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Stephens, C., Olmez, F., Blyth, H., McDonald, M., Bansal, A., Turgay, E. B., Hahn, F., Saintenac, C., Nekrasov, V., Solomon, P., Milgate, A., Fraaije, B. A., Rudd, J. J. and Kanyuka, K. 2021. Remarkable recent changes in genetic diversity of the avirulence gene AvrStb6 in global populations of the wheat pathogen *Zymoseptoria tritici*. *Molecular Plant Pathology*. <https://doi.org/10.1111/mpp.13101>

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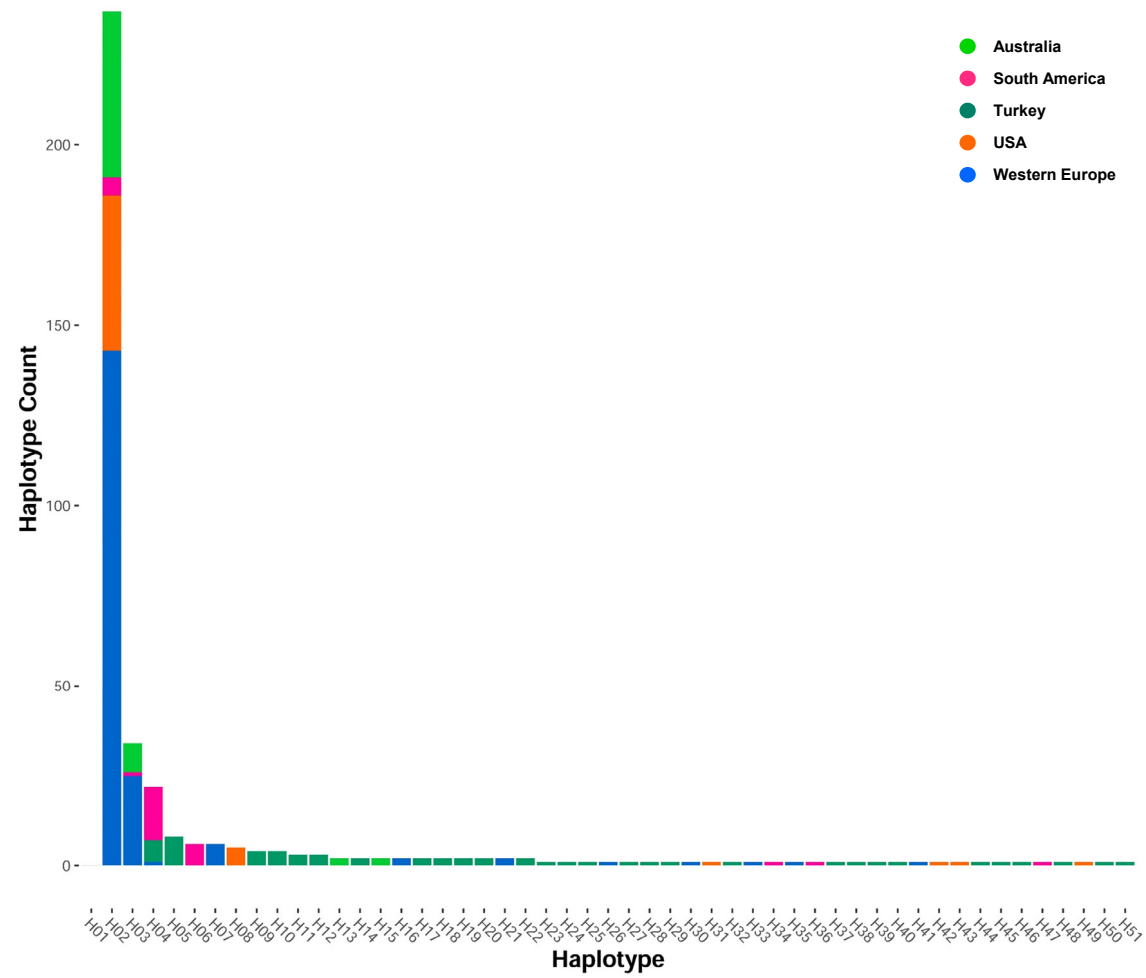


Figure S1. Frequency of each of the identified *AvrStb6* haplotypes along with their geographic origin.

	1	10	20	30	40	50	60	70	82																																																																									
I01 (IPO323)	M	R	S	I	L	Q	G	L	L	A	F	A	L	A	V	G	V	Q	A	R	V	S	C	G	G	I	G	D	L	C	K	A	G	D	S	C	C	N	Y	P	G	T	D	C	F	Q	D	G	Q	Y	P	R	C	H	T	A	C	G	H	F	Q	F	G	F	C	H	D	G	K	Q	C	N	C	Q	V	I	L	G	C	G	C	V
I13	M	R	S	I	L	Q	G	L	L	A	F	A	L	A	V	G	V	Q	A	R	V	S	C	G	G	I	G	D	L	C	K	A	G	P	S	C	C	N	Y	P	G	T	D	C	F	Q	D	G	Q	Y	P	R	C	H	T	A	C	G	H	Y	N	F	G	F	C	H	D	G	K	Q	C	N	C	Q	V	I	P	G	C	G	C	V
I44	M	R	S	I	L	Q	G	L	L	A	F	A	L	A	V	G	V	Q	A	R	V	S	C	G	G	I	G	D	L	C	K	A	G	A	S	C	C	N	Y	P	V	T	D	C	F	Q	D	G	Q	Y	P	R	C	H	T	A	C	G	H	F	H	F	G	F	C	H	D	G	K	Q	C	N	C	Q	T	I	R	G	C	G	C	V
I27	M	R	S	I	L	Q	G	L	L	A	F	A	L	A	V	G	V	Q	A	R	V	S	C	G	G	I	G	D	L	C	K	A	G	D	S	C	C	N	Y	P	I	T	N	C	F	Q	D	G	Q	Y	P	R	C	H	T	A	C	G	H	F	H	F	G	F	C	H	D	G	K	R	C	N	C	Q	V	I	R	G	C	G	C	V
I14	M	R	S	I	L	Q	G	L	L	A	F	A	L	A	V	G	V	Q	A	R	V	T	C	G	G	I	G	D	L	C	K	A	G	P	S	C	C	L	Y	P	I	T	N	C	F	Q	D	G	Q	Y	P	R	C	H	T	A	C	G	N	W	N	F	G	F	C	P	D	G	K	Q	C	N	C	Q	V	V	P	G	C	G	C	V
I02	M	R	S	I	L	Q	G	L	L	A	F	A	L	A	V	G	V	Q	A	R	V	V	C	G	G	I	G	D	L	C	K	A	G	P	S	C	C	N	Y	P	I	T	N	C	F	Q	D	G	Q	Y	P	R	C	H	T	A	C	G	N	W	N	F	G	F	C	P	D	G	K	Q	C	N	C	Q	V	I	P	G	C	G	C	V
I21	M	R	S	I	L	Q	G	L	L	A	C	A	L	A	V	G	V	Q	A	R	V	V	C	G	G	I	G	D	L	C	K	A	G	P	S	C	C	N	Y	P	I	T	N	C	F	Q	D	G	Q	Y	P	R	C	H	T	A	C	G	N	W	N	F	G	F	C	P	D	G	K	Q	C	N	C	Q	V	I	P	G	C	G	C	V
I07	M	R	S	I	L	Q	G	L	L	A	F	A	L	A	V	G	V	Q	A	R	V	V	C	G	G	I	G	D	L	C	K	A	G	H	S	C	C	N	Y	P	I	T	N	C	F	Q	D	G	Q	Y	P	R	C	H	T	A	C	G	N	W	N	F	G	F	C	P	D	G	K	Q	C	N	C	Q	V	I	P	G	C	G	C	V
I05	M	R	S	I	L	Q	G	L	L	A	F	A	L	A	V	G	V	Q	A	R	V	V	C	G	G	I	G	D	L	C	K	A	G	P	S	C	C	N	Y	P	I	T	N	C	F	Q	D	G	Q	Y	P	R	C	H	T	A	C	G	N	W	N	F	G	F	C	H	D	G	K	Q	C	N	C	Q	T	I	P	G	C	G	C	V
I17	M	R	S	V	L	Q	G	F	L	A	F	A	L	A	V	G	V	Q	A	K	A	K	C	G	S	V	G	D	L	C	A	R	G	Q	S	C	C	N	Y	P	E	Y	D	C	F	Q	D	G	Q	Y	P	R	C	H	T	A	C	G	N	W	N	F	G	F	C	H	D	G	K	Q	C	D	C	-	L	W	G	C	R	C	V	
I03	M	R	S	V	L	Q	G	F	L	A	F	A	L	A	V	G	V	Q	A	K	A	K	C	G	S	V	G	D	L	C	A	R	G	Q	S	C	C	N	Y	P	E	Y	D	C	F	Q	D	G	Q	F	P	R	C	H	T	A	C	G	N	W	K	F	G	F	C	H	D	G	K	Q	C	T	C	Q	T	V	W	G	C	G	C	V

