

Descriptions of barley genetic stocks for 2015

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In this volume of the Barley Genetics Newsletter, one hundred and twenty-two revised and new Barley Genetic Stock (BGS) descriptions are published (Table 1). The current lists of new and revised BGS descriptions, including those in Table 1, are presented by BGS number order (Table 2) and by locus symbol in alphabetic order (Table 3) in another section of this issue. Information on the description location, recommended locus name, chromosomal location, previous gene symbols, and the primary genetic stock (GSHO number and/or NGB number) are included in these lists. The GSHO stocks are held in the USDA-ARS Barley Genetic Stocks collection at the National Small Grains Collection (U.S. Department of Agriculture – Agricultural Research Service, National Small Grains Germplasm Research Facility, 1691 S 2700 W) Aberdeen, ID 83210, USA. The NGB stocks are held in the Nordic Genetic Resource Center (NordGen), Smedjevägen 3, SE-230 53 Alnarp, Sweden. This information is available through the Internet at the following addresses:

- (1) www.ars.usda.gov.PacWest/Aberdeen**
- (2) www.ars-grin.gov:7000/npgs/descriptors/barley-genetics (GRIN)**
- (3) <http://wheat.pw.usda.gov/ggpages/bgn/>**
- (4) <http://www.nordgen.org/sesto>**

Table 1. A listing of new and revised Barley Genetic Stock (BGS) descriptions published in volume 45 of the Barley Genetics Newsletter, giving recommended locus symbols and names, chromosomal locations, and stock source information.

BGS no.	Locus symbol*		Chr. loc. [†]	Locus name or phenotype	Descr. vol. p.	GSHO no. [‡]
	Rec.	Prev.				
10	lks2	lk2, lk4	7HL	Short awn 2	45:80	566
11	ubs4	lks2, ari-d	7HL	Unbranched style 4	45:84	567
31	sex6	ssIIa	7HS	Shrunken endosperm xenia 6	45:86	2476
34	msg50	msg,,hm	7HL	Male sterile genetic 50	45:88	2404
44	brh16	brh.v, ari-o	7HL	Brachytic 16	45:89	1686
59	gpa1	gp, gp2	2HL	Grandpa 1	45:91	519
60	lig1	li, aur-a	2HL	Liguleless 1	45:93	6
71	com2	bir2	2HS	Compositum2	45:95	1700
74	flo-c	flo-a	6HL	Extra floret-c	45:97	1743
80	ant2	pr, rub	2HL	Anthocyanin-less 2	45:98	1632
92	ert-u	br5, ari-o	7HL	Erectoides-u	45:100	496
93	ert-zd	br7, ari-o	7HL	Erectoides-zd	45:102	504
102	uzul	u, <i>HvBR11</i>	2HL	Uzul, Semi-brachytic 1	45:104	1300
133	sdw2	sdw-b	3HL	Semidwarf 2	45:108	2466
135	ert-ii	uzul	3HL	Erectoides-ii	45:109	483
148	brh14	brh.q, ari-o	7HL	Brachytic 14	45:111	1682
166	msg25	msg,,r	4HL	Male sterile genetic 25	45:113	744
168	glo-a	glo-a	4H	Globosum-a	45:115	1328
182	flo-a	flo-a	6HL	Extra floret-a	45:116	1741
230	glo-e		3HL	Globosum-e	45:117	1755
252	eam7	ea7, <i>HvCO7</i>	6HS	Early matyrity 7	45:118	579
260	fch11	fl1	6HL	Chlorina seedling 11	45:120	1738
327	flo-b	flo-a	6HL	Extra floret-b	45:121	1742
335	msg49	msg,,jw	5HL	Male sterile genetic 49	45:122	2402
348	Eam5	<i>HvPhyC-e</i>	5HL	Early maturity 5	45:123	
357	msg1	ms, ms1	1HL	Male sterile genetic 1	45:126	1810
358	msg2	ms2	2HL	Male sterile genetic 2	45:128	
359	msg3	ms3	2HS	Male sterile genetic 3	45:130	1130
360	msg4	ms4	1H	Male sterile genetic 4	45:132	2392
361	msg5	ms5	3HS	Male sterile genetic 5	45:133	2403
362	msg6	ms6	6HS	Male sterile genetic 6	45:135	2405
363	msg7	ms7	5HL	Male sterile genetic 7	45:137	2406
364	msg8	ms8	5HL	Male sterile genetic 8	45:139	2407
365	msg9	ms9	2HS	Male sterile genetic 9	45:141	2408
366	msg10	ms10	7HS	Male sterile genetic 10	45:142	1811
367	msg11	ms11	5HS	Male sterile genetic 11	45:144	1842

