157	55	153
273	Belckaja 25	67	175	56	166	84	176	63	159	66.5	162	67	158
274	Smena	67	175	54	161	86	176	71	159	62	169	54	154
275	Heinong 53	65	174	59	166.5	88	169	63	159	59	157	54	145
276	Yantarnaya	67	170	54	163	81	168	65	152	60	156	55	144
277	Suinong 26	67	175	55	157	88	177	63	156	59.5	160	56	151
278	Henong 62	67	174	57	164.5	86	172	63	156	59.5	158	54	152
279	Jilin 13	67	170	59	169.5	85	173	63	152	59	157	53	146
280	Tokei 135	67	174	59	166.5	88	174	63	156	59	164	55	145
Minimum		48	129	43	118	48	143	49.0	119.0	53.5	132.0	43.0	98.0
Mean		57	152	52	146	69	164	60.2	147.6	58.1	149.0	51.0	133.7
Maximum		76	175	62	176	88	177	82.0	160.0	71.0	169.0	72.0	164.0

Table S2. Yield [t/ha] of 280 soybean genotypes in 2022 and 2023 in field experiments at three locations.

No	Genotype	2022			2023		
		Dłóń [t/ha]	Szelejewo [t/ha]	Strzelce [t/ha]	Dłóń [t/ha]	Szelejewo [t/ha]	Strzelce [t/ha]
1	X879-1-B	0.3	1.0	0.8	1.1	1.2	0.6
2	99/2011	1.1	0.6	1.0	1.9	1.6	0.8
3	97/2011	1.3	0.7	1.1	2.0	1.8	0.7
4	Fiskeyby	0.7	0.9	1.1	1.3	0.8	0.4
5	X827 A 5 B	1.5	1.3	1.4	2.0	1.8	1.0
6	82/2011	1.1	0.8	1.1	1.5	1.9	0.4
7	83/2011	1.2	1.4	1.4	1.8	2.0	0.9
8	81/2011	1.6	1.4	1.5	2.1	2.2	1.1
9	49/2011	1.1	1.8	1.8	2.2	2.5	1.2
10	X831 B 4 B	1.2	2.2	1.9	2.2	2.9	1.4
11	84/2011	1.3	2.0	1.6	2.4	2.5	1.1
12	96/2011	1.5	1.9	1.4	1.8	2.5	1.2
13	Annushka	1.3	2.1	1.3	1.5	2.2	1.6
14	Jutro	1.2	1.9	1.0	2.0	2.1	1.2
15	32/2011	1.5	2.1	1.5	2.2	2.6	1.1
16	69/2011	1.0	2.3	1.6	2.5	3.0	1.4
17	J 123	1.6	2.2	2.6	2.4	2.7	1.6
18	Pripyat	0.7	1.9	2.4	1.9	2.9	1.7
19	90 B 43	0.8	2.1	1.1	2.7	2.8	2.0
20	X1559b	0.8	1.8	1.2	2.2	2.0	1.3
21	39/2011	1.5	2.3	3.1	2.1	2.6	1.7
22	80/2011	1.6	2.2	2.0	2.5	3.0	1.5
23	102/2011	1.2	2.1	1.8	2.1	2.5	1.6
24	Salnser	1.1	2.6	1.5	2.2	3.2	2.0
25	Oressa	1.5	2.7	2.8	2.5	3.0	2.3
26	Augusta	1.5	2.2	1.3	2.2	2.5	1.5
27	Oac Vision	2.0	2.4	2.6	2.3	2.2	1.5
28	Cujbysevscaja 77	2.0	2.4	3.0	2.5	2.6	1.6
29	Ambela	1.7	2.2	1.8	1.9	2.1	1.4
30	Popiel	1.7	2.1	1.4	2.7	2.5	2.0
31	Nawiko	1.4	2.2	1.7	2.8	2.4	1.8
32	X 1592	1.4	1.9	1.2	2.8	3.4	2.2
33	Ke 73042	1.1	1.9	1.4	2.6	2.5	1.2

34	Lajma	1.8	2.6	2.9	3.0	2.3	1.3
35	Viscount	1.2	2.1	1.7	2.8	2.8	1.6
36	Sussex	2.3	2.9	2.8	3.6	4.1	2.9
37	Obelix	2.6	3.2	2.8	3.3	4.0	3.0
38	Magnolia PZO	2.5	3.3	3.4	3.4	4.1	2.7
39	R 10	1.5	2.3	0.9	3.0	3.1	2.1
40	X 1566 B	1.6	2.5	1.2	2.3	3.3	2.0
41	Adams	1.2	1.2	0.5	2.0	1.5	1.4
42	Mazowia	2.0	2.9	2.8	2.8	3.5	3.0
43	Nessie PZO	1.9	3.5	3.7	3.9	4.5	3.1
44	Merlin	2.0	3.0	2.2	3.2	3.4	2.5
45	Madlen	1.8	2.9	1.0	3.0	3.8	2.6
46	Szd 2416	2.2	2.8	2.1	2.5	3.5	2.2
47	Szd 1621	1.7	2.5	1.4	2.3	2.4	2.2
48	Maple Presto Hp	1.9	2.3	1.6	2.3	2.8	2.4
49	Aligator	1.8	2.9	4.0	2.7	3.2	2.7
50	Aldana	2.0	2.5	2.4	3.4	3.4	3.1
51	Moravians	2.4	2.4	1.6	2.9	2.9	2.6
52	Erica	2.3	2.4	3.3	2.6	2.6	2.2
53	Smsr 17046	2.5	2.6	3.8	3.2	3.4	3.6
54	Gaj	2.1	2.1	1.8	3.0	3.0	2.9
55	Oriana	2.8	2.6	2.0	3.0	3.8	3.5
56	Dono 36	1.7	1.9	1.1	2.1	2.5	2.4
57	Kievskaja 48	1.3	1.9	1.1	2.0	2.8	1.1
58	Viola	3.1	2.8	1.9	2.8	3.4	1.5
59	C 20950	1.9	2.5	0.7	2.5	2.8	1.5
60	Vzlyot	1.7	2.4	0.8	2.4	2.6	1.5
61	88./2011	2.1	1.0	1.4	2.6	2.8	1.7
62	Oac Vision	1.7	2.3	3.1	2.1	2.3	1.6
63	Seelia	3.0	3.4	3.2	4.2	3.8	2.6
64	Szd 518	1.2	3.0	3.7	3.8	4.6	2.0
65	Rgt Sigma	2.7	3.0	3.5	3.1	4.1	2.3
66	Amorok	1.7	3.3	2.9	2.9	4.4	2.1
67	Esg 152	2.0	3.1	3.5	3.5	3.9	2.2
68	Ch 20950	2.2	2.6	2.1	2.7	3.2	1.8
69	Es Comandor	2.3	3.3	4.1	3.1	4.0	2.6
70	Mayrika	2.4	2.6	2.2	2.1	3.0	2.5

