

## Supplementary materials

**Table S1** The list of IWWIP originated varieties released in Central and West Asia

Year	Variety Name	Institution	Cross ID	Cross
<b>Afghanistan</b>				
1994	PAMIR 94	Afghanistan Agricultural Research Institute	SWM12289	YMH/TOB//MCD/3/LIRA
1996	GUL 96		SWM 15134	ID800994.W/VEE
1997	GHAZNA 97		SWM6599	AGRI/NAC
2002	SOLH 02		CMSW90M128	OK 82282//BOW/NKT
2013	BAMIYAN-013		TCI971315	VORONA/KAUZ/4/URES/BBL//KAUZ/ 3/BCN
2018	SOLH-18		TCI-02-80	4WON-IR- 257/5/YMH/HYS//HYS/TUR3055/3/DGA /4/VPM/MOS
<b>Armenia</b>				
2006	ARMCIM	Armenian Res. Inst. of Farming	SWM12174	1D13.1/MLT
2006	ATGF35-12	Armenian Technology Group Foundation	WBR860365	PTZ NISKA/UT1556.170
2006	ATGF35-16		SWM866442	SN64//SKE/2*ANE/3/SX/4/BEZ/5/SERI
2006	ATGF35-17		SWM 15134	ID800994.W/VEE
<b>Azerbaijan</b>				
2010	TALE-38	Azeri Res. Inst. of Farming	CMSW92WM00 217S	SPN/NAC//ATTILA
2014	FATIMA		n.a.	F2Masa B.Platina 76-6H-5H-2H ,F5 H80/4/KVZ//CHA/TOR 73/3/TEMU 47- 77
2014	GIZIL BUGDA		TCI950295	SAULESKU41/SADOVO1
2017	LAYAGATLI 80		CMSW94WM00 901	MV17/3/TUI/MILAN//TUI
2018	ASKARAN		TCI-02-88	DORADE-5//KS82117/MLT
<b>Georgia</b>				
2002	MTSHETSKAYA 1	Mtskheta Breeding Station	ICWH840048	TAST/SPRW//ZAR
2010	LOMTAGORA- 109	Lomtagora Seed Farm	CIT925169	SHARK/F4105W2.1
2010	LOMTAGORA- 123		CMSW93WM00 73	FRTL/NEMURA
2012	SAULI 9	Georgian Agrarian University	CMSW94WM00 586S	SAULESKU#44/TR810222
2014	LOMTAGORA- 126	Lomtagora Seed Farm	ICWH99130	PEHLIVAN/JAGGER
2016	ARGUNI-1	Georgian Agrarian University	TCI-02-440	TAST/SPRW//BLL/3/NWT/4/3013
2017	LOMTAGORA- 143	Lomtagora Seed Farm	TCI992280	CUPRA-1/3/CROC1/AE.SQUARROSA (224)//2*OPATA/4/PANTHEON
<b>Iran</b>				
1996	ZARRIN	Myandoab Agric. Res. Station	SWO791095	NAI60/HEINE VII//BUC/3/F59.71/GHK

