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VII.2. Master list of barley genes. Bodil Søgaard, R. A. Nilan[1/] and D. von Wettstein, Department of Physiology, Carlsberg Laboratory, Gamle Carlsberg Vej 10, DK-2500 Copenhagen Valby, Denmark, Telex: 15434, Telephone (01) 22 10 22 ext. 5236. 1/ Program in Genetics and Cell Biology, Washington State University, Pullman, Washington 99164, USA.

In agreement with the decision reached at the 4th International Barley Genetics Symposium we have prepared a master list of barley genes. It has been stored on discs for the word processor (microcomputer) at the Carlsberg Laboratory and will be reprinted in every future issue of the Barley Genetics Newsletter with the additions and amendments which have been incorporated during the year.

This must be considered as a tentative "working" list of genes designed to 1) present all of the genes and gene symbols ever published, 2) avoid duplications between previous and future symbols, and with the assistance of all barley geneticists, 3) develop a true and useful list of all previous symbols free from duplications and outdated synonyms, 4) determine availability of seed stocks and 5) make additions in an intelligent manner. For all barley workers it will provide a means of quickly determining the genes and alleles of their interest and acquiring seed and new symbols.

It was agreed at the 4th International Barley Genetics Symposium that all symbols assigned to new genes will follow the rules of gene nomenclature adopted at the 3rd Symposium and most recently presented in BGN 11:1-16, 1981. No symbols now in the Master List will be altered without consent of the International Committee on Barley Gene Nomenclature.

We appreciate if you let us know mistakes or changes and amendments required. For a new symbol to be incorporated in the master list we suggest that you contact Dr. Bodil Søgaard at the above address by mail, telex or telephone. She will act as clearing agent to avoid duplication of symbols and she is also willing to coordinate registration of allele designations for individual genes.

We are developing computer programs to store and retrieve all allele designations at the individual loci. It is intended to provide on request computer printouts for the allele collections including information on availability of seeds. For this purpose we are grateful to obtain lists on such allelic series you might have available.

The genes for reaction to Erysiphe graminis hordei (powdery mildew) are described briefly in the master list and a detailed list is given in the supplementary list No. 1.

Gene locus	Synonyms	Character	Alle-[a] les	Chromo-some	Authority(ies)
A	Sh2	spring habit of growth	-	7	-
A	K,LK2	long awn or hooded	-	4	-
a	r	smooth awn	-	7	-
a	kl,lk	short awn	-	1	-
a	-	albino seedling	-	2	75; 107; BGN 1:107, 128, 134, 152; 10:105
a1	li	liquless	-	-	-
a1	kl	short awn	-	-	-
a2	kl2	short awn	-	-	-
a2	al	albino seedling	-	2	75; 107; BGN 1:113; BGN 10:105
a2	ebu	albino lemma	3	3	75; 118; BGN 1:130, BGN 10:111
a3	a2,alb-za	albino seedling	3	-	75; 107
a4	a3	albino seedling	-	2	75; 107
a5	a4	albino seedling	-	2	75; 107
a_b	cm	cream seedling	-	7	75; 107
a_c	-	albino seedling	-	3	75; 118; 122; BGN 1:128
a_c2	alb-m	albino seedling	2	1	75; 84; BGN 1:107; BGN 5:90
a_c3	-	albino seedling	-	-	75; 107
a_h	-	albino seedling	-	-	75; 107
a_n	-	albino seedling	-	3	75; 84; 118; BGN 1:134
a_t	-	albino seedling	-	5	38; 75; BGN 1:152
a_t2	-	albino seedling	-	-	75; 107
a_t3	alb^t	albino seedling	-	-	75; 107
abr	-	accordian basal rachis internodes	3	7s	BGN 11:25
acr	ril	accordian rachis (lax rachis internode)	-	-	22; 36; 75; 134; 135
act	-	cold-temperature albino	-	-	75; 138
adh 1	-	alcohol dehydrogenase	-	-	BGN 10:26
adh 2	-	alcohol dehydrogenase	-	-	BGN 10:26
adn	-	awned palea	-	-	BGN 7:8
ag	-	agropyroides(calcaroides)	-	6	75; 92
al	ebu^{-2} ebu^{-3}	albino lemma	4	3	BGN 2:28; 3:67; 10:111
alb	as	albostrians(white stripe)	-	-	33; 75
alb^t	a_t3	albstrians	-	-	-
alb-a	-	albino seedling	2	-	BGN 3:113
alb-b	-	albino seedling	4	-	BGN 3:113
alb-c	-	albino seedling	-	-	BGN 3:113
alb-d	-	albino seedling	-	-	BGN 3:113
alb-e	-	albino seedling	-	-	BGN 3:113
alb-f	-	albino seedling	-	-	BGN 3:113
alb-g	-	albino seedling	-	-	BGN 3:113
alb-h	-	albino seedling	-	-	BGN 3:113
alb-i	-	albino seedling	-	-	BGN 3:113
alb-j	-	albino seedling	-	-	BGN 3:113
alb-k	-	albino seedling	-	-	BGN 3:113
alb-m	ac^2	albino seedling	2	1	BGN 3:113
alb-n	-	albino seedling	-	-	BGN 3:113
alb-o	-	albino seedling	-	-	BGN 3:113
alb-p	-	albino seedling	-	-	BGN 3:113
alb-q	-	albino seedling	-	-	BGN 3:113

a)Allele numbers are difficult to ascertain and may not be accurate for certain genes.

Gene locus	Synonyms	Character	Alle-les	Chromo-some	Authority(ies)
alb-r	-	albino seedling	-	-	BGN 3:113
alb-s	-	albino seedling	-	-	BGN 3:113
alb-t	-	albino seedling	-	-	BGN 3:113
alb-u	-	albino seedling	-	-	BGN 3:113
alb-v	-	albino seedling	-	-	BGN 3:113
alb-x	-	albino seedling	-	-	BGN 3:113
alb-y	-	albino seedling	-	-	BGN 3:113
alb-z	-	albino seedling	-	-	BGN 3:113
alb-za	a3	albino seedling	2	-	BGN 3:113
alb-zb	-	albino seedling	-	-	BGN 3:113
alb-zc	-	albino seedling	-	-	BGN 3:113
alb-zd	-	albino seedling	-	-	BGN 3:113
alb-ze	-	albino seedling	-	3	BGN 3:113
alp	-	aluminum toxicity	-	-	-
als	uc	absent lower laterals	-	-	46; 47; BGN 1:123
amol	-	high amylase	-	3	BGN 8:112; 9:9
Amp-A	-	aminopeptidase	2	1	BGN 8:31
Amp-C	-	aminopeptidase	2	-	BGN 8:31
Amy 1	-	alpha amylase	-	6L	BGN 6:133
Ang	-	angustifolia	-	5?	BGN 6:95
ant-1	rub-a	anthocyanin less	3	1	BGN 8:57
ant-2	rub	anthocyanin less	20	-	BGN 8:57
ant-3	rub	decreased in anthocyanin	3	-	BGN 8:57
ant-4	rub	decreased in anthocyanin	9	-	BGN 8:57
ant-5	rub	anthocyanin less	3	-	BGN 8:57
ant-6	rub	decreased in anthocyanin	2	-	BGN 8:57
ant-7	rub	decreased in anthocyanin	-	-	BGN 8:57
ant-8	rub	decreased in anthocyanin	-	-	BGN 8:57
ant-9	rub	decreased in anthocyanin	-	-	BGN 8:57
ant-10	rub	decreased in anthocyanin	-	-	BGN 8:57
ant-11	rub	decreased in anthocyanin	-	-	BGN 8:57
ant-12	rub	decreased in anthocyanin	-	-	BGN 8:57
ant-13	rub	anthocyanin,catechin and proanthocyanidin less	13	-	BGN 8:57
ant-14	rub	decreased in anthocyanin	-	-	BGN 8:57
ant-15	rub	decreased in anthocyanin	-	-	BGN 8:57
ant-16	rub	decreased in anthocyanin	-	-	BGN 8:57
ant-17	-	anthocyanin,catechin and proanthocyanidin less	31	-	43; BGN 8:57
ant-18	-	anthocyanin,catechin and proanthocyanidin less	21	-	43; BGN 8:57
ant-19	-	catechin and proantho-cyanidin less	-	-	43; BGN 8:57
ant-20	rub	anthocyanin rich	2	-	43; BGN 8:57
ari-a	lk	short awn (brevi aristatum)	3	3	30; BGN 4:80
ari-b	-	short awn	-	-	30
ari-c	lk 5	short awn	4	4L	30; BGN 4:80, 8:156, 10:119
ari-d	lk 2?	short awn	2?	1	30; BGN 4:80
ari-e	-	short awn	-	7	30; BGN 4:80
ari-f	-	short awn	-	-	30;
ari-g	-	short awn	-	-	30; BGN 4:80
ari-h	-	short awn	-	-	30; BGN 4:80
ari-i	br	short awn	3	2	30; BGN 4:80
ari-j	-	short awn	-	-	30; BGN 4:80
ari-k	-	dehiscent awn	4	-	30
as	alb	albino stripe	-	-	-

