

The applicability of species- and trichothecene-specific primers in monitoring the *Fusarium graminearum* species complex and its impact on the surveillance of *Fusarium* head blight in winter wheat in Serbia

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Table S1. Averages of grain infection with FGSC, *Alternaria* spp., and *F. poae* in a three-year period in 32 localities in Serbia.

Year	Serbian regions	Locality	Variety	FDK (%) FGSC	ACK (%) <i>Alternaria</i> spp.	FDK (%) <i>F. poae</i>
2017	Šumadija and Western Serbia	Čačak	Futura	26	28	2
2017	Šumadija and Western Serbia	Valjevo	Futura	52	12	0
2017	Šumadija and Western Serbia	Brankovina	Ilina	10	60	4
2017	Šumadija and Western Serbia	Čačak	Ilina	8	48	0
2017	Šumadija and Western Serbia	Valjevo	Ilina	58	4	0
2017	Šumadija and Western Serbia	Valjevo	NS40S	70	10	4
2017	Šumadija and Western Serbia	Valjevo	Zvezdana	60	14	4
2017	Vojvodina	Stapar	Futura	46	14	4
2017	Vojvodina	Stapar	Ilina	16	34	2
2018	Šumadija and Western Serbia	Divci	Missing	0	12	0
2018	Šumadija and Western Serbia	Divci	Missing	0	18	0
2018	Šumadija and Western Serbia	Brankovina	Missing	4	40	0
2018	Šumadija and Western Serbia	Brankovina	Missing	0	26	2
2018	Šumadija and Western Serbia	Brankovina	Missing	4	14	4
2018	Šumadija and Western Serbia	Brankovina	Missing	0	20	0
2018	Šumadija and Western Serbia	Valjevo	Missing	4	8	2

2018	Šumadija and Western Serbia	Valjevo	Missing	0	16	2
2018	Šumadija and Western Serbia	Čačak	Zvezdana	0	18	0
2018	Šumadija and Western Serbia	Čačak	Zvezdana	0	18	0
2018	Vojvodina	Rimski Šančevi	Zvezdana	0	26	0
2018	Vojvodina	Rimski Šančevi	Zvezdana	0	36	0
2018	Vojvodina	Kikinda	Zvezdana	0	30	0
2018	Vojvodina	Kikinda	Zvezdana	0	26	4
2018	Vojvodina	Stapar	Missing	0	28	0
2018	Vojvodina	Stapar	Missing	0	20	0
2019	Belgrade	Padina	Ilina	5	20	0
2019	Belgrade	Glogonj	Simonida	40	10	0
2019	Belgrade	Lazarevac	Simonida	20	40	5
2019	Belgrade	Petka	Simonida	5	30	0
2019	Belgrade	Glogonj	Zvezdana	40	70	0
2019	Belgrade	Mladenovac	Zvezdana	5	65	10
2019	Belgrade	Stara Pazova	Zvezdana	40	40	5
2019	Southern and Eastern Serbia	Malo Crniće	Ilina	15	50	0
2019	Southern and Eastern Serbia	Pirot	Ilina	5	65	0
2019	Southern and Eastern Serbia	Kurjače	Simonida	15	35	0
2019	Southern and Eastern Serbia	Orljane	Zvezdana	25	35	5
2019	Southern and Eastern Serbia	Despotovac	Zvezdana	15	50	10
2019	Southern and Eastern Serbia	Rutevac	Zvezdana	10	45	0
2019	Southern and Eastern Serbia	Žujince	Zvezdana	5	60	0
2019	Šumadija and Western Serbia	Očage	Simonida	5	20	0
2019	Šumadija and Western Serbia	Lozničko polje	Zvezdana	20	30	5
2019	Vojvodina	Bačka Topola	Ilina	0	0	5
2019	Vojvodina	Kikinda	Ilina	5	10	0
2019	Vojvodina	Senta	Ilina	5	20	0
2019	Vojvodina	Sombor	Ilina	5	40	0
2019	Vojvodina	Subotica	Ilina	10	15	0
2019	Vojvodina	Zrenjanin	Ilina	10	30	0
2019	Vojvodina	Rimski Šančevi	Simonida	0	25	10
2019	Vojvodina	Sombor	Simonida	5	50	0
2019	Vojvodina	Zrenjanin	Simonida	5	60	0
2019	Vojvodina	Bačko Gradište	Zvezdana	25	75	0
2019	Vojvodina	Biserno ostrvo	Zvezdana	25	50	0
2019	Vojvodina	Đurđevo	Zvezdana	15	55	0