2002	TOUS	Mashad Agric. Res. Station	SWM777627	SPN/MCD//CAMA/3/NZT
2010	ZARE	Seed and Plant Improvement Institute	CIT925080	130L1.11//F35.70/MO73/4/YMH/TOB//MCD/3/LIRA
2011	RIJAW	Dryland Agricultural Research Institute	TCI-97-312	PATO/CAL/3/7C//BB/CNO/5/CAL//CNO/SN64/4/CNO//BAD/CHR/3/KL../6/SABALAN
2013	TAK-AB		CIT90038	MANNING/SDV1//DOGU88
2014	BARAN		TCI97AP	PTZ NISKA/UT1556-170//UNKNOWN
2017	PARAW		TCI960469	SABALAN/4/VRZ/3/OR F1.148/TDL//BLO
Kazakhstan				
2007	EGEMEN	Kazakh Res. Inst. of Farming	XWN84305	BHR/AGA//SNI/3/TRK13
2011	KONDITIONERSKAYA	Red Fall Experimental Station	WWN860129	NEELY/SPN//SPN/3/SPN//63.189.66.7/BEZ
Kyrgyzstan				
2004	AZIBROSH	MIS Cooperative Farm	CMSW90M128	OK82282//BOW/NKT
2004	ZUBKOV		SWM89Y029H	ID13/MLT//KAUZ
2005	ALMIRA	Kyrgyz Res. Inst. of Farming	n.a.	F.474S10.1
2005	DJAMIN		SWM833795	NS55-58/VEE
2006	ZAGADKA	MIS Cooperative Farm	CIT922354	CHAM6//F134.71/NAC
2011	PETR		CMSW90M78	SDY/ALD/3/NAI60/HN7//BUC/4/ALUCAN
2015	AZHARA		CMSW91M00018S	VORONA/TR810200
2017	MANAS		TCI011508	BOW/CROW/3RSH//KAL/BB/3/GUN91
2017	KANTSKAYA		X990439	CM98-79/3/T67/X84W063-9-45//K92
Tajikistan				
2007	ALEX	Tajik Res. Inst. of Farming	SWM15182	PYN/BAU
2007	NORMAN		ICWH860291	OR F1.158/FDL//BLO/3/SHI4414/CROW
2008	ORMON		ICWH900335	NWT/3/TAST/SPRW//TAW12399.75
2015	SHOKIRI		CIT925169	SHARK/F4105W2.1
2015	FAIZBAKHSH		CMSW91M00414S	TAM200/KAUZ
2015	MOHI NAV	Tajik Agrarian Univ.		Selection from Atay 85
2016	CHUMON	Tajik Res. Inst. of Farming	TCI-02-417	CADET/6/YUMAI13/5/NAI60/3/14.53/ODIN//CI13441/CANON
2016	LALMIKOR-1	Tajik Agrarian University		F10-45/STAR/FAW OR F108-1/STORHER/K.
2018	FALGAR	Tajik Res. Inst. of Farming		F4745101/SUBEN-1/TAM200/JI5418
2018	ISTIKBOL			YMH/HB/HBTUR3015/3/DBA/4/VPM
Turkey				
1990	KARASU 90	East Anatolia Agric. Res. Inst.	n.a.	LOVRIN 11/BOLAL 2973//MIRONOVSKAYA 264
1995	SULTAN 95	Transitional Zone Agric. Res. Inst.	SWM6599	AGRI/NACUZARI F 76
1997	KINACI 97	Bahri Dagdas Intern. Agric. Res. Institute	SWM12289	YMH/TOB//MCD/3/LIRA
1998	YILDIZ 98	Transitional Zone Agric. Res. Inst.	SWM8340587F	55.1744/PULLMAN SELECTION 101//MAYA

