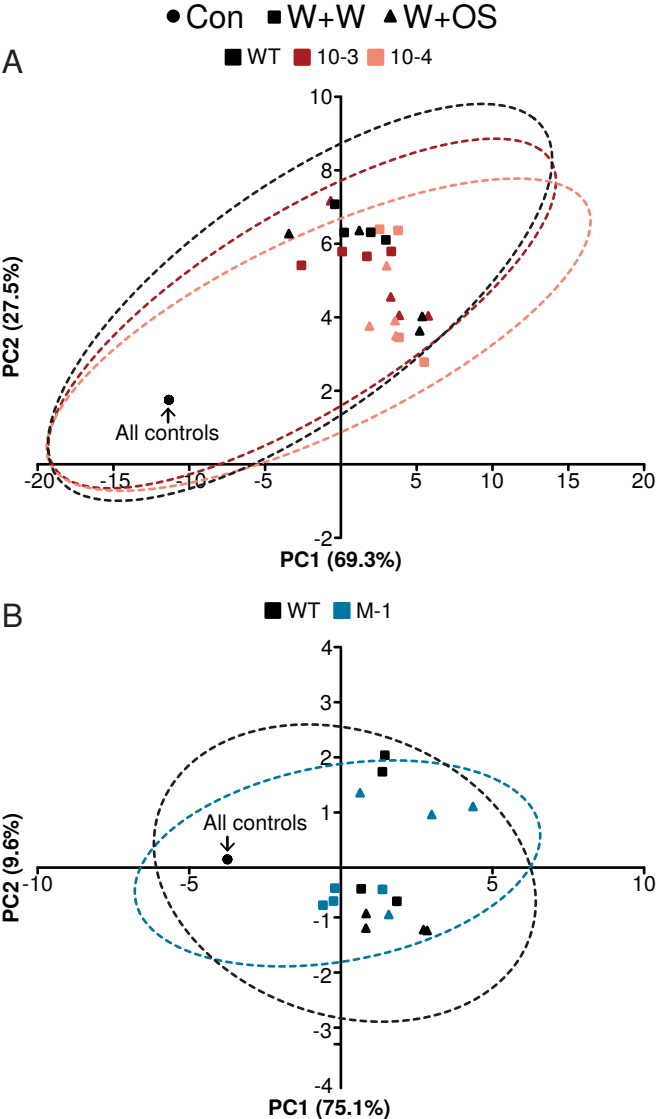
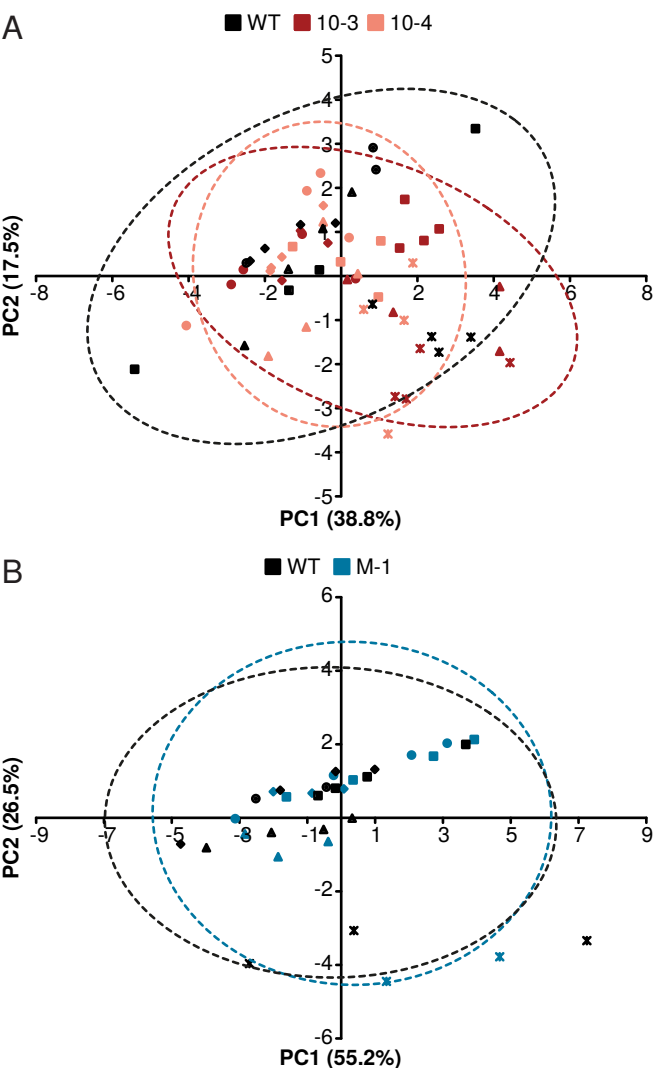


