

Table S1 Type I and III statistical output for unopened (4/13) and opened (4/25) bud counts and their ratio.

Dependent Variable		Lateral Bud 4/13 Unopend				Lateral Bud 5/25 Breaking				Lateral Bud Ratio Br_Un				Flower Bud 4/13 Unopened				Flower Bud 5/25 Opened				Flower Bud Ratio Op_Un			
Source	DF	Sum of Sq Mean Squ: F Value Pr > F				Sum of Sq Mean Squ: F Value Pr > F				Sum of Sq Mean Squ: F Value Pr > F				Sum of Squar Mean Square F Value Pr > F				Sum of Sq Mean Squ: F Value Pr > F				Sum of Sq Mean Squ: F Value Pr > F			
Model	47	12128.1	258.0446	23.72	<.0001	9466.364	201.412	17.27	<.0001	41.26765	0.878035	4.11	<.0001	21973.2979	467.51698	23.85	<.0001	341.6313	7.26875	4.26	<.0001	4.314827	0.091805	3.39	<.0001
Error	432	4698.9	10.87708			4921.5	11.66232			90.21465	0.213779			8469.7	19.60579			737.1	1.70625			11.70231	0.027089		
Corrected Total	479	16827				14387.86				131.4823				30442.9979				1078.731				16.01714			
Source	DF	Type I SS	Mean Squ: F Value	Pr > F		Type I SS	Mean Squ: F Value	Pr > F		Type I SS	Mean Squ: F Value	Pr > F		Type I SS	Mean Square F Value	Pr > F		Type I SS	Mean Squ: F Value	Pr > F		Type I SS	Mean Squ: F Value	Pr > F	
TT	1	286.7521	286.7521	26.36	<.0001	1416.362	1416.362	121.45	<.0001	9.518572	9.518572	44.53	<.0001	35.752083	35.752083	1.82	0.1776	34.66875	34.66875	20.32	<.0001	0.163426	0.163426	6.03	0.0144
ST	1	8509.252	8509.252	782.31	<.0001	5298.051	5298.051	454.29	<.0001	8.074843	8.074843	37.77	<.0001	5915.05208	5915.05208	301.7	<.0001	30.50208	30.50208	17.88	<.0001	0.012759	0.012759	0.47	0.4929
CV	8	1853.556	231.6945	21.3	<.0001	1029.876	128.7345	11.04	<.0001	7.510971	0.938871	4.39	<.0001	8528.60625	1066.07578	54.38	<.0001	104.0771	13.00964	7.62	<.0001	1.1062	0.138275	5.1	<.0001
Age	3	489.2667	163.0889	14.99	<.0001	275.2625	91.75417	7.87	<.0001	0.632961	0.210987	0.99	0.3988	5091.06667	1697.02222	86.56	<.0001	8.529167	2.843056	1.67	0.1736	1.015721	0.338574	12.5	<.0001
TT*ST	1	79.21875	79.21875	7.28	0.0072	447.5336	447.5336	38.37	<.0001	0.281933	0.281933	1.32	0.2515	82.502083	82.502083	4.21	0.0408	2.002083	2.002083	1.17	0.2793	0.009074	0.009074	0.33	0.5631
TT*CV	8	165.8063	20.72578	1.91	0.0575	355.7837	44.47296	3.81	0.0002	8.116011	1.014501	4.75	<.0001	357.60625	44.700781	2.28	0.0213	94.77708	11.84714	6.94	<.0001	0.767037	0.09588	3.54	0.0006
TT*Age	3	54.06667	18.02222	1.66	0.1756	117.4292	39.14306	3.36	0.0189	0.661969	0.220656	1.03	0.3781	160.516667	53.505556	2.73	0.0436	1.729167	0.576389	0.34	0.798	0.257354	0.085785	3.17	0.0243
ST*CV	8	446.0563	55.75703	5.13	<.0001	390.2948	48.78685	4.18	<.0001	0.726492	0.090812	0.42	0.9062	1152.80625	144.100781	7.35	<.0001	14.84375	1.855469	1.09	0.3706	0.357617	0.044702	1.65	0.1087