2019	Vojvodina	Elemir	Zvezdana	20	75	0
2019	Vojvodina	Kula	Zvezdana	50	30	0
2019	Vojvodina	Novi Bečej	Zvezdana	25	65	0
2019	Vojvodina	Rimski Šančevi	Zvezdana	5	60	5
2019	Vojvodina	Sombor	Zvezdana	20	80	5
2019	Vojvodina	Srpski Itebej	Zvezdana	30	65	0

Table S2. Diversity of tricothecene genotypes of FGSC from winter wheat in Serbia.

Year	Culture number	Locality	Variety	<i>Fusarium spp.</i>	Fg16F/R SCAR (type 1) ¹	Fg16F/R SCAR (type 6) ¹	GzTri7 allele ²	Tri303F/R (3- AcDON) ¹	Tri315F/R (15-AcDON) ¹	Tri5 ³	Genotype type ⁴	Grain infection level ⁵
2017	46	Stapar	Futura	<i>F. graminearum</i> <i>sensu lato</i>	*	*	5	0	0	3	5	4
2017	52	Stapar	Futura	<i>F. graminearum</i> <i>sensu lato</i>	*	*	8	0	0	3	5	4
2017	57	Brankovina	Ilina	<i>F. graminearum</i> <i>sensu lato</i>	*	*	5	0	0	3	5	1
2017	104	Valjevo	Futura	<i>F. graminearum</i> <i>sensu lato</i>	*	*	0	0	0	3	7	4
2017	105	Valjevo	Zvezdana	<i>F. graminearum</i> <i>sensu lato</i>	*	*	5	0	1	3	1	4
2017	110	Valjevo	Zvezdana	<i>F. graminearum</i> <i>sensu lato</i>	*	*	5	0	1	3	1	4
2017	112	Valjevo	Zvezdana	<i>F. graminearum</i> <i>sensu lato</i>	*	*	3	0	1	3	1	4
2017	128	Valjevo	Futura	<i>F. graminearum</i> <i>sensu lato</i>	*	*	5	0	0	3	5	4
2017	134	Brankovina	Ilina	<i>F. graminearum</i> <i>sensu lato</i>	*	*	5	0	1	3	1	4
2017	136	Valjevo	NS40S	<i>F. graminearum</i> <i>sensu lato</i>	*	*	3	0	1	3	1	4
2019	213	Mladenovac	Zvezdana	<i>F. graminearum</i> <i>sensu lato</i>	*	*	0	0	1	0	4	1
2019	237	Srpski Itebej	Zvezdana	<i>F. graminearum</i> <i>sensu lato</i>	*	*	1	0	1	1	1	4
2019	239	Stara Pazova	Zvezdana	<i>F. graminearum</i> <i>sensu lato</i>	*	*	3	0	1	3	1	4
2019	245	Lozničko polje	Zvezdana	<i>F. graminearum</i> <i>sensu lato</i>	*	*	3	0	1	0	3	3

2019	265	Srpski Itebej	Zvezdana	<i>F. graminearum sensu lato</i>	*	*	5	0	1	3	1	4
2019	270	Zrenjanin	Simonida	<i>F. graminearum sensu lato</i>	*	*	5	0	1	3	1	1
2019	277	Glogonj	Simonida	<i>F. graminearum sensu lato</i>	*	*	3	0	1	3	1	4
2019	278	Glogonj	Simonida	<i>F. graminearum sensu lato</i>	*	*	3	0	1	0	3	4
2019	285	Padina	Ilina	<i>F. graminearum sensu lato</i>	*	*	6	0	1	0	3	1
2019	288	Padina	Ilina	<i>F. graminearum sensu lato</i>	*	*	3	0	0	0	6	1
2017	1	Rimski Šančevi	Zvezdana	<i>F. graminearum sensu stricto</i>	1	0	3	0	1	3	1	1
2017	2	Rimski Šančevi	Zvezdana	<i>F. graminearum sensu stricto</i>	1	0	6	0	1	3	1	1
2017	87	Čačak	Futura	<i>F. graminearum sensu stricto</i>	1	0	8	0	1	3	1	2
2017	3	Rimski Šančevi	Zvezdana	<i>F. graminearum sensu stricto</i>	1	0	6	0	1	3	1	1
2017	4	Rimski Šančevi	Zvezdana	<i>F. graminearum sensu stricto</i>	1	0	6	0	1	2	1	1
2017	5	Rimski Šančevi	Zvezdana	<i>F. graminearum sensu stricto</i>	1	0	6	0	1	2	1	1
2017	6	Rimski Šančevi	Zvezdana	<i>F. graminearum sensu stricto</i>	1	0	1	0	1	3	1	1
2017	7	Rimski Šančevi	Zvezdana	<i>F. graminearum sensu stricto</i>	1	0	3	0	1	3	1	1
2017	8	Valjevo	NS40S	<i>F. graminearum sensu stricto</i>	1	0	3	0	1	3	1	4
2017	9	Stapar	Ilina	<i>F. graminearum sensu stricto</i>	1	0	8	0	1	3	1	4
2017	10	Čačak	Futura	<i>F. graminearum sensu stricto</i>	1	0	3	0	1	3	1	2

