

Genetic loci governing androgenic capacity in perennial ryegrass (*Lolium perenne* L.)

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Supplementary information

Table S2 The set of 192 unique (5-10 bp) single restriction enzyme (PstI) genotyping-by-sequencing barcodes and PCR primers used in this study. Barcodes were designed using the Deena Bioinformatics online GBS Barcode Generator (<http://www.deenabio.com/nl/services/gbs-adapters>) and synthesized by Microsynth (Balgach, Switzerland).

Oligo ID	Sequence (5' - 3')
2174689	ACACTCTTCCCTACACGACGCTCTCCGATCTGTGTTTGCA
2174690	ACACTCTTCCCTACACGACGCTCTCCGATCTAACCATGCA
2174691	ACACTCTTCCCTACACGACGCTCTCCGATCTACATATGCA
2174692	ACACTCTTCCCTACACGACGCTCTCCGATCTGAAGATGCA
2174693	ACACTCTTCCCTACACGACGCTCTCCGATCTTTCTATGCA
2174694	ACACTCTTCCCTACACGACGCTCTCCGATCTAGTCGTGCA
2174695	ACACTCTTCCCTACACGACGCTCTCCGATCTTAATGTGCA
2174696	ACACTCTTCCCTACACGACGCTCTCCGATCTGTTTCATGCA
2174697	ACACTCTTCCCTACACGACGCTCTCCGATCTCAGATTGCA
2174698	ACACTCTTCCCTACACGACGCTCTCCGATCTATAGGTGCA
2174699	ACACTCTTCCCTACACGACGCTCTCCGATCTCGATTTGCA
2174700	ACACTCTTCCCTACACGACGCTCTCCGATCTAATGTTGCA
2174701	ACACTCTTCCCTACACGACGCTCTCCGATCTTGCATTGCA
2174702	ACACTCTTCCCTACACGACGCTCTCCGATCTACAGTATGCA
2174703	ACACTCTTCCCTACACGACGCTCTCCGATCTGCTCCATGCA
2174704	ACACTCTTCCCTACACGACGCTCTCCGATCTCATGCATGCA
2174705	ACACTCTTCCCTACACGACGCTCTCCGATCTGAATCATGCA
2174706	ACACTCTTCCCTACACGACGCTCTCCGATCTCCTAAGTGCA
2174707	ACACTCTTCCCTACACGACGCTCTCCGATCTTGGCAATGCA
2174708	ACACTCTTCCCTACACGACGCTCTCCGATCTGTAGCGTGCA
2174709	ACACTCTTCCCTACACGACGCTCTCCGATCTACCTAGTGCA
2174710	ACACTCTTCCCTACACGACGCTCTCCGATCTATGACGTGCA
2174711	ACACTCTTCCCTACACGACGCTCTCCGATCTCTAGAATGCA
2174712	ACACTCTTCCCTACACGACGCTCTCCGATCTGATACGTGCA
2174713	ACACTCTTCCCTACACGACGCTCTCCGATCTTCCGAATGCA
2174714	ACACTCTTCCCTACACGACGCTCTCCGATCTCAGTGATGCA
2174715	ACACTCTTCCCTACACGACGCTCTCCGATCTAGTCCGTGCA
2174716	ACACTCTTCCCTACACGACGCTCTCCGATCTGTCCAATGCA
2174717	ACACTCTTCCCTACACGACGCTCTCCGATCTCAGGTGTGCA

