

Table S1. Durum wheat cultivars used in the study.

Wheat cultivar	Originators of cultivars
Bezenchukskaya 182	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences
Bezenchukskaya 205	
Bezenchukskaya 209	
Bezenchukskaya 210	
Bezenchukskaya niva	
Bezenchukskaya stepnaya	
Bezenchukskaya yubilejnaya	
Bezenchukskaya zolotistaya	
Bezenchukskaya krepost'	
Marina	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences, Federal Research Scientific Center Of Legumes And Groat CropS, Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"
Triada	
Annushka	Federal Center Of Agriculture Research Of The South-East Region
Elizavetinskaya	
Krasnokutka 10	
Krasnokutka 13	
Luch 25	
Lyudmila	
Nik	Federal Center Of Agriculture Research Of The South-East Region, Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"
Nikolasha	
Pamyati Vasil'chuka	Federal center of agriculture research of the south-east region
Saratovskaya zolotistaya	
Valentina	
Kermen	Fsbi 'Caspian Agricultural Federal Scientific Center Of The Russian Academy Of Sciences', Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"

Table S2. Spring bread wheat cultivars used in the study.

Wheat cultivar	Originators of cultivars
Burlak	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences
Ekada 109	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences, Federal Research Center «Kazan Scientific Center Of Russian Academy Of Sciences», Ufa Federal Research Centre Of The Russian Academy Of Sciences, Federal Research Center For Bast Fiber Crops, Company 'Fiton Duet'
Ekada 113	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences, Federal Research Center «Kazan Scientific Center Of Russian Academy Of Sciences», Ufa Federal Research Centre Of The Russian Academy Of Sciences, Federal Research Center For Bast Fiber Crops, Llp Np Company 'Fiton' (Kazakhstan), Aktobe Agricultural Experimental Station
Ekada 214	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences, Federal Research Center «Kazan Scientific Center Of Russian Academy Of Sciences», Ufa Federal Research Centre Of The Russian Academy Of Sciences, Federal Research Center For Bast Fiber Crops, LLP NP Company 'Fiton'(Kazakhstan)
Ekada 253	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences, Federal Research Center «Kazan Scientific Center Of Russian Academy Of Sciences»,
Ekada 258	Ufa Federal Research Centre Of The Russian Academy Of Sciences, Federal Research Center For Bast Fiber Crops
Kinel'skaya 2010	
Kinel'skaya 59	
Kinel'skaya niva	
Kinel'skaya yubilejnaya	
Margarita	
Nikon	
Tulaikovskaya 5	
Tulaikovskaya 10	
Tulaikovskaya 100	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences
Tulaikovskaya 108	
Tulaikovskaya 110	
Tulaikovskaya nadezhda	
Tulaikovskaya zolotistaya	
Ul'yanovskaya 100	
Ul'yanovskaya 105	
Zhigulevkaya	
Al'bidum 32	
Al'bidum 33	
Aleksandrit	
Belyanka	Federal Center Of Agriculture Research Of The South-East Region
Dobrynya	
Ershovskaya 36	
Favorit	
Kur'er	Federal Center Of Agriculture Research Of The South-East Region, Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"
Kvartet L 375	
L 503	
L 505	
Lebedushka	
Prohorovka	
Saratovskaya 55	
Saratovskaya 58	
Saratovskaya 68	Federal Center Of Agriculture Research Of The South-East Region
Saratovskaya 70	
Saratovskaya 73	
Saratovskaya 74	
Saratovskaya 76	
Voevoda	
Yugo-Vostochnaya 2	

Yugo-Vostochnaya 4	
100 let TASSR	
Al' Varis	
Amir	
Balkysh	Federal Research Center «Kazan Scientific Center Of Russian Academy Of Sciences»
Barakat	
Bulyak	
Chistopol'skaya	
Ekada 265	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences, Federal Research Center «Kazan Scientific Center Of Russian Academy Of Sciences», Ufa Federal Research Centre Of The Russian Academy Of Sciences, Federal Research Center For Bast Fiber Crops, LLP NP Company 'Fiton' (Kazakhstan), Ltd Kurgansemena
KHayat	Federal Research Center «Kazan Scientific Center Of Russian Academy Of Sciences», Ltd Kurgansemena
KHazine	
Idelle	
Joldyz	
Kazanskaya Yubilejnaya	Federal Research Center «Kazan Scientific Center Of Russian Academy Of Sciences»
Nadira	
Sakara	
Sitara	

Table S3. Winter bread wheat cultivars used in the study.