2017	11	Čačak	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	8	0	1	3	1	2
2017	12	Brankovina	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	1
2017	13	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2017	14	Valjevo	NS40S	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	15	Valjevo	NS40S	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	16	Valjevo	NS40S	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4
2017	17	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2017	18	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	8	0	1	3	1	4
2017	19	Čačak	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	2
2017	20	Valjevo	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4
2017	21	Valjevo	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	4
2017	23	Valjevo	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	8	0	1	3	1	4
2017	24	Valjevo	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	4
2017	26	Valjevo	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	27	Valjevo	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	28	Valjevo	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	29	Valjevo	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4

2017	30	Valjevo	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	8	0	1	3	1	4
2017	31	Valjevo	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	32	Valjevo	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4
2017	33	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2017	35	Valjevo	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4
2017	36	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	37	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	38	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	4
2017	40	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	43	Čačak	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	2
2017	45	Čačak	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	2
2017	47	Valjevo	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	49	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	8	0	1	3	1	4
2017	50	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	53	Čačak	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	2
2017	54	Čačak	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	2
2017	55	Čačak	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	2

2017	56	Brankovina	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	1
2017	58	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2017	59	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4
2017	60	Brankovina	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	1
2017	61	Brankovina	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	1
2017	62	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4
2017	63	Čačak	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	2
2017	64	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	8	0	1	3	1	4
2017	65	Valjevo	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	7	0	1	3	1	4
2017	66	Čačak	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	2
2017	67	Valjevo	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	68	Valjevo	NS40S	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	9	0	1	3	1	4
2017	69	Valjevo	NS40S	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	4
2017	70	Valjevo	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2017	71	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4
2017	72	Valjevo	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4
2017	73	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4

2017	74	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2017	76	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	4
2017	77	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2017	79	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	81	Valjevo	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	2	1	4
2017	83	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	9	0	1	3	1	4
2017	84	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4
2017	85	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	4
2017	86	Čačak	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	2
2017	88	Čačak	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	2
2017	89	Čačak	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	2
2017	90	Čačak	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	2
2017	92	Čačak	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	0	1	0	3	2	2
2017	93	Čačak	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	2
2017	94	Čačak	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	2
2017	96	Valjevo	NS40S	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2017	97	Valjevo	NS40S	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	4

2017	98	Valjevo	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	0	1	6	0	1	3	1	4
2017	100	Valjevo	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2017	102	Valjevo	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	7	0	1	2	1	4
2017	103	Valjevo	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	106	Valjevo	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2017	108	Valjevo	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2017	111	Valjevo	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	4
2017	116	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	4
2017	117	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4
2017	118	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4
2017	119	Valjevo	NS40S	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	4
2017	120	Valjevo	NS40S	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	2	1	4
2017	121	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2017	123	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4
2017	124	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4
2017	125	Valjevo	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	8	0	1	3	1	4
2017	126	Valjevo	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	7	0	1	3	1	4

2017	131	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2017	132	Stapar	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2017	133	Stapar	Futura	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	1
2017	135	Valjevo	NS40S	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2019	194	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	1
2019	195	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	1
2019	196	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	1
2019	197	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	1
2019	198	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	1
2019	199	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	1
2019	200	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	1
2019	201	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	1
2019	202	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	1
2019	203	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	1
2019	204	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	1
2019	206	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	1
2019	207	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	1

