Supplemental Figure S1 - see video

	Generation 1		Generation 2	
	Sm	Lg	Sm	Lg
^{34}S	19900±2300*	14900±1000	14900±1200	14800±2900
^{39}K	11200±1000**	8660±620	16400±1400**	8820±1400
^{43}Ca	10500±950**	6710±530	8030±260	8100±1300
^{31}P	8360±830	7740±590	8530±750	7480±1400
^{25}Mg	4270±414*	3530±250	4100±290*	3290±530
^{23}Na	311±45**	58±5	197±50*	58±6
^{66}Zn	82±8**	63±5	83±7	71±13
^{55}Mn	53±4**	34±3	52±5	47±9
^{57}Fe	26±4	23±2	61±7	56±9
^{65}Cu	14±1**	9.9±0.6	13±0.6	11±3
^{11}B	10±2*	5.9±0.5	13±10	6.6±2
^{85}Rb	4.7±0.4*	3.8±0.3	13±0.9**	7.3±1.4
^{7}Li	2.6±0.2**	0.90±0.2	9.2±0.9	10±0.8
^{114}Cd	1.9±0.2**	0.61±0.1	0.38±0**	0.21±0
^{60}Ni	1.8±0.2**	0.96±0.04	3.0±0.3**	1.4±0.3
^{98}Mo	1.5±0.2**	1.0±0.1	2.4±0.1**	1.5±0.2
^{82}Se	0.15±0.1	0.02±0.1	0±0.1	0±0.1
^{59}Co	0.095±0.01**	0.049±0.01	0.27±0.02	0.22±0.05
^{75}As	0.064±0*	0.042±0	0.052±0	0.037±0

Supporting Table 1: Elemental content (pg) per µg tissue for two generations of wild-type seed sieved into two classes: small (212-250 µm) and large (300-355 µm). Elements that were significantly different between large and small seeds from both generations are in bold. ** $p<0.01$, * $p<0.05$. All elements that were significantly different were present in greater amounts in the small seeds.

	Generation 1		Generation 2	
	Sm	Lg	Sm	Lg
^{34}S	$2.99\times10^{5}\pm3.4\times10^{4}$**	$4.48\times10^{5}\pm3.0\times10^{4}$	$2.23\times10^{5}\pm1.8\times10^{4}$*	$4.45\times10^{5}\pm8.6\times10^{4}$
^{39}K	$1.68\times10^{5}\pm1.6\times10^{4}$**	$2.60\times10^{5}\pm1.9\times10^{4}$	$2.47\times10^{5}\pm2.1\times10^{4}$	$2.65\times10^{5}\pm4.2\times10^{4}$
^{43}Ca	$1.58\times10^{5}\pm1.4\times10^{4}$**	$2.01\times10^{5}\pm1.6\times10^{4}$	$1.20\times10^{5}\pm3.9\times10^{3}$**	$2.43\times10^{5}\pm3.9\times10^{4}$
^{31}P	$1.25\times10^{5}\pm1.25\times10^{4}$**	$2.32\times10^{5}\pm1.8\times10^{4}$	$1.28\times10^{5}\pm1.1\times10^{4}$*	$2.24\times10^{5}\pm4.1\times10^{4}$
^{25}Mg	$6.41\times10^{4}\pm6.2\times10^{3}$**	$1.06\times10^{5}\pm7.4\times10^{3}$	$6.15\times10^{4}\pm4.4\times10^{3}$*	$9.86\times10^{4}\pm1.6\times10^{4}$
^{23}Na	4660±680**	1740±140	2950±750*	1750±180
^{66}Zn	1230±120**	1890±160	1240±110*	2120±390
^{55}Mn	790±59**	1030±87	780±74*	1420±260
^{57}Fe	390±60**	700±50	920±100**	1680±260
^{65}Cu	200±19**	300±17	200±9*	330±78
^{11}B	150±37	180±16	200±140	200±46
^{85}Rb	71±7**	110±8	190±14	220±41
^{7}Li	39±3*	27±5	140±13**	300±25
^{114}Cd	28±3**	18±2	6±0.4	6±1
^{60}Ni	27±3	29±1	45±4	43±8
^{98}Mo	22±2**	30±2	36±2	46±7
^{82}Se	2±1	0.7±2	0±1	0±3
^{59}Co	1±0.1	2±0.3	4±0.3	7±1*
^{75}As	1±0.2	1±0.3	0.8±0.2	1±0.3

Supporting Table 2: Elemental content (pg) per seed for two generations of wild-type seed sieved into two classes: small (212-250 µm) and large (300-355 µm). Elements that are significantly different between large and small seeds from both generations are in bold. ** $p<0.01$, * $p<0.05$. All elements that were significantly different were present in smaller amounts in the small seeds, except for Na.