Wheat cultivar	Originators of cultivars
Al'ternativa	
Bazis	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences
Bezenchukskaya 380	
Biryuza	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences,
Estafeta	Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"
Integratsiya	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences, Federal State Budget Scientific Institution "Agrarian Research Center "Donskoy"
Kinel'skaya 4	
Malahit	
Povolzhskaya 86	
Povolzhskaya niva	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences
Resurs	
Skirda	
Svetoch	
Vertikal'	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences, Federal State Budget Scientific Institution "Agrarian Research Center "Donskoy"
V'yuga	Samara Federal Research Scientific Center Of The Russian Academy Of Sciences
Aelita	
Dzhangal'	
Levoberezhnaya 1	Federal Center Of Agriculture Research Of The South-East Region
Levoberezhnaya 3	
Novoershovskaya	
Antonina	Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"
Bair	Fsbi 'Caspian Agricultural Federal Scientific Center Of The Russian Academy Of Sciences', Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"
Bezostaya 100	Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko",
Brigada	Llc Npo 'Kubanzerno'
Bulgun	Fsbi 'Caspian Agricultural Federal Scientific Center Of The Russian Academy Of Sciences', Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"
Chernozemka 115	Fsbsi 'Voronezh Federal Agricultural Scientific Center Named After. V.V.Dokuchaev', Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"
Dolya	
Elanchik	
Esaul	
Gerda	Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"
Graf	
Grom	
Gurt	
Hasyr	Fsbi 'Caspian Agricultural Federal Scientific Center Of The Russian Academy Of Sciences', Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"
Laureat	
Liga 1	Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"
Proton	
Soberbash	
Svarog	Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko", Llc Npo 'Kubanzerno'
Timiryazevka 150	Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"
Vekha	Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko", Llc Npo 'Kubanzerno'
Yashkulyanka	Fsbi 'Caspian Agricultural Federal Scientific Center Of The Russian Academy Of Sciences', Federal State Budget Scientific Organization "National Center Of Grain Named After P.P. Lukyanenko"

Table S4. Sources of resistance genes used in the study.

<i>Sr</i> gene	Wheat lines / Cultivars
<i>Sr2compl</i>	Pavon76
<i>Sr8b</i>	Barleta Benvenuto
<i>Sr12</i>	CS-TC3B-SR12
<i>Sr13</i>	St464Sr13
<i>Sr15</i>	W2691'2/NORKA-SR15
<i>Sr20</i>	LC-SR20-MQ
<i>Sr22</i>	SWSR22T.B.
<i>Sr24</i>	BTSR24AG, Payne
<i>Sr25</i>	LC-SR25-ARS, Omskaya 37
<i>Sr26</i>	Sr26/9*LMPG, Eagle
<i>Sr27</i>	COORONG TRITICALE
<i>Sr28</i>	W2691/SR28KT
<i>Sr29</i>	PUSA/EDCH-SR29
<i>Sr31</i>	Avrora, Kavkaz
<i>Sr32</i>	C77.19.Sr32
<i>Sr33</i>	RL5405
<i>Sr35</i>	W3763-SR35
<i>Sr36</i>	Cook, Sr36/8*LMPG
<i>Sr37</i>	W2691Sr37TT2, W3563
<i>Sr39</i>	RL6082
<i>Sr40</i>	RL6088
<i>Sr44</i>	Taf-2
<i>SrWLD</i>	BTSR WLD
<i>Sr7a+12</i>	Cris
<i>Sr17+13</i>	Combination VII
<i>Sr7b+18</i>	MQ-SR7B,Sr18
<i>Sr26+9g</i>	EAGLE-SR26.SR9G
<i>Sr33+5</i>	T./AE.SQ-SR33.SR5