Appendices

Appendix A. Codes and names of 50 cultivars of *Malus domestica*.

Code	Cultivar name	Code	Cultivar name
C1	Cameo	C26	Seromine
C2	Honeycrisp	C27	Kiku
C3	Gale gala	C28	Spike
C4	Pinova	C29	Idared
C5	Yuhuazaofu	C30	Early Red one
C6	Ryoka no Kisetsu ‘Liangxiang’	C31	Kanzi
C7	Ryoka no Kisetsu ‘Liangxiangdejijie’	C32	Chantecler
C8	Hongro	C33	Sundowner
C9	Braeburn	C34	Heisei
C10	Naganofuji No. 2	C35	Pinkgold
C11	Golden Delicious	C36	Challenger
C12	Pink Lady	C37	Jazz
C13	Granny Smith	C38	Modi
C14	Pacific Rose	C39	Mariri Red
C15	Ralls	C40	Ariane
C16	Crispin	C41	Ambrosia
C17	Qin guan	C42	Otterson
C18	Royal Gala	C43	Roberts Crab
C19	Cinano Red	C44	Hongxun No. 1
C20	Tsugaru	C45	New York No.1
C21	Silken	C46	New York No.2
C22	Autumn Crisp	C47	Red flesh of Xinjiang No.5
C23	Roho 3615	C48	Red flesh of Xinjiang No.1
C24	Russia No. 1	C49	Xinjiang No.1
C25	Rosy Glow	C50	Xinjiang No.4

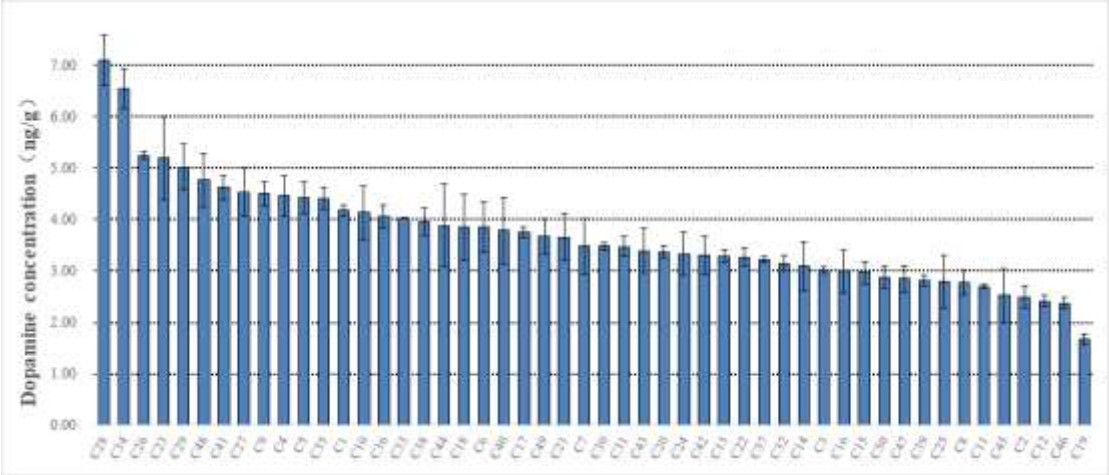
Appendix B. Codes and Latin names of 120 *Malus* accessions.

Code	Latin name	Code	Latin name
W1	*M. robusta* Rhed. cv. balenghaitang	W61	*M. angustifolia 2*
W2	*M. sieboldii* (Reg.) Rehd. cv. sanyehaitang	W62	*M. hybrid* cv. hongtaiping
W3	*M. sieboldii* (Reg.) Rehd.	W63	*M. sp.*
W4	*M. sieboldii* (Reg.) Rehd. cv. tengchongsanyehaitang	W64	*M. prunifolia* (Willd.) Borkh. cv. wuqiqiuzi
W5	*M. kansuensis* (Batal.) Schneid. cv.	W65	*M.* × *soulardii*

