

Coordinator's report: Autotetraploids. Wolfgang Friedt, Institut für Pflanzenbau and Pflanzenzüchtung, Justus-Liebig-Universität Giessen, Ludwigstrassa 23, D-6300 Giessen, Germany.

The following tetraploid and corresponding diploid stocks (where available) are maintained and will be multiplied in 1992. Limited seed samples are available for distribution.

44	4n Amsel (Bender)	61	4n Fuchs Pfälzer (Bender)
44a	2n Amsel	61a	2n Fuchs Pfälzer
45/1	4n Balder (Müntzing)	62	4n Gerda (Frimmel)
/2	4n Balder (Hoffmann)	62a	2n Gerda
/3	4n Balder (Lange)	63	4n Gold Foil (Rommel)
45a	2n Balder	63a	2n Gold Foil
46	4n Bella (Frimmel)	64	4n Haisa II (Gaul)
46a	2n Bella	64a	2n Haisa II
47	4n Bohemian (Wiebe)	65	4n dichte II (Gaul)
47a	2n Bohemian	66	4n macrolepis (Gaul)
48/1	4n Brage (Müntzing)	66a	2n macrolepis
/2	4n Brage (Ellerström)	67	4n w 7 (Gaul)
48a	2n Brage	67a	2n w 7
49	4n Busser (Bender)	68	4n frühe 31 (Gaul)
49a	2n Busser	68a	2n frühe 31
50	4n Ceresia (Bender)	69	4n frühe 58 (Gaul)
50a	2n Ceresia	70	4n Lo 8 (Bender)
51	4n Cowra (Bender)	70a	2n Lo 8
51a	2n Cowra	71	4n Harlin (Wiebe)
52	4n D8/55 (Gaul)	72	4n Hatvany
52a	2n D8/55	72a	2n Hatvany
53	4n D9/55 (Gaul)	73	4n HES Type I (Takahashi)
53a	2n D9/55	74	4n Hoffmann 3500
54	4n Dioseger	75	4n " 3501
54a	2n Dioseger	76	4n " 3502
55	4n Emir (Frimmel)	77	4n " 3503
55a	2n Emir	78	4n " 3504
56	4n ert 23 (Hoffmann)	79	4n " 3505
57/1	4n ert 32 (Hoffmann)	80	4n " 3506
/2	4n ert 32 (Ellerström)	82	4n " 3508
57a	2n ert 38	83	4n " 3509
58	4n Firlbeck (Rommel)	84	4n " 3510
58a	2n Firlbeck	85	4n " 3511
59	4n Frankonia	86	4n " 3512
59a	2n Frankonia	87	4n " 3513
60	4n Fredrickson (Wiebe)	88	4n " 3514
		89	4n " 3515
		90	4n " 3516
		91	4n " 3517