Figure S2. Alignment of AvrStb6 isoforms from *Z. tritici* isolates tested in pathoassays to determine virulence on *Stb6* containing wheat. Sequences were aligned using MAFFT v7.388. Of the above isoforms, all isolates were found to be virulent on *Stb6* containing wheat, with the exception of isolates possessing I01 (from reference isolate IPO323) and I13. Amino acids synonymous to the I01 reference sequence from isolate IPO323 are greyed. Missing residues relative to the reference are represented as dashes. The red arrow indicates the amino acid position #41, variation at which is hypothesised to determine the virulence/avirulence phenotype.

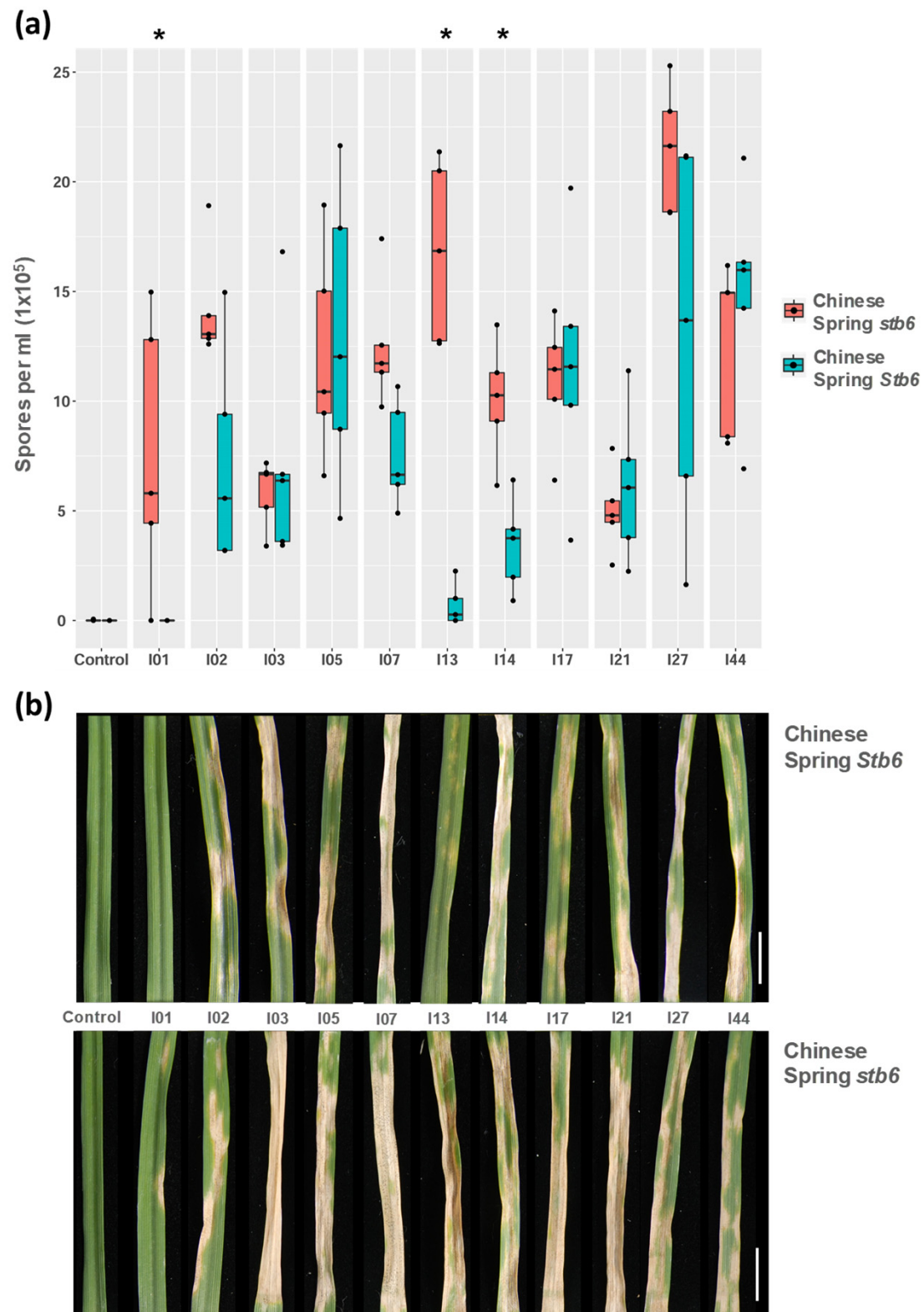


Figure S3. Plant inoculation bioassay. Leaves of differential wheat genotypes, landrace Chinese Spring (*Stb6*) and a nearly isogenic line developed from a cross with cv. Courtot carrying a susceptibility allele of *Stb6*, were inoculated as young, three-week-old seedlings with a selection of *Z. tritici* isolates possessing different isoforms of Avr*Stb6*. (a) Counts of pycnidiospores washed off the inoculated wheat leaves at 21 days post inoculation (dpi). Asterisks represent isolates with significant (*, $p < 0.05$) or highly significant (**, $p < 0.005$) differences in pycnidiospore counts between the resistant and susceptible genotypes. (b) Images of inoculated wheat leaves harvested at 21 dpi and incubated for two days under ~ 100% humidity to induce pycnidiation. Scale bar, 10 mm.

