

**Supplemental Table S7. Geographical origin and grouping of 19 material**

Species	TAXONOMY	Geographical sources	ploidy	population
PI422030	<i>Phalaris arundinacea</i> L	Missouri, United States	Tetraploid	NoA
PI578796	<i>Phalaris arundinacea</i> L	Iowa, United States	Tetraploid	NoA
PI357645	<i>Phalaris arundinacea</i> L	Ontario, Canada	Tetraploid	NoA
PI578792	<i>Phalaris arundinacea</i> L	Oregon, United States	Hexaploid	NoA
PI531088	<i>Phalaris arundinacea</i> L	Iowa, United States	Tetraploid	NoA
PI578795	<i>Phalaris arundinacea</i> L	California, United States	Hexaploid	NoA
Chuancao yin No 3	<i>Phalaris arundinacea</i> L	United States	Unknown	NoA
PI578791	<i>Phalaris arundinacea</i> L	Wisconsin, United States	Tetraploid	NoA
PI578794	<i>Phalaris arundinacea</i> L	Iowa, United States	Tetraploid	NoA
PI587092	<i>Phalaris arundinacea</i> L	Québec, Canada	Tetraploid	NoA
PI 422031	<i>Phalaris arundinacea</i> L	Missouri, United States	Hexaploid	NoA
PI272122	<i>Phalaris arundinacea</i> L	Poland	Tetraploid	EU
PI272123	<i>Phalaris arundinacea</i> L	Poland	Tetraploid	EU
PI237724	<i>Phalaris arundinacea</i> L	Germany	Tetraploid	EU
PI587193	<i>Phalaris arundinacea</i> L	Hungary	Tetraploid	EU
PI505893	<i>Phalaris arundinacea</i> L	Former, Soviet Union	Tetraploid	AS
Chuan xi	<i>Phalaris arundinacea</i> L	China	Unknown	AS
PI578782	<i>Phalaris aquatica</i> L.	Texas, United States	Tetraploid	Pa
PI578783	<i>Phalaris aquatica</i> L.	Israel	Tetraploid	Pa