Gene locus	Synonyms	Character	Alle-les	Chromo-some	Authority(ies)
aur-a	-	auricleless	5	-	30
B	I^h	fertile intermedium	-	-	-
B	B^g,Bk,b,B^{mb}	black lemma and pericarp	5	5	13; 18; 37; 72; 75; BGN 1:148, 10:133
b	B^g,BK,B, B^{mb}	white lemma and pericarp	5	5	133; BGN 1:151
b	bt	non brittle rachis	-	-	-
Bg	B,BK,b,B^{mb}	gray lemma and pericarp	5	5	75; 107; BGN 1:150
B^{mb}	B,BK,b,B^g	medium-black lemma and perica-p	5	5	75; 107; BGN 1:149
Bam	-	beta amylase	2	4	142; BGN 12:
bb	-	broad leaf	-	7	75; 131
Bb 2	Brl,Nlh	broad leaf	-	7 ?	42; 75; 85; 92
bb 3	wlh	broad leaf	-	-	75; 85; 92
bc	-	barban resistance	-	-	-
be	Nb	branched ear(rachis)	-	-	75; 107
be 2	Nb1	branched ear	-	-	75; 107
Bg	G	brown-yellow lemma	-	-	75; 93
bh	-	bushy head(multiflorus)	-	-	75; 92
bi	-	long basal rachis internode	-	7	BGN 1:66
Blx	-	blue aleurone	-	-	BGN 2:109
Bly	-	blue aleurone	-	-	BGN 2:109
Bl	Bl_1	blue aleurone (xenia)	-	4	35; 37; 40; 60; 75; 84; 136;
bl	bl_1	white aleurone	-	4	BGN 5:111, 8:163, 2:109
Bl_2	Bl_1	blue aleurone	-	1	75; 133
bl_2	bl_1	white aleurone	-	1	BGN 8:164, 5:100
Bl_3	-	blue aleurone	-	4	26
bl_3	-	white aleurone	-	4	BGN 8:165
Bl_4	-	blue aleurone	-	4	26
bl_4	-	pink aleurone	-	4	26; BGN 8:166
Bl_5	-	blue aleurone	-	-	35; 37; 40; 60; 84; 136; 138; BGN 5:111, 8:163
bl_5	-	white aleurone	-	-	BGN 8:167
Brl	Bb2	broad leaf	-	7	-
br1	br, ari-a	brachytic (dwarf)	3	1	18; 37; 75; 84; 88; 118; BGN 1:104, 10:100
br2	-	brachytic (dwarf)	2	4	BGN 1:143, 10:115
bra-a	trd	third outer glume (bracteatum)	-	-	30
bra-b	trd	third outer glume (bracteatum)	-	-	30
bra-c	trd	third outer glume (bracteatum)	-	-	30
Bt	-	brittle rachis from Mars	-	5	61; 75; 130; BGN 2:181
bt	r,b,bt2	non-brittle rachis	-	3	BGN 2:181
Bt2	Bt,Bt1	brittle rachis	-	3	61; 75; 117; 130; BGN 2:182
Bt3	Bt2	brittle rachis	-	3	75; 117
C	sh3	spring habit of growth	-	-	-
C	Pc	purple veined lemma	-	-	140; BGN 5:108
cal-a	-	hooded	-	-	30
cal-b	-	hooded	-	-	30

Gene locus	Synonyms	Character			Alle-les	Chromo-some	Authority(ies)
		eceriferum (surface wax)					
		ear	stem	leaf			
cer-a	gs_3	-	-	++	47	1	62; BGN 2:79
cer-b	-	-	-	++	32	7	62; BGN 5:116
cer-c	-	-	+/-	++	165	4	62
cer-d	-	+	++	++	11	2 or 3	62; BGN 5:117
cer-e	-	-	++	++	32	5	62; BGN 5:118
cer-f	-	+	+	++	3	1	62; BGN 5:119
cer-g	-	+	+	++	32	2	62; BGN 5:120
cer-h	-	-	++	++	5	-	62; BGN 5:121
cer-i	-	-	++	++	62	7	62; BGN 5:122
cer-j	-	++	++	-	41	4	62
cer-k	-	+	++	++	-	-	62; BGN 5:123
cer-l	-	+	++	++	-	-	62; BGN 5:124
cer-m	-	+	+	++	-	-	62; BGN 5:125
cer-n	cer-zm	-	+	++	45	2	62; BGN 5:126
cer-o	-	-	++	++	2	-	62; BGN 5:127
cer-p	-	++	++	+	32	-	62; BGN 5:128
cer-q	gs	-	-	++	129	4	62
cer-r	-	-	+	++	8	2	62; BGN 5:129
cer-s	-	+	-	++	17	2	62
cer-t	-	+	++	++	45	7	62; BGN 5:130
cer-u	-	+	+	++	141	4	62; BGN 5:131
cer-v	-	+/-	++	++	4	2	62; BGN 5:132
cer-w	-	+	++	++	18	7	62; BGN 5:133
cer-x	-	-	-	++	21	7	63; BGN 5:134
cer-y	-	+	+/++	++	2	-	63; BGN 5:135
cer-z	-	-	-	++	9	-	63; BGN 5:136
cer-za	-	++	++	-	62	-	63; BGN 5:137
cer-zb	-	-	++	++	5	-	63; BGN 5:138
cer-zc	-	+/-	++	++	15	-	63; BGN 5:139
cer-zd	-	++	++	-	5	3	63; BGN 5:140
cer-ze	-	++	++	-	43	-	63; BGN 5:141
cer-zf	-	++	++	+	-	-	63; BGN 5:142
cer-zg	-	++	++	+	2	4	63; BGN 5:143
cer-zh	-	++	++	-	10	4	63; BGN 5:144
cer-zi	-	+	+	++	15	5	63; BGN 5:145
cer-zj	-	++	++	-	51	7	63; BGN 5:146
cer-zk	-	+	+	+/-	11	-	63; BGN 5:147
cer-zl	-	-	-	++	3	-	63; BGN 5:148
cer-zm	cer-n	-	+/++	++	2	2	63
cer-zn	-	+/-	++	++	5	3	63; BGN 5:149
cer-zo	-	-	++	++	5	-	63; BGN 5:150
cer-zp	-	++	++	-	6	7	63; BGN 5:151
cer-zq	-	++	++	-	2	-	63; BGN 5:152
cer-zr	-	+	++	++	2	-	63; BGN 5:153
cer-zs	-	+	++	++	4	-	BGN 7:92; 5:154
cer-zt	-	+	++	++	2	-	BGN 1:97; 5:155
cer-zu	-	-	+	++	3	-	BGN 9:135; 3:110; 5:156
cer-zv	-	-	-	-	4	-	BGN 9:135; 5:157
cer-zw	-	+	+	++	-	-	BGN 3:110; 5:158
cer-zx	-	+	+	++	-	-	BGN 3:110; 5:159
cer-zy	-	++	++	+	-	-	BGN 3:110, 5:160
cer-zz	-	++	++	-	4	-	BGN 3:110, 5:161
cer-ya	-	++	++	-	-	-	BGN 3:110, 5:162
cer-yb	-	++	++	-	5	-	BGN 3:110, 5:163
cer-yc	-	-	++	++	2	-	BGN 3:110, 5:164