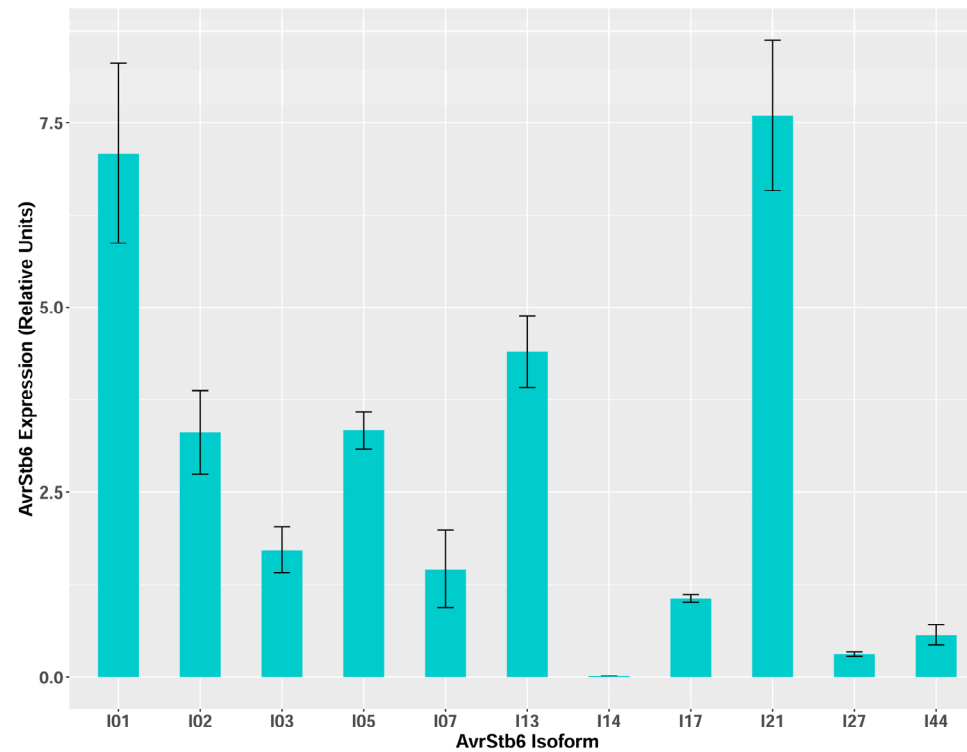


Figure S4. Expression levels of different *AvrStb6* haplotypes during *Z. tritici* infection of wheat.

Leaves of highly susceptible wheat cv. Taichung 29, containing no known *Septoria tritici* blotch resistance genes, were inoculated with a selection of *Z. tritici* strains representing different *AvrStb6* haplotypes (giving rise to different protein isoforms) were harvested upon emergence of visible disease symptoms. Error bars are standard errors from three biological replicates. Expression levels are relative to the expression of the housekeeping gene *G6PDH* that encodes glucose-6-phosphate 1-dehydrogenase.

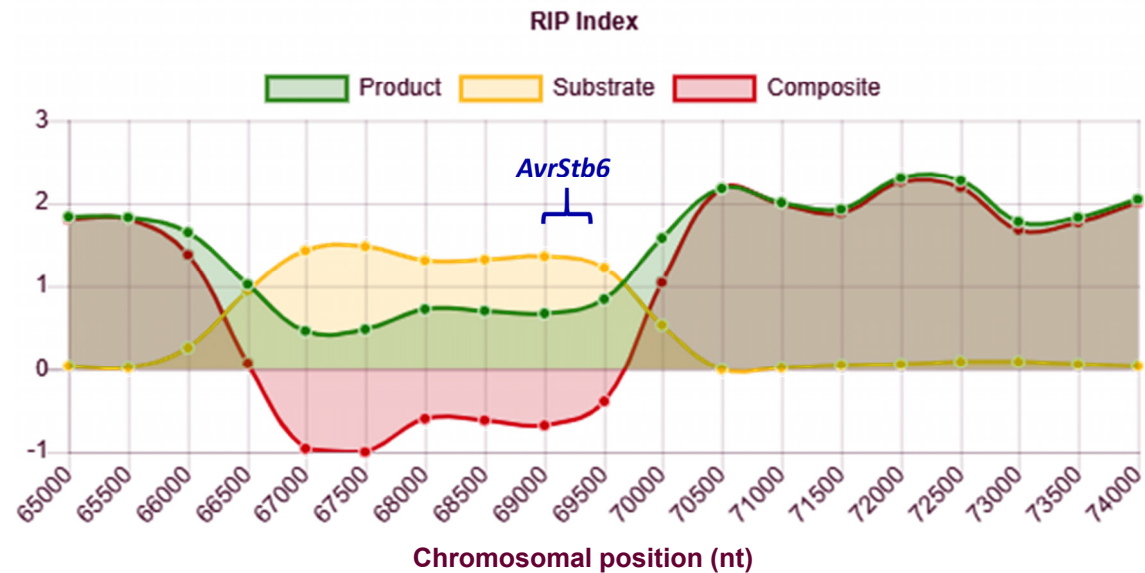


Figure S5. Analysis of repeat induced point mutation frequency at the *AvrStb6* locus on *Zymoseptoria tritici* chromosome 5 using RIPper (<http://theripper.hawk.rocks>). The *AvrStb6* gene is located between nucleotides 69019 and 69383. 'Substrate' and 'Product' represent the frequency of RIP targeted dinucleotides (G and C) and the RIP product dinucleotides (T and A), respectively. 'Composite' represents the observed decrease in Substrate against the increase in Product, and provides an estimate of RIP frequency. See for software. Window size = 1000 bp, slide size = 500 bp.