Table 1 continued

BGS no.	Locus symbol*		Chr. loc. [†]	Locus name or phenotype	Descr. vol. p.	GSHO no. [‡]
	Rec.	Prev.				
368	msg13	ms13	3HL	Male sterile genetic 13	45:146	1813
369	msg14	ms14	7HS	Male sterile genetic 14	45:147	1814
370	msg15	ms15		Male sterile genetic 15	45:149	1815
371	msg16	ms16	5HS	Male sterile genetic 16	45:150	1816
372	msg17	ms17	5HL	Male sterile genetic 17	45:152	1817
373	msg18	ms18	5HL	Male sterile genetic 18	45:153	1818
374	msg19	ms19	5HS	Male sterile genetic 19	45:155	1819
375	msg20	ms20	4H	Male sterile genetic 20	45:156	2372
376	msg21	ms21	1HL	Male sterile genetic 21	45:157	2373
377	seg1	se1	5H	Shrunken endosperm genetic 1	45:158	750
379	seg3	se3, ant17	3HS	Shrunken endosperm genetic 3	45:160	752
383	msg22	ms22	7H	Male sterile genetic 22	45:162	741, 2374
384	msg23	ms23	5H	Male sterile genetic 23	45:163	2375
385	msg24	ms24	4HL	Male sterile genetic 24	45:164	2376
395	msg26	msg,,u	7HS	Male sterile genetic 26	45:166	2378
411	cer-r	cer-r	3HL	Eceriferum-r	45:168	439
455	seg8	se8	7H	Shrunken endosperm genetic 8	45:170	2469
460	cur4	cu4, glo-d	2HL	Curly 4	45:172	1708
464	msg27	msg,,ae	2HS	Male sterile genetic 27	45:174	2379
465	msg28	msg,,as	2HS	Male sterile genetic 28	45:175	2380
466	msg29	msg,,a	5HL	Male sterile genetic 29	45:176	2381
467	msg30	msg,,c	7HL	Male sterile genetic 30	45:177	2382
468	msg31	msg,,d	1HL	Male sterile genetic 31	45:178	2383
469	msg32	msg,,w	7H	Male sterile genetic 32	45:179	2384
470	msg33	msg,,x	2HS	Male sterile genetic 33	45:180	2385
471	msg34	msg,,av	6HS/ 7HS	Male sterile genetic 34	45:181	2386
498	msg35	msg,,dr	2HL	Male sterile genetic 35	45:183	2387
499	msg36	msg,,bk	6HS	Male sterile genetic 36	45:184	2388
500	msg37	msg,,hl	3HL	Male sterile genetic 37	45:186	2389
501	msg38	msg,,jl	3H	Male sterile genetic 38	45:187	2390
502	msg39	msg,,dm	3H	Male sterile genetic 39	45:188	2391
503	msg40	msg,,ac	6HL	Male sterile genetic 40	45:190	2393
504	msg41	msg,,aj	6HS	Male sterile genetic 41	45:191	2394
505	msg42	msg,,db	3H	Male sterile genetic 42	45:193	2395