Gene locus	Synonyms	Character	Alle-les	Chromo-some	Authority(ies)
cer-yd	-	- ++ ++	-	-	BGN 3:110, 5:165
cer-ye	-	++ ++ -	4	-	BGN 3:110, 5:166
cer-yf	-	++ ++ +	2	-	BGN 3:110, 5:167
cer-yg	-	- - -	-	-	BGN 3:110, 5:168
cer-yh	-	- ++ ++	2	-	BGN 3:110, 5:169
cer-yi	-	++ ++ -	2	-	BGN 7:92
cer-yj	-	++ ++ -	2	-	BGN 7:92
cer-yk	-	+ + ++	2	-	BGN 7:92
cer-yl	-	- - ++	2	-	BGN 7:92
cer-ym	-	- - -	2	-	BGN 7:92
cer-yn	-	+ + ++	-	-	BGN 7:92
cer-yo	-	++ ++ -	2	-	BGN 9:135
cer-yp	-	++ ++ +	2	-	BGN 9:135
cer-yq	-		-	-	BGN 12:
cer-yr	-		-	-	BGN 12:
cer-ys	-		2	-	BGN 12:
cer-yt	-		3	-	BGN 12:
cer-yy	-		17	-	BGN 12:
cer-soh	-	secondary alcohols	-	-	BGN 9:75
Ch-a	-	chloratic hybrids	-	-	BGN 6:71
Ch-e	-	chloratic hybrids	-	4	BGN 6:71
Cl	K	hooded	-	-	-
cl	-	curly lateral	-	7	75; 131
clh	cud	curly lateral dwarf	-	7	BGN 10:49
cm	a_b	cream seedling	-	7	52; 75; BGN 1:164
cm2	-	cream seedling	-	5	75; 77
cr	-	curved peduncle	-	-	75; 107
cs	-	corn stalk	-	7	22; 75
cu	-	curly	-	6	75; 92
cu2	-	curly	-	3	BGN 1:136
cu3	-	curly	-	6	BGN 8:50
cud	-	curly dwarf	-	7	BGN 10:49
D	-	dwarf (sterile)	-	2	75; 107
D	I_I	intermedium	-	4	75; BGN 7:34
d	x	xantha seedling	-	-	75; 131
De	L7	lax spike	-	1	-
da	lku	dehiscent awn	-	2	18; 75; 130
da2	-	dehiscent awn	-	-	75; 107
ddt	-	resistance to DDT	-	7	75; 137
des1	lc	desynapsis	-	1	BGN 3:124
des2	ds	desynapsis	-	3	BGN 3:125
des3	-	desynapsis	-	-	BGN 3:126, 6:116
des4	-	desynapsis	-	1	BGN 3:127
des5	-	desynapsis	-	1	BGN 3:128
des6	-	desynapsis	-	5	BGN 3:129
des7	-	desynapsis	-	2	BGN 3:130
des8	-	desynapsis	-	-	BGN 3:131
des9	-	desynapsis	-	-	BGN 4:137
des10	-	desynapsis	-	-	BGN 4:138
des11	-	desynapsis	-	-	BGN 4:139
des12	-	desynapsis	-	-	BGN 4:140
des13	-	desynapsis	-	-	BGN 4:141
des14	-	desynapsis	-	-	BGN 4:142
des15	-	desynapsis	-	-	BGN 5:113
dex1	sex2	defective endosperm xenia	-	7	BGN 11:104
dex2	-	defective endosperm xenia	-	-	BGN 11:105
dex3	-	defective endosperm xenia	2	-	BGN 11:106

Gene locus	Synonyms	Character	Alle-les	Chromo-some	Authority(ies)
dex4	-	defective endosperm xenia	-	-	BGN 11:107
Dip	amy	high diastatic power	-	2, 7	15; 75
dn	m3	many noded dwarf 3	-	3	75; 131
ds	des-2	desynaptic chromosomes	-	3	22; 23; 47; 75
Dt	-	dented leaf margin	-	-	-
E	Ea	early maturity	-	-	-
e	l	lax spike	-	-	-
e	lep-e	wide outer glume	-	2	BGN:101, 2:28
e 2	gh	fine-awned glume	-	1	18; 75
Ea	E,X,Y,z	early maturity	-	1, 2	18; 27; 75; 138; BGN 2:148
Ea 2	-	early maturity	-	4	75; 107
ea 4	-	early maturity	-	1(?)	57; 75; 93
Ea 5	Ea 3	early maturity	-	7	42; 75
ea 7	Ea 5,ec	early heading	-	6	8; 75; BGN 1:155
ea_K	mat-a	early heading (light insensitive)	-	5	BGN 2:198, 8:125
ebu^{-2}	ebu^{-3},al	albino lemma	-	-	30; BGN 3:67
ebu^{-3}	ebu^{-2},al	albino lemma	-	-	30;
ec	ea7	early maturity	-	6	75; 86
Edp-A	-	endopeptidase	2	-	BGN 8:31
eh	-	erect early growth	-	-	42; 75
en-min	-	enhancer for minute	-	-	75; 120
en-Bl,b	en-Bl?	enhancer of aleurone color	-	-	26
er	-	erectum base on grain	-	-	75; 107
Er	Reg	reaction to E.graminis	-	-	BGN 12:
er2	-	erectum base on grain	-	-	75; 107
ert-a	-	erectoides	-	1	31; 32; 75
ert-b	-	erectoides	-	5	31; 32; 75
ert-c	-	erectoides	-	3	31; 32; 75
ert-d	-	erectoides	-	1	31; 32; 75
ert-e	-	erectoides	-	6	31; 32; 75
ert-f	-	erectoides	-	-	31; 32; 75
ert-g	-	erectoides	-	7	31; 32; 75
ert-h	-	erectoides	-	-	31; 32; 75
ert-i	-	erectoides	-	4	31; 32; 75
ert-ii	-	erectoides	-	3	31; 32; 75
ert-j	-	erectoides	-	-	31; 32; 75
ert-k	-	erectoides	-	6	31; 32; 75
ert-l	-	erectoides	-	-	31; 32; 75
ert-m	-	erectoides	-	1	31; 32; 75
ert-n	-	erectoides	-	7	31; 32; 75
ert-o	-	erectoides	-	-	31; 32; 75
ert-p	-	erectoides	-	-	31; 32; 75
ert-r	-	erectoides	-	7	31; 32; 75
ert-s	-	erectoides	-	-	31; 32; 75
ert-t	-	erectoides	-	-	31; 32; 75
ert-u	-	erectoides	-	-	31; 32; 75
ert-v	-	erectoides	-	-	31; 32; 75
ert-x	-	erectoides	-	-	31; 32; 75
ert-y	-	erectoides	-	-	31; 32; 75
ert-z	-	erectoides	-	-	31; 32; 75
ert-za	-	erectoides	-	-	BGN 6:80
ert-zd	-	erectoides	-	-	BGN 6:80
Est 1	-	esterase	-	3L	39; 45
Est 2	-	esterase	-	3L	39; 45
Est 3	-	esterase	-	1	39; BGN 12:

Gene locus	Synonyms	Character	Alleles	Chromosome	Authority(ies)
Est 4	Est 3	esterase	-	3L	39; 45
Est 5	Est 4	esterase	-	1	39; 45; BGN 12:
Est 9	-	esterase	-	-	39;
Est 10	-	esterase	-	-	39;
ex	lep-e	elongated outer glume	-	-	-
f	lg,lg8,lg10	chlorina seedling (viridis)	4	2s	75; 84; BGN 10:106, 3:71
f_c	-	chlorina seedling	-	1s	75; 107; BGN 1:105, 3:71; 10:101
f2	-	chlorina	4	3s	141; BGN 2:183, 3:71
f3	-	chlorina	-	5	107; BGN 9:132, 8:89, 3:71
f4	yv	chlorina	-	1L	131; BGN 5:98, 10:103, 3:71
f5	z,yv2	chlorina	-	1s	131; BGN 5:99, 3:71
f6	-	chlorina	-	6	BGN 3:71
f7	-	chlorina	-	5L	BGN 1:146, 10:120, 3:71
f8	-	chlorina	-	1L	BGN 1:108, 10:102, 3:71
f9	F_K	chlorina	-	4s	BGN 1:137, 3:71
f11	pg	chlorina	-	6	BGN 9:133
F_K	f9	chlorina	-	-	-
fb	sc	reaction to Fusarium blight (scab)	-	-	75; 92; 107;
fer	-	few roots	2	-	BGN 8:162, 7:43
fla-a	fla-b	yellow spike	-	-	30; BGN 5:64
flo-a	-	extra floret	-	2	30; BGN 6:28
flo-b	-	extra floret	-	-	30; BGN 6:28
flo-c	-	extra floret	-	-	30
fls	msg	floral sensitivity (sterility)	-	-	75; 92
fpd 1	-	fructose-phosphofate-dehydrogenase	-	6	BGN 12:
fs	-	fragile stem	-	7	75; 87; 126; BGN 1:160
fs2	-	fragile stem	-	5L	47; 75; 131; BGN 1:153, 2:192, 10:122
G	-	teeth on lemma	-	2	75; 93; 133; BGN 5:109, 8:161
G	Bg	brown(gray)yellow lemma	-	-	-
G2	-	teeth on lemma	-	-	75; 107
ga	-	gametophyte factor	-	1	75; 113; 114
Ge	wh	glaucous ear (cer)	-	-	40; 75
Gh	-	long glume hairs	-	4(?)	49; 75
gh	e2	-	-	-	-
gl	wl,gl2	glossy leaf (cer)	4	4	18; 40; 75; 106; 136; 138;BGN 1:141, 2:80, 10:114
gl2	gl	glossy seedling	4	4	BGN 2:79
gl3	gl4	glossy seedling	2	4	BGN 2:190, 10:117
gl4	gl3	glossy seedling	-	4	BGN 1:159, 10:123
gl5	-	glossy leaf	-	1	BGN 8:48
glo-a	-	globe shaped grain(globosum)	-	4	BGN 8:152, 6:28

Gene locus	Synonyms	Character	Alleles	Chromosome	Authority(ies)
glo-b	-	globe shaped grain(globosum)	3	7	BGN 6:28, 10:30
glo-c	-	globe shaped grain(globosum)	-	2	BGN 6:28, 10:30
glo-d	-	globe shaped grain(globosum)	2	2	BGN 10:30
glo-e	-	globe shaped grain(globosum)	-	5	BGN 10:30
gp	gp2	grandpa	2	2L	18; 40; 75; BGN 1:119, 10:107
gp2	gp	grandpa	-	-	-
Gr	-	growth factors	-	3	75; 107
Gr2	-	high yield (growth factor)	-	7	25; 75; 91
Grb	Rsg	reaction to Schizaphis graminum Rondari (greenbug)	-	-	12; 28; 75; BGN 6:119
Grb2	-	reaction to Schizaphis graminum Rondari (greenbug)	-	-	12; 28; 75
Grb3	-	reaction to Schizaphis graminum Rondari (greenbug)	-	-	12; 75
gs1	gs,cer-q	glossy sheath (cer)	-	4	1; 2; 37; 75; 136; BGN 1:168
gs2	-	glossy sheath (cer)	-	3	75; 92; BGN 1:169, 3:29
gs3	vs3,cer-a	glossy sheath (cer)	2	1	75; 131; 132; BGN 1:169, 2:86
gs4	wh1,wh2	glossy sheath (cer)	-	6	75; 107; BGN 1:170
gs5	gs6,gs8,gs7	glossy sheath (cer)	4	2s	BGN 1:171-172
gs6	gs5	glossy sheath (cer)	-	2	BGN 1:172
gs7	gs5	glossy sheath (cer)	-	-	-
gs8	gs5	glossy sheath (cer)	-	-	-
H	U	high (tall)	-	1, 2	1; 41; 54; 75; 138
h	u	short culm	-	2	BGN 5:102
H2	-	high (tall)	-	7	75; 107
H_I	-	high (tall), modifying factor	-	-	75; 107
Ha1	-	reaction to Heterodera avenae (cereal cyst nematode)	-	-	BGN 2:201
Ha2	-	reaction to Heterodera avenae (cereal cyst nematode)	-	2	BGN 2:201
hap	-	haploid initiator	-	-	144
hex-v	v	six-row	19	2	30; 143
hf	-	hairy furrow of palea	-	-	10; 75
Hg	-	reaction to Helminthosporium gramineum (leaf stripe)	-	-	75; 107
Hg2	-	reaction to Helminthosporium gramineum (leaf stripe)	-	-	75; 107
Hg3	-	reaction to Helminthosporium gramineum (leaf stripe)	-	-	75; 107
hl	-	reaction to Helminthosporium sativum (foot rot)	-	2	75; 107
hl2	-	reaction to Helminthosporium sativum (foot rot)	-	5	75; 197
hl3	-	reaction to Helminthosporium sativum (foot rot)	-	7	75; 107
hl4	-	reaction to Helminthosporium sativum (foot rot)	-	-	5; 75

Gene locus	Synonyms	Character	Alle-les	Chromo-some	Authority(ies)
Hn	-	hairs on the lemma nerves	-	4	75; 119; BGN 2:189, 11:44
Hor1	Hrd A,Pr-a	hordein	8	5	16; 17; 97; 108; BGN 11:44
Hor2	Hrd B	hordein	17	5	16; 17; 97; 108; BGN 11:44
Hrd C	-	hordein	-	5	109
Hrd D	-	hordein	-	5	109
Hrd E	-	hordein	-	5	109
Hr	Pbr	hairy rachis	-	2	75; 133
Hr2	Pbr2	hairy rachis	-	7	75; 133
Hr3	Pbr3	hairy rachis	-	-	75; 107
Hs	-	hairy leaf sheath	-	4	10; 75; 80; BGN 2:184
I	R2	rough awn	-	-	-
I	W	infertile intermedium	-	4s	75; 138; BGN 7:34
I^h	B	fertile intermedium	-	4s	47; 75; BGN 7:34
I_I	D	intermedium	-	4s	1; 75; BGN 7:34
i	-	deficiens	-	4s	BGN 9:106
ibl	-	intense blue aleurone layer	-	-	BGN 6:26
int-a	-	intermedium spike	20	5	30; 81; 82; 143
int-b	-	intermedium spike	2	-	30; 143
int-c	-	intermedium spike	17	4s	30; 143; BGN 7:34
int-d	-	intermedium spike	9	-	30; 143
int-e	-	intermedium spike	5	3	30; 81; 82; 143
int-f	-	intermedium spike	-	-	30; 143
int-g	-	intermedium spike	2	-	143
int-h	-	intermedium spike	3	-	143
int-i	-	intermedium spike	-	-	143
j	-	complementary factor inhibiting red pericarp color	-	-	75; 107
j2	j1	complementary factor inhibiting red pericarp color	-	-	75; 107
JMl-	Reg-	reaction to E.graminis hordei	-	-	-
K	A,C1,K^e	hooded lemma	2	4	1; 60; 61;75; 84; 88; 126; 136; 138; 139; BGN 1:138,1:140
K2	-	hooded (second factor)	-	-	1; 75; 138
K^e	K	elevated hood	2	4	1; 58; 75; BGN 1:139
k_r	-	hooded (calcaroides)	-	3,4	75; 131
kl	a,v,al	short awned	-	1	75; 107
kl 2	Kl1, a 2	short awned	-	-	75; 107
kw	-	heavy kernels (several factors)	-	1,2,7	7; 73; 74; 75
L	(lax)E	lax spike	-	1	18; 75; 115; 126; 138; BGN 2:173
L2	L1	lax spike	-	1	75; 107
L3	L2	lax spike	-	7	7; 75; 93
L4	L3	lax spike	-	-	75; 107
L5	L4	lax spike	-	2	75; 107
L6	L5	lax spike	-	-	75; 107
L7	De	lax spike	-	1	75; 131
L_a	-	lax spike	-	1	75; 107
L_c	-	lax spike	-	3	75; 84; 93; BGN 1:132