71	Rgt Stepa	2.4	3.2	3.6	2.7	4.1	2.3
72	Sultana	2.3	3.0	4.3	2.7	3.9	2.2
73	Hidaka	1.9	2.5	2.0	2.4	3.0	1.6
74	Adsoy	2.1	2.6	1.9	2.5	3.4	2.2
75	Silesia	2.6	2.5	1.7	2.2	2.9	2.0
76	Vera	2.1	2.4	0.9	2.3	3.2	2.0
77	Melanie	2.7	2.7	3.3	2.5	4.1	2.4
78	Sculptor	1.8	2.4	1.9	2.6	3.6	2.1
79	Sm Sr 16050	1.9	3.0	2.7	2.5	3.9	1.9
80	Bc-10-1-10	2.1	2.6	0.7	2.3	3.5	1.9
81	X 1564b	1.5	2.2	1.2	2.3	3.0	2.3
82	Herb 620	1.9	2.0	0.6	2.0	2.5	2.0
83	Ceres PZO	1.8	3.0	3.2	3.0	3.5	2.2
84	Es Governor	2.6	3.0	3.5	3.6	4.3	2.5
85	Amiata	2.0	3.4	4.3	3.9	4.4	2.6
86	Sirelia	3.1	3.3	3.5	3.6	4.1	2.7
87	Maple Arrow	2.2	2.5	1.3	3.2	3.8	2.0
88	Sully	1.9	3.1	3.5	3.7	3.6	2.2
89	Es Mentor	2.2	2.9	2.1	2.8	3.5	2.2
90	Regina	1.5	2.9	3.5	3.2	4.4	2.7
91	Toiku 73	2.0	2.3	0.7	2.8	3.4	2.3
92	Karok	2.5	3.0	1.6	2.8	3.3	2.5
93	Glacer	2.4	2.8	1.0	2.9	3.2	2.3
94	Abelina	2.3	3.0	3.8	2.9	3.5	2.8
95	Es Governor	2.9	1.0	5.2	4.4	3.5	2.8
96	Szd 5729	2.1	0.5	1.8	3.5	2.6	1.9
97	Amsoy 71	2.2	0.9	2.4	2.9	2.4	2.2
98	Es Favor	2.7	1.3	4.0	3.8	3.1	2.6
99	Cordoba	2.6	0.5	0.8	3.3	2.9	2.3
100	Złotka	2.0	1.5	5.0	2.8	4.1	3.5
101	Protina	2.3	1.1	0.7	2.5	2.5	2.0
102	Minga B	1.7	1.6	0.3	2.6	2.4	1.9
103	Heihe 5	1.7	2.0	0.7	2.9	2.6	2.7
104	Sg Anser	1.9	1.9	1.6	2.3	3.0	2.8
105	Beifeng 16	2.1	1.4	3.6	3.2	4.4	1.1
106	Kichirin 5	2.0	1.6	0.0	2.0	2.4	0.4
107	Maple Presto	1.7	1.3	0.7	2.1	2.3	2.2

108	Mavka	2.2	2.0	0.9	2.9	3.0	2.7
109	131/2011	1.5	2.0	3.0	2.6	2.0	2.3
110	Pgr 4172	2.5	2.1	0.9	3.9	3.0	2.6
111	Pgr 4172	2.5	2.0	1.0	3.9	2.9	2.8
112	Lissabon	2.4	1.9	1.0	4.5	3.2	2.9
113	Fiskeby No. 843-15-4	2.5	1.9	1.5	3.5	3.2	1.5
114	Seroglazka	2.1	2.3	1.0	3.2	3.6	1.4
115	Heihe 51	2.4	2.3	1.0	2.8	3.4	1.3
116	Orpheus	3.0	2.5	4.6	3.3	3.9	2.2
117	Es Conductor	3.6	2.9	3.6	3.7	3.7	2.3
118	Sahara	3.2	3.2	4.8	3.8	4.2	2.6
119	Abaca	2.5	2.5	1.9	3.4	3.1	2.0
120	Es Compositor	3.3	3.3	4.3	3.8	4.0	2.8
121	Antigua	1.7	2.2	1.3	2.7	2.6	2.1
122	Ancona	2.2	2.6	0.5	3.4	2.5	2.0
123	Funke	2.8	3.3	3.8	3.5	3.9	2.8
124	Acardia	3.4	3.2	1.0	4.0	3.7	2.1
125	Coraline	3.2	3.1	2.7	3.9	4.0	2.4
126	Rgt Shouna	3.2	2.8	2.8	3.6	3.8	2.4
127	No940	3.2	2.3	0.6	3.3	3.1	2.1
128	Coraline	2.6	3.3	2.8	4.0	4.1	2.3
129	Brunensis	2.0	2.5	0.8	3.7	3.6	1.7
130	Josefine	2.6	2.8	0.9	4.2	3.7	2.3
131	Pgr 3866	2.4	2.3	1.0	3.2	3.1	2.2
132	A 438	2.1	2.3	1.5	3.2	3.0	2.1
133	A 386	2.3	2.1	3.3	3.4	3.0	2.1
134	Achilea	2.8	2.8	4.1	4.4	4.1	2.3
135	Meridan	2.8	3.1	0.9	4.1	4.1	1.8
136	Medium Green	1.7	2.4	0.8	3.1	2.9	2.1
137	Rouest 117	2.1	2.4	1.4	2.6	3.1	2.2
138	93/2011	1.8	2.2	0.9	2.9	2.5	2.1
139	Es Tenor	3.1	3.3	3.3	4.4	3.7	2.8
140	Faworit	3.0	3.0	1.6	3.9	3.7	2.8
141	150	2.4	2.3	1.2	2.6	3.1	2.2
142	Alexa	2.4	2.4	1.0	3.1	3.5	2.0
143	Houten Hakubi	2.5	2.3	1.1	3.0	3.1	1.7
144	Warszawska	1.4	1.2	0.3	1.4	1.6	1.3

145	Heihe 45	1.6	2.6	2.2	2.9	3.2	1.7
146	Christine	3.4	3.5	2.3	5.2	4.6	2.4
147	Polux	2.7	3.7	2.5	4.0	4.0	2.3
148	Bekaja Vu 4107	2.5	2.6	1.2	2.9	3.0	1.6
149	Petrina	3.0	3.1	1.2	3.7	3.5	1.8
150	Comet/Pagoda Mandarin	1.1	1.6	0.6	2.1	2.5	0.9
151	Dindone 1	2.0	2.6	0.8	2.6	3.2	1.6
152	Es Senator	2.6	2.8	1.8	3.1	3.6	1.5
153	Aurelina	1.6	2.8	1.2	3.2	3.6	1.5
154	Terezikskaja 24	2.2	2.2	0.8	2.4	2.8	2.3
155	Vezha	2.1	2.6	0.9	3.0	3.1	2.1
156	Amandine	3.0	2.7	1.1	3.0	3.5	2.2
157	Canatto	1.7	2.2	0.4	1.9	2.5	1.9
158	76./2011	1.6	2.7	0.9	2.9	3.2	2.5
159	Dongnong 58	1.8	2.7	0.9	2.5	3.4	2.3
160	79 /2011	2.0	2.4	0.8	2.4	2.9	2.5
161	Antonia	3.1	3.4	0.9	4.0	4.1	2.3
162	Tung Nong 78-34	1.6	2.2	0.5	2.1	2.6	2.6
163	12./2011	2.1	2.3	0.8	3.0	2.8	2.3
164	Mazowiecka 2	2.0	2.1	0.6	2.3	2.4	1.7
165	Tokei 232	0.7	1.5	0.2	1.7	1.7	2.4
166	Es Chancellor	2.3	3.2	2.0	3.4	4.2	2.6
167	90b43	1.8	3.1	0.4	3.5	3.7	2.7
168	A 448	2.3	2.3	1.7	3.2	3.2	2.3
169	Hefeng 55	1.8	2.6	2.2	3.5	4.0	0.7
170	Albiensis	1.9	2.9	0.5	2.9	3.0	0.8
171	Tajfun	3.4	3.9	2.4	4.5	5.1	1.6
172	Manitoba Brown	1.9	1.8	0.4	2.6	3.0	0.7
173	Uniis 2	2.2	2.2	0.4	3.0	3.4	0.9
174	Ch 22429	3.0	2.9	0.8	4.6	4.4	1.3
175	Marzena	1.4	2.4	0.4	3.1	2.9	0.7
176	Strelka	2.4	2.2	0.2	3.0	2.7	0.8
177	Salut 216	2.2	2.5	0.6	3.0	3.3	1.3
178	No 828	2.7	2.2	1.3	3.4	3.0	1.2
179	Bydgoska 057	1.3	1.9	0.3	2.5	2.4	1.0
180	89/2011	1.2	1.7	0.6	2.3	2.6	0.6
181	NS - L -401088	3.4	4.3	3.6	4.7	4.8	2.5