Oligo ID	Sequence (5' - 3')
2174718	ACACTCTTTCCCTACACGACGCTCTCCGATCTTCACGATGCA
2174719	ACACTCTTTCCCTACACGACGCTCTCCGATCTTGCAAGTGCA
2174720	ACACTCTTTCCCTACACGACGCTCTCCGATCTGGCGTATGCA
2174721	ACACTCTTTCCCTACACGACGCTCTCCGATCTATACGGTGCA
2174722	ACACTCTTTCCCTACACGACGCTCTCCGATCTACTGCTTGCA
2174723	ACACTCTTTCCCTACACGACGCTCTCCGATCTCGGATATGCA
2174724	ACACTCTTTCCCTACACGACGCTCTCCGATCTTAGTCTTGCA
2174725	ACACTCTTTCCCTACACGACGCTCTCCGATCTTCTGTATGCA
2174726	ACACTCTTTCCCTACACGACGCTCTCCGATCTCCTGCAATGCA
2174727	ACACTCTTTCCCTACACGACGCTCTCCGATCTTTATACGTGCA
2174728	ACACTCTTTCCCTACACGACGCTCTCCGATCTTGACAATGCA
2174729	ACACTCTTTCCCTACACGACGCTCTCCGATCTCCGTGCATGCA
2174730	ACACTCTTTCCCTACACGACGCTCTCCGATCTATACAAGTGCA
2174731	ACACTCTTTCCCTACACGACGCTCTCCGATCTGGTCCGATGCA
2174732	ACACTCTTTCCCTACACGACGCTCTCCGATCTAATGCCGTGCA
2174733	ACACTCTTTCCCTACACGACGCTCTCCGATCTGCGTTAATGCA
2174734	ACACTCTTTCCCTACACGACGCTCTCCGATCTCTCAAGATGCA
2174735	ACACTCTTTCCCTACACGACGCTCTCCGATCTTAGCCGATGCA
2174736	ACACTCTTTCCCTACACGACGCTCTCCGATCTGTACGCGTGCA
2174737	ACACTCTTTCCCTACACGACGCTCTCCGATCTAACGCTATGCA
2174738	ACACTCTTTCCCTACACGACGCTCTCCGATCTTCTATGGTGCA
2174739	ACACTCTTTCCCTACACGACGCTCTCCGATCTGGCTATATGCA
2174740	ACACTCTTTCCCTACACGACGCTCTCCGATCTCAGGTCGTGCA
2174741	ACACTCTTTCCCTACACGACGCTCTCCGATCTGTGACAATGCA
2174742	ACACTCTTTCCCTACACGACGCTCTCCGATCTTCGTAGATGCA
2174743	ACACTCTTTCCCTACACGACGCTCTCCGATCTAGCTTAATGCA
2174744	ACACTCTTTCCCTACACGACGCTCTCCGATCTTTGCTAATGCA
2174745	ACACTCTTTCCCTACACGACGCTCTCCGATCTCCATCGGTGCA
2174746	ACACTCTTTCCCTACACGACGCTCTCCGATCTTAACGAATGCA
2174747	ACACTCTTTCCCTACACGACGCTCTCCGATCTCTCGAAGTGCA
2174748	ACACTCTTTCCCTACACGACGCTCTCCGATCTGATACTATGCA
2174749	ACACTCTTTCCCTACACGACGCTCTCCGATCTAACGTCCATGCA
2174750	ACACTCTTTCCCTACACGACGCTCTCCGATCTCCTCGCCATGCA
2174751	ACACTCTTTCCCTACACGACGCTCTCCGATCTAGTGTGCATGCA
2174752	ACACTCTTTCCCTACACGACGCTCTCCGATCTGATCTCCATGCA
2174753	ACACTCTTTCCCTACACGACGCTCTCCGATCTCCACCTGATGCA
2174754	ACACTCTTTCCCTACACGACGCTCTCCGATCTGCAATGCATGCA
2174755	ACACTCTTTCCCTACACGACGCTCTCCGATCTGCCTTCCATGCA
2174756	ACACTCTTTCCCTACACGACGCTCTCCGATCTTTGTCCGATGCA
2174757	ACACTCTTTCCCTACACGACGCTCTCCGATCTCCTCTGAATGCA
2174758	ACACTCTTTCCCTACACGACGCTCTCCGATCTTTAGGCCATGCA
2174759	ACACTCTTTCCCTACACGACGCTCTCCGATCTTGCGCGATGCA
2174760	ACACTCTTTCCCTACACGACGCTCTCCGATCTGGCTCACATGCA
2174761	ACACTCTTTCCCTACACGACGCTCTCCGATCTTCTCGCATGCA
2174762	ACACTCTTTCCCTACACGACGCTCTCCGATCTGTAGGCGTGCA

