

Table S1. The geographical origins of *E. indica* populations collected from apple orchards around Bohai Rim (Beijing, BJ; Hebei, HB; Liaoning, LN; Shandong, SD) and Loess Plateau (Henan, HN; Shanxi, SX; Shaanxi, SHX), farmland around Dongting (DT) and Poyang (PY) lakes in China.

Region	Population	Location	Co-ordinate
Bohai Rim	BJ01	Haidian district, Beijing	116°15'29.1"E; 40°01'49.8"N
	BJ02	Haidian district, Beijing	116°17'50.2"E; 40°01'56.9"N
	BJ04	Haidian district, Beijing	116°18'02.5"E; 40°01'32.3"N
	BJ05	Haidian district, Beijing	116°18'15.8"E; 40°01'26.4"N
	BJ06	Xicheng district, Beijing	116°22'42.2"E; 39°58'02.0"N
	HB01	Tangshan city, Hebei Province	119°04'41.0"E; 39°21'10.8"N
	HB02	Tangshan city, Hebei Province	119°01'55.0"E; 39°20'52.1"N
	HB03	Qinhuangdao city, Hebei Province	119°11'57.2"E; 39°44'12.1"N
	HB04	Qinhuangdao city, Hebei Province	119°34'31.5"E; 39°56'27.1"N
	HB05	Qinhuangdao city, Hebei Province	119°33'05.9"E; 39°57'10.3"N
	HB06	Qinhuangdao city, Hebei Province	119°39'26.0"E; 40°01'34.9"N
	HB08	Qinhuangdao city, Hebei Province	119°42'22.8"E; 39°59'40.4"N
	LN02	Huludao city, Liaoning Province	120°01'52.4"E; 40°23'26.3"N
	LN04	Huludao city, Liaoning Province	120°44'03.4"E; 40°36'53.9"N
	LN05	Jingzhou city, Liaoning Province	121°05'58.7"E; 41°02'18.8"N
	LN06	Yingkou city, Liaoning Province	122°22'47.2"E; 40°21'10.6"N
	LN07	Yingkou city, Liaoning Province	122°13'40.2"E; 40°18'17.7"N
	SD04	Weifang city, Shandong Province	119°30'33.3"E; 36°18'33.1"N
	SD05	Weifang city, Shandong Province	119°30'47.9"E; 36°19'17.9"N
	SD07	Qingdao city, Shandong Province	120°17'05.3"E; 36°52'28.8"N
	SD08	Qingdao city, Shandong Province	120°17'27.0"E; 36°53'05.9"N
	SD09	Yantai city, Shandong Province	121°02'27.7"E; 37°28'45.3"N
	SD10	Yantai city, Shandong Province	120°58'23.8"E; 37°27'53.4"N
	SD12	Yantai city, Shandong Province	120°52'56.0"E; 37°25'18.0"N
	SD14	Qingdao city, Shandong Province	119°53'05.6"E; 35°57'41.2"N
	SD15	Qingdao city, Shandong Province	119°51'12.1"E; 35°54'42.1"N
Loess Plateau	SX01	Linfen city, Shanxi Province	111°17'41.5"E; 35°49'18.4"N
	SX03	Linfen city, Shanxi Province	111°14'27.3"E; 35°48'03.3"N
	SX05	Yuncheng city, Shanxi Province	110°49'21.8"E; 35°06'55.0"N
	SX07	Yuncheng city, Shanxi Province	110°45'42.4"E; 35°13'38.7"N
	HN01	Sanmenxia city, Henan Province	111°13'16.6"E; 34°37'22.9"N
	HN03	Lingbao city, Henan Province	110°57'12.4"E; 34°34'23.1"N
	SHX01	Xianyang city, Shaanxi Province	108°24'06.3"E; 34°28'17.0"N
	SHX04	Yanan city, Shaanxi Province	109°29'02.5"E; 35°49'28.0"N
Dongting lake	DT01	Yueyang city, Hunan Province	112°34'26.2"E; 29°29'01.7"N
	DT03	Yueyang city, Hunan Province	112°25'25.5"E; 29°23'34.6"N
	DT06	Changde city, Hunan Province	112°07'21.4"E; 29°22'16.4"N
	DT07	Changde city, Hunan Province	112°04'37.7"E; 29°17'45.9"N