182	Castetis	3.6	4.1	2.7	4.4	4.4	1.9
183	Pepita	3.2	3.0	2.9	4.7	4.5	2.2
184	Bahia	3.5	3.3	1.5	4.8	4.4	2.0
185	Soja55/60 Dornburger Weiss	2.7	2.7	1.1	3.8	2.9	1.9
186	Triada	2.4	3.0	1.8	3.9	4.8	2.1
187	Hei 3-18	2.0	2.7	0.7	3.0	2.9	1.7
188	Gl Hermine	3.5	3.4	3.4	5.2	4.6	2.3
189	Naya	2.7	0.8	0.4	4.1	3.5	2.1
190	Kofu	3.2	1.0	1.4	4.0	2.9	2.1
191	Orion	2.7	0.7	1.1	4.5	3.4	2.3
192	Rounest	1.5	0.7	0.9	3.1	2.2	1.2
193	Chuppewa 64	2.6	1.4	1.7	4.0	2.6	1.9
194	Pgr 4207	2.4	0.9	1.4	3.1	2.9	2.3
195	Tong Shan Zheng Ji Dou	2.2	1.4	0.7	3.3	2.7	2.0
196	Bettina	2.8	1.2	1.8	3.4	2.5	1.5
197	Pgr 3890	2.4	2.2	1.2	2.9	3.0	1.9
198	Boryana	2.7	2.4	2.2	3.0	3.4	2.1
199	Fiskeby 856-3-34	2.4	2.2	1.1	3.0	2.9	2.2
200	Dengke 5	3.1	2.7	2.2	2.7	3.5	2.1
201	Kokusou	2.3	2.6	0.6	3.7	3.3	2.1
202	Heihe 48	2.0	2.5	1.9	3.3	3.3	2.3
203	Bzillmeyer	2.1	2.4	0.6	3.6	3.1	2.2
204	Heihe 3	2.6	2.3	0.9	3.5	2.8	2.1
205	Es Gladiator	3.6	3.5	2.8	5.2	4.0	2.7
206	Khutorianochka	2.2	2.5	0.6	3.4	3.3	2.2
207	Pgr 2998	2.3	2.1	1.5	3.1	3.1	2.1
208	301	2.4	2.1	1.8	3.5	3.0	2.1
209	G. Gracilis	1.7	2.0	0.3	1.9	1.7	1.1
210	Pompei	3.5	4.1	4.7	4.9	4.5	3.0
211	Kapral	3.0	4.0	3.3	5.3	4.8	3.2
212	Tertia	3.0	3.1	1.4	3.9	3.5	2.2
213	Ventis	4.6	4.1	2.5	5.4	3.9	2.4
214	Little Wonder	2.6	2.5	1.0	3.4	3.2	1.8
215	Adossa	4.0	3.8	2.9	4.7	3.9	1.8
216	Maple Arrow H.P	3.1	2.2	1.0	3.7	3.1	1.5
217	D 80	2.4	2.7	1.0	3.5	2.8	2.1
218	Asijskaja Aklimatyrowana	2.7	2.7	0.6	3.4	3.0	1.5

219	Fengshou 10p	1.9	2.2	1.0	3.2	2.8	1.9
220	5912	2.4	2.2	1.2	3.6	2.9	1.8
221	Mengdou 30	2.5	2.5	1.2	3.9	3.7	2.0
222	Heihe 36	2.7	2.6	0.8	3.7	3.1	1.4
223	Povodovskaja	3.0	3.1	1.2	4.2	3.7	1.7
224	Dongnong 52	2.7	1.4	2.5	3.2	2.9	1.4
225	A 383	2.7	2.0	1.0	3.3	3.1	1.7
226	Suen Wu Dah Bai Mee	1.8	2.0	0.8	2.5	3.0	1.0
227	Giant Green	2.7	2.8	1.4	3.1	3.3	1.8
228	Mainland China	2.2	2.6	0.4	3.7	3.2	1.9
229	Grant Lincoln Seneka	2.3	2.3	1.6	3.4	3.1	2.0
230	Keshan	2.4	2.9	1.3	3.7	3.4	1.7
231	Harosoy	2.3	2.6	1.1	3.1	2.7	1.5
232	No 534	2.3	2.3	0.7	3.5	2.9	1.7
233	Habarovskaja 53	2.5	1.5	0.4	2.9	2.8	1.5
234	Jao Teh Jar Ching	2.5	2.9	0.5	2.9	3.2	1.7
235	Beliuska 636	1.6	1.5	0.4	2.7	3.2	1.9
236	Dangke	2.7	2.2	0.4	3.2	2.8	2.5
237	Dongnong 50	1.3	1.4	0.7	2.7	2.6	1.5
238	Heihe 43	1.5	2.2	0.3	3.0	2.9	1.7
239	L 64-4584	2.1	1.9	0.7	3.1	2.9	1.7
240	Rouest 250	1.3	1.7	0.7	2.3	3.1	1.3
241	Fengshou 25	2.4	2.8	1.8	2.8	3.4	1.9
242	Ns - L - 401145	3.7	4.3	2.7	4.8	4.9	2.1
243	NS - L-201458	3.2	4.1	3.3	4.2	4.6	2.1
244	Hej Nung No 18	2.1	3.2	1.7	3.4	3.9	1.6
245	Suinong 22	2.5	2.5	1.1	3.2	3.8	1.1
246	Hodgson	2.8	2.8	1.4	3.2	2.8	1.8
247	Ch 50111	3.5	4.1	4.0	3.9	3.9	1.9
248	Corsoy	3.1	2.9	1.1	4.0	3.2	1.6
249	Ns Merkury	3.1	4.3	2.3	3.9	3.8	2.4
250	Rekord North	1.8	2.7	0.9	2.5	3.3	1.3
251	Portage	2.1	3.8	1.7	3.4	2.4	1.9
252	Henong 61	2.3	3.4	2.4	4.0	3.9	1.9
253	Suinong 24	2.5	3.6	2.0	4.0	3.6	1.8
254	Dongnong 54	2.5	3.5	2.1	3.6	3.8	1.5
255	Felix	2.6	3.6	2.0	3.7	4.1	1.5

256	Heihe 52	3.3	3.5	1.6	4.9	3.5	2.2
257	A-934	3.4	3.2	1.8	3.4	4.0	2.1
258	Henong 59	2.9	3.8	1.5	4.1	3.8	2.0
259	Norchief	2.7	3.3	1.3	4.2	3.2	1.6
260	Beidou 30	2.5	3.4	1.3	3.9	3.6	2.5
261	Henong 58	2.8	2.1	0.6	3.0	3.4	1.9
262	No 318	2.5	2.7	0.8	2.7	3.0	1.8
263	Ontario	2.7	2.7	0.8	3.1	2.9	1.7
264	Seneca	2.1	2.5	1.1	3.3	3.0	2.1
265	Atlanta	2.4	3.3	1.2	3.8	3.7	2.0
266	Genhoukin	2.4	3.0	0.8	3.4	3.3	1.8
267	Heihe 5	1.7	3.1	1.3	3.3	3.4	1.6
268	Kabine	1.8	2.3	0.4	3.3	2.8	2.3
269	Heihe 44	1.0	2.3	0.3	2.5	1.8	1.7
270	A 62- 2	2.7	3.5	1.1	4.3	3.2	2.9
271	Heinong	2.1	3.0	2.0	4.0	3.2	1.7
272	Houshuu 11	1.9	2.7	0.7	3.6	3.1	1.5
273	Belckaja 25	2.4	3.0	0.6	3.6	3.7	1.7
274	Smena	2.8	2.6	0.9	3.1	2.0	1.7
275	Heinong 53	2.6	3.1	2.7	4.1	3.8	1.5
276	Yantarnaya	2.0	2.1	0.8	3.4	2.9	1.8
277	Suinong 26	1.8	2.9	1.9	3.9	3.7	2.0
278	Henong 62	2.7	3.2	0.6	3.9	3.7	2.1
279	Jilin 13	1.9	3.0	1.2	4.1	3.6	2.2
280	Tokei 135	1.8	2.4	0.8	4.0	2.9	1.3

Table S3. Protein and fat content of 280 soybean genotypes in 2022 and 2023 in experiments at three locations.