ST*Age	3	92.51667	30.83889	2.84	0.0379	56.82917	18.94306	1.62	0.1831	0.482166	0.160722	0.75	0.5218	532.616667	177.538889	9.06	<.0001	5.529167	1.843056	1.08	0.3572	0.102673	0.034224	1.26	0.2864
TT*ST*CV	8	151.2896	18.9112	1.74	0.0876	53.97893	6.747366	0.58	0.7957	4.10443	0.513054	2.4	0.0154	100.00625	12.500781	0.64	0.7462	26.31042	3.288802	1.93	0.0544	0.2265	0.028312	1.05	0.4011
TT*ST*Age	3	0.316667	0.105556	0.01	0.9987	24.9625	8.320833	0.71	0.5444	1.157299	0.385766	1.8	0.1457	16.766667	5.588889	0.29	0.8362	18.6625	6.220833	3.65	0.0128	0.296466	0.098822	3.65	0.0127
Source	DF	Type III SS	Mean Squ: F Value	Pr > F		Type III SS	Mean Squ: F Value	Pr > F		Type III SS	Mean Squ: F Value	Pr > F		Type III SS	Mean Square F Value	Pr > F		Type III SS	Mean Squ: F Value	Pr > F		Type III SS	Mean Squ: F Value	Pr > F	
TT	1	181.2654	181.2654	16.66	<.0001	1019.096	1019.096	87.38	<.0001	5.594181	5.594181	26.17	<.0001	17.652216	17.652216	0.9	0.3432	8.760699	8.760699	5.13	0.0239	0.007044	0.007044	0.26	0.6104
ST	1	5978.518	5978.518	549.64	<.0001	3287.857	3287.857	281.92	<.0001	4.647823	4.647823	21.74	<.0001	4656.06704	4656.06704	237.48	<.0001	23.91139	23.91139	14.01	0.0002	0.004673	0.004673	0.17	0.6781
CV	6	673.5	112.25	10.32	<.0001	540.6656	90.11094	7.73	<.0001	5.947852	0.991309	4.64	0.0001	3696.02917	616.004861	31.42	<.0001	63.26667	10.54444	6.18	<.0001	1.53999	0.256665	9.47	<.0001
Age	3	489.2667	163.0889	14.99	<.0001	275.2625	91.75417	7.87	<.0001	0.632961	0.210987	0.99	0.3988	5091.06667	1697.02222	86.56	<.0001	8.529167	2.843056	1.67	0.1736	1.015721	0.338574	12.5	<.0001
TT*ST	1	20	20	1.84	0.1758	341.6479	341.6479	29.3	<.0001	0.062308	0.062308	0.29	0.5896	38.905817	38.905817	1.98	0.1596	4.613054	4.613054	2.7	0.1008	0.044832	0.044832	1.65	0.199
TT*CV	6	50.33333	8.388889	0.77	0.5928	158.4823	26.41372	2.26	0.0366	6.042898	1.00715	4.71	0.0001	91.479167	15.246528	0.78	0.5878	28.06667	4.677778	2.74	0.0126	0.486701	0.081117	2.99	0.0071
TT*Age	3	54.06667	18.02222	1.66	0.1756	117.4292	39.14306	3.36	0.0189	0.661969	0.220656	1.03	0.3781	160.516667	53.505556	2.73	0.0436	1.729167	0.576389	0.34	0.798	0.257354	0.085785	3.17	0.0243
ST*CV	6	86.98333	14.49722	1.33	0.241	245.1323	40.85538	3.5	0.0022	1.107831	0.184639	0.86	0.5216	925.045833	154.174306	7.86	<.0001	12.66667	2.111111	1.24	0.2859	0.209058	0.034843	1.29	0.2621
ST*Age	3	92.51667	30.83889	2.84	0.0379	56.82917	18.94306	1.62	0.1831	0.482166	0.160722	0.75	0.5218	532.616667	177.538889	9.06	<.0001	5.529167	1.843056	1.08	0.3572	0.102673	0.034224	1.26	0.2864
TT*ST*CV	6	46.85	7.808333	0.72	0.6354	14.00729	2.334549	0.2	0.9766	3.649655	0.608276	2.85	0.01	57.3625	9.560417	0.49	0.8177	16.2	2.7	1.58	0.1506	0.231766	0.038628	1.43	0.203
TT*ST*Age	3	0.316667	0.105556	0.01	0.9987	24.9625	8.320833	0.71	0.5444	1.157299	0.385766	1.8	0.1457	16.766667	5.588889	0.29	0.8362	18.6625	6.220833	3.65	0.0128	0.296466	0.098822	3.65	0.0127