Gene locus	Synonyms	Character	Alleles	Chromosome	Authority(ies)
l_c	-	dense spike	-	-	BGN 1:133
L_d	-	lax spike	-	-	75; 93
Lax-a	-	lax spike (laxatum)	13	7	30; 81; 82; BGN 2:28
Lb	Bi	short basal rachis internode	-	7	93; BGN 1:66
lb	bi	long basal rachis internode	-	7	BGN 1:66
Lk2	A,Lk	long awn	-	1	BGN 2:175
l	e	dense spike	-	1	BGN 2:174
l9	la	dense spike	-	6	BGN 6:132
lb	-	long basal rachis internode	3	7	BGN 1:167, 5:64
lb2	-	long weak basal rachis internode 2	-	4	46; 47; 75; BGN 1:142
lb3	-	long weak basal rachis internode 3	-	1	47; 75
$lb3^m$	-	moderately long weak rachis basal internode	-	1	46; 47; 75
lc	-	long chromosome(desynaptic)	-	-	75; 107;
lep-e	log,e,w,ex, tr,	elongated outer glume	24	2	17; 28; 30; 36; 45; 56; 81; 107; BGN 5:101, 2:28
let	-	pollen lethal	-	7	75;
lfb	-	leafy bract (bracteatum)	-	7	75; 131
Lfl	-	leafless	-	1L or 4	BGN 5:67
lg 1	f,lg4,lg8, lg9,lg10	light-green seedling	-	2	47; 75; 84
lg2	lg3,lg7	light-green	-	4	51; 75; 107 BGN 8:153
lg3	-	light-green	-	4	BGN 8:154
lg5	-	light-green	-	-	BGN 3:17
lg6	-	light-green	-	-	BGN 3:17
li	a 1	liguleless	4	2	75; 84; 98; 126; 138; BGN 1:120, 10:39
lig-a	-	liguleless	4	-	30
lk	ari	short awn (awnless)	-	1,2	75; 84; 99; 126
lk2	a,lk4,lk	short awn (fine)	-	1	75; 107; BGN 3:119, 2:175
lk3	lk2	short awn	-	-	75; 107
lk4	lk3	short awn	-	-	75; 107
lk5	ari-c,lk4	short awn	3	4L	60; 75; BGN 8:156, 10:119
lk6	lk5	short awn	-	4	60; 75
lka	da	dehiscent awn	-	-	-
lnt	-	low number of tillers	-	3	BGN 10:113
lo	-	small lodicule	-	-	75; Wiebe (unpubl.)
Log	lep-e	long glume awn	-	-	-
lp	-	lethal seedling	-	-	75; 107
lp2	lp1	lethal seedling	-	-	75; 107
lr	-	reduced lateral spikelet appendage on the lemma (awnless lateral floret)	-	2	58; 75; BGN 1:118
lr2	lr1	reduced lateral and central spikelet appendage on the lemma	-	-	60; 75
ls	shs	spring habit of growth	-	-	-
lys	-	high-lysine	-	7	BGN 2:54
lys-2	-	high-lysine	-	-	24

Gene locus	Synonyms	Character	Alleles	Chromosome	Authority(ies)
lys-3	sex 3	high-lysine	3	7	BGN 9:33
lys-4	sex 5	high-lysine	-	-	BGN 9:33
lys-5	sex 1,sex 4, sex 6	high-lysine	4	-	BGN 9:33
lys-6	-	high-lysine	-	-	BGN 9:33
lys-x	-	high lysine xenia	-	-	-
m	-	many-noded dwarf	3	-	75; 107
m2	mnd	many-noded dwarf 2	-	2	58; 75
m3	dn	many-noded dwarf 3	-	3	75; 131
mat-a	ea_k	early maturity	-	5	30; BGN 2:198, 8:125
mat-b	-	early maturity	-	-	30
mat-c	-	early maturity	-	-	30
mat-d	-	early maturity	-	-	30
mat-e	-	early maturity	-	-	30
mat-f	-	early maturity	-	-	30
mat-g	-	early maturity	-	-	30
mat-h	-	early maturity	-	-	30
mat-i	-	early maturity	-	-	30
min-en-min	min	minute (dwarf)	-	4	75; 120; BGN 2:185
min-En-min	-	semi minute	-	4	2:186
Ml-	Reg-	reaction to E.graminis hordei		5	
mlt	mul	multiflorous	-	-	-
mnd	m2	many noded dwarf 2	-	2	58;75
mo1	mo2,mo3, mo4,mo5	multi-ovary	5	1	66; 75; BGN 10:69
msg	ms	male sterile	4	5	75; 84; BGN 1:175
msg2	-	male sterile 2	2	2	75; 107; BGN 1:175
msg3	msg10	male sterile (brachytic-like dwarf)	2	2	46; 47; 75; BGN 1:176
msg4	-	male sterile	-	-	75; 92; BGN 1:177
msg5	-	male sterile	-	3	75; 92; BGN 1:178 4:16
msg6	-	male sterile	-	6	75; 92; BGN 1:178 10:137
msg7	-	male sterile	2	-	75; 92; BGN 1:179
msg8	-	male sterile	-	-	75; 92; BGN 1:180
msg9	-	male sterile	-	-	75; 92; BGN 1:181
msg10	ms3	male sterile	2	1	75; 92; BGN 1:181
msg11	ms10, ms12	male sterile	2	-	75; 92; BGN 1:182
msg12	ms11, ms10	male sterile	-	-	BGN 1:182
msg13	-	male sterile	-	-	BGN 1:183
msg14	-	male sterile	3	1	BGN 1:184
msg15	-	male sterile	-	-	BGN 1:184
msg16	-	male sterile	-	7	BGN 1:185
msg17	-	male sterile	-	-	BGN 1:186
msg18	-	male sterile	2	-	BGN 1:186
msg19	-	male sterile	-	7	BGN 1:187
msg20	-	male sterile	-	5	BGN 1:188
msg21	-	male sterile	-	-	BGN 1:188
msg22	-	male sterile	2	1	BGN 2:178, 3:121
msg23	-	male sterile	3	1	BGN 2:179, 3:122
msg24	-	male sterile	4	4	BGN 2:191, 3:123
msg25	-	male sterile	-	4	BGN 4:135, 5:112
msg26	-	male sterile	-	-	BGN 4:136, 5:170
msg27	-	male sterile	-	-	BGN 9:124