Lp.	Genotyp	2022						2023					
		Dłóń		Szelejewo		Strzelce		Dłóń		Szelejewo		Strzelce	
		Protein [%]	Fat [%]	Protein [%]	Fat [%]	Protein [%]	Fat [%]	Protein [%]	Fat [%]	Protein [%]	Fat [%]	Protein [%]	Fat [%]
1	X879-1-B	39.4	17.2	36.5	21.5	38.1	19.4	42.6	17.4	38.5	20.6	32.4	20.1
2	99/2011	41.5	16.5	36.5	21.3	39.5	20.2	40.8	18	37.9	20.9	32.6	20.2
3	97/2011	39.6	16.9	37.2	21.2	38.7	19.8	41	18.2	37.9	21.1	33.1	20.3
4	Fiskeyby	37.4	17.2	36.4	21.3	37.9	19.9	38.8	18.4	38.2	20.4	33.7	20.4
5	X827 A 5 B	37.3	18.6	35.4	22.2	35.4	20.2	40.5	18.6	35.9	22.3	30.7	20.5
6	82/2011	41.1	14.3	37.6	20.5	34.5	18.5	44.8	14.6	38.6	18.8	31.4	18.2
7	83/2011	39.6	16.8	36.6	21.5	38.4	20.2	41.4	17.9	37.9	20.9	31.4	20.2
8	81/2011	38.1	17.5	36.9	21.4	36.4	19.4	41.3	17.8	38.4	21.0	32.6	20.4
9	49/2011	40.3	16.5	37.0	21.6	37.3	19.2	42	17.7	38.1	20.8	30.6	20.1
10	X831 B 4 B	37	18.8	35.6	23.0	36.5	20.6	39.2	19.4	36.9	22.1	29.9	19.9
11	84/2011	39.6	17.1	36.7	21.7	36.6	19.6	42.1	18	38.1	21.1	32.1	20.2
12	96/2011	39	17	35.6	21.4	38.8	20.6	41	18	37.3	21.3	32.4	19.6
13	Annushka	35.7	18.6	34.7	23.0	36.3	20.5	38.6	19	36.6	21.9	31.2	20.9
14	Jutro	40.6	16.3	36.2	21.4	37.4	19.2	45.6	16.2	40.6	19.5	34	19.1
15	32/2011	38.7	17.1	36.4	21.8	37.5	20.6	40.9	18.3	37.7	21.0	32.5	19.5
16	69/2011	38.3	17.7	35.1	22.1	36.6	20.4	40.4	18.9	37.2	21.1	30.6	19.7
17	J 123	40.7	17.1	35.6	22.2	38.4	21.1	42.9	17.9	38.7	21.0	33	20.2
18	Pripyat	40.7	17.1	36.4	22.3	39.0	21.5	43.7	18.2	38.8	21.3	32.6	21.1
19	90 B 43	40.8	13.8	35.8	20.4	34.6	18.0	41.9	16	37.5	19.5	30.5	19
20	X1559b	39.4	18.2	36.4	22.3	35.6	20.2	41.1	19.1	37.2	21.1	33.5	20.6
21	39/2011	38.7	17.9	35.4	22.5	39.0	20.5	42.3	18.2	37.8	21.5	32.8	20.4
22	80/2011	41.7	15.7	37.2	21.1	37.2	19.1	43.4	17.4	40.2	19.6	32.8	19.1
23	102/2011	39	17	35.9	21.9	37.0	19.6	41.5	18.3	39.2	20.4	32.6	19.9
24	Salnser	38.1	18.6	35.4	22.3	36.4	20.0	41.4	19.1	37.7	21.6	32.3	20.2
25	Oressa	35.7	18.6	35.3	22.4	38.2	19.5	40.1	19.1	38.1	21.2	33.5	20.7
26	Augusta	37.5	17.6	36.2	21.8	38.1	19.6	42	18	38.8	20.9	33.2	19.8
27	Oac Vision	37.8	18	35.3	22.2	37.7	20.7	42.5	18.2	39.0	20.8	34.25	20.4
28	Cujbysevscaja 77	37.5	18.1	35.3	22.2	38.3	20.0	41.7	18.3	37.9	20.9	33.5	19.7
29	Ambela	35.8	19.5	34.6	22.6	38.7	21.1	39.6	19.7	37.7	21.4	33.1	20.1
30	Popiel	37.8	17.8	36.4	21.8	38.4	20.2	41.5	18	39.7	20.3	33	20.6
31	Nawiko	38.1	17.6	36.6	21.4	38.2	19.9	42.2	17.8	39.7	20.1	33.2	20.4

32	X 1592	37.8	17.9	34.8	22.0	39.0	19.3	41.1	18.5	38.4	20.9	32.2	19.7
33	Ke 73042	38.9	17.2	35.6	22.1	38.1	19.5	42	18.6	38.0	21.5	33.4	20.1
34	Lajma	33.8	21.3	34.2	23.4	35.3	20.9	37.9	20.7	36.3	22.5	31.8	20.3
35	Viscount	40.8	18.5	35.8	21.8	40.2	21.2	45.4	18.3	41.3	20.5	34.9	21.3
36	Sussex	39.2	18.4	36.2	22.3	38.9	19.4	43.9	18.7	39.3	21.4	32.5	20.6
37	Obelix	36.1	19.4	34.9	22.6	37.6	21.2	41.2	19.6	39.1	21.2	32.6	20.7
38	Magnolia PZO	39.6	18.4	35.9	22.3	38.0	19.5	44.1	18.8	41.1	21.5	33.6	20.1
39	R 10	38.8	17.2	35.9	21.5	38.3	19.0	44.3	17.3	39.4	20.5	32.3	20
40	X 1566 B	39	18.2	35.6	21.8	38.5	20.6	43.4	18.7	39.1	21.6	33.4	19.3
41	Adams	40.7	16.5	37.2	21.0	36.8	18.9	46.1	16	40.1	19.7	35	19.3
42	Mazowia	36.7	19.8	34.7	22.4	35.6	20.4	40.9	20.3	38.6	22.2	30.8	21.2
43	Nessie PZO	39	17.7	35.3	22.4	37.3	19.4	42.9	18.8	40.0	21.0	33	20.6
44	Merlin	37.9	18.7	35.0	22.5	37.3	19.2	42.7	18.9	37.9	21.3	34.8	21.1
45	Madlen	39.2	15.9	36.5	21.0	37.3	20.0	42.4	16.9	38.2	20.2	31.1	19.9
46	Szd 2416	36.3	19.3	34.8	22.6	38.7	20.2	41.5	19.4	36.9	21.6	32.2	20
47	Szd 1621	37.4	18.6	35.2	22.0	38.1	20.8	40.4	19	37.4	21.4	33.1	20.6
48	Maple Presto Hp	37	17.9	35.2	21.5	35.7	19.3	41.1	18.7	37.9	21.0	31	20
49	Aligator	35	20.3	34.6	22.8	36.0	20.9	40.7	20	38.9	21.9	31.9	20.7
50	Aldana	37	18.5	35.4	22.6	37.7	20.1	42.7	18.6	37.9	21.6	34.3	20.8
51	Moravians	38	18.8	35.3	21.8	35.7	19.5	41.1	19.1	38.5	20.8	32.4	20.3
52	Erica	37.4	18.4	35.3	22.2	38.6	20.5	42.9	17.8	37.9	21.1	32.5	19.5
53	Smsr 17046	37.8	19.2	35.3	22.6	40.6	20.7	43.1	18.8	39.9	20.7	34.9	21
54	Gaj	37.5	17.2	35.8	21.6	33.5	18.6	41.2	17.7	38.4	20.2	32.5	19.4
55	Oriana	38.1	16.4	36.3	21.0	37.2	19.2	41.5	17.3	38.3	20.4	32	19.2
56	Dono 36	39.2	17.4	35.9	22.2	37.0	19.4	43.2	18	38.9	20.7	34.3	19.9
57	Kievskaja 48	37.8	17.5	36.1	21.8	34.9	19.0	41.3	17.7	38.5	20.8	33.9	20.5
58	Viola	37.1	18.9	35.4	22.7	38.4	20.0	42.8	18.6	38.5	20.9	33.5	20.6
59	C 20950	39.2	14.2	36.3	19.9	35.4	18.0	42.4	15	39.0	18.3	34.1	18.8
60	Vzlyot	37.8	18.7	35.7	22.0	35.6	18.8	42.1	19	38.3	20.7	33.7	20
61	88./2011	37.9	18.3	35.7	22.0	36.7	19.3	41.5	18.3	37.9	20.7	32.1	20.3
62	Oac Vision	38.8	18.1	35.1	22.4	39.4	19.8	43.2	17.5	38.1	21.1	32.7	20
63	Sieelia	35.2	20.6	35.0	23.1	36.6	20.0	39.4	20.4	37.1	22.5	30.9	20.5
64	Szd 518	40.3	17.4	35.8	21.9	38.8	19.9	43.3	18.8	40.2	21.3	32.6	20.1
65	Rgt Sigma	37.6	18.7	35.7	22.6	38.1	20.5	42.3	18.9	38.5	21.5	33.2	20.2
66	Amorok	39.5	17.6	35.8	22.1	37.2	19.6	42.4	18.6	38.9	21.0	32	20.8
67	Esg 152	37.8	18.1	35.3	22.7	39.3	20.3	43.3	18.5	37.4	21.6	32.1	20.7
68	Ch 20950	37.1	19.8	35.3	22.9	36.3	19.0	40.6	20.3	37.9	22.3	32.1	20.2