TT = treatment; ST = shoot type; CV = cultivar; Age = age of trees (year). Each F value indicated probability of significance.

Table S2. Weekly counts of the four terminal bud classes on seven dates.

			Dates						
SS	TT	Terminal bud class	4/13	4/20	4/27	5/4	5/11	5/18	5/25
LS	DX	N	100	76	25	19	9	4	1
		Y	13	34	84	84	85	79	79
		D	0	3	4	10	19	30	33
		B	7	7	7	7	7	7	7
LS	CK	N	101	89	58	21	12	6	4
		Y	9	20	45	76	82	86	88
		D	3	4	10	16	19	21	21
		B	7	7	7	7	7	7	7
SS	DX	N	110	85	28	17	6	3	3
		Y	9	31	83	85	84	80	79
		D	0	3	8	17	29	36	37
		B	1	1	1	1	1	1	1
SS	CK	N	108	96	56	21	14	10	4
		Y	6	16	53	87	91	94	98
		D	2	4	7	8	11	12	14
		B	4	4	4	4	4	4	4
Total			480	480	480	480	480	480	480

N = not breaking into a terminal shoot; Y = yes, breaking into a terminal shoot;

D = breaking a terminal shoot but dying; B = blind terminal bud.

SS = shoot type; LS = long shoot; SS = short shoot;

TT = treatment; DX = Dormex-sprayed trees; CK = unsprayed control trees.

Table S3 Type I and III statistical output for year-end new shoot count and average length (10/26/2017), and fruit number and weight (2018).