					target 48f	
<i>STB6</i> WT	1	ATGTCTCTGAGCTGCTGGTCCTGGTTCTCGCCTTCGCCTGGGTTTG	GTGTCTGCCACTG	60		
$\Delta Stb6$	1	ATGTCTCTGAGCTGCTGGTCCTGGTTCTCGCCTTCGCCTGGGTTTG	GTGTCTGCCACTG	60		
					target 104r	
<i>STB6</i> WT	61	ATGCTCATGGCGGCCGAGGAGCAGCAAGGGGATGGCTGCTTGG	AGTGTGGCAGCGTC	120		
$\Delta Stb6$	61	A-----	GTGGCAGCGTC	72		
<i>STB6</i> WT	121	ACCATCTCCCCCGTTCTGGCTCACTGATTGGCAAACAGGAAGATTATGTGGTTTCGCCT		180		
$\Delta Stb6$	73	ACCATCTCCCCCGTTCTGGCTCACTGATTGGCAAACAGGAAGATTATGTGGTTTCGCCT		132		
<i>STB6</i> WT	181	GGACCGCTGGACTTCGAGCTTACATGCTATAACGGCAGTTATCCACTTCTTCCAAGCTCT		240		
$\Delta Stb6$	133	GGACCGCTGGACTTCGAGCTTACATGCTATAACGGCAGTTATCCACTTCTTCCAAGCTCT		192		
					target 278r	
<i>STB6</i> WT	241	GTGCCCAACAACGCCGGCTTTGCAATCATGGACATAT	CCTATGAGGAACGCAGCTTGCGC	300		
$\Delta Stb6$	193	GTGCCCAACAACGCCGGCTTTGCAATCATGGACATAT	CCTATGAGGAACGCAGCTTGCGC	252		
<i>STB6</i> WT	301	GTCGTTGATCTACGCAAGCTGCAACTATTACACGACCCGCCAACATCTTCAACAGCTGC		360		
$\Delta Stb6$	253	GTCGTTGATCTACGCAAGCTGCAACTATTACACGACCCGCCAACATCTTCAACAGCTGC		312		
<i>STB6</i> WT	361	TTGCCGATGTGGAACACCTCTGCCAAACTGGGCCGCCGTTTAAGATCTCCCCGTCAAC		420		
$\Delta Stb6$	313	TTGCCGATGTGGAACACCTCTGCCAAACTGGGCCGCCGTTTAAGATCTCCCCGTCAAC		372		
					target 465f	
<i>STB6</i> WT	421	CTGGAACCTCATCTTGTACAACTGCACGGAGAAGGCCGCCGCGGC	GGCAGCCTGGATAAA	480		
$\Delta Stb6$	373	CTGGAACCTCATCTTGTACAACTGCACGGAGAAGGCCGCCGCGGC	GGCAGCCTGGATAAA	432		
<i>STB6</i> WT	481	GAACGGTGCAGGCGAAGACGATGAGGTGCGTGAACACAAGCAACACGTTTGTTCATGCG		540		
$\Delta Stb6$	433	AACGGTGCAGGCGAAGACGATGAAGGTGCGTGAACACAAGCAACACGTTTGTTCATGCG		491		
<i>STB6</i> WT	541	GGGGTGCCATACGACACCACGGGACCTACTCTAGTTATGCTTTGGAGGGCTGCGTTCCA		600		
$\Delta Stb6$	492	GGGGTGCCATACGACACCACGGGACCTACTCTAGTTATGCTTTGGAGGGCTGCGTTCCA		551		
<i>STB6</i> WT	601	ATCGTCTTGCCGGTGCTGCGCTTGCCATCCGGCGAGACGAACACGAGCCACTACGAGCGG		660		
$\Delta Stb6$	552	ATCGTCTTGCCGGTGCTGCGCTTGCCATCCGGCGAGACGAACACGAGCCACTACGAGCGG		611		
<i>STB6</i> WT	661	CTCATCCAAAGTGGCTTCCTCCTGAAATGGGAACTGCCCCCTCCTCTCCCTGCACCTGCA		720		
$\Delta Stb6$	612	CTCATCCAAAGTGGCTTCCTCCTGAAATGGGAACTGCCCCCTCCTCTCCCTGCACCTGCA		671		
					target 715r	
<i>STB6</i> WT	721	CCTAGGAATGAACCACCT	CCCCCTCCAG	748		
$\Delta Stb6$	672	CCTAGGAATGAACCACCT	CCCCCTCCAG	699		

Figure S6. Alignment of the part of the *Stb6* coding sequence (exon 1) with the corresponding region in the CRISPR/Cas9-induced wheat Cadenza $\Delta Stb6$ mutant. Induced deletions are shaded in red. sgRNA targets are shown in blue. Protospacer adjacent motifs (PAMs) are shown in green. The premature STOP codon in $\Delta Stb6$ is shown in red.

Table S1. *Zymoseptoria tritici* isolates used in this study.

Isolate code	Isolate name	Region of origin	Country of origin	Year collected	Stock held	Wheat cultivar source	Wheat cultivar <i>Stb6</i> haplotype	AvrStb6 haplotype [#]	AvrStb6 isoform	GenBank accession number
Zt_001	WAI1822	Tasmania	Australia	2014	Australian National University	ND*	ND	H13	I14	MT856842
Zt_002	WAI2060	Tasmania	Australia	2014	Australian National University	ND	ND	H13	I14	MT856842
Zt_003	WAI1882	Tasmania	Australia	2014	Australian National University	ND	ND	H03	I02	MT856832
Zt_004	WAI1919	Tasmania	Australia	2014	Australian National University	ND	ND	H03	I02	MT856832
Zt_005	WAI1965	Tasmania	Australia	2014	Australian National University	ND	ND	H03	I02	MT856832
Zt_006	WAI1966	Tasmania	Australia	2014	Australian National University	ND	ND	H03	I02	MT856832
Zt_007	WAI1993	Tasmania	Australia	2014	Australian National University	ND	ND	H03	I02	MT856832
Zt_008	WAI2228	Tasmania	Australia	2014	Australian National University	ND	ND	H03	I02	MT856832
Zt_009	WAI2230	Tasmania	Australia	2014	Australian National University	ND	ND	H03	I02	MT856832
Zt_010	WAI2232	Tasmania	Australia	2014	Australian National University	ND	ND	H03	I02	MT856832
Zt_011	WAI1820	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_012	WAI1848	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_013	WAI1849	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_014	WAI1850	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_015	WAI1851	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_016	WAI1852	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_017	WAI1858	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_018	WAI1859	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_019	WAI1875	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_020	WAI1876	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_021	WAI1877	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_022	WAI1878	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_023	WAI1879	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_024	WAI1880	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_025	WAI1892	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_026	WAI1895	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_027	WAI1901	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_028	WAI1903	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_029	WAI1904	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_030	WAI1922	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_031	WAI1939	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_032	WAI1941	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_033	WAI1955	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_034	WAI1957	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_035	WAI1967	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_036	WAI1968	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_037	WAI1969	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_038	WAI1970	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_039	WAI1970D	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_040	WAI1971	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_041	WAI1972	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_042	WAI1998	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_043	WAI2000	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_044	WAI2029	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_045	WAI2031	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_046	WAI2045	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_047	WAI2047	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_048	WAI2059	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_049	WAI2061	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_050	WAI2073	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_051	WAI2077	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_052	WAI2203	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_053	WAI2204	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_054	WAI2206	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_055	WAI2208	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_056	WAI2216	Tasmania	Australia	2014	Australian National University	ND	ND	H02	I02	MT856831
Zt_057	WAI2210	Tasmania	Australia	2014	Australian National University	ND	ND	H15	I02	MT856844
Zt_058	WAI2226	Tasmania	Australia	2014	Australian National University	ND	ND	H15	I02	MT856844
Zt_059	CHI 10A	South America	Chile	2016	Rothamsted Research	Crac-baer	ND	H06	I02	MT856835
Zt_060	CHI 19B	South America	Chile	2016	Rothamsted Research	Crac-baer	ND	H06	I02	MT856835
Zt_061	CHI 2A	South America	Chile	2016	Rothamsted Research	Crac-baer	ND	H06	I02	MT856835
Zt_062	CHI 38A	South America	Chile	2016	Rothamsted Research	Crac-baer	ND	H06	I02	MT856835
Zt_063	CHI 5A	South America	Chile	2016	Rothamsted Research	Crac-baer	ND	H06	I02	MT856835
Zt_064	CHI 7A	South America	Chile	2016	Rothamsted Research	Crac-baer	ND	H06	I02	MT856835
Zt_065	CHI 6A	South America	Chile	2016	Rothamsted Research	Crac-baer	ND	H03	I02	MT856832
Zt_066	R50 16	South America	Uruguay	2016	Rothamsted Research	Genesis INIA 2375	3 (S)	H02	I02	MT856831
Zt_067	R50 27	South America	Uruguay	2016	Rothamsted Research	Genesis INIA 2375	3 (S)	H34	I29	MT856861
Zt_068	R50 6	South America	Uruguay	2016	Rothamsted Research	Genesis INIA 2375	3 (S)	H02	I02	MT856831
Zt_069	CHI 18B	South America	Chile	2016	Rothamsted Research	Crac-baer	ND	H02	I02	MT856831
Zt_070	ER 27A	South America	Argentina	2016	Rothamsted Research	DM Fuste	ND	H02	I02	MT856831
Zt_071	ER 30A	South America	Argentina	2016	Rothamsted Research	DM Fuste	ND	H02	I02	MT856831
Zt_072	CHI 26A	South America	Chile	2016	Rothamsted Research	Crac-baer	ND	H36	I37	MT856863
Zt_073	ER 1A	South America	Argentina	2016	Rothamsted Research	DM Fuste	ND	H47	I03	MT856873
Zt_074	R50 12A	South America	Uruguay	2016	Rothamsted Research	Genesis INIA 2375	3 (S)	H04	I03	MT856833
Zt_075	R50 19	South America	Uruguay	2016	Rothamsted Research	Genesis INIA 2375	3 (S)	H04	I03	MT856833
Zt_076	R50 1A	South America	Uruguay	2016	Rothamsted Research	Genesis INIA 2375	3 (S)	H04	I03	MT856833
Zt_077	R50 20B	South America	Uruguay	2016	Rothamsted Research	Genesis INIA 2375	3 (S)	H04	I03	MT856833
Zt_078	R50 45A	South America	Uruguay	2016	Rothamsted Research	Genesis INIA 2375	3 (S)	H04	I03	MT856833
Zt_079	R50 47C	South America	Uruguay	2016	Rothamsted Research	Genesis INIA 2375	3 (S)	H04	I03	MT856833
Zt_080	R50 8C	South America	Uruguay	2016	Rothamsted Research	Genesis INIA 2375	3 (S)	H04	I03	MT856833
Zt_081	CHI 36B	South America	Chile	2016	Rothamsted Research	Crac-baer	ND	H04	I03	MT856833