69	Es Comandor	38.7	18.5	35.6	22.2	38.9	19.7	44.2	18	38.1	21.1	33.3	20.1
70	Mayrika	35.8	19.3	35.6	22.2	37.8	20.6	39.1	19.6	38.1	21.6	34	20.9
71	Rgt Stepa	38.9	18.3	36.4	22.0	39.6	20.1	42.2	19.2	39.0	20.9	32.9	20
72	Sultana	39.5	18.3	35.8	22.3	39.5	20.5	42.6	19.4	38.9	22.0	33	20.8
73	Hidaka	38.8	17.9	35.7	22.5	39.3	20.2	42.2	19.2	38.0	21.7	33.2	21.4
74	Adsoy	38.2	17.5	35.3	21.8	38.6	20.9	41.3	18.9	38.6	20.8	32.4	19.9
75	Silesia	39	18	36.7	21.5	36.2	18.9	42.5	18.9	38.8	21.1	33	19.6
76	Vera	39.3	14.7	36.6	20.0	35.4	17.9	40.8	16	38.4	19.1	32.5	18.8
77	Melanie	38.2	18.1	35.9	21.9	38.9	19.2	42.7	18.9	38.7	21.5	33.7	20.6
78	Sculptor	38.9	17.6	36.3	22.0	38.3	20.4	40	19.2	39.2	21.1	32.5	20
79	Sm Sr 16050	37	18.9	34.3	22.3	38.6	19.5	39.7	19.5	38.6	20.8	32.5	20.9
80	Bc-10-1-10	36.4	18.3	34.7	22.4	36.6	19.1	39.3	19.7	36.7	21.4	32.5	20.7
81	X 1564b	40	17.5	36.2	22.0	37.3	19.3	42.9	18.8	38.7	21.9	34.3	20.4
82	Herb 620	40.9	14.9	36.4	20.6	35.7	18.0	44.4	16	38.9	19.3	34	19.5
83	Ceres PZO	37.6	18.5	34.5	22.4	40.0	21.9	41.6	19.2	39.0	21.4	33.9	20.9
84	Es Governor	37.3	18.5	35.4	22.4	38.5	20.3	41.3	19.6	39.0	21.3	33.1	20.5
85	Amiata	37.3	18.3	34.8	22.2	37.5	20.0	41.7	18.7	37.3	21.9	32.5	20.3
86	Sirelia	35.3	20.3	34.5	22.9	36.4	20.9	38.9	20.5	39.3	21.3	31.1	20.7
87	Maple Arrow	37.6	18.4	35.2	22.2	36.7	19.9	42	19.3	38.2	21.6	32.9	20.1
88	Sully	41.4	17.3	36.4	22.7	38.5	19.8	45.4	19.2	40.5	21.4	35.4	20.7
89	Es Mentor	37.6	18	35.2	22.5	36.2	19.8	40.8	19.2	37.1	21.6	33.2	20.7
90	Regina	40.6	17.1	37.2	22.0	39.1	19.4	43.4	18.9	38.2	21.3	34.1	19.5
91	Toiku 73	39.3	16.6	35.9	21.7	38.1	20.3	40.3	19.1	39.8	20.6	33.4	20.3
92	Karok	39.8	17.5	36.3	21.7	37.6	20.2	42.8	18.8	39.7	21.1	33	20.3
93	Glacer	38.5	17.4	35.6	22.0	37.0	18.6	42.2	19	38.8	20.8	31.3	19.7
94	Abelina	37.8	19.1	35.0	22.3	37.3	19.8	41.6	19.6	38.0	21.6	34.1	20.7
95	Es Governor	38.1	18	35.1	22.2	37.7	20.3	41.3	19.7	38.1	21.8	33.3	20.8
96	Szd 5729	41.1	16.9	37.6	21.3	37.6	20.4	44.4	18.5	40.6	21.1	34.1	20.6
97	Amsoy 71	38.6	17.3	36.5	21.7	37.4	20.2	43.5	18.5	38.2	22.3	33.5	20.5
98	Es Favor	39	17.8	35.5	22.2	38.3	19.7	43.5	18.6	38.8	21.5	32	19.6
99	Cordoba	38.5	17.3	35.9	21.5	35.9	19.3	43.5	17.8	38.2	20.6	31	19.4
100	Zlotka	36.6	19.5	36.7	21.8	36.9	20.6	43.3	19.1	39.2	21.5	31.8	20.6
101	Protina	41.2	15.9	37.9	21.0	36.3	19.1	47.6	16.2	43.1	19.1	37.8	20.2
102	Minga B	38.6	17.5	36.2	21.5	36.9	19.4	42.7	18.2	37.8	21.5	32.6	19.9
103	Heihe 5	37.4	18	35.8	22.2	38.0	20.0	42.4	18.5	38.1	21.5	34.5	20.6
104	Sg Anser	37.8	18.3	35.0	22.3	35.5	19.4	41.9	18.9	37.7	21.6	33.2	20.7
105	Beifeng 16	37	17.5	35.3	21.6	31.9	18.5	42.1	18.6	37.1	21.2	33.6	19.7