Oligo ID	Sequence (5' - 3')
2174763	ACACTCTTTCCCTACACGACGCTCTTCCGATCTCTTAGTCATGCA
2174764	ACACTCTTTCCCTACACGACGCTCTTCCGATCTTCTGACCATGCA
2174765	ACACTCTTTCCCTACACGACGCTCTTCCGATCTCCTAACAGTGCA
2174766	ACACTCTTTCCCTACACGACGCTCTTCCGATCTTACAGCCATGCA
2174767	ACACTCTTTCCCTACACGACGCTCTTCCGATCTTTCAAGCATGCA
2174768	ACACTCTTTCCCTACACGACGCTCTTCCGATCTAAGATCGATGCA
2174769	ACACTCTTTCCCTACACGACGCTCTTCCGATCTAACAAGTGTGCA
2174770	ACACTCTTTCCCTACACGACGCTCTTCCGATCTTGCCGACGTGCA
2174771	ACACTCTTTCCCTACACGACGCTCTTCCGATCTAGAGTCAATGCA
2174772	ACACTCTTTCCCTACACGACGCTCTTCCGATCTGGATGCCATGCA
2174773	ACACTCTTTCCCTACACGACGCTCTTCCGATCTTTGGTCTCATGCA
2174774	ACACTCTTTCCCTACACGACGCTCTTCCGATCTGGCTAGGCATGCA
2174775	ACACTCTTTCCCTACACGACGCTCTTCCGATCTAGGTGGTCTTGCA
2174776	ACACTCTTTCCCTACACGACGCTCTTCCGATCTCCTCCTAGTTGCA
2174777	ACACTCTTTCCCTACACGACGCTCTTCCGATCTTTCTGTACTTGCA
2174778	ACACTCTTTCCCTACACGACGCTCTTCCGATCTCCTACGACATGCA
2174779	ACACTCTTTCCCTACACGACGCTCTTCCGATCTGAGGTCCATGCA
2174780	ACACTCTTTCCCTACACGACGCTCTTCCGATCTAGAATAACATGCA
2174781	ACACTCTTTCCCTACACGACGCTCTTCCGATCTCCTTAGCCATGCA
2174782	ACACTCTTTCCCTACACGACGCTCTTCCGATCTTTCGCCGCATGCA
2174783	ACACTCTTTCCCTACACGACGCTCTTCCGATCTAGGCATTATGCA
2174784	ACACTCTTTCCCTACACGACGCTCTTCCGATCTGAACGTACATGCA
2174785	AACACAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174786	TGGTTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174787	TATGTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174788	TCTTCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174789	TAGAAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174790	CGACTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174791	CATTAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174792	TGAACAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174793	ATCTGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174794	CCTATAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174795	AATCGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174796	ACATTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174797	ATGCAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174798	TACTGTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174799	TGGAGCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174800	TGCATGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174801	TGATTCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174802	CTTAGGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174803	TTGCCAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174804	CGCTACAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174805	CTAGGTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174806	CGTCATAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174807	TTCTAGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT

Oligo ID	Sequence (5' - 3')
2174808	CGTATCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174809	TTCGGAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174810	TCACTGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174811	CGGACTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174812	TTGGACAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174813	CACCTGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174814	TCGTGAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174815	CTTGCAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174816	TACGCCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174817	CCGTATAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174818	AGCAGTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174819	TATCCGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174820	AGACTAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174821	TACAAGAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174822	TTGCAGGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174823	CGTATAAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174824	TTGTGCAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174825	TGCACGGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174826	CTTGTATAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174827	TCGGACCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174828	CGGCATTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174829	TTAACGCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174830	TCTTGAGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174831	TCGGCTAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174832	CGCGTACAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174833	TAGCGTTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174834	CCATAGAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174835	TATAGCCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174836	CGACCTGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174837	TTGTCACAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174838	TCTACGAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174839	TTAAGCTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174840	TTAGCAAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174841	CCGATGGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174842	TTCGTTAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174843	CTTCGAGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174844	TAGTATCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174845	TGGACGTTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174846	TGGCGAGGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174847	TGCACACTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174848	TGGAGATCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174849	TCAGGTGGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174850	TGCATTGCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174851	TGGAAGGCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174852	TCGGACAAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT

Oligo ID	Sequence (5' - 3')
2174853	TTCAGAGGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174854	TGGCCTAAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174855	TCGCGCCAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174856	TGTGAGCCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174857	TGCGAGGAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174858	CGCCTACAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174859	TGACTAAGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174860	TGGTCAGAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174861	CTGTTAGGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174862	TGGCTGTAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174863	TGCTTGAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174864	TCGATCTTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174865	CACTTGTTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174866	CGTCGGCAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174867	TTGACTCTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174868	TGGCATCCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174869	TGAGACCAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174870	TGCCTAGCCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174871	AGACCACCTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174872	ACTAGGAGGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174873	AGTACAGAAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174874	TGTCGTAGGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174875	TGGAACCTCAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174876	TGTTATTCTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174877	TGGCTAAGGAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174878	TGCGGCGAAAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174879	TGAATGCCTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174880	TGTACGTTAGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
2174881	TGCAGATCGGAAGAGCGTTTACGAGGAATGCCGAG ¹
2174882	CTCGGCATTCTGCTGAACCGCTCTCCGATCT ¹
	AATGATACGGCGACACCGAGATCTACACTCTTCCCTACACGACGCTCTCCGATCT ²
	CAAGCAGAAGACGGCATACGAGATCGGTCTCGGCATTCTGCTGAACCGCTCTCCGATCT ²

¹Common adaptor; ²PCR primer.