Zt_082	ER 13A	South America	Argentina	2016	Rothamsted Research	DM Fuste	ND	H04	I03	MT856833
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Zt_084	ER 56A	South America	Argentina	2016	Rothamsted Research	DM Fuste	ND	H04	I03	MT856833
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Zt_086	ER 58A	South America	Argentina	2016	Rothamsted Research	DM Fuste	ND	H04	I03	MT856833
Zt_087	ER 61A	South America	Argentina	2016	Rothamsted Research	DM Fuste	ND	H04	I03	MT856833
Zt_088	ER 65A	South America	Argentina	2016	Rothamsted Research	DM Fuste	ND	H04	I03	MT856833
Zt_089	11.8	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H24	I41	-
Zt_090	9.2	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H25	I28	MT856852
Zt_091	3.3	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H27	I30	MT856854
Zt_092	12.5	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H28	I34	MT856855
Zt_093	11.5	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H29	I31	MT856856
Zt_094	3.1	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H14	I15	MT856843
Zt_095	3.2	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H14	I15	MT856843
Zt_096	12.1	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H32	I26	MT856859
Zt_097	10.5	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H17	I12	-
Zt_098	10.6	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H17	I12	-
Zt_099	13.8	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H38	I23	MT856865
Zt_100	11.4	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H39	I19	MT856866
Zt_101	12.7	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H40	I22	MT856867
Zt_102	6.6	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H44	I25	MT856871
Zt_103	6.3	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H45	I06	MT856872
Zt_104	6.4	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H46	I42	-
Zt_105	7.1	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H11	I06	MT856840
Zt_106	10.3	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H11	I06	MT856840
Zt_107	13.7	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H11	I06	MT856840
Zt_108	6.1	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H18	I06	MT856846
Zt_109	7.4	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H18	I06	MT856846
Zt_110	7.6	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H19	I16	MT856847
Zt_111	8.7	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H19	I16	MT856847
Zt_112	3.8	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H04	I03	MT856833
Zt_113	6.7	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H04	I03	MT856833
Zt_114	9.4	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H04	I03	MT856833
Zt_115	9.5	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H04	I03	MT856833
Zt_116	13.2	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H04	I03	MT856833
Zt_117	13.4	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H04	I03	MT856833
Zt_118	3.6	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H20	I18	MT856848
Zt_119	3.7	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H20	I18	MT856848
Zt_120	12.2	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H48	I24	MT856874
Zt_121	6.2	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H05	I04	MT856834
Zt_122	7.2	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H05	I04	MT856834
Zt_123	7.3	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H05	I04	MT856834
Zt_124	8.1	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H05	I04	MT856834
Zt_125	8.4	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H05	I04	MT856834
Zt_126	8.6	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H05	I04	MT856834
Zt_127	8.8	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H05	I04	MT856834
Zt_128	12.4	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H05	I04	MT856834
Zt_129	8.5	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H50	I32	MT856876
Zt_130	10.4	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H51	I43	MT856877
Zt_131	7.5	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H09	I08	MT856838
Zt_132	7.8	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H09	I08	MT856838
Zt_133	9.3	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H09	I08	MT856838
Zt_134	10.1	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H09	I08	MT856838
Zt_135	6.5	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H37	I40	MT856864
Zt_136	6.8	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H10	I09	MT856839
Zt_137	9.1	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H10	I09	MT856839
Zt_138	10.2	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H10	I09	MT856839
Zt_139	3.4	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H10	I09	MT856839
Zt_140	7.7	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H12	I11	MT856841
Zt_141	8.3	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H12	I11	MT856841
Zt_142	9.6	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H12	I11	MT856841
Zt_143	8.2	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H22	I10	MT856850
Zt_144	9.8	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H22	I10	MT856850
Zt_145	9.7	Mediterranean	Turkey	2013-2016	Sirnak University	ND	ND	H23	I10	MT856851
Zt_146	Ore 52	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H31	I39	MT856858
Zt_147	Ore 1	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_148	Ore 10	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_149	Ore 12	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_150	Ore 13	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_151	Ore 14	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_152	Ore 16	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_153	Ore 17	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_154	Ore 19	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_155	Ore 2	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_156	Ore 20	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_157	Ore 21	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_158	Ore 22	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_159	Ore 24	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_160	Ore 25	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_161	Ore 26	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_162	Ore 27	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_163	Ore 3	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_164	Ore 30	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_165	Ore 31	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_166	Ore 33	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_167	Ore 34	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_168	Ore 36	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831

