**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/**](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.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| BGSno. | Locus symbol\* | Chr.loc.† | Locus name or phenotype | Descr.vol. p. | GSHOno.‡ |
| 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 | uzu1 | u, *HvBRI1* | 2HL | Uzu1, Semi-brachytic 1 | 45:104 | 1300 |
| 133 | sdw2 | sdw-b | 3HL | Semidwarf 2 | 45:108 | 2466 |
| 135 | ert-ii | uzu1 | 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, HvCO7 | 6HS | Early matyrity 7 | 45:118 | 579 |
| 260 | fch11 | f11 | 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 | HvPhyC-e | 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**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| BGSno. | Locus symbol\* Rec. Prev. | Chr.loc.† | Locus name or phenotype | Descr.vol. p. | GSHOno.‡  |
|  |  |  |  |  |  |  |
| 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**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| BGSno. | Locus Symbol\* Rec. Prev. | Chr.loc.† | Locus name or phenotype | Descr.vol. p. | GSHOno.‡ |
|  |  |  |  |  |  |  |
| 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 | yh2 |  | 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 *Puccinia graminis* resistance 2 | 45:245 | 3693 |
| 732 | rpr3 | γ08-112; R12-31#3 |  | Required for *Puccinia graminis* resistance 3 | 45:244 | 3696 |

**Table 1 continued**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| BGSno. | Locus Symbol\* Rec. Prev. | Chr.loc.† | Locus name or phenotype | Descr.vol. p. | GSHOno.‡ |
|  |  |  |  |  |  |  |
| 733 | rpr4 | γ08-114; R36-37#1 |  | Required for *Puccinia graminis* resistance 4 | 45:245 | 3697 |
| 734 | rpr5 | γ08-117; R42-33#5 |  | Required for *Puccinia graminis* resistance 5 | 45:246 | 3699 |
| 735 | rpr6 | γ08-119; R47-23#1 |  | Required for *Puccinia graminis* resistance 6 | 45:247 | 3700 |
| 736 | rpr7 | γ08-115; R3-18#3 |  | Required for *Puccinia graminis* resistance 7 | 45:248 | 3701 |
| 737 | rcr1 | γ08-122; R4-29 |  | Required for resistance to *Cochliobolus sativus* 1 | 45:249 | 3702 |
| 738 | rcr2 | γ08-123; R4-40 |  | Required for resistance to *Cochliobolus sativus* 2 | 45:250 | 3703 |
| 739 | rcr3 | γ08-124 |  | Required for resistance to *Cochliobolus sativus* 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.