Gene locus	Synonyms	Character	Alleles	Chromosome	Authority(ies)
msg28	-	male sterile	-	-	BGN 9:124
msg29	-	male sterile	-	-	BGN 9:124
msg30	-	male sterile	-	-	BGN 9:124
msg31	-	male sterile	-	-	BGN 9:124
msg32	-	male sterile	-	-	BGN 9:124
msg, bk	-	male sterile	-	6	BGN 10:138
msg, u	-	male sterile	-	1	BGN 10:138
mss	-	midseason stripe	-	2	75; 131;
mt	-	mottled leaves	-	2	47; 75; 131;
mt2	-	mottled leaves	-	7	75; 131; BGN 1:161
mt3	-	mottled leaves	-	-	46; 47; 75;
mu	-	multiploid sporocytes	-	-	75; 107
mul	mlt	multiflorous	-	2	47; 75; 131
mul2	mlt2	multiflorous	-	6	75; 131; BGN 2:154
n	-	naked caryopsis	-	1	18; 37; 40; 52; 75; 84; BGN 1:110
nar1	-	nitrate reductase-deficient	9	-	BGN 9:55
nar2	-	nitrate reductase-deficient	-	-	BGN 9:55
Nb	be	branched spike	-	-	
Nb1	be2	branched spike	-	-	
nec 1	-	necrotic leaf	-	5	BGN 11:101
nec 2	-	necrotic leaf	-	6	BGN 11:102
nld	-	narrow leafed dwarf	-	7	BGN 10:138
Nlh	Bb2	broad leaf	-	-	
nls	-	nodeless		4 or 7	BGN 10:138, 3:65
No	-	high nitrogen content of caryopsis	-	2(?)	14; 75;
notch 1	-	high protein	-	-	BGN 2:21
notch 2	-	high protein	-	-	BGN 2:21
Np	-	resistance to nonparasitic leaf spot	-	-	68; 69; 75
o	rob-o	orange lemma	5	6	30; 37; 75; 84; BGN 1:157
op	-	opposite spikelets	-	1	75; 88; 138;
or	-	orange seedling	-	2	75; 84; BGN 1:112, 10:104
ovl	-	ovaryless (male)	-	4	BGN 10:118
P	-	purple lemma	-	2	75; 107
P2	P1	purple lemma	-	-	75; 107
P3	P2	purple lemma	-	-	75; 107
P_3	-	purple veined lemma	-	2	75; 107
P_e	-	purple veined lemma	-	-	75; 107
P_f	-	purple veined lemma	-	-	75; 107
Pa	Rph 1	reaction to P. hordei	-	-	
Pa2	Pa 1,Rph 1	reaction to P. hordei	-	-	
Pa3	Pa1,Pa2,Rph3	reaction to P. hordei	-	-	
P_c	C,Re	purple veined lemma	-	2	BGN 5:108
Pau	Pr_a	purple auricle	-	2	18; 58; 72; 75;
Pbg	-	pubescence on outer glume	-	1	75; 107
Pbr	Hr	hairy rachis	-	-	
Pbr2	Hr2	hairy rachis	-	-	
Pbr3	Hr3	hairy rachis	-	-	
pg	F 11	chlorina	-	-	
Pgd 2	-	phospho-gluconate-dehydrogenase	-	5L	BGN 12:
phd	-	post-harvest dormancy	-	-	61; 75
Plm	-	anthocyanin rich	-	1	BGN 8:31

Gene locus	Synonyms	Character	Alleles	Chromosome	Authority(ies)
Pm	Reg	reaction to E.graminis hordei	-	-	-
Pn	-	purple node	-	2	72; 75;
Pr	-	purple stem	-	2	18; 72; 75; 84; 126; 138; BGN 5:107
Pr-a	Hor1	hordein	-	-	
Pr_a	Pau	purple auricle	-	-	
Pt	-	reaction to Pyrepophora teres (net blotch)	-	-	65; 75; 95;
Pt2	-	reaction to Pyrepophora teres (net blotch)	-	-	65; 75;
Pt3	-	reaction to Pyrepophora teres (net blotch)	-	-	65; 75;
r	bt1	brittle rachis	-	-	
r	a	smooth awn	-	7	BGN 8:158
r_2	-	smooth awn	-	6	BGN 1:25
R2	R1,S,I	rough awn	-	7	6; 75;
R3	R2,A	rough awn	-	2 or 4	44; 75; 133
R4	R3	rough awn	-	1	75; 107;
ra	-	short rachilla	-	2	75; 107;
ra2	-	short rachilla	-	-	75; 107;
ra3	-	short rachilla	-	-	75; 107;
rac-a	lb, bi	long basal rachis internode	-	-	30;
rac-b	lb, bi	long basal rachis internode	-	-	30;
rb	-	ribbon grass (white stripe)	-	-	18; 22; 75; 131; 138;
Re	C,P1,P_c	purple lemma and pericarp	-	5	75; 129; 138; 140;
Re2	R1,P	purple lemma and pericarp	-	2	75; 74; 129; 138; 140;
Reg 1	Jmlsn	reaction to Erysiphe graminis hordei (powdery mildew)	-	5	BGN 12; 6:127
Reg 2	Jmlg	reaction to Erysiphe graminis hordei (powdery mildew)	-	4	BGN 12; 6:124
Reg 3	-	reaction to Erysiphe graminis hordei (powdery mildew)	-	-	BGN 12; 6:143
Reg 4	Jml ka	reaction to Erysiphe graminis hordei (powdery mildew)	-	5	BGN 12; 6:126
Reg 5	Jml p	reaction to Erysiphe graminis hordei (powdery mildew)	-	5	BGN 12; 6:128
Reg 6	-	reaction to Erysiphe graminis hordei (powdery mildew)	-	4	BGN 12; 8:168
Rh	Rha	reaction to Rynchosporium secalis (scald)	-	-	9; 19; 20; 21; 75;
Rh2	-	reaction to Rynchosporium secalis (scald)	-	-	19; 20; 21; 75;
Rh3	-	reaction to Rynchosporium secalis (scald)	-	3	19; 20; 21; 75;
Rh4	-	reaction to Rynchosporium secalis (scald)	-	3	19; 20; 21; 75;
Rh5	-	reaction to Rynchosporium secalis (scald)	-	-	19; 20; 21; 75;
Rha	Rh	reaction to Rynchosporium secalis (scald)	-	-	-
rin	-	low number of rachis internodes	-	1, 2	56; 75; 84; BGN 1:117
rin2	-	low number of rachis internodes	-	4	75; 107;
rnt	-	reduced number of tillers	-	3	BGN 3:120
rob-o	o	orange lemma	5	-	30;