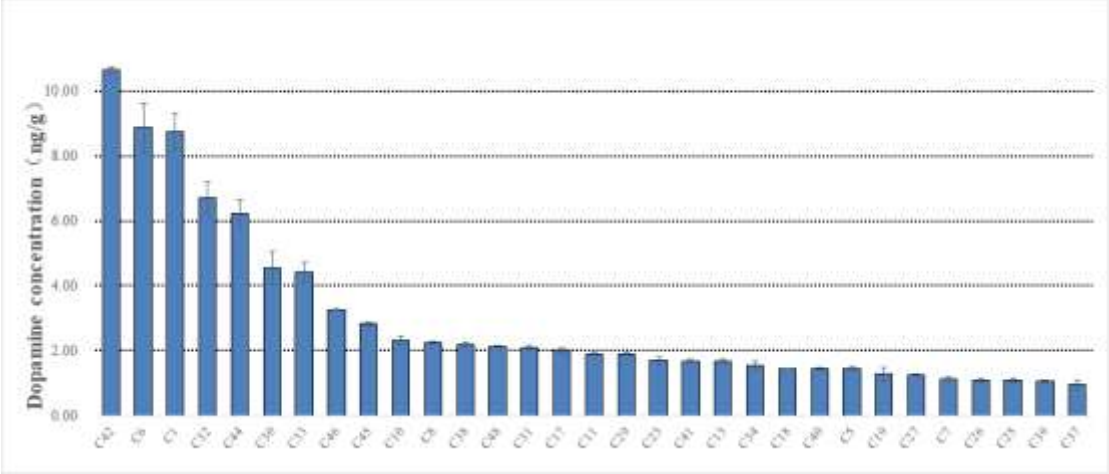
	longdonghaitang		
W6	*M. sikkimensis* (Hook. f.) Koehne. cv. xijinhaitang	W66	*M. sargentii*
W7	*M. asiatica* Nakai. cv. huahong	W67	*M. sp.*
W8	*M. honanensis* Rehd. cv. henanhaitang	W68	*M. prunifolia* (Willd.) Borkh. cv. wanbaihaitang
W9	*M. micromalus* Makino. cv. huailaihaitang	W69	*M. prunifolia* (Willd.) Borkh. cv. haitangguo
W10	*M. micromalus* Makino. cv. pingdinghaitang	W70	*M. honanensis* Rehd. cv. henanhaitang
W11	*M. baccata* Borkh. cv. jinxibeishandingzi	W71	*M. sp.*
W12	*M. hupehensis* Rehd.	W72	*M. prunifolia* (Willd.) Borkh. cv. baihaitang
W13	*M. rockii* Rehd. cv. lijiangshandingzi	W73	*M. zhaojiaoensis*
W14	*M. prunifolia* (Willd.) Borkh. cv. dongbeihuanghaitang	W74	*M. toringo*
W15	*M. prunifolia* (Willd.) Borkh. cv. neimengguhaihong	W75	*M. sp.*
W16	*M. prunifolia* (Willd.) Borkh. cv. laoshannaizi	W76	*M. orthocarpa*
W17	*M. sieboldii* (Reg.) Rehd. cv. sanyehaitang	W77	*M. sp.*
W18	*M. mandshurica* (Maxim.) Komarov. cv. maoshandingzi	W78	*M. yunnaensis* (Franch.) Schneid. cv. dianchihaitang
W19	*M. hupehensis* Rehd. cv. hubeihaitang	W79	*M. sargentii*
W20	*M. mellana* (Hand.-Mazz.) Rehd. cv. jianzuilinqin	W80	*M. prunifolia*
W21	*M. micromalus* Makino. cv. xifuhaitang	W81	*M. bhutanica*
W22	*M. prunifolia* (Willd.) Borkh. cv. wuqiqiuzi	W82	*M.* × *robusta*
W23	*M. sikkimensis* (Hook. f.) Koehne. cv. deqinhaitang	W83	*M.* × *adstringens*
W24	*M. sieversii* Ledeb.	W84	*M.* × *soulardii*
W25	*M. prunifolia* (Willd.) Borkh. cv. donghongguo	W85	*M. sieversii*
W26	*M. prunifolia* (Willd.) Borkh. cv. xiaohuanghaitang	W86	*M. transitoria*
W27	*M. prunifolia* (Willd.) Borkh. cv. baodehaihong	W87	*M. yunnanensis*
W28	*M. prunifolia* (Willd.) Borkh. cv.	W88	*M.* × *robusta*