2019	208	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	1
2019	209	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	1
2019	210	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	1
2019	211	Rimski Šančevi	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	1
2019	215	Orljane	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	3
2019	216	Despotovac	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	2
2019	217	Orljane	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	3
2019	219	Despotovac	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	2
2019	221	Orljane	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	3
2019	222	Orljane	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	3
2019	223	Glogonj	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2019	224	Stara Pazova	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	4
2019	225	Novi Bečej	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	3
2019	226	Stara Pazova	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	8	0	1	3	1	4
2019	227	Novi Bečej	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	3
2019	228	Novi Bečej	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	3
2019	230	Kula	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	4

2019	232	Kula	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2019	233	Bačko Gradište	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	3
2019	234	Đurđevo	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	2
2019	235	Kula	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	9	0	1	3	1	4
2019	236	Đurđevo	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	1	1	2
2019	238	Glogonj	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2019	240	Bačko Gradište	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	9	0	1	3	1	3
2019	241	Sombor	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	2
2019	242	Biserno ostrvo	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	3
2019	243	Elemir	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	8	0	1	3	1	3
2019	246	Biserno ostrvo	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	3
2019	247	Lozničko polje	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	2	1	3
2019	248	Elemir	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	3
2019	249	Biserno ostrvo	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	6	0	1	3	1	3
2019	250	Biserno ostrvo	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	3
2019	251	Lozničko polje	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	3
2019	253	Stara Pazova	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4

2019	255	Srpski Itebej	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	4
2019	256	Stara Pazova	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2019	257	Stara Pazova	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	4
2019	258	Srpski Itebej	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	4
2019	259	Srpski Itebej	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	4
2019	260	Elemir	Zvezdana	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	3	1	3
2019	271	Glogonj	Simonida	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	0	3	4
2019	272	Kurjače	Simonida	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	4	0	1	0	3	2
2019	274	Kurjače	Simonida	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1			2
2019	275	Očage	Simonida	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	1
2019	281	Sombor	Simonida	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	1	1	2
2019	282	Padina	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	1
2019	283	Kikinda	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	8	0	1	3	1	1
2019	286	Zrenjanin	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	3	0	1	3	1	1
2019	287	Senta	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	5	0	1	3	1	1
2019	289	Pirot	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	1	0	1	3	1	1
2019	291	Padina	Ilina	<i>F. graminearum</i> <i>sensu stricto</i>	1	0	7	0	1	3	1	1

2019	295	Sombor	Ilina	<i>F. graminearum sensu stricto</i>	1	0	4	0	1	0	3	2
2019	296	Subotica	Ilina	<i>F. graminearum sensu stricto</i>	1	0	1	0	1	3	1	2
2019	298	Malo Crniće	Ilina	<i>F. graminearum sensu stricto</i>	1	0	1	0	1	3	1	2
2017	2	Čačak	Futura	<i>F. poae</i>								
2017	3	Stapar	Futura	<i>F. poae</i>								
2017	4	Kocelja	Missing	<i>F. poae</i>								
2017	5	Valjevo	NS40S	<i>F. poae</i>								
2017	6	Stapar	Ilina	<i>F. poae</i>								
2017	7	Stapar	Futura	<i>F. poae</i>								
2017	8	Brankovina	Ilina	<i>F. poae</i>								
2017	9	Rimski Šančevi	Zvezdana	<i>F. poae</i>								
2017	10	Turija	Zvezdana	<i>F. poae</i>								
2017	11	Rimski Šančevi	Zvezdana	<i>F. poae</i>								
2019	12	Rimski Šančevi	Zvezdana	<i>F. poae</i>								
2019	13	Rimski Šančevi	Zvezdana	<i>F. poae</i>								
2019	14	Rimski Šančevi	Zvezdana	<i>F. poae</i>								
2019	15	Despotovac"Medveđa"	Zvezdana	<i>F. poae</i>								
2019	16	Rimski Šančevi	Zvezdana	<i>F. poae</i>								
2019	17	Mladenovac	Zvezdana	<i>F. poae</i>								
2019	18	Doljevac	Zvezdana	<i>F. poae</i>								
2019	19	Mladenovac	Zvezdana	<i>F. poae</i>								
2019	20	Sombor	Zvezdana	<i>F. poae</i>								
2019	21	Stara Pazova	Zvezdana	<i>F. poae</i>								
2019	23	Despotovac"Medveđa"	Zvezdana	<i>F. poae</i>								
2019	24	Rimski Šančevi	Simonida	<i>F. poae</i>								
2019	25	Rimski Šančevi	Simonida	<i>F. poae</i>								
2019	26	Lazarevac	Simonida	<i>F. poae</i>								
2019	27	Bačka Topola	Ilina	<i>F. poae</i>								

