

Table S1 Analysis of leaf element variance of ZF and ZQ

Element		L-N	L-P	L-K	L-Ca	L-Mg	L-Fe	L-B	L-Cu	L-Mn	L-Zn	L-Mo
Health	F	4.67	0.024	1.947	2.223	0.703	0.007	0.09	2.991	3.297	0.218	3.571
	P	0.097	0.885	0.235	0.21	0.449	0.936	0.779	0.159	0.144	0.665	0.132
Disease	F	4.081	0.388	0.208	1.536	1.012	0.027	5.592	0.206	0.777	0.02	0.143
	P	0.113	0.567	0.672	0.283	0.371	0.877	0.077	0.673	0.428	0.894	0.725

Table S2 Analysis of root element variance of ZF and ZQ

Element		R-N	R-P	R-K	R-Ca	R-Mg	R-Fe	R-B	R-Cu	R-Mn	R-Zn	R-Mo
Health	F	1.079	1.242	0.362	3.286	0.117	0.112	4.966	2.949	16.314	0.683	2.41
	P	0.358	0.327	0.58	0.144	0.749	0.755	0.09	0.161	0.016	0.455	0.196
Disease	F	1.079	1.242	0.362	3.286	0.117	0.112	4.966	2.949	16.314	0.683	2.41
	P	0.358	0.327	0.58	0.144	0.749	0.755	0.09	0.161	0.016	0.455	0.196

Table S3 Analysis of soil element variance of ZF and ZQ

Element		S-N	S-P	S-K	S-AK	S-AP	S-Na	S-Ca	S-Mg	S-Cu	S-Zn	S-Fe	S-Mn	S-B	S-S
Health	F	16.901	57.416	0.032	1.285	23.047	1.77	10.416	0.011	2.597	10.585	10.329	7.898	10.62	0.242
	P	0.015	0.002	0.868	0.32	0.009	0.254	0.032	0.921	0.182	0.031	0.032	0.048	0.031	0.649
Disease	F	67.698	0.341	0.002	1.547	5.231	0.006	0.043	0.435	0.028	0.125	0.96	0.04	0.567	0.209
	P	0.001	0.59	0.964	0.281	0.084	0.94	0.845	0.546	0.876	0.742	0.383	0.851	0.493	0.671