

Supplementary Materials

Varying Levels of Genetic Control and Phenotypic Plasticity in Timing of Bud Burst, Flower Opening, Leaf Senescence and Leaf Fall in Two Common Gardens of *Prunus padus* L.

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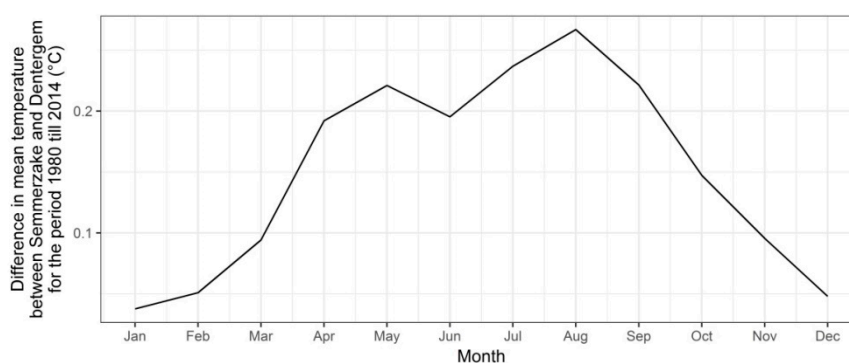
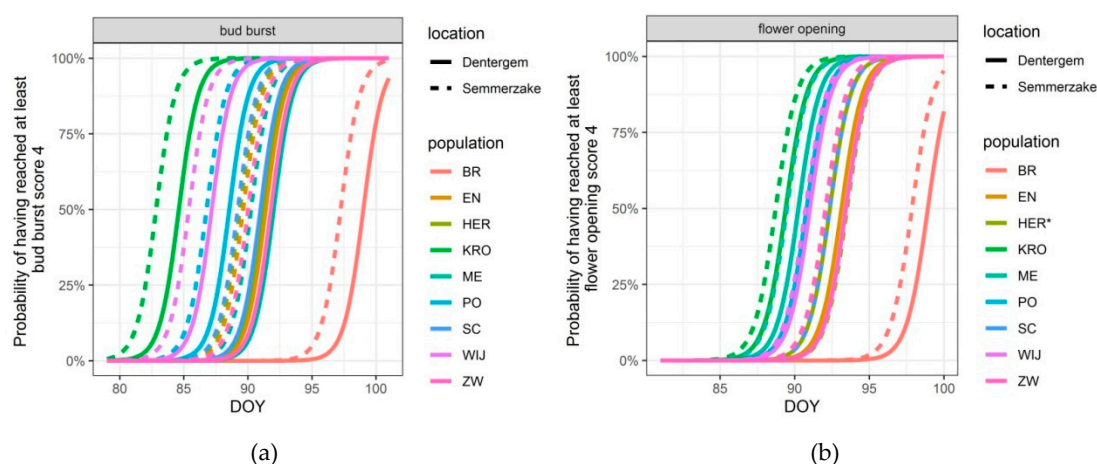


Figure S1. The difference between the mean temperatures in the closest weather stations to the two planting sites of the common gardens in Dentergem and Semmerzake for the period of from 1980 to 2014.