92	4n " 3518	113/1	4n Primus II (Müntzing)
93	4n " 3519	/2	4n Primus II (Ellerström)
94	4n " 11/344	113a	2n Primus II
95	4n Impala (Frimmel)	115	4n Skärsmö (Müntzing)
95a	2n Impala	115a	2n Skärsmö
96	4n Ingrid (Frimmel)	116	4n Shin Ebisu (Takahashi)
96a	2n Ingrid	117	4n Stankas früh (Frimmel)
97	4n Inis (Frimmel)	117a	2n Stankas früh
97a	2n Inis	118	4n Starnauer Kneifel (Bender)
98	4n Johanna (Frimmel)	118a	2n Starnauer Kneifel
98a	2n Johanna	119	4n Strengs Franken III (Rommel)
99/1	4n Kenia (Müntzing)	119a	2n Strengs Franken III
/2	4n Kenia (Hoffmann)	120	4n Szekacs
99a	2n Kenia	120a	2n Szekacs
100	4n Kihara early golden (Müntzing)	121	4n Ulonska nackt
100a	2n Kihara early golden	121a	4n Ulonska 41/18
101	4n Kihara Hakata (Müntzing)	122	4n Ulonska 41/65
101a	2n Kihara Hakata	123	4n Union (Bender)
102	4n Kihara Hakata 2 (Wiebe)	123a	2n Union
103/1	4n Maja (Müntzing)	124	4n Villa (Friedt)
/2	4n Maja (Hoffmann)	124a	2n Villa
103a	2n Maja	125	4n Volla (Frimmel)
104	4n Mamie	125a	2n Volla
104a	2n Mamie	126	4n Wasogoru (Takahashi)
105	4n Mari	127	4n Weihestephan Mehlauresistente (Gaul)
105a	2n Mari	127a	2n Weihestephan Mehlauresistente (Gaul)
106	4n Matura (Frimmel)	128	4n Wisa (Rommel)
106a	2n Matura	128a	2n Wisa
107	4n NS Morgenrot (Frimmel)	129/1	4n Ymer (Müntzing)
107a	2n NS Morgenrot	/2	4n Ymer (Ellerström)
108	4n New Ebis (Wiebe)	/3	4n Ymer (Hoffmann)
109	4n Nota (Frimmel)	129a	2n Ymer
109a	2n Nota	130	4n W 1173/472311 (Frimmel)
110	4n Ochsenhauer Ria (Bender)	130a	2n W 1173/472311
110a	2n Ochsenhauer Ria	131	4n W 1749/31681 (Frimmel)
111/1	4n Opal B (Müntzing)	131a	2n W 1749/31681
/2	4n Opal B (Wiebe)	132	4n 48/711 d (Friedt)
111a	2n Opal B		
112	4n Palmella blue (Frimmel)		
112a	2n Palmella blue		

132a	2n 48/711 d		
133	4n 50/721 c (Friedt)	211/1	4n 302/1807-f (Friedt)
133a	2n 50/721 c	211/2	4n 302/1807-223 (Friedt)
134	4n 79/755-15 (Friedt)	211/3	4n 302/1807-12 (Friedt)
134a	2n 79/755-15	212	4n Kihara Mochimugi (Müntzing)
135	4n 79/756-12 (Friedt)	212a	2n Kihara Mochimugi
135a	2n 79/756-12	213	4n 548/1812 (Friedt)
136	4n 90/771-21 (Friedt)	213a	2n 548/1812
136a	2n 90/771-21	214	4n GB 96 (Reinbergs)
137	4n 90/772/1 (Friedt)	215/1	4n OAC 21 (Reinbergs)
137a	2n 90/772/1	215/2	4n OAC 21 (Jenkins)
138	4n 297/1347 (Friedt)	216	4n 224/1328 (Friedt)
138a	2n 297/1347	216a	2n 224/1328
139	4n 478/1370 (Friedt)	217	4n 592/1839-15 (Friedt)
139a	2n 478/1370	217a	2n 592/1839-15
201	4n Brio (Müntzing)	218/1	4n 744/1277 (Friedt)
201a	2n Brio	218/2	4n 744/1277 sterile
202/1	4n Edda (Müntzing)	218a	2n 744/1277
202/2	4n Edda (Jenkins)	219	4n 744/1277 Lo (Friedt)
202a	2n Edda	219a	2n 744/1277 Lo
203/1	4n Brant x OAC 21 (Reinb.)	220	4n 1302/3019 (Friedt)
203/2	4n Brant (Jenkins)	220a	2n 1302/3019
203/3	4n Brant x 57-754 (Reinb.)	221	4n MRM 52 (Friedt)
203/4	4n Brant x 57-754 GB96 (Reinbergs)	221a	2n MRM 52
204	4n Carina (Friedt)	222/1	4n G1 (Reinbergs)
204a	2n Carina	222/2	4n G2 (")
205	4n Harbin	222/3	4n G3 (")
205a	2n Harbin	222/4	4n G4 (")
206	4n Kihara Saikon (Müntzing)	222/5	4n G5 (")
206a	2n Kihara Saikon	222/6	4n G6 (")
207	4n Karri (Ahokas)	222/7	4n G9 (")
207a	2n Karri	225	4n Barbless (Wiebe)
208/1	4n Mutina (Friedt)	226	4n Big Boy (Wiebe)
208a	2n Mutina	227	4n Everest (Wiebe)
209	4n Ammer (Frimmel)	228	4n Hosokara Nr.2 (Takahashi)
209a	2n Ammer	229	4n Hosomugi (Takahashi)
210/1	4n Hoffmann 3520	232	4n Montcalm (Reinbergs)
210/2	4n " 3521	233	4n Nord (Reinbergs)
210/3	4n " 3522	234	4n Slender (Wiebe)
210/4	4n " 3524	235	4n Traill (Reinbergs)
210/5	4n " 11/344	237	4n Walter (Wiebe)
210/6	4n " 10/634	238	4n 57 AB 5002
		240	4n PGR 8480 (Fedak)
		241	4n MC 20 (Favret)
		242	4n 2-1 (Ahokas)