2019	212	Rimski Šančevi	Zvezdana	<i>non-identified</i>	*	*	1	0	0	1	5	1
2019	218	Žujince	Zvezdana	<i>non-identified</i>	*	*	0	0	1	0	4	1
2019	220	Rutevac	Zvezdana	<i>non-identified</i>	*	*	3	0	1	1	1	2
2019	231	Novi Bečej	Zvezdana	<i>non-identified</i>	*	*	5	0	1	3	1	3
2019	244	Biserno ostrvo	Zvezdana	<i>non-identified</i>	*	*	6	0	1	2	1	3
2019	252	Lozničko polje	Zvezdana	<i>non-identified</i>	*	*	5	0	1	2	1	3
2019	254	Glogonj	Zvezdana	<i>non-identified</i>	*	*	5	0	1	3	1	4
2019	261	Stara Pazova	Zvezdana	<i>non-identified</i>	*	*	1	0	0	0	6	4
2019	266	Lazarevac	Simonida	<i>non-identified</i>	*	*	3	0	1	3	1	3
2019	267	Petka	Simonida	<i>non-identified</i>	*	*	5	0	0	3	5	1
2019	268	Lazarevac	Simonida	<i>non-identified</i>	*	*	5	0	1	0	3	3
2019	273	Kurjače	Simonida	<i>non-identified</i>	*	*	5	0	1	0	3	2
2019	276	Glogonj	Simonida	<i>non-identified</i>	*	*	1	0	1	0	3	4
2019	279	Glogonj	Simonida	<i>non-identified</i>	*	*	7	0	1	3	1	4
2019	280	Glogonj	Simonida	<i>non-identified</i>	*	*	1	0	1	1	1	4
2019	284	Zrenjanin	Ilina	<i>non-identified</i>	*	*	1	0	1	0	3	1
2019	290	Malo Crniće	Ilina	<i>non-identified</i>	*	*	9	0	1	1	1	2
2019	292	Malo Crniće	Ilina	<i>non-identified</i>	*	*	1	0	1	3	1	2
2019	293	Malo Crniće	Ilina	<i>non-identified</i>	*	*	4	0	1	0	3	2
2019	294	Malo Crniće	Ilina	<i>non-identified</i>	*	*	4	0	0	1	5	2
2019	297	Subotica	Ilina	<i>non-identified</i>	*	*	4	0	1	3	1	2
2019	299	Lazarevac	Simonida	<i>non-identified</i>	*	*	1	0	1	3	1	3
2019	300	Glogonj	Simonida	<i>non-identified</i>	*	*	1	0	0	0	6	4

* PCR product missing

¹ PCR product present (1); PCR product absent (0)

² GzTri7f1/r1 yields PCR products differing in number of 11-bp repeats. Tri7 allele with one 11-bp repeats was scored 1. Tri7 allele with nine 11-bp repeats was scored 9

³ All isolates producing the Tri-5 DNA band brighter than the DNA ladder band of 500 bp were assigned as Tri5-3, and all isolates producing Tri-5 DNA band with equal or lower intensity than that of 500 bp were assigned as Tri5-2 and Tri5-1, respectively.

⁴ In the *F. graminearum* population there were 7 different genotypes in respect to presence/absence of PCR products of *Tri7*, *Tri5* and *Tri3* genes. Genotype 1 produced PCR product for *Tri7*, *Tri3* and *Tri5*. Genotype types 3, 5 and 6 carried *Tri7* gene but did not produce PCR product for 15AcDON and/or *Tri5* gene. Genotype types 2, 4 and 7 did not produce PCR product for *Tri7*, but did for *Tri5* or *Tri3*.

⁵Level of grain infection was presented using the scale from 1 to 4 as follows: 0-9% - level of grain infection 1; 10-19% - level of grain infection 2; 20-29%- level of grain infection 3; >30% level of grain infection 4.

Table S3. Climatic conditions in a three-year period (2017-2019) at the time of anthesis of winter wheat in agro-ecological conditions in Serbia.