Zt_169	Ore 38	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_170	Ore 39	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_171	Ore 4	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_172	Ore 41	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_173	Ore 42	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_174	Ore 43	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_175	Ore 45	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_176	Ore 46	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_177	Ore 48	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_178	Ore 49	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_179	Ore 5	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_180	Ore 50	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_181	Ore 51	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_182	Ore 53	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_183	Ore 54	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_184	Ore 55	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_185	Ore 56	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_186	Ore 57	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_187	Ore 6	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_188	Ore 8	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_189	Ore 9	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H02	I02	MT856831
Zt_190	Ore 18	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H08	I07	MT856837
Zt_191	Ore 32	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H08	I07	MT856837
Zt_192	Ore 37	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H08	I07	MT856837
Zt_193	Ore 44	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H08	I07	MT856837
Zt_194	Ore 47	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H08	I07	MT856837
Zt_195	Ore 35	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H42	I20	MT856869
Zt_196	Ore 59	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H43	I38	MT856870
Zt_197	Ore 40	Oregon	USA	2016	Rothamsted Research	Kaseberg	7 (S)	H49	I35	MT856875
Zt_198	7	Western Europe	Scotland	2015	Rothamsted Research	Consort	7 (S)	H26	I27	MT856853
Zt_199	NT-S219-101.10	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H30	I36	MT856857
Zt_200	A2-A2016.30	Western Europe	England	2016	Rothamsted Research	Cougar	1 (R)	H33	I02	MT856860
Zt_201	BASF.10	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H03	I02	MT856832
Zt_202	BASF.5	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H03	I02	MT856832
Zt_203	CRD2015.10	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H03	I02	MT856832
Zt_204	11	Western Europe	England	2015	Rothamsted Research	KWS Santiago	1 (R)	H03	I02	MT856832
Zt_205	1	Western Europe	England	2015	Rothamsted Research	Consort	7 (S)	H03	I02	MT856832
Zt_206	CRD.GB23	Western Europe	England	2015	Rothamsted Research	Gallant	7 (S)	H03	I02	MT856832
Zt_207	CRD2015.G15	Western Europe	England	2015	Rothamsted Research	Gallant	7 (S)	H03	I02	MT856832
Zt_208	FT1.6	Western Europe	England	2015	Rothamsted Research	Gallant	7 (S)	H03	I02	MT856832
Zt_209	NTS311 321.2	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H03	I02	MT856832
Zt_210	NT-S31-239.5	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H03	I02	MT856832
Zt_211	NT-S319-121.1	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H03	I02	MT856832
Zt_212	Syn2.6	Western Europe	France	2015	Rothamsted Research	Cellule	ND	H03	I02	MT856832
Zt_213	15	Western Europe	Germany	2015	Rothamsted Research	Tobac	ND	H03	I02	MT856832
Zt_214	UPL1.6	Western Europe	Germany	2015	Rothamsted Research	Tobac	ND	H03	I02	MT856832
Zt_215	FT1.8	Western Europe	England	2015	Rothamsted Research	Zulu	1 (R)	H03	I02	MT856832
Zt_216	020A	Western Europe	England	2016	Rothamsted Research	Cougar	1 (R)	H03	I02	MT856832
Zt_217	M3 2016.27	Western Europe	England	2016	Rothamsted Research	Cordiale	7 (S)	H03	I02	MT856832
Zt_218	A2-A2016.6	Western Europe	England	2016	Rothamsted Research	Consort	7 (S)	H03	I02	MT856832
Zt_219	NT1 2016.19	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H03	I02	MT856832
Zt_220	V7 2016.1	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H03	I02	MT856832
Zt_221	T1-A 2017.12	Western Europe	Ireland	2017	Rothamsted Research	KWS Lumos	7 (S)	H03	I02	MT856832
Zt_222	T1-A 2017.39	Western Europe	Ireland	2017	Rothamsted Research	KWS Lumos	7 (S)	H03	I02	MT856832
Zt_223	S1-B.27	Western Europe	Scotland	2017	Rothamsted Research	ND	ND	H03	I02	MT856832
Zt_224	S1-B.28	Western Europe	Scotland	2017	Rothamsted Research	ND	ND	H03	I02	MT856832
Zt_225	S1-B.31	Western Europe	Scotland	2017	Rothamsted Research	ND	ND	H03	I02	MT856832
Zt_226	19	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_227	20	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_228	CRD2015.17	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_229	CRD2015.18	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_230	CRD2015.19	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_231	CRD2015.21	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_232	CRD2015.34	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_233	CRD2015.4	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_234	GS26.41	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_235	GS26.42	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_236	17	Western Europe	France	2015	Rothamsted Research	Trapez	1 (R)	H02	I02	MT856831
Zt_237	10	Western Europe	England	2015	Rothamsted Research	Crusoe	7 (S)	H02	I02	MT856831
Zt_238	12	Western Europe	England	2015	Rothamsted Research	JB Diego	7 (S)	H02	I02	MT856831
Zt_239	8	Western Europe	Scotland	2015	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_240	9	Western Europe	Scotland	2015	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_241	R15-46	Western Europe	England	2015	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_242	18	Western Europe	England	2015	Rothamsted Research	Gallant	7 (S)	H02	I02	MT856831
Zt_243	CRD.GB35	Western Europe	England	2015	Rothamsted Research	Gallant	7 (S)	H02	I02	MT856831
Zt_244	CRD2015.G3	Western Europe	England	2015	Rothamsted Research	Gallant	7 (S)	H02	I02	MT856831
Zt_245	FT1.17	Western Europe	England	2015	Rothamsted Research	Gallant	7 (S)	H02	I02	MT856831
Zt_246	2	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_247	3	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_248	5	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_249	6	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H35	I21	MT856862
Zt_250	NT15-119.11	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_251	NT15-239.7	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_252	NT15-239.8	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_253	NT-S219-104.3	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_254	NT-S219-211.8	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_255	NT-S311-118.9	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831