IV.14. Coordinator's report: *Eceriferum* genes. Udda Lundqvist, Svalöf AB, S-268 81 Svalöv, Sweden.

In BGN 20:66-68, Penny von Wettstein-Knowles reported that *gs2d*, (glossy sheath/spike) located on chromosome 3, is most likely allelic to the Swedish *eceriferum* locus *cer-b*. At Svalöf two alleles of the *cer-b* locus were crossed with the genetic stock *gs2* (BGS 352), received from the Main Stock Center at Fort Collins. During the summer of 1991, all the plants in the F₁ generation showed glossy sheath/spike or waxless phenotype. The F₁'s of corresponding crosses with representatives of all the other loci of glossy sheath/spike phenotype had normal wax layer. Thus, it can be verified that the *eceriferum* locus *cer-b* is allelic to the gene *gs2*.

Another glossy sheath/spike gene, *gs4* (BGS 354), located on chromosome 6 and also received from the Main Stock Center at Fort Collins, was tested against the Swedish *eceriferum* loci with the same phenotype. In the F₁ generation in 1991, all plants of two alleles at the *eceriferum* locus *cer-x* in combination with *gs4* were glossy sheath/spike or waxless, while the F₁ plants of crosses to representatives of all the other loci with the same glossy sheath/spike phenotype had normal wax layer. Thus, it can be settled that *gs4* is allelic to the Swedish *eceriferum* locus *cer-x*. It should be observed that the Swedish alleles of the *cer-x* locus are in two-row barley and the gene *gs4* is in six-row barley, and that the F₁ plants were of six-row heterozygous character.

According to several reports (Fester and Sogaard, 1969; Sogaard, 1971; 1973; Sogaard et al., 1984; Sogaard and von Wettstein-Knowles, 1987), the loci *cer-b* and *cer-x* are located on chromosome 7. But as *gs2*, located on chromosome 3 (Konishi, 1973; Konishi et al., 1984), is allelic to *cer-b* and *gs4*, located on chromosome 6 (Walker et al., 1963), is allelic to *cer-x*. Both *cer* genes, *cer-b* and *cer-x*, are likely to be removed from chromosome 7 (von Wettstein-Knowles, 1992a, 1992b).

In the same BGN 20, Penny von Wettstein-Knowles further reports that the Swedish *eceriferum* locus *Cer-yy* is allelic to *G1e1*. She also mentions that two varieties 'Gula' and 'Rosie' have glossy spikes. Thus, it is also suggested that *Cer-yy* might be involved in these varieties. In the coordinator's report for *eceriferum* genes in the same issue, it is also reported that the Swedish dominant *eceriferum* spike gene *Cer-yy* is allelic to "glossy spike" (*G1e1* located on chromosome 5), a line from Wolfe's Multiple Dominant Marker Stock.

In addition to these reports, the following information should be added. During 1982-1984 I made crosses between alleles of the *eceriferum* locus *Cer-yy* and the varieties 'Gula', 'Rosie', 'Dragon', and 'Rapid'. All these varieties have glossy or waxless spikes with supposed dominant inheritance.