Shoot Count					Shoot Average Length (cm)					Fruit Number					Fruit Weight (kg)				
Shoot_Count					Shoot_Length_Average					Fruit_Number					Fruit_Weight				
Source	DF	Sum of Sq	Mean Squ	F Value	Pr > F	Sum of Sq	Mean Squ	F Value	Pr > F	Source	DF	Sum of Sq	Mean Squ	F Value	Pr > F	Sum of Sq	Mean Squ	F Value	Pr > F
Model	45	520.4703	11.56601	1.36	0.068	9312.961	206.9547	1.43	0.0417	Model	15	173715.7	11581.05	5.13	0.0026	3791.467	252.7645	3.19	0.0245
Error	405	3449.534	8.517368			58765.33	145.0996			Error	13	29333	2256.385			949.8438	79.15365		
Corrected Total	450	3970.004				68078.29				Corrected Total	28	203048.7				4741.311			
Source	DF	Type I SS	Mean Squ	F Value	Pr > F	Type I SS	Mean Squ	F Value	Pr > F	Source	DF	Type I SS	Mean Squ	F Value	Pr > F	Type I SS	Mean Squ	F Value	Pr > F
TT	1	23.57204	23.57204	2.77	0.097	117.0027	117.0027	0.81	0.3697	TT	1	472.3214	472.3214	0.21	0.6548	11.16444	11.16444	0.14	0.7138
ST	1	3.558788	3.558788	0.42	0.5184	87.52326	87.52326	0.6	0.4378	CV	4	70472.96	17618.24	7.81	0.002	1679.598	419.8994	5.3	0.0107
CV	8	105.7781	13.22226	1.55	0.1374	5971.927	746.4909	5.14	<.0001	Age	3	84911.14	28303.71	12.54	0.0004	1709.84	569.9467	7.2	0.0051
Age	3	53.24167	17.74722	2.08	0.1018	325.3611	108.4537	0.75	0.5243	TT*CV	4	5330.272	1332.568	0.59	0.6754	123.9326	30.98315	0.39	0.8109
TT*ST	1	1.215474	1.215474	0.14	0.7058	0.011204	0.011204	0	0.993	TT*Age	3	12528.99	4176.33	1.85	0.1878	266.932	88.97734	1.12	0.3781
TT*CV	8	141.3287	17.66608	2.07	0.0372	611.5804	76.44755	0.53	0.8364										
TT*Age	3	15.625	5.208333	0.61	0.6079	179.181	59.727	0.41	0.7447	Source	DF	Type III SS	Mean Squ	F Value	Pr > F	Type III SS	Mean Squ	F Value	Pr > F
ST*CV	8	56.77841	7.097301	0.83	0.5736	732.8852	91.61065	0.63	0.7515	TT	1	23.34965	23.34965	0.01	0.9205	10.62767	10.62767	0.13	0.7204
ST*Age	3	33.11667	11.03889	1.3	0.2754	936.5988	312.1996	2.15	0.0932	CV	2	74502.5	37251.25	16.51	0.0003	1206.308	603.1539	7.62	0.0073
TT*ST*CV	7	79.90549	11.41507	1.34	0.2297	334.322	47.76029	0.33	0.9406	Age	3	79585.24	26528.41	11.76	0.0005	1584.22	528.0733	6.67	0.0067
TT*ST*Age	2	6.35	3.175	0.37	0.6891	16.56768	8.283838	0.06	0.9445	TT*CV	2	6966.1	3483.05	1.54	0.2503	142.5194	71.2597	0.9	0.4322
										TT*Age	3	12528.99	4176.33	1.85	0.1878	266.932	88.97734	1.12	0.3781
Source	DF	Type III SS	Mean Squ	F Value	Pr > F	Type III SS	Mean Squ	F Value	Pr > F										
TT	1	4.980096	4.980096	0.58	0.4449	200.9242	200.9242	1.38	0.24										
ST	1	15.40558	15.40558	1.81	0.1794	17.08867	17.08867	0.12	0.7316										
CV	6	47.43063	7.905105	0.93	0.4745	1471.093	245.1822	1.69	0.122										
Age	3	52.71838	17.57279	2.06	0.1045	335.3639	111.788	0.77	0.5111										
TT*ST	1	2.36084	2.36084	0.28	0.5988	3.69311	3.69311	0.03	0.8733										
TT*CV	6	52.7537	8.792284	1.03	0.4037	310.616	51.76934	0.36	0.9058										
TT*Age	3	16.96488	5.65496	0.66	0.5746	173.1854	57.72847	0.4	0.7546										
ST*CV	6	71.58836	11.93139	1.4	0.2129	572.8665	95.47774	0.66	0.6837										
ST*Age	3	35.4125	11.80417	1.39	0.2466	917.7211	305.907	2.11	0.0986										
TT*ST*CV	4	34.89044	8.722609	1.02	0.3945	248.3458	62.08645	0.43	0.7885										
TT*ST*Age	2	6.35	3.175	0.37	0.6891	16.56768	8.283838	0.06	0.9445										

