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Mapping of 99 new microsatellite-derived loci in rye (*Secale cereale* L.) including 39 expressed sequence tags

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In this paper, previously published results may have not been taken into account with sufficient clarity.

The detection of SSR fragments using tailed primers was originally reported by Oetting et al. (1995). The potential of rye ESTs for the development of new microsatellite markers has already been demonstrated by Hackauf and Wehling (2002, 2003). Using the same rye EST database, the authors developed 157 SCM markers and mapped 41 of these. Eighteen of the 39 REMS markers reported by us were derived from GenBank accessions already used for the development of SCM markers (Table 1). Thus, identical rye EST loci are

probably represented by these eighteen REMS and SCM markers, respectively.

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Table 1 Survey of microsatellite markers (REMS) derived from rye EST database. REMS markers identical with SCMs are indicated

Locus	SCM marker	GenBank accession no.	Repeat type and length	Expected size (bp) ³	Number of alleles ⁴
<i>Xrems1280-1R</i>	–	BF145382	(CCT)6	199	2
<i>Xrems1303-1R</i>	–	BF146157	(CTC)5	309	2
<i>Xrems1135-1R</i>	–	BE493989	(GA)6	172	2
<i>Xrems1130-2R</i>	SCM23 ¹	BE493797	(AAG)5	232	2
<i>Xrems1132-2R</i>	SCM98 ¹	BE493824	(GCT)5	138	3
<i>Xrems1138-2R</i>	SCM41 ¹	BE494083	(CTC)5	266	2
<i>Xrems1194-2R</i>	–	BE586335	(TTC)11	196	3
<i>Xrems1203-2R</i>	–	BE586786	(GAA)5	167	2
<i>Xrems1208-2R</i>	SCM60 ¹	BE586891	(CGC)6	143	2
<i>Xrems1208-2R</i>	SCM36 ¹	BE588133	(AGC)6	303	2
<i>Xrems1238-2R</i>	–	BE637241	(CGG)5	286	2
<i>Xrems1251-2R</i>	SCM188 ¹	BE704539	(CATA)5	261	2
<i>Xrems1254-3R</i>	SCM170 ¹	BE704639	(CGG)5	311	4
<i>Xrems1261-3R</i>	–	BE705070	(GA)6	252	5
<i>Xrems1323-3R</i>	SCM154 ¹	BE704639	(CT)7imp(TC)7	292	2
<i>Xrems1135-3R</i>	–	BE493989	(GA)6	172	2
<i>Xrems1160-4R</i>	–	BE494651	(TAG)7	228	3
<i>Xrems1154-4R</i>	–	BE494494	(GCT)8	134	3
<i>Xrems1167-5R</i>	SCM90 ¹	BE494952	(CGG)5	247	2
<i>Xrems1174-5R</i>	–	BE495233	(GAGT)5	302	4
<i>Xrems1186-5R</i>	SCM29 ¹	BE495963	(CAC)5	221	3
<i>Xrems1205-5R</i>	SCM133 ¹	BE586813	(ACAT)6	281	3
<i>Xrems1218-5R</i>	–	BE587316	(AG)8	230	3
<i>Xrems1237-5R</i>	–	BE637153	(TAGC)5	288	4
<i>Xrems1264-5R</i>	–	BE705252	(CGTC)5	282	2
<i>Xrems1266-5R</i>	SCM151 ²	BE705296	(GA)8	202	3
<i>Xrems1152-6R</i>	SCM55 ¹	BE494415	(GCA)5	251	3
<i>Xrems1247-6R</i>	SCM176 ²	BE704499	(TCC)5	312	2
<i>Xrems1250-6R</i>	SCM168 ¹	BE704532	(GGC)5	212	3
<i>Xrems1259-6R</i>	–	BE705058	(CGT)5	271	4
<i>Xrems1154-6R</i>	–	BE494494	(GCT)8	134	2
<i>Xrems1135-7R</i>	–	BE493989	(GA)6	172	4
<i>Xrems1162-7R</i>	SCM63 ¹	BE494705	(GCC)5	200	3
<i>Xrems1187-7R</i>	–	BE496005	(CAA)5	215	2
<i>Xrems1188-7R</i>	SCM19 ²	BE496047	(TC)7	187	3
<i>Xrems1197-7R</i>	–	BE586481	(CGC)5	192	2
<i>Xrems1234-7R</i>	–	BE637039	(AGC)6	256	2
<i>Xrems1235-7R</i>	SCM183 ²	BE704638	(ATAG)5	283	2
<i>Xrems1281-7R</i>	–	BF145397	(CAA)5	315	2

¹not mapped before²mapped (Hackauf and Wehling 2002, 2003)³with M13-extended primer⁴detected in five parental rye genotypes