Gene locus	Synonyms	Character	Alleles	Chromosome	Authority(ies)
Rph-1	Pa, Pa_2, C	reaction to Puccinia hordei Otth (leaf rust)	-	2	107; BGN 6:120
Rph-2	-	reaction to Puccinia hordei Otth (leaf rust)	-	-	-
Rph-3	Pa, Pa_3	reaction to Puccinia hordei Otth (leaf rust)	-	3	91; 110; BGN 6:121
Rph-4	Pa_4, D	reaction to Puccinia hordei Otth (leaf rust)	-	5	BGN 6:129
Rph-5	Pa_5, B	reaction to Puccinia hordei Otth (leaf rust)	-	3	BGN 6:122
Rps-4	Yr4	reaction to Puccinia hordei Otth (leaf rust)	-	5	BGN 6:130, 7:37
Rs	Ant-	red stem and leaf sheath	-	1	75; 107, BGN 5:96
Rsg	Grb	reaction to Schizaphis graminum Rondari (greenbug)	-	1	BGN 6:119
rt	-	rattail spike	-	2	75; 107; BGN 1:111
rub-a	ant-1		-	-	
Run 1a	un	reaction to Ustilago nuda (Jens) Rostr (loose smut)	-	1	3; 4; BGN 6:118
rub	ant	anthocyanin pigmentation	-	-	
rvl	-	revoluted leaf	-	-	BGN 5:67
Ryd 2	Yd2	resistant to barley yellow dwarf virus	-	3	BGN 6:123
Rym 1	Ym	resistant to barley yellow mosaic virus	-	4	BGN 6:125
Rym 2	Ym2	resistant to barley yellow mosaic virus	-	1	BGN 6:117
s	l, s^i	short rachilla hairs	-	7L	18; 37; 61; 75; 84; 87; 133; BGN 11:25, 8:159
S	R2	rough awn	-	-	
sb	-	subnodal bract	-	1	75; 131;
sbn	-	semi-naked caryopsis	-	-	75; 97;
sc	-	short chromosome(desynaptic)	-	5(?)	67; 75;
sca	-	short crooked awn	-	3	BGN 10:47
se 6	sex1	shrunken endosperm(genetic)	-	6	BGN 7:28
seg1	se1	shrunken endosperm(genetic)	-	1	BGN 1:190, 1:22, 10:124
seg2	se2	shrunken endosperm(genetic)	-	1	BGN 1:190, 1:22, 10:125
seg3	se3	shrunken endosperm(genetic)	-	3	BGN 1:191, 1:22, 10:126
seg4	se4	shrunken endosperm(genetic)	-	1	BGN 1:192, 1:22, 10:127
seg5	se5	shrunken endosperm(genetic)	-	1	BGN 1:192, 1:22, 10:128
Seg6	Se6	shrunken endosperm(genetic)	-	6	BGN 1:193, 5:114, 10:130 6:142, 10:131, 1:22
seg7	-	shrunken endosperm(genetic)	-	-	BGN 11:34, 11:103, 10:131
seg8	-	shrunken endosperm(genetic)	-	-	
sep	-	reaction to Septoria avenae triticae (Septoria leaf blotch)	-	-	75; 79;
Sep2	-	reaction to Septoria avenae triticae (Septoria leaf blotch)	-	-	75; 79;
Sep3	-	reaction to Septoria avenae triticae (Septoria leaf blotch)	-	-	75; 79;
Sex1	Se6	shrunken endosperm Xenia	-	6	BGN 6:140, 10:129, 7:28
Sex2	dex1	shrunken endosperm Xenia	-	7	BGN 6:134, 11:30

Gene locus	Synonyms	Character	Alleles	Chromosome	Authority(ies)
sex3	-	shrunken endosperm Xenia	-	7	BGN 8:114, 7:66
sf	-	female sterile - gigas plant		-	-
Sg	-	grooves on palea	-	-	10; 75;
sh	-	spring habit of growth	-	4	75; 110; BGN 2:188, 2:200
Sh2	A	spring habit of growth	-	7	75; 127; BGN 2:199, 2:200
Sh3	C	spring habit of growth	-	5	75; 127; BGN 2:197, 2:200
shs	ls	spring habit of growth	-	-	75; 123; 128;
sk	-	subjacent hood	-	2	75; 126; BGN 1:122
sln	-	slender	-	-	BGN 7:24
sm	-	reaction to stripe mosaic, California "E" isolate	-	-	75; 103
sm2	-	reaction to stripe mosaic, California "E" isolate	-	-	75; 103
smn	-	semi-naked caryopsis	-	-	75; 97;
smn2	-	semi-naked caryopsis	-	1	BGN 7:33
sp	-	necrotic mutant (spotted)	-	-	-
st	-	striped	-	3	47; 75;
sts	-	breaking strength of straw	-	-	75; 93;
t	trd	third outer glume	-	-	-
T	-	reaction to Puccinia graminis tritici (stem rust)	-	1	2; 3; 75; 79; 80;
T2	-	reaction to Puccinia graminis tritici (stem rust)	-	-	75; 92;
tg	ti	third inner glume	-	7	75; 131;
tig-a	-	tigrina-seedling	8	-	76; BGN 3:113
tig-b	-	tigrina-seedling	4	-	76; BGN 3:113
tig-c	-	tigrina-seedling	2	-	76; BGN 3:113
tig-d	-	tigrina-seedling	-	-	76; BGN 3:113
tig-e	-	tigrina-seedling	-	-	76; BGN 3:113
tig-f	-	tigrina-seedling	-	-	76; BGN 3:113
tig-g	-	tigrina-seedling	-	-	76; BGN 3:113
tig-h	-	tigrina-seedling	-	-	76; BGN 3:113
tig-i	-	tigrina-seedling	-	-	76; BGN 3:113
tig-j	-	tigrina-seedling	-	-	76; BGN 3:113
tig-k	-	tigrina-seedling	-	-	76; BGN 3:113
tig-l	-	tigrina-seedling	-	-	76; BGN 3:113
tig-m	-	tigrina-seedling	-	-	76; BGN 3:113
tig-n	-	tigrina-seedling	-	-	76; BGN 3:113
tig-o	-	tigrina-seedling	-	7	76; BGN 3:113, 8:46
tr	lep-e	triple-awned lemma	-	2	2; 18; 40; 58;75; 98; 138; BGN 1:121
Tr2	-	triple-awned lemma	-	-	75; 98;
tr3	tr2	triple-awned lemma	-	3	46; 47; 75;
trd	t,bra-c[1]	third outer glume	4	5	1; 2; 37; 50; 75; 126; 131; BGN 1:147 10:121, 2:28
trd2	-	third outer glume (bracteatum)	-	-	75; 92;
tri	-	triploid inducer	-	-	BGN 7:4
tric	-	tricomposite floret	-	-	-
ts	Un6	reaction to U.nuda	-	-	-
tw	-	tweaky spike	-	2, 5	22; 75; 93;
u	-	unbranched style	-	7	75; 93;
u	h	short culm	-	-	-

Gene locus	Synonyms	Character	Alleles	Chromosome	Authority(ies)
U	Uc, als	uniculm	-	-	-
U	H	tall culm (high)	-	-	-
u2	u 1	unbranched style	-	-	75; 107;
u3	u2	unbranched style	-	-	75; 107;
u4	-	unbranched style	-	1	75; 125; BGN 2:177
uc	u, als	uniculm	-	-	75; 138;
uc2	als	uniculm	-	6	75; 92; BGN 1:156
Uh	-	reaction to Ustilago hordei (covered smut)	-	-	75; 100; 133;
Uh2	-	reaction to Ustilago hordei (covered smut)	-	-	75; 133;
uh3	-	reaction to Ustilago hordei (covered smut)	-	-	75; 133;
uh4	-	reaction to Ustilago hordei (covered smut)	-	-	75; 133;
Un	Run 1a	dei (covered smut)	-	-	BGN 6:118
Un2	-	reaction Ustilago nuda (loose smut)	-	-	75; 107;
Un3	-	reaction to Ustilago nuda (loose smut)	-	-	75; 107;
Un4	-	reaction to Ustilago nuda (loose smut)	-	-	75; 107;
Un5	-	reaction to Ustilago nuda (loose smut)	-	-	75; 107;
Un6	Ts	reaction to Ustilago nuda (loose smut)	-	-	75; 104;
un7	-	reaction to Ustilago nuda (loose smut)	-	1	2; 3; 4; 75;
uz	-	"uzu" (semi-brachytic)	-	3	75; 84; 115; 118; 121; 124; BGN 1:124 10:108
uz2	-	"uzu" (semi-brachytic)	-	-	59; 64; 75;
uz3	-	"uzu" (semi-brachytic)	-	-	75; 92;
v	kl	short awn	-	-	-
v	hex-v,a^s,a^f a,z	six-row	-	2	34; 58; 60; 75; 78; 84; 133; BGN 5:106, 5:12, 5:104, 5:105, 8:46
V	v^d	two-row	-	-	BGN 5:104, 105
V_{isa}	v^d,v^t,v^{M20},	six-row	6	2	18; 40; 44; 58; 75; 107
V_2	-	six-row (intermedium)	-	7	BGN 10:140,5:12
V_3	-	six-row (intermedium)	4	5	BGN 10:140,5:12
V_4	-	six-row (intermedium)	2	3	BGN 10:140, 5:12
V_5	-	six-row (intermedium)	-	4	BGN 10:140, 5:12
V_f	-	four-rowed	-	-	BGN 5:40
va	var, wst	variegated	-	7	75; 131; BGN 1:165
var2	-	variegated 2	-	7	75; 131;
va3	-	variegated 3	-	7	BGN 1:162
vbn	-	low number of vascular bundles	-	1	55; 75; 94; 102;
vir-a	-	viridis-seedling	5	-	102;
vir-b	-	viridis-seedling	2	-	102;
vir-c	-	viridis-seedling	2	-	102;
vir-d	-	viridis-seedling	2	-	102;
vir-e	-	viridis-seedling	3	-	102;
vir-f	-	viridis-seedling	-	-	102;