Year	Serbian Regions	Locality	T Maj (°C)	Humidity in Maj (%)	Total Rainfall in May (mm)
2017	Šumadija and Western Serbia	Čačak	15,3	80	76,8
2017	Šumadija and Western Serbia	Valjevo	17,2	78	109,3
2017	Šumadija and Western Serbia	Brankovina	17,2	78	109,3
2017	Šumadija and Western Serbia	Čačak	15,3	80	76,8
2017	Šumadija and Western Serbia	Valjevo	17,2	78	109,3
2017	Šumadija and Western Serbia	Valjevo	17,2	78	109,3
2017	Šumadija and Western Serbia	Valjevo	17,2	78	109,3
2017	Vojvodina	Stapar	17,7	67	55
2017	Vojvodina	Stapar	17,7	67	55
2018	Šumadija and Western Serbia	Divci	19,9	73	81,6
2018	Šumadija and Western Serbia	Divci	19,9	73	81,6
2018	Šumadija and Western Serbia	Brankovina	19,9	73	81,6
2018	Šumadija and Western Serbia	Brankovina	19,9	73	81,6
2018	Šumadija and Western Serbia	Brankovina	19,9	73	81,6
2018	Šumadija and Western Serbia	Brankovina	19,9	73	81,6
2018	Šumadija and Western Serbia	Valjevo	19,9	73	81,6
2018	Šumadija and Western Serbia	Valjevo	19,9	73	81,6
2018	Šumadija and Western Serbia	Čačak	17,5	76	48,5
2018	Šumadija and Western Serbia	Čačak	17,5	76	48,5
2018	Vojvodina	Rimski Šančevi	20,4	67	64,2
2018	Vojvodina	Rimski Šančevi	20,4	67	64,2
2018	Vojvodina	Kikinda	20,6	59	35,5
2018	Vojvodina	Kikinda	20,6	59	35,5
2018	Vojvodina	Stapar	20,4	61	30,1
2018	Vojvodina	Stapar	20,4	61	30,1
2019	Belgrade	Padina	15,6	72	142,3
2019	Belgrade	Glogonj	15,6	72	142,3
2019	Belgrade	Lazarevac	15,6	72	142,3
2019	Belgrade	Petka	15,6	72	142,3
2019	Belgrade	Glogonj	15,6	72	142,3
2019	Belgrade	Mladenovac	15,6	72	142,3
2019	Belgrade	Stara Pazova	15,6	72	142,3
2019	Southern and Eastern Serbia	Kula kod Požarevca	14,9	82	139
2019	Southern and Eastern Serbia	Pirot	14,6	75	49,3
2019	Southern and Eastern Serbia	Kurjače	14,9	82	139
2019	Southern and Eastern Serbia	Orljane	15,4	70	100,8
2019	Southern and Eastern Serbia	Despotovac	15,2	77	131,6
2019	Southern and Eastern Serbia	Rutevac	15,4	70	100,8
2019	Southern and Eastern Serbia	Žujince	14,4	70	67,4
2019	Šumadija and Western Serbia	Očage	14,8	74	123,6

2019	Šumadija and Western Serbia	Lozničko polje	14,8	74	123,6
2019	Vojvodina	Bačka Topola	14,4	76	114,6
2019	Vojvodina	Kikinda	15,1	75	208,6
2019	Vojvodina	Senta	15,1	75	208,6
2019	Vojvodina	Sombor	14,4	76	114,6
2019	Vojvodina	Subotica	14,4	76	114,6
2019	Vojvodina	Zrenjanin	14,8	79	177,9
2019	Vojvodina	Rimski Šančevi	14,7	78	147,6
2019	Vojvodina	Sombor	14,4	76	114,6
2019	Vojvodina	Zrenjanin	14,8	79	177,9
2019	Vojvodina	Bačko Gradište	14,7	78	147,6
2019	Vojvodina	Biserno ostrvo	14,7	78	147,6
2019	Vojvodina	Đurđevo	14,7	78	147,6
2019	Vojvodina	Elemir	14,8	79	177,9
2019	Vojvodina	Kula	14,4	76	114,6
2019	Vojvodina	Novi Bečej	14,8	79	177,9
2019	Vojvodina	Rimski Šančevi	14,7	78	147,6
2019	Vojvodina	Sombor	14,4	76	114,6
2019	Vojvodina	Srpski Itebej	14,8	79	177,9

Table S4. Regression analysis of the most influencing factors on grain infection with FGSC in the period 2017-2019.