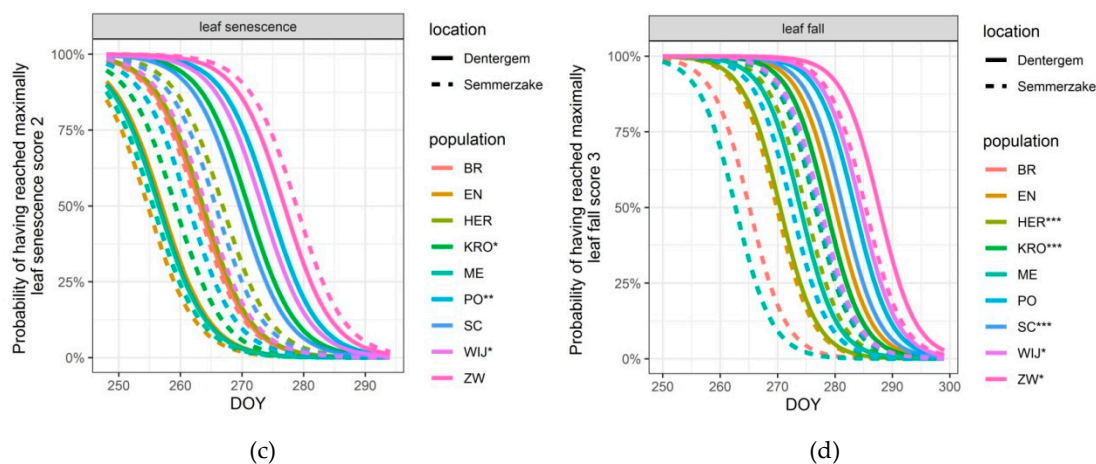


Figure S2. Modelled timing for bud burst (a), flower opening (b), leaf senescence (c) and leaf fall (d) in the common gardens of *P. padus* for the different sampled local populations. Population abbreviations are in Table 1.

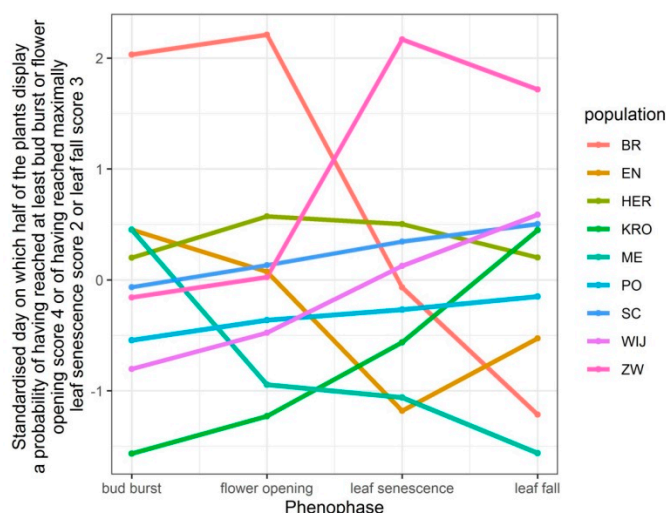


Figure S3. Order of the modelled timing of bud burst, flower opening, leaf senescence and leaf fall for the different sampled populations in the plantation of Semmerzake. Standardized days were calculated for which half of the plants of a population had reached at least (bud burst and flower opening) or maximally (leaf senescence and fall) a given phenological score level. Population abbreviations are in Table 1.

Table S1. Model statistics for the response variables bud burst, flower opening, leaf senescence and fall with population as covariate in the fixed parts. Brakel and Dentergem are the standard levels of the variable population and location to which the other levels of the variables (eight other populations and Semmerzake, respectively) are compared with. Population abbreviations are in Table 1.

phenophase	explanatory variables	estimate	std. error	Z-value	P-value
bud burst	day	-1.32	0.10	-12.79	< 0.001 ***
	EN	-10.92	2.27	-4.82	< 0.001 ***
	HER	-11.56	2.46	-4.70	< 0.001 ***
	KRO	-18.77	2.51	-7.49	< 0.001 ***
	ME	-9.87	2.26	-4.37	< 0.001 ***
	PO	-13.71	2.12	-6.46	< 0.001 ***
	SC	-9.98	1.75	-5.70	< 0.001 ***