				74/3/MUSALA/PRIMO//MAYA 74/ALONDRA
1999	GOKSU 99	Bahri Dagdas Intern. Agric. Res. Institute	SWM6599	AGRI/NACUZARI F 76
1999	GÜN 91	Central Field Crop Res. Inst.	SWM7155	FUNDALEA 35.70/MOCHIS 73
2000	AKSEL2000		TX84V1822	SXL/GLENNSON
2000	CETINEL 2000	Transitional Zone Agric. Res. Inst.	OWC852672	MALCOLM/4/VPM 1/MOISSON 951//HILL 81/3/STEPHENS
2001	ALPASLAN	East Anatolia Agric. Res. Inst.	TX78V215	TX69A509-2//BLUEBOY II/FOX
2001	NENEHATUN		SWM584	NORD DEPREZ/PULLMAN SELECTION 101//BLUEBOY
2001	ALPU 2001	Transitional Zone Agric. Res. Inst.	SWM15134	ID800994.W/VEERY
2001	IZGI		ICWH900312	CA8055/KUTLUK 94
2001	SONMEZ		TE4732A	BEZ//BEZ/TVR/3/KREMENA/LOV29/4/ KATIA1
2002	BAGCI 02	Bahri Dagdas Intern. Agric. Res. Institute	EWT8913	HN7//OROFEN//BEIJING 8/3/SERI M 82/4/74CB462/TRAPPER//VONA
2002	SAKIN	Black Sea Agric. Res. Inst.	SWO802012- (=OR8403309H)	PITIC 62/FUNO*2//VALDIVIA/3/CO723595
2002	DAPHAN	East Anatolia Agric. Res. Inst.	SWM5069	JUPATECO F 73/4/COLLAFEN/3/III14.53/ODIN//CI134 31/WA00477
2002	YILDIRIM		SWM15134	ID800994.W/VEERY
2002	SOYER	Transitional Zone Agric. Res. Inst.	SWM17632	ATAY 85/GALVEZ S 87
2003	CANIK2003	Black Sea Agric. Res. Inst.	ICWH830668	ANZA/VRZ
2004	EKİZ	Bahri Dagdas Intern. Agric. Res. Institute	TCI 932072	F885 K1.1/SXL
2004	OZCAN	Black Sea Agric. Res. Inst.	n.a.	K8/MM2
2006	MÜFİTBEY	Transitional Zone Agric. Res. Inst.	CIT935224	NGDA146/4/YMH/TOB//MCD/3/LIRA/5 /F130L1.12
2007	BESKOPRU	Sakarya Agric. Res. Inst.	CMSW 90 M476	362K2.111/6/NKT/5/TOB/CNO67//TOB/ 8156/3/CAL//BB/CNO67/4/TRM
2007	HANLI		CIT925169	OK82282//BOW/NKT/3/F4105
2008	NACIBEY	Transitional Zone Agric. Res. Inst.	CIT951179	F900K/3/EGL//BUC/PVN
2011	AY YILDIZ	East Anatolia Agric. Res. Inst.	CIT935224	NGDA146/4/YMH/TOB//MCD/3/LIRA/5 /F130L1.12
2012	ERAYBEY	Bahri Dagdas Intern. Agric. Res. Institute	TCI97AP012	F10S-1/CHISHOLM
2015	METİN	Sakarya Maize Research Station	CMWW90M207	HATUSHA/MTG//TX81V6614
2016	ALTUĞ		UR97073-500LE	JAGGER/ITIJ
2016	YUKSEL	Trakya Agric. Res. Inst.	CMSW92WM00 167S	OK81306/STAR
2017	HAVABACI	Ekiz Tohumculuk	TCI 002049030YE	TRAP#1/YACO/3/KAUZ*2/TRAP//KAU Z/4/KINACI9127/ID800994.W/FALKE
2017	PASA		TC1021276	RINA-6/4/BEZ/NAD//KZM (ES85.24)/3/F900K
2018	SEHZADE	Bahri Dagdas Intern. Agric. Res. Institute	TCI04-324	ZANDER-17/3/KAUZ*2/YACO//KAUZ

2018	HALIS	Sakarya Maize Research Station	CMSW01WM00 331S	ADMIS//MILAN/DUCULA
2018	ADALI		TCI032224	WEEBILL1/BLUEGIL-2//TX96V2427
Turkmenistan				
2004	BITARAP	Turkmen Res. Inst. of Grain	SWM866442	SN64//SKE/2*ANE/3/SX/4/BEZ/5/SERI
2017	BERKARAR		CMSW91M0012 8S	TRK13/KAUZ
2017	GARASHSYZLY K		N.A.	1210 RWME 8.17... PSWCR 7
Uzbekistan				
2005	DOSTLIK	Gallyaoral Res. Inst. of Grain	SWM12289	YMH/TOB//MCD/3/LIRA
2016	GOZGON	Karshi Agric. Research Inst.	TCI972515	AGRI/BJY//VEE/3/AKULA/4/F10S-1
2018	ELOMON		TCI960820	KVZ/T171/3/ MAYA//BB/INIA/4/KARDJ2/5/ANZA/6/ OREF1
2018	BUNIYODKOR		TCI-02-88	DORADE-5//KS82117/MLT
2018	SHAMS		OCW02S557S	ATTILA/2*PASTOR//BULK SELN 00F5-43-11