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	7	9615,3	1373,6	11,67	0,000
<i>Alternaria</i> spp.	1	2222,0	2222,0	18,88	0,000
Year	1	665,8	665,8	5,66	0,023
Variety	4	1937,1	484,3	4,12	0,008
<i>Alternaria</i> spp.* Year	1	1129,5	1129,5	9,60	0,004
Error	35	4118,7	117,7		
Total	42	13734,0			

Table 5. Relative frequencies of *Tri7* alleles in DON producers originating from Serbia.

Year	Locality	GzTri7 (1)	GzTri7 (3)	GzTri7 (4)	GzTri7 (5)	GzTri7 (6)	GzTri7 (7)	GzTri7 (8)	GzTri7 (9)
2019	Bačko Gradište	50	0	0	0	0	0	0	50
2019	Biserno ostrvo	20	20	0	0	60	0	0	0
2017	Brankovina	10	0	20	10	40	10	10	0
						23,529			
2017	Čačak	0	58,824	5,8824	0	4	0	11,765	0
2019	Orljane	50	25	25	0	0	0	0	0
	Despotova								
2019	c	0	0	0	100	0	0	0	0
2019	Đurđevo	0	50	0	0	50	0	0	0

				33,333					
2019	Elemir	33,333	0	3	0	0	0	33,333	0
2019	Glogonj	40	30	10	10	0	10	0	0
2019	Kikinda	0	0	0	0	0	0	100	0
				33,333		33,333			33,333
2019	Kula bb	0	0	3	0	3	0	0	3
	Malo								
2019	Crniće	40	0	40	0	0	0	0	20
				33,333					
2019	Kurjače	0	0	3	66,667	0	0	0	0
2019	Lazarevac	33,333	33,333	0	33,333	0	0	0	0
	Lozničko								
2019	polje	0	25	0	50	25	0	0	0
2019	Novi Bečej	25	0	25	25	25	0	0	0
2019	Padina	25	0	25	25	25	0	0	0
2019	Petka	0	0	0	100	0	0	0	0
2019	Pirot	100	0	0	0	0	0	0	0
	Rimski								
1719	Šančevi	20	8	0	40	32	0	0	0
2019	Rutevac	0	100	0	0	0	0	0	0
2019	Selo Očage	0	100	0	0	0	0	0	0
2019	Senta	0	0	0	100	0	0	0	0
				33,333					
2019	Sombor	33,333	33,333	3	0	0	0	0	0
	Srpski								
2019	Itebej	20	20	20	40	0	0	0	0
2017	Stapar	8,8	29,4	14,7	5,9	23,5	0	14,7	2,9
	Stara			14,285					
2019	Pazova	28,57	28,571	7	14,286	0	0	14,286	0
2019	Subotica	50	0	50	0	0	0	0	0
2017	Valjevo	11,4	18,2	27,3	13,6	13,6	6,8	6,8	2,3
2019	Zrenjanin	33,333	33,333	0	33,333	0	0	0	0

Isolates from localities Žujince and Mladenovac did not produce a PCR product for Tri7; thus, those localities are excluded from the table.

Table S6. Relative frequencies of *Tri7* alleles in *F. graminearum* s. stricto, *F. graminearum* s. lato, and non-identified (FGSC).

	Lack of allele	GzTri7(1)	GzTri7(3)	GzTri7(4)	GzTri7(5)	GzTri7(6)	GzTri7(7)	GzTri7(8)	GzTri7(9)
<i>F. graminearum</i> s. lato	10	5	35	0	40	5	0	5	0
<i>F. graminearum</i> s. stricto	0,598802	16,16766	22,15569	16,16766	11,37725	21,55689	2,39521	7,185629	2,39521
Non-identified (FGSC)	4,347826	34,78261	8,695652	13,04348	26,08696	4,347826	4,347826	0	4,347826

Table S7. Amount of variance retained by each principal component in the MCA analysis.

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
Eigenvalue	0,510	0,393	0,334	0,308	0,267	0,245	0,221	0,200	0,184	0,132	0,111	0,093
Variability (%)	17,015	13,095	11,149	10,278	8,906	8,165	7,382	6,660	6,146	4,410	3,708	3,085
Cumulative %	17,015	30,110	41,259	51,537	60,443	68,608	75,990	82,650	88,797	93,207	96,915	100,000