**Figure S1.** Selection of *TPS10* and *TPS10M* lines with a single transgene copy and enhanced emission of the target volatiles (*E*)- $\beta$ -farnesene and (*E*)- $\alpha$ -bergamotene (mean  $\pm$  SEM,  $n = 4$ ). (A, B) Images of Southern blots hybridized with a probe for the hygromycin resistance marker gene *HPTII* for independent lines of *TPS10* and *TPS10M* following digestion of DNA with XbaI (A) or EcoRI (B). Lanes are labeled with line numbers, WT (wild-type) or L (ladder positive control: contains the target *HPTII* sequence). *TPS10* and *TPS10M* lines selected for further experiments are indicated by line numbers in bold (*TPS10*: 10-#, *TPS10M*: M-#). Full line numbers are A-09-# (e.g. A-09-409); full line numbers for selected lines are A-09-279 (10-1), A-09-287 (10-2), A-09-389 (10-3), A-09-391 (10-4), A-09-396 (10-5), A-09-596 (M-1), and A-09-334 (M-2). Each line number represents a transformation event; homozygous lines from this event were used for experiments. (C) (*E*)- $\beta$ -Farnesene is present in the leaf headspace of *TPS10* (10-#, red) and *TPS10M* (M-1, blue), but not WT, constitutively and 24-32 h after W+OS treatment; emission from a line of *TPS10M* is greatest. Differences in (*E*)- $\beta$ -farnesene abundance among lines were not significant in control measurements ( $P = 0.3821$ ) but became significant after W+OS treatment ( $P = 0.0211$ ), and the effect of W+OS treatment on (*E*)- $\beta$ -farnesene abundance was also significant ( $P < 0.001$ ). (D) (*E*)- $\alpha$ -Bergamotene is detectable in the leaf headspace of *TPS10* and *TPS10M* lines and of WT constitutively, but increased 24-32 h after W+OS treatment ( $P = 0.0167$ ); the effect of line was significant both in control measurements ( $P = 0.0034$ ) and after W+OS treatment ( $P = 0.0011$ ).  $P$ -values result from Bonferroni correction of Kruskal-Wallis tests used to compare lines within treatments, and Wilcoxon rank-sum tests used to compare control and W+OS treatments for each volatile.

