Increase in grain protein and gluten contents of bread wheat by the introgression of a *T. timopheevii* segment into chromosome 2A

EUPHYTICA

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Technological properties of grain and dough of the substitution line S29 (821 2A) and cultivar S29 under different field conditions

Genotypes	Vitreousness, %	TGW, g	Particle size, µm	Dough strength, J*10^{-4}	Tenacity, P, mm	Extensibility, L, mm	P/L ratio
Gatersleben, Germany							
S29	63.5±6.7	44.5	22.5±0.9	443±34	165±4	82±18	2.1±0.4
S29 (821 2A)	72.3±2.7	44.6	21.8±0.9	484±44	161±1	90±14	1.8±0.3
Omsk, Western Siberia							
S29	51	42.2	20,4	441	161	68	2.4
S29 (821 2A)	55	36.6	18,6	420	152	75	2.0
Ussuriysk Far East							
S29	54.8±13.3	35.3	22.4±2.4	396±87	153±7	47±9	3.4±0.5
S29 (821 2A)	63.1±15.6	35.4	21.6±1.6	351±25	146±2	58±8	2.6±0.4
Barnaul, Western Siberia, Altaiskiy kray							
S29	72.2±3.8	34,4	20.8±0.6	391±7.3	161±1	53±2	3.0±0.1
S29 (821 2A)	81.7±3.4	37,4	21.3±0.3	371±21.1	143±1	70±7	2.1±0.2