

Supplementary Materials:**Table S1.** List of available Landsat data from 1989–2020.

P/W:121/40	P/W: 122/39	P/W: 123/39	P/W: 123/40	P/W: 124/39	P/W: 124/40
19890213	19890127	19890211	19890211	19890210	19890210
19890309	19890204	19890307	19890307	19890517	19890517
19890410	19890316	19890814	19890510	19890906	19891125
19890426	19890519	19891118	19890814	19890922	19900402
19890613	19890924	19891204	19891102	19891024	19900520
19890715	19891026	19900427	19891118	19891125	19900605
19890816	19900404	19900716	19891204	19900418	19900723
19891003	19900506	19900902	19900427	19900504	19901128
19891019	19900623	19901223	19900716	19900605	19910115
19891120	19900826	19910108	19900902	19900723	19910624
19900123	19901114	19910516	19901207	19900824	19910726
19900515	19910117	19910703	19910516	19901128	19910827
19900819	19910202	19910719	19910601	19910115	19910928
19901209	19910407	19910820	19910719	19910523	19911030
19910822	19910626	19910921	19910810	19910624	19911115
19910923	19910728	19911007	19911007	19910827	19911201
19941102	19910813	19911023	19911108	19910928	19940107
19940102	19910829	19911108	19940508	19911031	19940123
19940323	19910914	19940305	19940727	19911115	19940429
19941204	19910930	19940508	19940812	19911201	19940702
19950310	19911117	19940727	19940913	19911217	19940803
19950326	19911203	19940812	19940929	19940107	19940904
19950513	19940125	19940929	19941031	19940123	19941022
19950902	19940226	19941031	19950204	19940429	19941107
19950918	19940415	19950204	19950409	19940702	19950227
19951020	19940704	19950409	19950612	19940803	19950721
19951105	19940805	19950527	19950628	19941022	19950907
19951207	19941024	19950628	19950714	19941107	19950923
19960209	19950605	19950714	19950831	19950227	19951025
19960904	19950723	19950831	19951002	19950603	19951110
19961022	19950925	19951205	19951205	19950721	19960301
19961123	19951011	19960106	19960106	19950806	19960317
19961209	19951027	19960310	19960207	19950907	19960520
19961225	19951112	19960614	19960310	19950923	19960621
20000103	19951230	19960817	19960513	19951025	19960707
20000510	19960131	19960902	19960614	19951110	19960723
20000627	19960303	19961004	19960817	19951228	19960808
20000915	19960404	19961020	19960902	19960301	19960925
20001102	19960420	19961207	19960918	19960317	19991020
20050201	19960522	19961223	19961004	19960520	19991223
20050305	19960725	19990927	19961020	19960621	20000312
20050727	19960810	20000727	19961207	19960707	20000328
20050812	19960826	20000913	19961223	19960808	20000515
20050913	19960911	20001031	19991114	19960925	20000531
20050929	19961013	20041127	19991130	19991207	20000616

20051031	19961130	20041213	20000727	19991223	20000904
20100114	20000126	20050114	20000913	20000312	20001107
20100319	20000314	20050303	20001031	20000328	20041102
20100725	20000517	20050404	20041213	20000413	20041118
20100810	20000618	20050420	20050114	20000515	20050222
20101114	20000922	20050506	20050404	20000616	20050513
20101216	20001008	20050623	20050420	20000904	20050529
20150213	20050107	20050911	20050506	20001006	20050614
20150402	20050413	20090906	20050623	20001107	20050630
20150605	20050616	20091125	20050725	20001123	20050716
20150808	20050702	20101112	20050911	20041118	20050801
20150824	20050718	20101230	20051029	20041204	20051121
20150909	20050920	20150331	20091024	20050222	20100220
20151011	20051107	20150416	20091125	20050310	20100730
20151230	20100222	20150619	20100621	20050614	20100831
20200110	20100326	20150721	20100808	20050630	20101119
20200314	20100427	20150806	20101112	20050801	20101205
20200415	20100918	20150822	20101230	20050918	20101221
20200618	20101004	20150907	20141022	20051121	20141114
20200805	20101020	20151025	20150331	20100730	20141130
20200821	20101105	20151126	20150416	20100831	20150117
20200906	20101207	20191207	20150721	20101205	20150509
20201008	20101223	20200124	20150806	20101221	20150712
	20150103	20200209	20150822	20150101	20150728
	20150204	20200225	20150907	20150117	20150829
	20150612	20200413	20151025	20150322	20151016
	20150730	20200429	20151126	20150509	20191214
	20150831	20200702	20151020	20150712	20200131
	20150916	20200803	20191105	20150728	20200216
	20151002	20200819	20191207	20150829	20200319
	20151018	20201225	20200108	20150914	20200420
	20151103		20200209	20151016	20200826
	20200218		20200413	20151101	20201114
	20200305		20200429	20151117	
	20200321		20200616	20191230	
	20200508		20200803	20200131	
	20200524		20201022	20200216	
	20200609		20201123	20200319	
	20200625			20200810	
	20200828			20201029	
				20201130	

¹ The year of Landsat images data obtained in this paper was 1989, 1990, 1991, 1994, 1995, 1996, 1999, 2000, 2004, 2005, 2009, 2010, 2014, 2015, 2019 and 2020, which was used for crop remote sensing extraction or data fusion. The remote sensing image data from 1989 to 2010 were Landsat-TM data, and from 2014 to 2020 were Landsat-OLI data. P/W referred to path/row of Landsat images data.