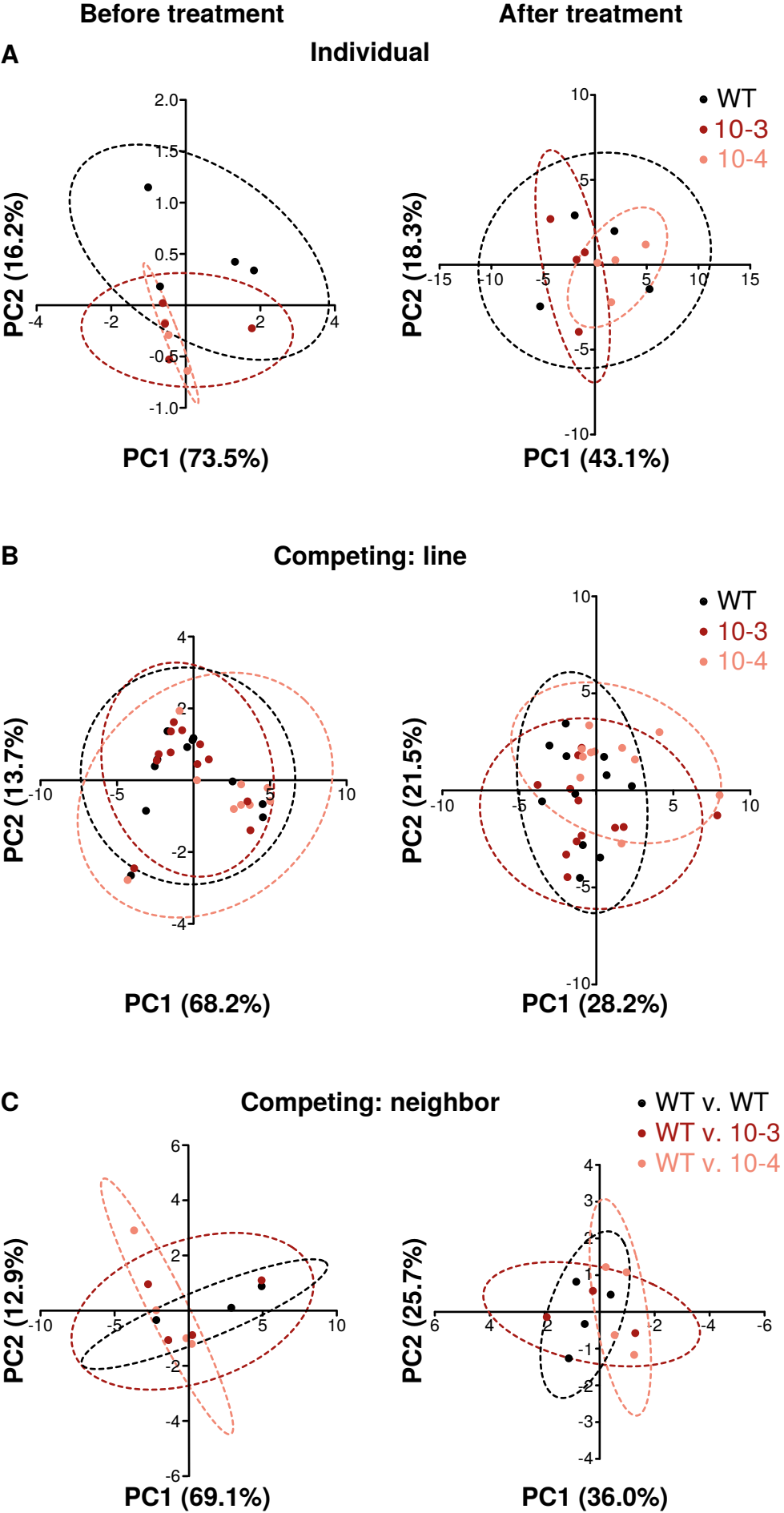


**Figure S2.** Green leaf volatiles (GLVs) are similar to WT in *TPS10* and *TPS10M* lines ( $n = 4$  samples per line per treatment,  $n = 12$  per line). A PCA with 95% confident intervals for each line is shown for all GLVs detected in the headspace of the +2 leaf in a comparison of WT and *TPS10* (A) or WT and *TPS10M* plants (B) for the first 3 h (during which the greatest amount of GLVs are released after damage) after no treatment (Con, circles) or treatment with W+W (squares) or W+OS (triangles).

● Con ■ W+W ▲ W+OS ◆ Lan × Lan+MJ



**Figure S3.** Plant volatiles (PVs) other than (*E*)- $\beta$ -farnesene and (*E*)- $\alpha$ -bergamotene are similar to WT in *TPS10* and *TPS10M* ( $n = 4$  samples per line per treatment,  $n = 12$  per genotype). A PCA with 95% confident intervals for each line is shown for all other PVs detected in the headspace of the +2 leaf in a comparison of WT and *TPS10* (A) or WT and *TPS10M* plants (B) for 24-32 h following treatment (during which the greatest amount of terpenoids are released after damage) from untreated leaves (Con, circles) or leaves treated with W+W (squares), W+OS (triangles), Lan (diamonds) or Lan+MJ (x's).



**Figure S4.** Plant volatiles other than *(E)*- $\beta$ -farnesene and *(E)*- $\alpha$ -bergamotene are similar to WT in *TPS10* and are not affected by competition. A PCA with 95% confident intervals for each line is shown for all other volatiles detected in the headspace of the +2 leaf in a comparison of WT and *TPS10* planted alone (A, n = 4 per line) or in competition (B, n = 12 per line), and for WT plants competing with neighbors of different genotypes (C, n = 4 per neighbor type), for 6 h before treatment (left panels) or for 0-6 h following the last of three elicitations with W+OS over 18 h across 2 d (right panels).

**Table S1.** Statistical analysis of (*E*)- $\beta$ -farnesene and (*E*)- $\alpha$ -bergamotene emission for two lines of *TPS10* and WT plants (Fig. 1), after applying the Holm-Bonferroni correction for the number of tests listed (No. tests). Significant *P*-values (< 0.05) are in **bold**, while marginal *P*-values (< 0.1) are in *italics*.

