

Table S1. Floral organ counts in various genotypes.

	Sepal	Petal	Stamen	Carpel ^{a, c}	Carpel ^{b, c}	Inner organ ^{a, d} (%)	Inner organ ^{b, d} (%)	N ^a	N ^b
<i>Ler</i>	4.0 ± 0	4.0 ± 0	5.6 ± 0.6	2.0 ± 0	2.0 ± 0	0	0	40	40
<i>pnh-1</i>	4.0 ± 0	4.1 ± 0.3	5.5 ± 0.7	2.8 ± 0.8	2.6 ± 0.6	0	0	24	68
<i>ago10-13</i>	4.0 ± 0.1	4.2 ± 0.3	5.3 ± 0.8	3.2 ± 0.4	2.9 ± 0.4	0	0	27	53
<i>hua1 hua2</i>	4.0 ± 0	4.0 ± 0	5.5 ± 0.7	2.0 ± 0.1	2.3 ± 0.5	0	0	45	15
<i>hua1 hua2 ago10-12^e</i>	4.0 ± 0.2	4 ± 0.2	5.3 ± 0.6	3.5 ± 0.6	3.5 ± 0.5	44.4	91.1	45	45
<i>ag-10</i>	4.0 ± 0	4.1 ± 0.3	6.0 ± 0.2	2.6 ± 0.6	2.5 ± 0.5	15.4	34.9	26	43
<i>ag-10 ago10-13</i>	4.0 ± 0.2	4.1 ± 0.4	5.5 ± 0.6	3.1 ± 0.7	3.1 ± 0.6	100	100	35	55
<i>hua1 ag-10</i>	4.0 ± 0	4.0 ± 0.2	5.6 ± 0.5	3.0 ± 0.6	2.8 ± 0.5	96.7	100	29	41
<i>hua1 hua2 ago10-12 ap2-2</i>	N/A	N/A	N/A	N/A	3.01 ± 0.82	N/A	40.8	0	76
<i>ag-10 ago10-13 ap2-2</i>	N/A	N/A	N/A	N/A	3.26 ± 0.67	N/A	86.3	0	73

a. stage 14 flowers at positions 12 to 21 on a single inflorescence. From the same flowers, the numbers of sepals, petals and stamens were counted.

b. siliques at positions of 2 to 11 on a single inflorescence.

c. 8.6% and 49% of *ag-10 ago10-13* gynoecia are not fused at stage 14 and the silique stage, respectively.

d. Gynoecia or siliques were dissected to reveal the presence or absence of internal floral organs.

e. The petaloid stamens in the 3rd whorl of *hua1 hua2 ago10-12* flowers were counted as stamens.

f. Errors are indicated by standard deviation.

N, total number of flowers counted.