	fupingqiuzi		
W29	*M. baccata* Borkh. cv. jinxibeishandingzi	W89	*M. domestica*
W30	*M. sikkimensis* (Hook. f.) Koehne. cv. xijinhaitang	W90	*M. marjorensis* ‘Formosa’
W31	*M. hybrid* cv. huangtaiping	W91	*M. hybrid*
W32	*M. sargentii* Rehd. cv. shajinhaitang	W92	*M. hybrid*
W33	*M. soulardii*	W93	*M. hybrid*
W34	*M. micromalus* Makino. cv. silenghaitang	W94	*M. hybrid*
W35	*M. tiaojinensis* Cheng et Jiang. cv. xiaojinhaitang	W95	*M. domestica*
W36	*M. prunifolia* (Willd.) Borkh.	W96	*M. pumila*
W37	*M. hupehensis* Rehd. cv.lushihongguo	W97	*M. ×purpurea*
W38	*M. toringoides* (Rehd.) Hughes. cv. wushanbianyehaitang	W98	*M. ×moerlandsii*
W39	*M. prunifolia* (Willd.) Borkh. cv. linqin	W99	*M. Sieversii*
W40	*M. sublobata*	W100	*M. sp.*
W41	*M. fusca 2*	W101	*M. seiversii*
W42	*M. toringoides* (Rehd.) Hughes. cv. bianyehaitang	W102	*M. sp.* cv. zihua
W43	*M. toringoides* (Rehd.) Hughes. cv. yajiangbianye	W103	*M. sp.* cv. changhong
W44	*M. spectebilis* Borkh.	W104	*M. sp.* cv. suixiao
W45	*M. kirghisorum* cv. Jierjisipingguo2	W105	*M. sp.* cv. zixiao
W46	*M. brevipes*	W106	*M. seiversii*
W47	*M. arnoldiana*	W107	*M. seiversii*
W48	*M. harlwigii*	W108	*M. seiversii*
W49	*M. florentina* cv. foluolunsahaitang	W109	*M. seiversii*
W50	*M. platycarpa* 2	W110	*M. fusca*
W51	*M. moerlandsii*	W111	*M. sylvestris*
W52	*M. kirghisorum* cv. Jierjisipingguo1	W112	*M. domestica*
W53	*M. orientalis* cv. dongfangpingguo	W113	*M. hybrid*
W54	*M. rockii* Rehd. cv. Lijiangshandingzi1	W114	*M. ×purpurea*
W55	*M. rockii* Rehd.	W115	*M. hybrid*
W56	*M. asiatica* Nakai. cv. sichuanaihuahong	W116	*M. domestica*
W57	*M. rockii* Rehd.	W117	*M. hybrid* cv. zitaiping
W58	*M. rockii* Rehd.	W118	*M. hybrid*
W59	*M. coronaria*	W119	*M. ×adstringens*

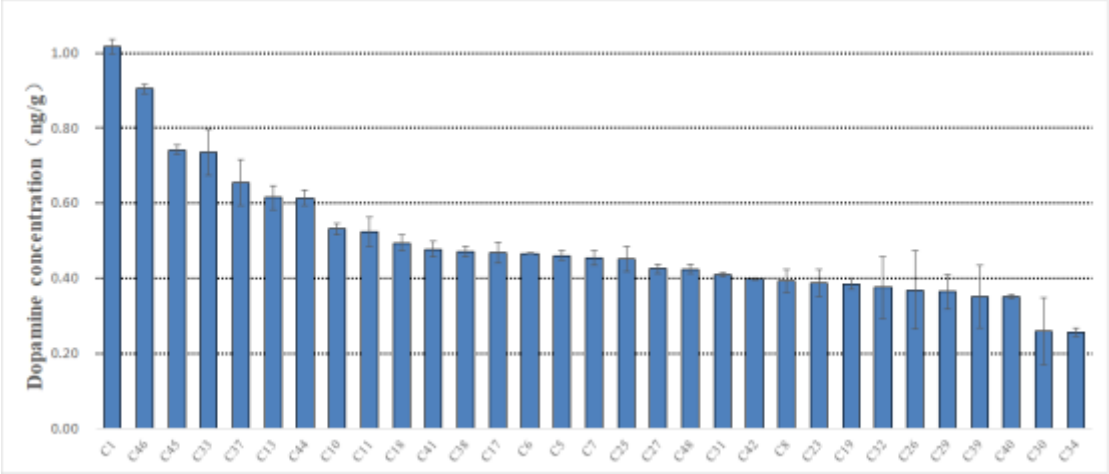
W60	*M. robusta* (Persicifolia.)	W120	*M. sp.*