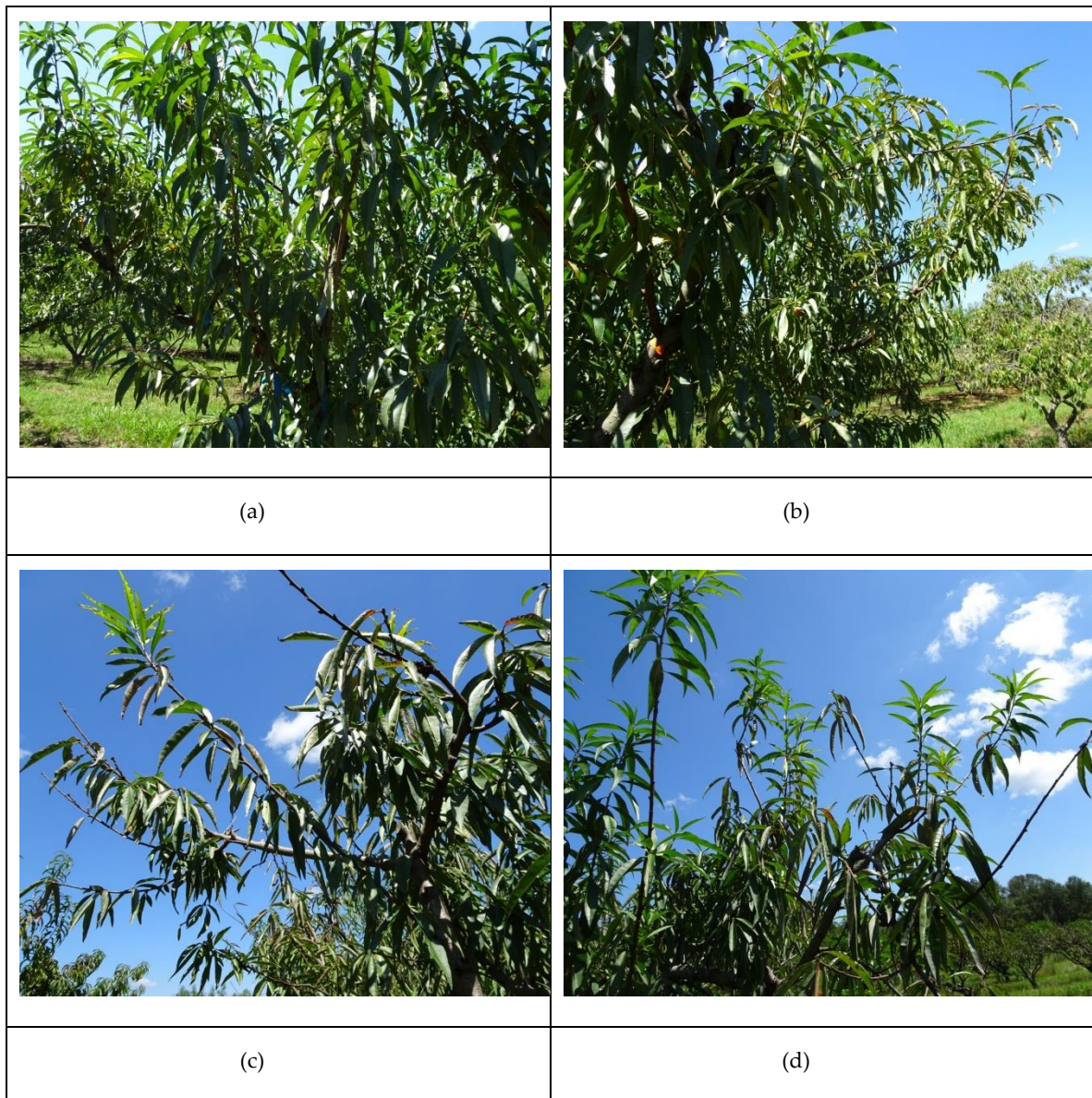
TT = treatment; ST = shoot type; CV = cultivar; Age = age of trees (year). Each F value indicated probability of significance.



FigureS 1. Leafless, flowerless, dormant appearing peach trees on 04/12/2017 (taken by Chunxian Chen). From left to right: “Contender” (8 years old, 1050 chill hours), ‘Cresthaven’ (5, 950), and ‘Julyprince’ (8, 850).



FigureS 2. Dormex-sprayed vs unsprayed budbreak status on 4/27/2017 (taken by Chunxian Chen).
Top row: 'Julyprince' (8 years old, 850 chill hours), (a)sprayed, (b) control. Bottom row, 'Ta Qiao' (10, 1200), (c) sprayed, (d)control.



FigureS 3. Dormex-sprayed vs unsprayed budbreak status on 9/7/2017 (taken by Chunxian Chen). Top row: 'Julyprince' (8 years old, 850 chill hours), (a)sprayed, (b)control. Bottom row, 'Ta Qiao' (10, 1200), (c)sprayed, (d) control.