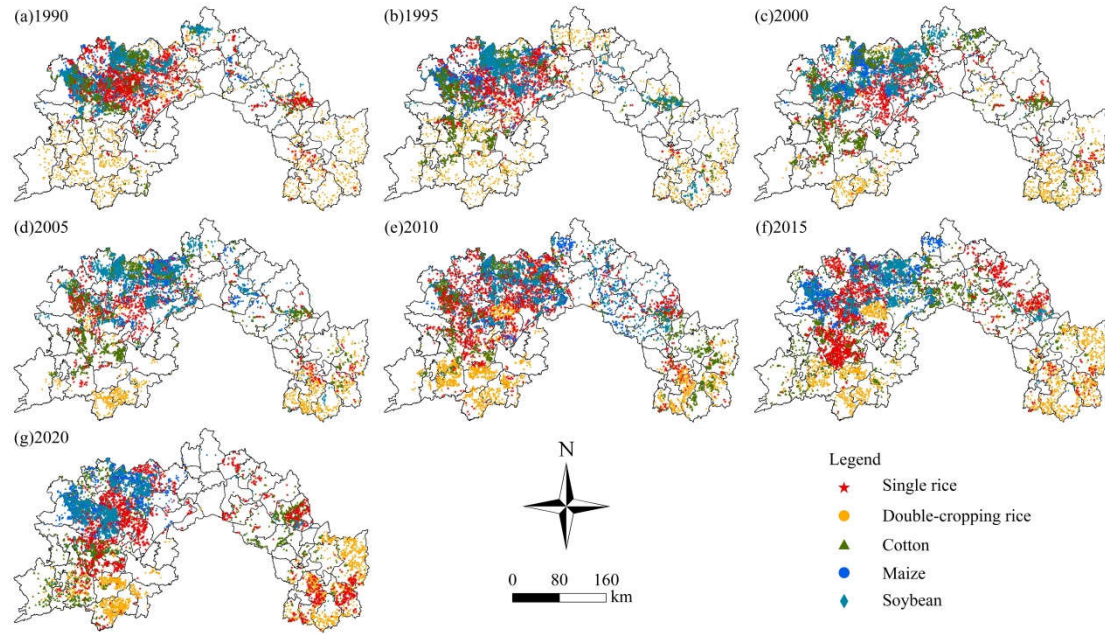


Figure S1. Spatial distribution of samples verified by remote sensing extraction results of summer and autumn crops in MYP in 1990-2020. Figure (a–g) represent the spatial distribution of samples verified by remote sensing extraction results of single rice, double-cropping rice, cotton, maize and soybean in the MYP in 1990, 1995, 2000, 2005, 2010, 2015 and 2020, respectively.

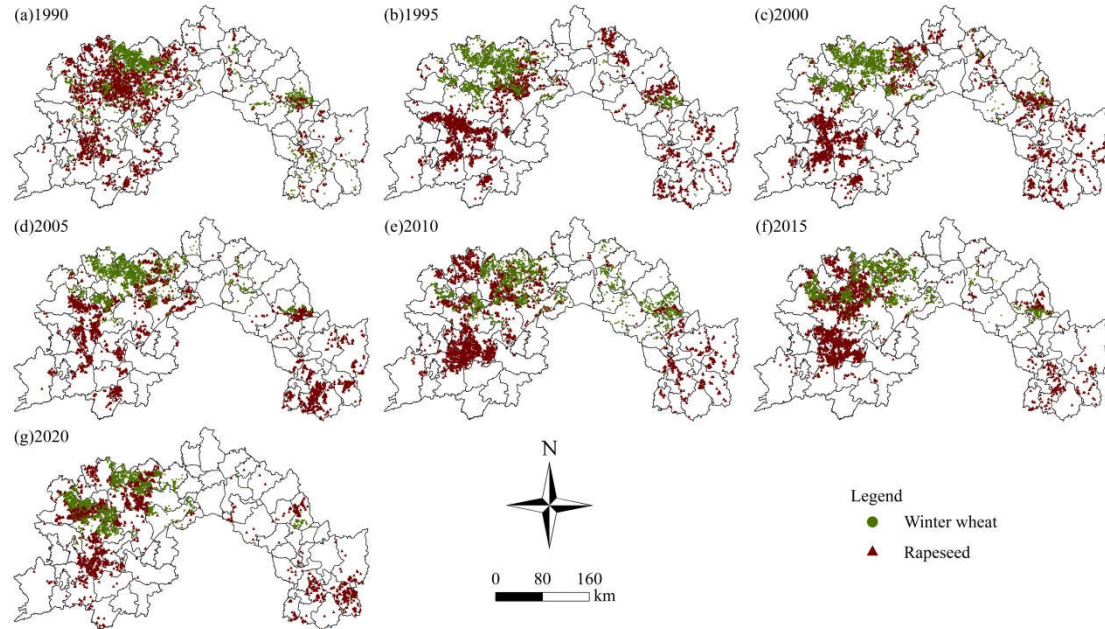


Figure S2. Spatial distribution of samples verified by remote sensing extraction results of over-winter crops in MYP in 1990-2020. Figure (a–g) represent the spatial distribution of samples verified by remote sensing extraction results of winter wheat and rapeseed in the MYP in 1990, 1995, 2000, 2005, 2010, 2015 and 2020, respectively.