

S1 Table. Information on grass genomes investigated in this study.

Genome	Common name	Data source	Data version
<i>Oryza sativa (japonica)</i>	Rice (AA-genome)	Gramene	IRGSP-1.0
<i>Oryza glaberrima</i>	African rice (AA-genome)	Gramene	AGI1.1
<i>Oryza glumaepatula</i>	Wild rice (AA-genome)	Gramene	ALNU02000000
<i>Oryza longistaminata</i>	Wild rice (AA-genome)	NCBI	AMDW00000000.1
<i>Oryza meridionalis</i>	Wild rice (AA-genome)	Gramene	ALNW00000000
<i>Oryza punctata</i>	Wild rice (BB-genome)	Gramene	AVCL00000000
<i>Oryza brachyantha</i>	Wild rice (FF-genome)	Gramene	V1.4b
<i>Zizania latifolia</i>	Wild rice	NCBI	ASSH00000000.1
<i>Hordeum vulgare</i>	Barley	Gramene	IBSC_1.0
<i>Hordeum pubiflorum</i>	-	NCBI	CBMN00000000.1
<i>Triticum aestivum</i>	Bread wheat	Gramene	IWGSP1
<i>Triticum urartu</i>	Wheat	Gramene	ASM34745v1
<i>Aegilops tauschii</i>	Goatgrass	Gramene	ASM34733v1
<i>Brachypodium distachyon</i>	Purple false brome	Phytozome	JGI v1.0
<i>Zea mays</i>	Maize	Gramene	AGPv3
<i>Sorghum bicolor</i>	Sorghum	Phytozome	JGI v2.1
<i>Setaria italica</i>	Foxtail millet	Phytozome	JGI v2.0
<i>Setaria viridis</i>	Green foxtail	NCGR	V02
<i>Panicum virgatum</i>	Switchgrass	Phytozome	V1.1
<i>Panicum hallii</i>	Hall's panicgrass	Phytozome	V0.5