106	Kichirin 5	35.3	19.3	35.2	23.0	0.0	0.0	40.2	18.9	38.0	21.6	33.9	20.2
107	Maple Presto	39.4	17.1	37.4	21.0	33.4	18.6	42.7	18	39.0	20.2	32.7	20.6
108	Mavka	36.4	18.8	34.7	22.3	35.0	19.4	40.2	19.2	37.5	21.3	32.3	20
109	131/2011	38.8	17.6	35.3	22.0	40.2	20.0	43.5	17.4	39.3	20.3	33.8	19.7
110	Pgr 4172	37.9	18	36.0	22.4	31.9	17.7	43.7	18.1	39.2	21.3	28.1	19.1
111	Pgr 4172	37.7	18	35.8	22.3	32.4	19.2	43.6	18	37.8	21.4	27.7	18.5
112	Lissabon	38.3	17.9	35.1	22.3	37.2	20.3	43.3	18.7	36.1	22.2	33.7	19.8
113	Fiskeby No. 843-15-4	38.2	17	35.8	21.5	36.7	20.1	44.8	17.5	38.3	21.5	32.4	20.4
114	Seroglazka	35.5	18.6	35.8	22.1	35.6	20.5	42.3	18.1	37.6	21.6	32.3	20.7
115	Heihe 51	37.9	18.1	35.6	21.9	37.0	18.8	43.5	17.9	38.3	21.3	31.8	19.7
116	Orpheus	39.2	18.2	36.7	21.7	37.4	20.1	45.1	18.2	39.3	21.0	31.7	20.1
117	Es Conductor	38.7	18.1	35.2	22.1	38.5	20.4	44.5	17.5	38.6	21.2	32.7	20.3
118	Sahara	38.5	18.1	34.8	22.4	39.2	19.2	44.6	17.8	38.8	21.6	33.3	20.3
119	Abaca	38.5	19	35.3	22.6	38.2	20.2	42.8	19.1	37.7	21.9	31.4	19.6
120	Es Compositor	37.6	19.5	34.7	22.7	37.8	20.5	42.5	19.8	37.6	22.7	31.4	20.8
121	Antigua	38.6	18.5	35.2	22.4	38.1	20.7	41.5	18.6	36.2	21.8	32.8	19.9
122	Ancona	37.8	18.2	35.0	22.6	33.6	18.3	42.4	18.5	37.1	21.5	33	21.1
123	Funke	40	18.4	35.5	22.1	38.6	19.2	44.7	18.5	38.0	21.2	34	20.3
124	Acardia	35.7	19.7	34.9	22.3	36.8	20.2	42.2	18.9	35.4	22.3	32.4	20.4
125	Coraline	35.9	19.1	35.4	22.9	37.6	19.1	44	18.4	37.6	22.2	32.6	20.7
126	Rgt Shouna	38.6	18.9	35.6	22.9	38.5	21.1	45.8	18.4	38.6	21.5	33.1	20.4
127	No940	38.8	17.8	36.0	22.1	31.4	18.8	45.2	17.3	39.2	21.2	27.7	18.6
128	Coraline	36.5	19	34.7	22.6	38.5	20.6	43.8	18.7	37.7	22.3	32.5	20.7
129	Brunensis	40.3	17.5	35.9	21.6	35.7	19.2	44.2	17.9	38.1	20.8	31.8	20.3
130	Josefine	37.4	19.4	35.4	22.3	36.1	19.2	43.9	19.3	38.9	22.3	32	20.5
131	Pgr 3866	38.9	17.9	36.0	22.0	32.8	18.8	44.2	17.6	39.5	21.1	27.1	18.8
132	A 438	38.6	18.1	36.5	21.6	35.8	19.9	44.2	18.3	38.7	21.5	33.3	20.4
133	A 386	38.1	18.1	36.8	21.9	35.8	20.4	44.3	18.2	38.4	21.4	31.9	20.6
134	Achilea	38.8	19	35.7	22.5	38.6	19.7	42.9	19.2	37.0	21.9	32	20
135	Meridan	37.7	19.1	35.8	22.2	36.8	19.3	43.3	19.1	36.3	22.5	33.2	20.7
136	Medium Green	39.1	17.1	35.5	22.0	33.7	17.4	44.5	17.4	37.8	21.4	31.7	19.2
137	Rouest 117	38.1	17.6	35.9	22.1	36.9	18.7	44.8	17.3	38.3	21.1	33.1	19.2
138	93/2011	36.8	18.1	35.7	21.7	32.9	18.8	40.1	19.1	36.2	21.5	31.6	20.7
139	Es Tenor	36.5	19.2	35.2	22.3	39.3	20.1	42.5	18.9	39.3	21.1	34.5	21.5
140	Faworit	39.1	18.3	36.0	22.4	36.2	19.5	44.4	18.5	37.1	22.1	33.8	21.4
141	150	38.9	17.5	36.2	22.1	31.3	17.9	43.9	18.3	38.1	21.5	29	18.9

142	Alexa	39.4	17.3	35.8	22.1	36.5	19.1	44.2	18.4	38.5	21.0	33.1	20.1
143	Houten Hakubi	38.1	16.8	36.2	22.0	28.4	17.1	42.9	18.4	37.9	22.0	30.4	19.9
144	Warszawska	41.8	14	38.3	20.0	35.6	18.2	46.6	14.8	38.7	19.7	35	20
145	Heihe 45	38.8	17.1	34.8	21.9	34.3	18.9	41.7	18.8	37.3	21.5	34	20
146	Christine	35.6	18.8	34.1	22.8	35.1	19.2	39.8	19.8	34.4	23.3	33.2	20.1
147	Polux	36.6	18.2	35.1	22.2	36.4	19.3	42.5	19.5	36.9	22.0	33.3	20.6
148	Bekaja Vu 4107	41	16.3	36.4	21.6	35.4	19.2	46.5	17.3	40.0	20.5	35.2	20.7
149	Petrina	37	18.5	35.2	22.5	37.1	19.6	40.1	19.4	37.5	21.4	34.7	20
150	Comet/Pagoda	39.5	16.1										
	Mandarin			36.0	21.3	35.8	18.1	42.4	18	39.7	20.5	33.5	19
151	Dindone 1	38.5	17.1	34.8	21.9	36.2	18.6	42.2	19	38.4	21.2	34	20.3
152	Es Senator	37.2	18.5	35.6	22.7	35.7	19.3	42.1	20.2	37.3	22.5	33	20.1
153	Aurelina	40	16.6	36.7	21.8	36.3	18.8	44	18.8	39.7	21.2	35	20.1
154	Terezikskaja 24	39.2	15.9	36.5	21.6	35.4	19.4	44.4	17.4	37.1	20.9	32.6	20.3
155	Vezha	38.1	17.5	35.6	22.0	35.6	19.3	40.5	19.3	36.8	21.8	33	20.4
156	Amandine	38.3	17.9	36.2	22.3	38.8	19.9	42.4	19.8	36.4	23.1	35	21.5
157	Canatto	41.8	15.5	38.0	21.2	38.8	19.0	45.2	16.9	41.4	19.6	35.6	20.2
158	76./2011	38	17.2	35.7	21.9	35.7	18.1	42.2	18.8	37.6	21.2	33.1	20.1
159	Dongnong 58	37.4	17.8	35.2	22.3	36.2	18.8	40.1	19.6	36.5	21.6	32.7	19.5
160	79 /2011	39.9	15.6	36.9	21.5	34.4	18.9	45.1	17.3	37.6	21.1	31.1	19.9
161	Antonia	37.3	16.7	34.9	22.1	36.8	18.5	42.2	18.5	36.7	21.4	33.7	20.9
162	Tung Nong 78-34	37.4	17.6	35.2	22.1	35.7	19.0	39.7	19.8	36.8	21.4	33.2	20.4
163	12./2011	40.6	15.7	36.5	21.5	34.2	18.1	45.4	17	38.3	20.6	32	20.3
164	Mazowiecka 2	37.6	17.9	35.9	21.9	34.8	18.1	41.2	19.3	36.4	21.9	31.1	19.7
165	Tokei 232	42.3	14.1	38.0	20.2	36.6	17.9	42.6	16.7	40.0	18.9	33.8	20.5
166	Es Chancellor	38.7	17.6	35.6	22.3	37.4	19.6	41.1	19.4	38.2	22.1	31.6	20.4
167	90b43	37	17.7	34.2	22.4	38.3	19.6	39.7	19.6	34.4	23.1	32	21
168	A 448	39.2	16.5	35.7	21.9	34.8	18.5	43.3	18.7	38.0	21.6	34.5	21
169	Hefeng 55	37.3	16.2	35.5	21.4	31.2	17.7	43	18.3	37.5	20.7	34.3	20.2
170	Albiensis	38.5	17	34.6	22.1	32.0	17.9	42.7	18.7	36.5	21.2	31.6	19.7
171	Tajfun	36.2	18	34.8	23.0	36.5	18.8	40.5	19.2	37.5	21.7	32.4	20.9
172	Manitoba Brown	40.4	15.5	36.2	21.5	37.4	18.8	43.5	17.6	39.3	20.3	33.4	19.7
173	Uniis 2	39.2	17.7	36.4	22.2	33.2	18.1	44	18.5	36.8	21.2	33.5	20.1
174	Ch 22429	34.8	19.9	34.6	23.1	36.3	19.7	39	21.1	36.6	22.9	32.4	20.8
175	Marzena	38.4	17.2	35.1	22.3	34.4	18.8	41.4	18.7	37.2	21.4	31.9	20.1
176	Strelka	40	16.6	36.6	21.5	34.2	18.1	45.4	17	39.6	20.3	31.7	18.9
177	Salut 216	38.3	19.8	35.2	21.5	30.7	16.8	35.6	20.1	39.1	21.4	30.7	19.5