Gene locus	Synonyms	Character	Alleles	Chromosome	Authority(ies)
vir-g	-	viridis-seedling	-	-	102;
vir-h	-	viridis-seedling	-	-	102;
vir-i	-	viridis-seedling	-	-	102;
vir-j	-	viridis-seedling	-	-	102;
vir-k	-	viridis-seedling	-	-	102;
vir-l	-	viridis-seedling	-	-	102;
vir-m	-	viridis-seedling	-	-	102;
vir-n	-	viridis-seedling	-	-	102;
vir-o	-	viridis-seedling	-	-	102;
vir-p	-	viridis-seedling	-	-	102;
vir-q	-	viridis-seedling	2	-	102;
vir-r	-	viridis-seedling	-	-	102;
vir-s	-	viridis-seedling	-	-	102;
vir-t	-	viridis-seedling	-	-	102;
vir-u	-	viridis-seedling	-	-	102;
vir-v	-	viridis-seedling	-	-	102;
vir-w	-	viridis-seedling	-	-	102;
vir-x	-	viridis-seedling	-	-	102;
vir-y	-	viridis-seedling	2	-	102; 105;
vir-z	-	viridis-seedling	-	-	102;
vir-za	-	viridis-seedling	-	-	102;
vir-zb	-	viridis-seedling	-	-	102;
vir-zc	-	viridis-seedling	-	-	102;
vir-zd	-	viridis-seedling	-	-	102;
vir-ze	-	viridis-seedling	-	-	102;
vir-zf	-	viridis (temp. sensitive)	-	-	105;
vir-zg	-	viridis (temp. sensitive)	-	-	105;
vir-zh	-	viridis (temp. sensitive)	-	-	105;
vir-zi	-	viridis (temp. sensitive)	-	-	105;
vir-zj	-	viridis (temp. sensitive)	-	-	105;
vs3	gs3,cer-a	glossy sheath	-	-	
w	lep-e	elongated outer glume	-	-	
w	wlk	wide lateral kernels	-	-	-
wh1	gs4	glossy sheath	-	-	
wh2	gs4	glossy sheath	-	-	
wi	-	wide glume inhibitor	-	-	75; 107;
wl	gl	glossy leaf	-	-	
wlh	bb3	broad leaf	-	-	
wlk	w	wide lateral kernels	-	-	11; 75;
W	I	infertile intermedium	-	-	
Wr	-	weak rachis	-	-	48; 75;
Ws	-	weakly attached spikelet	-	-	75; 107;
wst	wst3	white stripe	-	3	BGN 1:129, 10:110
wst2	-	white stripe	-	7	BGN 1:163
wst3	wst	white stripe	-	3s	BGN 1:125, 10:109, 10:110
wst4	-	white stripe	-	2	BGN 1:116
wst5	-	white stripe	-	-	BGN 3:19
wx	-	waxy endosperm	-	1	52; 75; 113; 114;
X	Ea	early maturity	-	-	
x	d	xantha seedling	-	-	75; 107;
X_a	-	xantha seedling	-	IL	BGN 10:140, 2:43
x_c	-	xantha seedling	-	3	53; 75; 83; 84; 118; BGN 1:127
x_c2	-	xantha seedling	-	-	75; 107;
x_n	-	xantha seedling	-	6	52; 75; 112; BGN 1:158

Gene locus	Synonyms	Character	Alle-les	Chromo-some	Authority(ies)
x_s	-	xantha seedling	-	3	BGN 1:135, 10:112
x_g	-	xantha seedling	-	3	75; 107;
xan-a	-	albo-xantha	15	-	BGN 3:113
xan-b	-	xantha seedling	6	-	BGN 3:113
xan-c	-	xantha seedling	2	-	BGN 3:113
xan-d	-	xantha seedling	2	-	BGN 3:113
xan-e	-	xantha seedling	2	-	BGN 3:113
xan-f	-	xantha seedling	8	-	BGN 3:113
xan-g	-	xantha seedling	5	-	BGN 3:113
xan-h	-	xantha seedling	4	-	BGN 3:113
xan-i	-	xantha seedling	2	-	BGN 3:113
xan-j	-	xantha seedling	3	-	BGN 3:113
xan-k	-	xantha seedling	-	-	BGN 3:113
xan-l	-	xantha seedling	-	-	BGN 3:113
xan-m	-	xantha seedling	5	-	BGN 3:113
xan-n	-	xantha seedling	3	-	BGN 3:113
xan-o	-	xantha seedling	2	-	BGN 3:113
xan-p	-	xantha seedling	-	-	BGN 3:113
xan-q	-	xantha seedling	7	-	BGN 3:113,102
xan-s	-	xantha seedling	-	-	BGN 3:113
xan-t	-	xantha seedling	-	-	BGN 3:113
xan-u	-	xantha seedling	-	-	BGN 3:113
Y	Ea	early maturity	-	-	
y	-	virescent seedling	2	2	75; 107; BGN 2:180
y_c	-	virescent seedling	-	1	75; 84; BGN 1:106
y_x	-	xantha seedling	2	2	75; 107; BGN 1:114
yd	yd 1	reaction to yellow dwarf	-	-	75; 111;
Yd2	-	reaction to yellow dwarf	-	3	75; 90; BGN 6:123
yh	-	yellow spike	-	4	75; 116; 119; BGN 1:144
Ym	Rym1	resistance to barley yellow mosaic virus	-	-	BGN 6:125
Ym1	Rym2	resistance to barley yellow mosaic virus	-	-	BGN 6:117
Yr4	Rps-4	reaction to P.striiformis	-	-	BGN 6:130
yst	ys	yellow stripe	-	3	75; 131; BGN 1:126
yst_2	-	yellow stripe	-	3	BGN 1:131
yst_3	-	yellow stripe	-	2	BGN 9:106
yv	f4		-	-	
yv2	f5,z		-	-	
yw	-	yellow wavy	-	-	19; 75;
z	Ea	early maturity	-	-	
z	zd,zb_c,z_c	zoned leaf	-	-	BGN 5:64
z	f5,yv2	yellow viable	-	2	
z_c	z,zd	zoned leaf	-	4	2; 37; 44; 75; 84;
z_w	z,zd	zoned leaf	-	-	37; 75; 136; 138; BGN 5:64
zb	-	zebra stripe (tigrina)	-	3	47; 75; BGN 5:110, 5:64
zb_c	z_c	zebra stripe (tigrina)	-	4	BGN 8:86, 5:64
zbw	z_w	zebra stripe (tigrina)	-	-	BGN 5:64
					BGN 5:64

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