Zt_256	NT-S319-121.3	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_257	NT-S319-121.4	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_258	NT-S319-317.2	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_259	NT-S319-317.4	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_260	NT-S319-317.5	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_261	Syn2.10	Western Europe	France	2015	Rothamsted Research	Cellule	ND	H02	I02	MT856831
Zt_262	Syn2.11	Western Europe	France	2015	Rothamsted Research	Cellule	ND	H02	I02	MT856831
Zt_263	Syn2.3	Western Europe	France	2015	Rothamsted Research	Cellule	ND	H02	I02	MT856831
Zt_264	Syn2.4	Western Europe	France	2015	Rothamsted Research	Cellule	ND	H02	I02	MT856831
Zt_265	Syn2.5	Western Europe	France	2015	Rothamsted Research	Cellule	ND	H02	I02	MT856831
Zt_266	Syn2.7	Western Europe	France	2015	Rothamsted Research	Cellule	ND	H02	I02	MT856831
Zt_267	14	Western Europe	Germany	2015	Rothamsted Research	JB Asano	ND	H02	I02	MT856831
Zt_268	UPL1.1	Western Europe	Germany	2015	Rothamsted Research	Tobac	ND	H02	I02	MT856831
Zt_269	UPL1.11	Western Europe	Germany	2015	Rothamsted Research	Tobac	ND	H02	I02	MT856831
Zt_270	UPL1.2	Western Europe	Germany	2015	Rothamsted Research	Tobac	ND	H02	I02	MT856831
Zt_271	UPL1.3	Western Europe	Germany	2015	Rothamsted Research	Tobac	ND	H02	I02	MT856831
Zt_272	UPL1.4	Western Europe	Germany	2015	Rothamsted Research	Tobac	ND	H02	I02	MT856831
Zt_273	UPL1.5V2-R	Western Europe	Germany	2015	Rothamsted Research	Tobac	ND	H02	I02	MT856831
Zt_274	UPL1.7	Western Europe	Germany	2015	Rothamsted Research	Tobac	ND	H02	I02	MT856831
Zt_275	UPL1.9	Western Europe	Germany	2015	Rothamsted Research	Tobac	ND	H02	I02	MT856831
Zt_276	014C	Western Europe	England	2016	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_277	062A	Western Europe	England	2016	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_278	A2-A2016.47	Western Europe	England	2016	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_279	A3-A.2	Western Europe	England	2016	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_280	A3-A.36	Western Europe	England	2016	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_281	A3-A.37	Western Europe	England	2016	Rothamsted Research	Cougar	1 (R)	H02	I02	MT856831
Zt_282	V1.12	Western Europe	England	2016	Rothamsted Research	Evolution	1 (R)	H02	I02	MT856831
Zt_283	V1.16	Western Europe	England	2016	Rothamsted Research	Evolution	1 (R)	H02	I02	MT856831
Zt_284	V1.31	Western Europe	England	2016	Rothamsted Research	Evolution	1 (R)	H02	I02	MT856831
Zt_285	V1.45	Western Europe	England	2016	Rothamsted Research	Evolution	1 (R)	H02	I02	MT856831
Zt_286	V4 2016.31	Western Europe	England	2016	Rothamsted Research	Evolution	1 (R)	H02	I02	MT856831
Zt_287	V4.35	Western Europe	England	2016	Rothamsted Research	Evolution	1 (R)	H02	I02	MT856831
Zt_288	009A	Western Europe	England	2016	Rothamsted Research	KWS Santiago	1 (R)	H02	I02	MT856831
Zt_289	M384	Western Europe	England	2016	Rothamsted Research	KWS Santiago	1 (R)	H02	I02	MT856831
Zt_290	M389	Western Europe	England	2016	Rothamsted Research	KWS Santiago	1 (R)	H02	I02	MT856831
Zt_291	M4 2016.42	Western Europe	England	2016	Rothamsted Research	Alchemy	7 (S)	H02	I02	MT856831
Zt_292	M3 2016.23	Western Europe	England	2016	Rothamsted Research	Cordiale	7 (S)	H02	I02	MT856831
Zt_293	M3 2016.42	Western Europe	England	2016	Rothamsted Research	Cordiale	7 (S)	H02	I02	MT856831
Zt_294	M3.1	Western Europe	England	2016	Rothamsted Research	Cordiale	7 (S)	H02	I02	MT856831
Zt_295	M3.11	Western Europe	England	2016	Rothamsted Research	Cordiale	7 (S)	H02	I02	MT856831
Zt_296	M3.12	Western Europe	England	2016	Rothamsted Research	Cordiale	7 (S)	H02	I02	MT856831
Zt_297	M3.13	Western Europe	England	2016	Rothamsted Research	Cordiale	7 (S)	H02	I02	MT856831
Zt_298	M3.2	Western Europe	England	2016	Rothamsted Research	Cordiale	7 (S)	H02	I02	MT856831
Zt_299	M3.23	Western Europe	England	2016	Rothamsted Research	Cordiale	7 (S)	H02	I02	MT856831
Zt_300	M3.25	Western Europe	England	2016	Rothamsted Research	Cordiale	7 (S)	H02	I02	MT856831
Zt_301	M9 2016.26	Western Europe	England	2016	Rothamsted Research	Cordiale	7 (S)	H02	I02	MT856831
Zt_302	M9 2016.4	Western Europe	England	2016	Rothamsted Research	Cordiale	7 (S)	H02	I02	MT856831
Zt_303	V4 2016.21	Western Europe	England	2016	Rothamsted Research	JB Diego	7 (S)	H02	I02	MT856831
Zt_304	R16.1	Western Europe	England	2016	Rothamsted Research	Reflection	7 (S)	H02	I02	MT856831
Zt_305	R16.18	Western Europe	England	2016	Rothamsted Research	Reflection	7 (S)	H02	I02	MT856831
Zt_306	R16.19	Western Europe	England	2016	Rothamsted Research	Reflection	7 (S)	H02	I02	MT856831
Zt_307	R16.23	Western Europe	England	2016	Rothamsted Research	Reflection	7 (S)	H02	I02	MT856831
Zt_308	R16.37	Western Europe	England	2016	Rothamsted Research	Reflection	7 (S)	H02	I02	MT856831
Zt_309	A2-B.11	Western Europe	England	2016	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_310	A2-B.21	Western Europe	England	2016	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_311	A3-A.3	Western Europe	England	2016	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_312	A3-B.16	Western Europe	England	2016	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_313	A3-B.3	Western Europe	England	2016	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_314	A3-C.11	Western Europe	England	2016	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_315	A3-C.12	Western Europe	England	2016	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_316	A3-C.17	Western Europe	England	2016	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_317	A3-C.18	Western Europe	England	2016	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_318	S2-C.13	Western Europe	Scotland	2016	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_319	S3-A.3	Western Europe	Scotland	2016	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_320	S3-A.9	Western Europe	Scotland	2016	Rothamsted Research	Consort	7 (S)	H02	I02	MT856831
Zt_321	M31 10	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_322	M31 13	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_323	M31 16	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_324	M38 19	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_325	M38 27	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_326	NT1 2016.1	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_327	NT1 2016.21	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_328	NT1 2016.9	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_329	NT2-B.1	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_330	NT2-B.10	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_331	NT2-C.14	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_332	NT3-B.1	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_333	NT3-C.13	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_334	NT3-C.9	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_335	NT4-A.1	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_336	NT4-A.10	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_337	NT4-A.2	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_338	NT4-B.9	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_339	NT4-C.11	Western Europe	England	2016	Rothamsted Research	Dickens	1 (R)	H02	I02	MT856831
Zt_340	069C	Western Europe	England	2016	Rothamsted Research	KWS Cashel	3 (S)	H02	I02	MT856831
Zt_341	001B	Western Europe	England	2016	Rothamsted Research	Marston	1 (S)	H02	I02	MT856831
Zt_342	V5 2016.37	Western Europe	England	2016	Rothamsted Research	Zulu	1 (R)	H02	I02	MT856831