	WIJ	-15.82	2.18	-7.26	< 0.001 ***
	ZW	-7.92	2.72	-2.91	0.004 **
	Semmerzake	-2.16	1.12	-1.94	0.053
	EN:Semmerzake	2.35	1.91	1.23	0.219
	HER:Semmerzake	1.61	1.94	0.83	0.407
	KRO:Semmerzake	-0.76	1.92	-0.40	0.692
	ME:Semmerzake	1.30	1.83	0.71	0.477
	PO:Semmerzake	-0.28	1.67	-0.17	0.869
	SC:Semmerzake	-1.41	1.36	-1.04	0.300
	WIJ:Semmerzake	0.43	1.52	0.28	0.778
	ZW:Semmerzake	-3.98	2.35	-1.70	0.090
flower opening	day	-1.40	0.09	-15.31	< 0.001 ***
	EN	-8.10	2.01	-4.03	< 0.001 ***
	HER	-9.18	2.11	-4.35	< 0.001 ***
	KRO	-13.32	2.08	-6.39	< 0.001 ***
	ME	-12.13	2.09	-5.80	< 0.001 ***
	PO	-11.37	1.85	-6.15	< 0.001 ***
	SC	-7.68	1.52	-5.06	< 0.001 ***
	WIJ	-11.05	1.79	-6.16	< 0.001 ***
	ZW	-7.70	2.51	-3.06	0.002 **
	Semmerzake	-1.49	0.82	-1.82	0.069
	EN:Semmerzake	0.16	1.34	0.12	0.906
	HER:Semmerzake	3.10	1.36	2.27	0.023 *
	KRO:Semmerzake	0.54	1.27	0.42	0.671
	ME:Semmerzake	0.40	1.28	0.32	0.752
	PO:Semmerzake	1.80	1.17	1.54	0.123
	SC:Semmerzake	-0.05	0.98	-0.05	0.961
	WIJ:Semmerzake	1.06	1.07	0.99	0.321
	ZW:Semmerzake	-0.42	1.63	-0.26	0.796
leaf senescence	day	0.26	0.02	10.55	< 0.001 ***
	EN	1.59	1.03	1.55	0.122
	HER	-0.13	1.16	-0.11	0.911
	KRO	-2.02	0.97	-2.08	0.038 *
	ME	1.72	1.04	1.66	0.098
	PO	-2.93	0.90	-3.25	0.001 **
	SC	-1.67	0.75	-2.21	0.027 *
	WIJ	-2.59	0.88	-2.94	0.003 **
	ZW	-3.54	1.33	-2.67	0.008 **
	Semmerzake	0.11	0.65	0.17	0.864
	EN:Semmerzake	0.47	1.18	0.40	0.689
	HER:Semmerzake	-0.93	1.18	-0.79	0.429
	KRO:Semmerzake	2.93	1.14	2.56	0.010 *
	ME:Semmerzake	0.13	1.11	0.12	0.907
	PO:Semmerzake	3.30	1.03	3.20	0.001 **
	SC:Semmerzake	0.90	0.81	1.12	0.263
	WIJ:Semmerzake	2.24	0.92	2.42	0.016 *
	ZW:Semmerzake	-0.61	1.50	-0.41	0.682
leaf fall	day	0.31	0.02	18.17	< 0.001 ***
	EN	-0.46	0.92	-0.50	0.615
	HER	2.54	1.07	2.38	0.018 *
	KRO	0.03	0.87	0.03	0.977
	ME	1.44	0.93	1.55	0.121

PO	-1.53	0.80	-1.93	0.054
SC	-0.89	0.68	-1.31	0.191
WIJ	-1.86	0.78	-2.38	0.018 *
ZW	-2.87	1.19	-2.41	0.016 *
Semmerzake	4.22	0.65	6.54	< 0.001 ***
EN:Semmerzake	-1.03	1.07	-0.96	0.335
HER:Semmerzake	-5.61	1.13	-4.98	< 0.001 ***
KRO:Semmerzake	-3.63	1.04	-3.50	< 0.001 ***
ME:Semmerzake	-0.69	1.04	-0.67	0.503
PO:Semmerzake	-0.78	0.93	-0.84	0.403
SC:Semmerzake	-2.83	0.77	-3.68	< 0.001 ***
WIJ:Semmerzake	-2.04	0.85	-2.41	0.016 *
ZW:Semmerzake	-3.48	1.37	-2.54	0.011 *

Significant results are in bold: *** $P < 0.001$; ** $P < 0.01$; * $P < 0.05$.