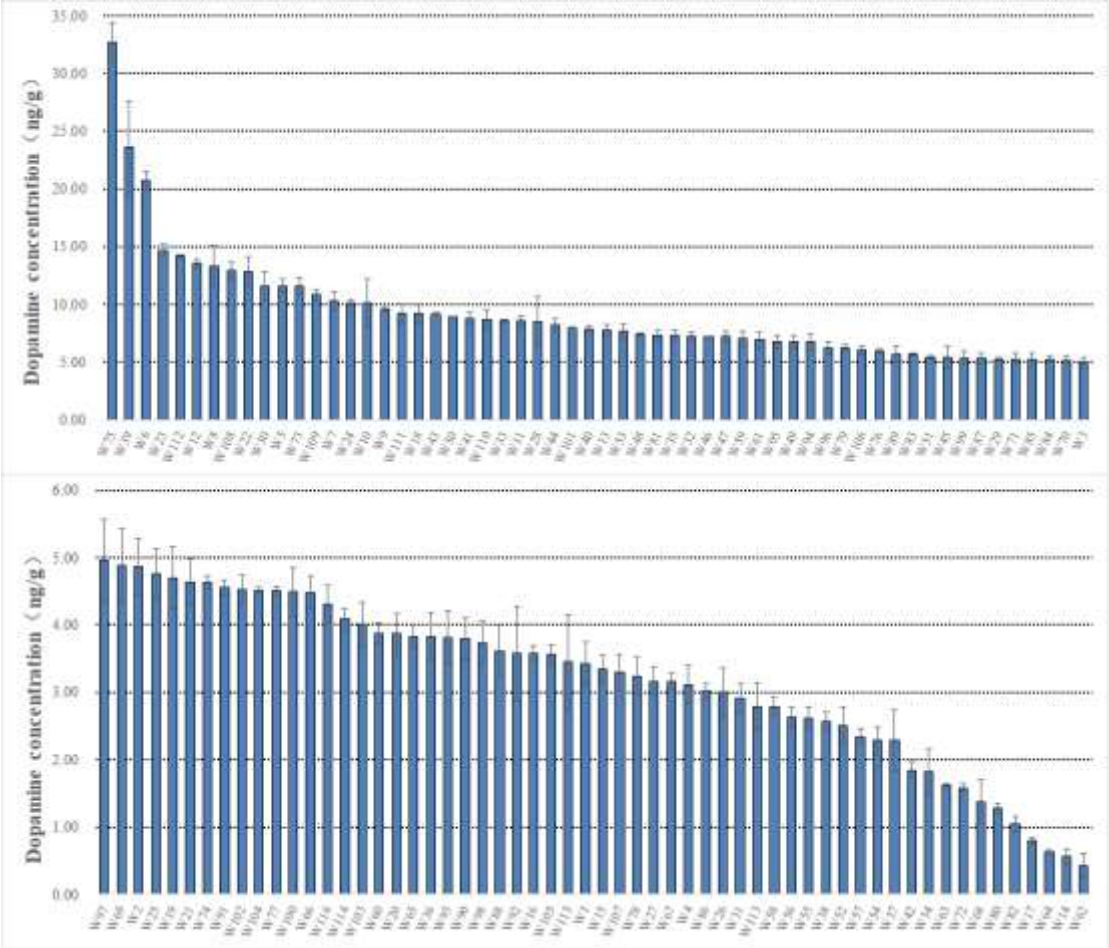
Appendix C. Comparison of dopamine content in mature leaves of 50 *Malus* cultivars. Data are mean±SD (*n*=3).



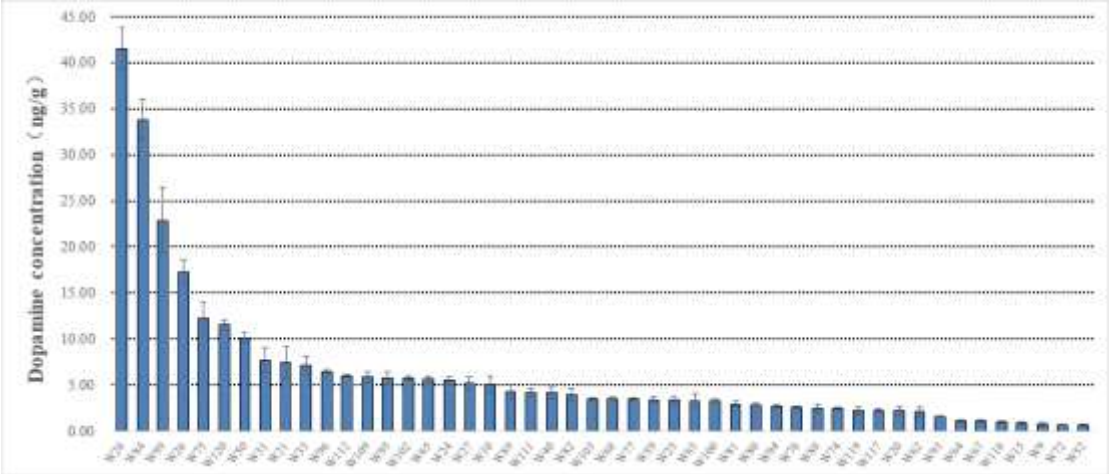
Appendix D. Comparison of dopamine content in the peel of ripe fruits of 31 *Malus* cultivars. Data are mean±SD (*n*=3).