Poyang lake	DT09	Changde city, Hunan Province	111°49'08.9"E; 29°39'04.9"N
	DT11	Changde city, Hunan Province	111°45'44.5"E; 29°47'15.8"N
	DT12	Changde city, Hunan Province	111°58'48.3"E; 29°01'57.5"N
	DT13	Changde city, Hunan Province	112°01'16.3"E; 29°01'12.9"N
	PY02	Jiujiang city, Jiangxi Province	115°42'12.0"E; 29°11'21.1"N
	PY03	Jiujiang city, Jiangxi Province	115°57'36.9"E; 29°26'47.1"N
	PY04	Jiujiang city, Jiangxi Province	115°59'56.0"E; 29°23'29.6"N
	PY05	Jiujiang city, Jiangxi Province	115°56'30.0"E; 29°23'03.4"N
	PY08	Jiujiang city, Jiangxi Province	116°22'58.8"E; 29°45'35.4"N
	PY06	Jiujiang city, Jiangxi Province	115°52'29.3"E; 29°30'38.8"N
	PY07	Jiujiang city, Jiangxi Province	115°55'52.0"E; 29°35'15.4"N
	PY10	Jiujiang city, Jiangxi Province	116°30'25.6"E; 29°52'05.0"N

Table S2. The GR₅₀ values estimated by dose-response curves of *E. indica* populations collected from apple orchards around Bohai Rim (Beijing, BJ; Hebei, HB; Liaoning, LN; Shandong, SD) and Loess Plateau (Henan, HN; Shanxi, SX; Shannxi, SHX), farmland around Dongting (DT) and Poyang (PY) lakes in China.

Population	GR ₅₀ ±SD (mg/L)	RI	Population	GR ₅₀ ±SD (mg/L)	RI
BJ05	8.95±4.85	1.00	BJ06	27.59±11.77	3.08
HB06	7.89±2.81	0.88	DT12	28.78±13.09	3.22
SD04	7.87±1.32	0.88	SD09	29.32±6.70	3.28
SX01	8.87±9.13	0.99	PY08	29.84±7.42	3.33
BJ04	9.90±6.90	1.11	HB05	33.23±2.74	3.71
PY07	9.85±3.49	1.10	SD10	35.60±4.86	3.98
HB02	11.63±4.28	1.30	LN06	37.03±7.50	4.14
SX07	12.53±4.60	1.40	SX05	37.03±7.50	4.14
BJ01	13.55±4.37	1.51	DT09	37.76±16.29	4.22
HB04	13.78±8.73	1.54	LN07	38.19±11.93	4.27
BJ02	13.93±6.88	1.56	SD05	40.81±4.61	4.56
HB01	14.23±4.99	1.59	SD15	42.04±5.00	4.70
SD14	14.87±7.63	1.66	LN04	43.43±17.69	4.85
DT03	17.46±13.64	1.95	SHX01	46.61±5.14	5.21
PY03	17.42±9.76	1.95	PY10	46.77±23.74	5.23
HN03	17.96±4.40	2.01	HB08	47.47±6.49	5.31
HN01	18.76±6.74	2.10	SD12	48.34±5.54	5.40
LN02	18.98±7.76	2.12	LN05	48.50±4.84	5.42
SD07	19.84±7.08	2.22	PY02	50.70±15.11	5.67
PY05	19.91±7.84	2.22	DT13	53.36±8.19	5.96
DT07	21.14±6.87	2.36	HB03	53.36±6.96	5.96
DT11	21.35±6.32	2.39	PY04	56.33±8.76	6.30
SHX04	22.49±3.52	2.51	PY06	57.41±11.08	6.42
DT01	26.44±10.19	2.96	DT06	88.16±11.35	9.85
SD08	26.56±8.44	2.97	SX03	93.28±5.40	10.43