Zt_343	M3 2016.10	Western Europe	ND	2016	Rothamsted Research	ND	ND	H02	I02	MT856831
Zt_344	M3 2016.35	Western Europe	ND	2016	Rothamsted Research	ND	ND	H02	I02	MT856831
Zt_345	RR17.1	Western Europe	England	2017	Rothamsted Research	KWS Siskin	1 (R)	H02	I02	MT856831
Zt_346	RR17.10	Western Europe	England	2017	Rothamsted Research	KWS Siskin	1 (R)	H02	I02	MT856831
Zt_347	RR17.11	Western Europe	England	2017	Rothamsted Research	KWS Siskin	1 (R)	H02	I02	MT856831
Zt_348	RR17.12	Western Europe	England	2017	Rothamsted Research	KWS Siskin	1 (R)	H02	I02	MT856831
Zt_349	RR17.13	Western Europe	England	2017	Rothamsted Research	KWS Siskin	1 (R)	H02	I02	MT856831
Zt_350	RR17.14	Western Europe	England	2017	Rothamsted Research	KWS Siskin	1 (R)	H02	I02	MT856831
Zt_351	RR17.15	Western Europe	England	2017	Rothamsted Research	KWS Siskin	1 (R)	H02	I02	MT856831
Zt_352	RR17.3	Western Europe	England	2017	Rothamsted Research	KWS Siskin	1 (R)	H02	I02	MT856831
Zt_353	RR17.4	Western Europe	England	2017	Rothamsted Research	KWS Siskin	1 (R)	H02	I02	MT856831
Zt_354	RR17.5	Western Europe	England	2017	Rothamsted Research	KWS Siskin	1 (R)	H02	I02	MT856831
Zt_355	RR17.6	Western Europe	England	2017	Rothamsted Research	KWS Siskin	1 (R)	H02	I02	MT856831
Zt_356	RR17.7	Western Europe	England	2017	Rothamsted Research	KWS Siskin	1 (R)	H02	I02	MT856831
Zt_357	RR17.8	Western Europe	England	2017	Rothamsted Research	KWS Siskin	1 (R)	H02	I02	MT856831
Zt_358	T1-A 2017.15	Western Europe	Ireland	2017	Rothamsted Research	KWS Lumos	7 (S)	H02	I02	MT856831
Zt_359	T1-A 2017.3	Western Europe	Ireland	2017	Rothamsted Research	KWS Lumos	7 (S)	H02	I02	MT856831
Zt_360	T1-A 2017.43	Western Europe	Ireland	2017	Rothamsted Research	KWS Lumos	7 (S)	H02	I02	MT856831
Zt_361	T1-A 2017.47	Western Europe	Ireland	2017	Rothamsted Research	KWS Lumos	7 (S)	H02	I02	MT856831
Zt_362	T1-A 2017.6	Western Europe	Ireland	2017	Rothamsted Research	KWS Lumos	7 (S)	H02	I02	MT856831
Zt_363	S1-B.15	Western Europe	Scotland	2017	Rothamsted Research	ND	ND	H02	I02	MT856831
Zt_364	S1-B.21	Western Europe	Scotland	2017	Rothamsted Research	ND	ND	H02	I02	MT856831
Zt_365	S1-B.3	Western Europe	Scotland	2017	Rothamsted Research	ND	ND	H02	I02	MT856831
Zt_366	S1-B.4	Western Europe	Scotland	2017	Rothamsted Research	ND	ND	H02	I02	MT856831
Zt_367	S1-B.5	Western Europe	Scotland	2017	Rothamsted Research	ND	ND	H02	I02	MT856831
Zt_368	S.t. DP 0495	Western Europe	ND	ND	Rothamsted Research	ND	ND	H02	I02	MT856831
Zt_369	M3 2016.17	Western Europe	England	2016	Rothamsted Research	Cordiale	7 (S)	H02	I02	MT856831
Zt_370	Ztr(ii)2015	Western Europe	England	2016	Rothamsted Research	ND	ND	H16	I13	MT856845
Zt_371	T1-A 2017.24	Western Europe	Ireland	2017	Rothamsted Research	KWS Lumos	7 (S)	H16	I13	MT856845
Zt_372	16	Western Europe	France	2015	Rothamsted Research	Trapez	1 (R)	H07	I05	MT856836
Zt_373	Syn2.12	Western Europe	France	2015	Rothamsted Research	Cellule	ND	H07	I05	MT856836
Zt_374	Syn2.9	Western Europe	France	2015	Rothamsted Research	Cellule	ND	H07	I05	MT856836
Zt_375	018A	Western Europe	England	2016	Rothamsted Research	Solace	1 (R)	H07	I05	MT856836
Zt_376	049A	Western Europe	England	2016	Rothamsted Research	Amplify	ND	H07	I05	MT856836
Zt_377	044C	Western Europe	England	2016	Rothamsted Research	Stratosphere	ND	H07	I05	MT856836
Zt_378	Syn 2.8	Western Europe	France	2015	Rothamsted Research	Cellule	ND	H41	I33	MT856868
Zt_379	GS26.33	Western Europe	England	2015	Rothamsted Research	Cougar	1 (R)	H04	I03	MT856833
Zt_380	4	Western Europe	England	2015	Rothamsted Research	KWS Cashel	3 (S)	H21	I17	MT856849
Zt_381	13	Western Europe	Germany	2015	Rothamsted Research	JB Asano	ND	H21	I17	MT856849

(S) - Stb6 haplotype determining susceptibility to *Z. tritici* IPO323 possessing an avirulence isoform of AvrStb6;

(R) - *Stb6* haplotype determining susceptibility to *Z. tritici* IPO323 possessing an avirulence isoform of AvrStb6;

blue text - *Stb6* haplotype data determined in this study;

black text - *Stb6* haplotype data obtained in previous study by Saintenacet *al.* (2018).

* ND - no data.

Table S2. Primers used in this study.

Primer Name	5' to 3' Sequence	Purpose
avrstb6.f1	CACTTCTTTCCACAACCTCCCACTT	Amplification and sequencing of <i>AvrStb6</i>
avrstb6.f3	ATCAACTTCCTCTCAACCAAGACC	
avrstb6.r1	CCTACATTGGCAGCATCAAAATCA	
8311F19	CGCGGTTCCAGTCACATCAC	Amplification and sequencing of <i>Stb6</i>
8311F3	CCGTTTAGCTCGTGTTGTGC	
8311R5F	CTGGACCGCTGGACTTCGAG	
1186R2	GAGCAAGCTTTCAATTACAGGAG	
13609F1	CTGAAAAAAAAATACGAGGCCATGA	
8311F16	GCGACATGGTAGCTCAATCAAA	
8311R16	TTCCTTCCATGGTCGGTAACTT	
JPG G6PDH F1	GCGGCTACTTTGACGAGTTC	RT-qPCR analysis of <i>AvrStb6</i> expression
JPG G6PDH R1	GATCCGTCAAGCGACTTCTC	
AvrStb6 F6b	TTCTACAAGGCTTCCTCGC	
AvrStb6 R6b	GCTTTCCGTCTGTGGCAGAA	