

Table S1 Detailed information of four types of oil seeds used in this study

Oil seeds	Geographical origin	Crop year	Oil seeds	Geographical origin	Crop year
Peanut seed 1–5	Henan, China	2013	Rapeseed 1–5	Hubei, China	2013
Peanut seed 6	Henan, China	2012	Rapeseed 6–8	Hunan, China	2013
Peanut seed 7	Shandong, China	2012	Rapeseed 9–10	Jiangxi, China	2013
Peanut seed 8–12	Shandong, China	2013	Rapeseed 11–12	Yunnan, China	2013
Peanut seed 13–15	Hebei, China	2013	Rapeseed 13–15	Guizhou, China	2013
Peanut seed 16–17	Heilongjiang, China	2013	Rapeseed 16–18	Sichuan, China	2013
Peanut seed 18	Jiangsu, China	2013	Rapeseed 19–22	Zhejiang, China	2013
Peanut seed 19	Guangdong, China	2013	Rapeseed 23–26	Jiangsu, China	2013
Peanut seed 20	Guangxi, China	2013	Rapeseed 27–28	Anhui, China	2013
Soybean seed 1	Heilongjiang, China	2012	Rapeseed 29–30	Guangxi, China	2012
Soybean seed 2–6	Heilongjiang, China	2013	Rapeseed 31	Fujian, China	2012
Soybean seed 7	Jilin, China	2012	Rapeseed 32–34	Shanxi, China	2013
Soybean seed 8–11	Jilin, China	2013	Rapeseed 35–37	Gansu, China	2013
Soybean seed 12–13	Liaoning, China	2013	Rapeseed 38–40	Qinghai, China	2013
Soybean seed 14	Hebei, China	2012	Sunflower seed 1–7	Neimenggu, China	2013
Soybean seed 15–16	Hebei, China	2013	Sunflower seed 8–14	Xinjiang, China	2013
Soybean seed 17–18	Henan, China	2013	Sunflower seed 15–16	Gansu, China	2013
Soybean seed 19	Shandong, China	2013	Sunflower seed 17–19	Ningxia, China	2013