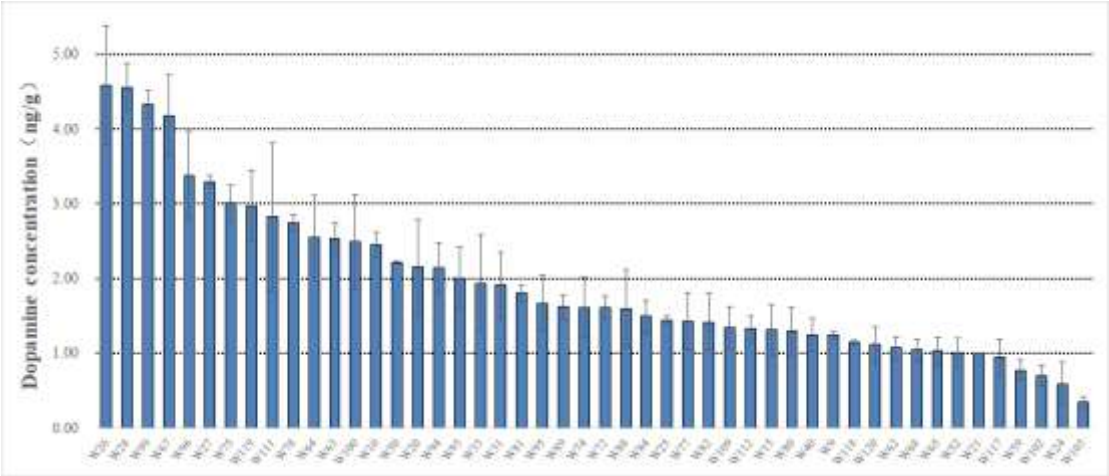
Appendix E. Comparison of dopamine content in the flesh of ripe fruits of 31 *Malus* cultivars. Data are mean±SD (*n*=3).



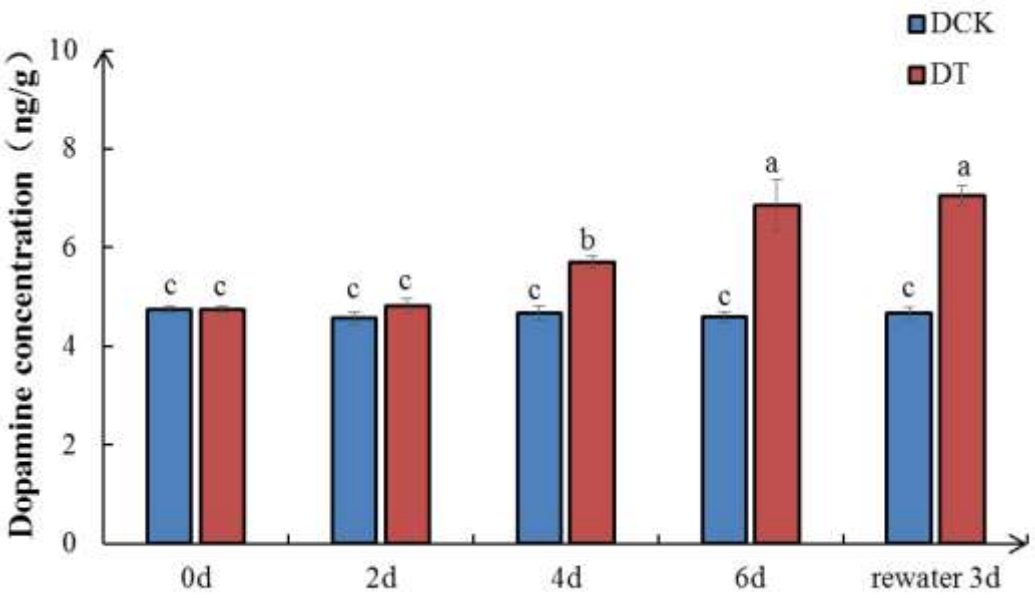
Appendix F. Comparison of dopamine content in mature leaves of 116 *Malus* wild accessions. Data are mean±SD (*n*=3).



Appendix G. Comparison of dopamine content in the peel of 48 *Malus* wild accessions mature fruits. Data are mean±SD (*n*=3).



Appendix H. Comparison of dopamine content in the flesh of 48 *Malus* wild accessions mature fruits. Data are mean±SD (*n*=3).



Appendix I. Changes in dopamine content under natural drought stress. Data are mean±SD (*n*=3). Values followed by different letters are significantly different (*P*<0.05). DCK, irrigated to maintain 75–85% field capacity; DT, no water after been fully irrigated;