178	No 828	37.5	17.7	35.5	22.3	30.0	17.1	42.9	18.6	37.4	21.5	28.1	18.5
179	Bydgoska 057	38.6	17.7	35.4	22.4	35.4	18.9	42.9	18.6	38.3	21.6	31.9	21
180	89/2011	41.1	15.9	36.6	21.4	38.3	19.6	42.8	17.7	38.0	21.1	33.2	19.5
181	NS - L -401088	36.3	18.1	35.4	21.8	35.2	18.1	41.2	18	36.7	21.1	31.4	19.7
182	Castetis	35.4	17.7	35.4	21.5	34.5	19.3	42.1	17.7	37.7	21.2	34.4	19.2
183	Pepita	34.3	19.3	36.0	22.1	34.0	19.2	40.8	19.7	35.7	23.1	32.1	20.4
184	Bahia	34	19.7	34.6	22.2	35.3	19.6	40.1	20.1	34.5	23.1	32	21.3
	Soja55/60												
185	Dornburger	35.9	18.3					43.1	18.3	36.8	21.9	31.9	20.5
	Weiss			35.3	21.9	37.2	19.4						
186	Triada	35	19.2	35.4	22.2	33.9	18.8	40.7	19.3	35.4	22.8	31.7	20.2
187	Hei 3-18	38.3	17.3	35.9	21.4	34.0	18.3	43.4	17.4	38.1	20.9	33.5	20.3
188	Gl Hermine	36.5	18.7	36.1	21.8	33.8	18.3	42.9	18.9	36.1	23.1	32	20.4
189	Naya	38.2	18.3	36.0	21.7	34.6	19.3	44.1	18.6	38.6	22.1	32.5	21.4
190	Kofu	35.2	19.8	35.4	22.2	34.4	18.3	42.7	18.9	36.3	21.9	32	21.1
191	Orion	37	18.2	35.4	21.4	34.2	18.8	43.2	18.6	37.0	21.0	31.5	20.3
192	Rounest	40.7	16	36.3	21.0	35.3	18.6	44.3	16.9	38.9	20.8	34.6	20.1
193	Chuppewa 64	36.4	18.4	36.2	21.8	35.0	18.2	42.4	18.5	36.5	21.9	32.7	19.8
194	Pgr 4207	35.6	18.5	34.5	22.0	30.8	18.5	42.8	20.7	39.7	23.0	28.6	18.5
	Tong Shan												
195	Zheng Ji Dou	37.3	17.9	36.4	21.7	33.4	18.6	42.6	18.5	37.4	21.6	31.3	20.3
196	Bettina	36.9	18.9	36.1	22.3	33.6	18.4	42.6	19	36.4	22.1	32.6	20.7
197	Pgr 3890	33.7	20.3	34.3	22.2	30.0	18.0	43.2	21.1	37.7	22.1	28.2	18.3
198	Boryana	36.6	17.5	35.9	21.2	35.5	19.0	42.1	18.3	38.4	21.2	32.9	20
199	Fiskeby 856-3-34	35.4	19.4	34.3	21.8	29.4	17.3	44.2	20.9	38.1	22.2	28	18.7
200	Dengke 5	35.9	18.4	34.7	21.8	33.1	18.4	41.5	18.3	37.7	21.3	33.8	20.8
201	Kokusou	37	17.6	35.6	21.9	32.3	18.0	40.1	19.4	36.4	21.8	30.9	19.6
202	Heihe 48	37.1	17	35.5	21.6	34.6	19.3	41.6	18.5	38.3	21.4	33.9	21.2
203	Bzillmeyer	38	16.9	35.9	21.7	32.8	18.5	42.3	18.6	36.6	22.1	32.6	20.1
204	Heihe 3	37	17.3	36.1	21.5	34.0	18.1	43.1	17.8	38.1	20.9	32.8	20.4
205	Es Gladiator	37.2	17.8	35.4	22.4	35.5	19.1	44.1	17.7	37.6	21.9	33.6	21.3
206	Khutorianochka	37.5	16.4	35.2	21.8	34.9	17.7	43.2	17.2	38.1	21.2	32.5	20.5
207	Pgr 2998	36.8	16.4	35.4	21.2	31.1	17.0	34.5	19.4	39.8	20.3	30.8	18.5
208	301	37.4	17.6	35.7	22.1	28.9	15.9	37.1	20.4	41.2	22.1	32.5	19.3
209	G. Gracilis	38	16.2	36.0	21.1	34.4	19.1	44.8	15.9	41.1	18.5	33.9	20
210	Pompei	35.1	19.3	35.1	22.4	36.1	19.7	42.3	19.5	35.8	22.1	31.6	21.5
211	Kapral	36.3	18.8	34.9	22.6	34.2	18.5	40.7	20.1	37.2	22.0	30.9	20.4