Table 1 continued

BGS no.	Locus Symbol* Rec. Prev.		Chr. loc.†	Locus name or phenotype	Descr. vol. p.	GSHO no.‡
506	msg43	msg,,br	2HL	Male sterile genetic 43	45:194	2396
507	msg44	msg,,cx	5HL	Male sterile genetic 44	45:195	2397
508	msg45	msg,,dp	5HL/ 7HS	Male sterile genetic 45	45:196	2398
509	msg46	msg,,ec	2H/6H	Male sterile genetic 46	45:197	2399
510	msg 47	msg,,ep	3HS/ 7HS	Male sterile genetic 47	45:198	2400
520	msg48	msg,,jt	1H	Male sterile genetic 48	45:199	2401
556	ari-o	ari-o	7HL	Breviaristatum-o	45:200	1663
566	ert-t	ert-t, brh3	2HS	Erectoides-t	45:203	494
572	ert-zb	ert-zb	7HL	Erectoides-zb	45:205	502
573	ert-zc	ert-zc	7HS	Erectoides-zc	45:206	503
574	ert-ze	ert-ze	5HS	Erectoides-ze	45:207	505
580	mat-d	mat-d	4HL/6HL	Praematurum-d	45:208	1790
582	mat-f	mat-f	1H	Praematurum-f	45:210	1792
584	mat-h	mat-h	4HL	Praematurum-h	45:212	1794
585	mat-i	mat-i	7HL	Praematurum-i	45:214	1795
592	yhd2	yhd2		Yellow head 2	45:215	757
595	ant4	ant4	4H	Anthocyanin-deficient 4	45:216	1642
599	ant17		3HS	Proanthocyanidin-free 17	45:218	1628
600	ant18		3H	Proanthocyanidin-free 18	45:221	1630
613	brc1	brc-5, com2	2HS	Branched 1	45:224	
624	ops1	op-3	7HS	Opposite spikelets 1	45:226	2427
627	viv-a	viv-5	2H	Viviparoides-a	45:227	2498
629	mtt6	mtt6	7HS	Mottled leaf 6	45:228	2411
631	brh3	brh.g, ert-t	2HS	Brachytic 3	45:229	1672
653	brh10	brh.l	2HS	Brachytic 10	45:231	1677
654	brh11	brh.n	5HS	Brachytic 11	45:232	1679
655	brh12	brh.o	5HS	Brachytic 12	45:233	1680
656	brh13	brh.p	5HS	Brachytic 13	45:234	1681
658	brh17	brh.ab	5HS	Brachytic 17	45:236	1669
659	brh18	brh.ac, brh13	5HS	Brachytic 18	45:237	1670
678	ari-u	ert-t	2HS	Breviaristatum-u	45:239	
716	ibl1	ibl1		Intense blue aleurone 1	45:241	
730	lab1		5HL	Labile 1	45:243	
731	rpr2	γ08-118; R43-22#1		Required for <i>Puccinia graminis</i> resistance 2	45:245	3693
732	rpr3	γ08-112; R12-31#3		Required for <i>Puccinia graminis</i> resistance 3	45:244	3696

Table 1 continued

BGS no.	Locus Symbol* Rec. Prev.		Chr. loc. [†]	Locus name or phenotype	Descr. vol. p.	GSHO no. [‡]
733	rpr4	γ08-114; R36-37#1		Required for <i>Puccinia graminis</i> resistance 4	45:245	3697
734	rpr5	γ08-117; R42-33#5		Required for <i>Puccinia graminis</i> resistance 5	45:246	3699
735	rpr6	γ08-119; R47-23#1		Required for <i>Puccinia graminis</i> resistance 6	45:247	3700
736	rpr7	γ08-115; R3-18#3		Required for <i>Puccinia graminis</i> resistance 7	45:248	3701
737	rcr1	γ08-122; R4-29		Required for resistance to <i>Cochliobolus sativus</i> 1	45:249	3702
738	rcr2	γ08-123; R4-40		Required for resistance to <i>Cochliobolus sativus</i> 2	45:250	3703
739	rcr3	γ08-124		Required for resistance to <i>Cochliobolus sativus</i> 3	45:251	3704

* Recommended locus symbols are based on utilization of a three letter code for barley genes as approved at the business meeting of the Seventh International Barley Genetics Symposium at Saskatoon, Saskatchewan, Canada, on 05 August 1996.

[†] Chromosome numbers and arm designations are based on a resolution passed at the business meeting of the Seventh International Barley Genetics Symposium at Saskatoon, Saskatchewan, Canada, on 05 August 1996. The Burnham and Hagberg (1956) designations of barley chromosomes were 1 2 3 4 5 6 and 7 while new designations based on the Triticeae system are 7H 2H 3H 4H 1H 6H and 5H, respectively.

[‡] The seed stock associated with each BGS number is held as a GSHO stock number in the Barley Genetics Stock Collection at the USDA-ARS National Grains Germplasm Research Facility, Aberdeen, Idaho, USA.