212	Tertia	37.3	17.2	35.9	21.9	34.4	18.7	44.7	18.4	38.4	21.5	33.8	20.8
213	Ventis	36.6	17	35.1	21.8	35.6	18.8	40.7	18.3	36.5	21.6	32.2	19.7
214	Little Wonder	37	16.7	34.8	21.7	32.8	17.9	42.4	17.8	37.9	20.9	32.6	19.6
215	Adossa	35.6	17.9	35.8	21.7	34.5	19.2	42.4	18.9	38.3	21.8	32.7	19.6
216	Maple Arrow H.P	37	17.3	35.2	21.6	35.0	19.1	43.5	18.2	38.3	21.7	33.4	19.8
217	D 80	36.6	18	33.8	22.1	30.1	18.5	44.4	21.3	38.7	22.6	33.1	20.1
218	Asijskaja Aklimatyrowana	38.8	15.5	36.8	20.9	33.7	18.0	44.1	16	39.4	19.7	33.1	19.6
219	Fengshou 10p	37.7	16.7	34.9	22.2	33.4	18.0	44.4	17.5	39.3	21.4	32.6	19.7
220	5912	37.8	17	35.9	21.9	32.8	18.1	44.4	17.7	37.7	21.5	33.1	19.7
221	Mengdou 30	36.5	16.6	34.6	21.3	33.7	17.4	41.7	17.7	37.1	21.1	33.4	20.9
222	Heihe 36	38.3	17.3	35.5	21.8	35.6	18.6	43.1	18.6	37.2	21.4	31.9	21.2
223	Povodovskaja	37.6	17.4	35.2	22.0	32.9	19.2	43.1	18.1	34.8	21.9	32.4	20.5
224	Dongnong 52	36.5	17.1	34.7	21.3	33.7	17.2	43.2	17.8	37.7	20.9	32.7	18.7
225	A 383	40.4	15.5	35.9	21.7	35.5	18.8	46.6	16.1	40.4	20.0	33.1	19.8
226	Suen Wu Dah Bai Mee	39.4	15.2	36.3	21.0	31.9	16.9	45.5	16.3	39.6	19.7	34.3	20.3
227	Giant Green	33.9	16.6	35.5	21.4	30.1	15.5	36.3	19.7	40.3	21.5	31.1	18.8
228	Mainland China	36.9	16.4	35.0	21.7	33.1	17.7	41.7	18.5	36.9	21.6	30.4	20.1
229	Grant Lincoln Seneka	37.2	19.4	34.8	21.9	27.9	16.1	35.2	20.1	40.6	21.7	31.4	19.1
230	Keshan	36.6	17.5	34.2	21.9	32.6	18.2	40.7	18.9	36.6	21.8	33.8	20.6
231	Harosoy	36.6	17	35.0	21.5	30.2	16.6	34.1	19.8	38.9	21.2	30.6	18.2
232	No 534	36.8	14.7	36.6	20.8	30.9	17.0	46	15.5	39.5	20.0	30.3	18.4
233	Habarovskaja 53	37.5	16.5	35.3	21.3	29.4	16.6	41.9	17.9	35.9	21.9	30.5	18.9
234	Jao Teh Jar Ching	38.4	16.3	34.8	21.5	36.9	18.9	44.1	17.8	36.3	21.6	32.2	20.1
235	Beliuska 636	38.1	16.3	35.8	21.5	32.8	17.8	44.3	17.6	38.0	21.6	29.3	19.5
236	Dangke	36.3	17.5	35.0	21.4	33.1	17.9	40.2	19	38.7	20.6	32.3	19.9
237	Dongnong 50	42.4	14.2	37.9	20.8	34.5	18.6	46.3	16.6	38.7	20.8	32.2	19.4
238	Heihe 43	37.4	17.3	34.8	22.0	32.0	17.4	42.7	18.6	36.3	21.8	32.9	20
239	L 64-4584	39.6	16.2	36.7	21.4	33.3	17.8	47	17.4	38.7	20.8	35.7	19.7
240	Rouest 250	40	16.3	35.5	21.3	33.8	18.4	44.2	17.6	37.7	21.0	32.6	19.5
241	Fengshou 25	36.8	17.9	34.7	22.1	33.4	18.1	41.4	19.1	36.7	22.2	31.5	19.5
242	Ns - L - 401145	35.4	18	35.6	21.5	31.1	19.4	38.6	19.8	35.2	21.8	31.9	19.5
243	NS - L-201458	36.5	17.6	35.7	21.7	32.6	19.0	40.2	19.6	38.5	21.5	32.2	20.9

244	Hej Nung No 18	38.1	15.8	33.8	21.5	29.9	17.6	41.2	18.6	36.7	22.0	31.9	20.6
245	Suinong 22	36.7	16.5	34.6	21.2	34.2	18.7	41	18.4	38.0	20.6	32.2	19.4
246	Hodgson	35.3	17.2	35.8	21.7	35.0	19.2	40.1	19.2	36.8	21.5	31.9	19.7
247	Ch 50111	36	16.6	34.9	21.3	33.1	18.5	39.6	18.5	36.5	21.5	33.1	20.1
248	Corsoy	36.4	17.6	35.0	21.8	35.4	19.1	39.9	19.8	36.4	22.6	32.4	20.2
249	Ns Merkurs	37.1	17.3	35.5	21.7	34.5	18.5	42.5	18.9	35.9	22.1	33.3	19.7
250	Rekord North	37.3	16.2	35.8	21.1	33.3	18.5	42.5	18	36.9	21.3	33.5	20.1
251	Portage	31.5	19	35.4	21.7	31.8	19.1	34.7	21	32.8	22.9	31.6	19.7
252	Henong 61	36	17.3	34.6	21.6	29.7	17.4	40.3	18.8	36.0	21.8	33.1	20.9
253	Suinong 24	36.3	16.9	35.5	21.6	35.0	18.8	40.6	18.7	35.3	22.4	31.9	19.5
254	Dongnong 54	33.6	17.9	34.3	22.1	33.2	19.3	37.8	20	35.6	22.5	31.9	19.2
255	Felix	37.3	17.4	35.8	21.6	31.4	17.7	41.5	19	37.6	21.6	31.1	20.1
256	Heihe 52	36.2	17.1	34.9	21.4	29.4	17.8	42.7	18.4	35.9	22.2	32.2	20.6
257	A-934	38	16.5	35.5	21.4	31.4	17.9	43	17.2	38.0	20.7	32.5	19.5
258	Henong 59	37.2	17.8	35.4	21.6	35.3	17.9	42.8	18.5	37.7	21.9	33.7	19.5
259	Norchief	38.1	17.1	35.1	22.0	31.9	18.5	43.8	18	32.4	22.7	32.5	19.7
260	Beidou 30	37.3	17.2	35.0	21.7	33.6	17.8	41.9	18.6	36.5	22.0	32.4	20.1
261	Henong 58	39.4	16	35.9	21.2	33.1	18.4	43.5	17.4	34.6	21.9	32.6	19.7
262	No 318	37	19.2	34.6	21.7	30.8	16.7	35	21	41.5	22.2	31.6	19.7
263	Ontario	37.8	16.7	35.4	21.5	33.8	19.0	43.5	17.3	37.3	21.1	32.9	21.1
264	Seneca	36.6	16.3	34.8	21.4	30.0	18.5	42.9	17.5	37.3	21.3	31.1	20.9
265	Atlanta	38.8	17.6	35.7	21.8	33.9	18.5	44.3	17.9	37.9	21.5	32.6	19.3
266	Genhoukin	38.2	17.1	35.6	21.7	34.3	18.6	44.1	18.1	37.2	22.0	32.2	19.6
267	Heihe 5	38.6	17.3	34.8	21.9	33.5	18.4	43.9	18.1	37.1	22.3	33.1	19.7
268	Kabine	38.1	17.1	34.6	21.6	30.9	17.6	35.1	20.4	39.9	21.6	32.4	19.7
269	Heihe 44	40.9	16.4	34.8	21.6	33.0	17.2	44.7	16.8	38.1	20.7	32.7	20.3
270	A 62- 2	37.6	17.4	35.3	21.7	33.4	18.7	43.5	18.2	35.9	22.0	33.2	20.4
271	Heinong	36.4	17.6	34.5	22.2	33.7	19.3	40.7	19.1	35.1	23.1	33.1	21.3
272	Houshuu 11	36.1	18	34.5	21.7	32.6	18.9	43	18.3	37.7	21.4	32.1	20.9
273	Belckaja 25	39.3	16.7	36.0	21.7	32.9	19.1	45.5	17.4	35.0	22.0	33.5	19.3
274	Smena	38.3	16.4	36.0	21.3	33.4	19.4	45.2	17.5	38.4	21.2	32.2	20.7
275	Heinong 53	35.7	17.9	34.4	22.2	34.3	18.6	40.2	18.9	35.9	22.1	32.4	19.8
276	Yantarnaya	42.2	15.4	37.7	21.0	36.1	18.5	46.8	16.4	39.4	21.3	32.4	19.3
277	Suinong 26	37.3	16.6	35.4	21.2	35.1	18.4	41.5	17.9	36.2	21.5	33.4	20.1
278	Henong 62	36.7	17	35.0	21.3	33.2	18.0	41.8	18.5	36.0	22.2	32.8	21.2
279	Jilin 13	37.4	17.2	35.4	21.8	34.0	18.2	43.3	18.2	39.1	21.5	33.1	21.1
280	Tokei 135	38.5	16.4	35.0	21.5	36.6	18.8	41.9	18.6	37.1	22.1	34.1	20.6