<b>Compound</b>	<b>Treatment</b>	<b>Comparison</b>	<b>Test statistic</b>	<b>DF or n</b>	<b>No. tests</b>	<b>Corrected P</b>
<i>(E)</i> - $\beta$ -Farnesene	Con	WT vs. 10-3	W = 16	n = 4	2	<b>0.0421</b>
		WT vs. 10-4	W = 14	n = 4	2	<i>0.0689</i>
	W+W	WT vs. 10-3	W = 16	n = 4	2	<b>0.0421</b>
		WT vs. 10-4	W = 16	n = 4	2	<b>0.0211</b>
	W+OS	WT vs. 10-3	t = 3.397	df = 4.639	2	<b>0.0434</b>
		WT vs. 10-4	W = 12.5	n = 4	2	0.2186
	Lan	WT vs. 10-3	W = 16	n = 4	2	<b>0.0421</b>
		WT vs. 10-4	W = 10	n = 3 to 4	2	0.1227
	Lan+MJ	WT vs. 10-3	W = 16	n = 4	2	<b>0.0421</b>
		WT vs. 10-4	W = 16	n = 4	2	<b>0.0211</b>
<i>(E)</i> - $\alpha$ -Bergamotene	Con	WT vs. 10-3	W = 16	n = 4	2	<i>0.0530</i>
		WT vs. 10-4	W = 16	n = 4	2	<i>0.0530</i>
	W+W	WT vs. 10-3	t = 4.885	df = 3.957	2	<b>0.0167</b>
		WT vs. 10-4	W = 15	n = 4	2	<i>0.0591</i>
	W+OS	WT vs. 10-3	t = 3.421	df = 3.671	2	<i>0.0612</i>
		WT vs. 10-4	t = 1.643	df = 5.022	2	0.1611
	Lan	WT vs. 10-3	W = 16	n = 4	2	<i>0.0530</i>

<b>Compound</b>	<b>Treatment</b>	<b>Comparison</b>	<b>Test statistic</b>	<b>DF or n</b>	<b>No. tests</b>	<b>Corrected P</b>
		WT vs. 10-4	W = 9.5	n = 3 to 4	2	0.2419
	Lan+MJ	WT vs. 10-3	t = 3.946	df = 3.759	2	<b>0.0380</b>
		WT vs. 10-4	t = 2.864	df = 4.487	2	<b>0.0400</b>

**Table S2.** Statistical analysis of (*E*)- $\beta$ -farnesene and (*E*)- $\alpha$ -bergamotene emission for one line of *TPS10M* and WT plants (Fig. 1). Significant *P*-values (< 0.05) are in **bold**.

<b>Compound</b>	<b>Treatment</b>	<b>Comparison</b>	<b>Test statistic</b>	<b>DF or n</b>	<b>No. tests</b>	<b>P</b>
<i>(E)</i> - $\beta$ -Farnesene	Con	WT vs. M-1	W = 12	n = 3 to 4	1	<b>0.0436</b>
	W+W	WT vs. M-1	W = 16	n = 4	1	<b>0.0211</b>
	W+OS	WT vs. M-1	W = 12	n = 3 to 4	1	<b>0.0319</b>
	Lan	WT vs. M-1	W = 12	n = 3 to 4	1	<b>0.0319</b>
	Lan+MJ	WT vs. M-1	W = 6	n = 2 to 3	1	0.1066
<i>(E)</i> - $\alpha$ -Bergamotene	Con	WT vs. M-1	t = 2.087	df = 3.568	1	0.1136
	W+W	WT vs. M-1	t = 4.989	df = 4.722	1	<b>0.0048</b>
	W+OS	WT vs. M-1	t = 4.276	df = 4.751	1	<b>0.0088</b>
	Lan	WT vs. M-1	W = 12	n = 4	1	<b>0.0436</b>
	Lan+MJ	WT vs. M-1	t = 0.0744	df = 2.852	1	0.9456

**Table S3.** HGL-DTGS in two lines of *TPS10* and WT (mean  $\pm$  SEM, n = 4). Values are peak areas in counts\*s normalized to mg fresh mass relative to an internal standard. Corrected \**P* < 0.05, \*\**P* < 0.01 versus WT within the same treatment in Welch's t-tests after a Bonferroni correction for multiple comparisons (individual HGL-DTGS and total HGL-DTGS were tested, and WT was tested against each line; total HGL-DTGS are shown in Figure 4).

Compound	Line	Con	W+W	W+OS	Lan	Lan+MJ
Lyciumoside I	WT	<b>3.43</b> $\pm$ 1.16	<b>2.43</b> $\pm$ 0.51	<b>2.08</b> $\pm$ 0.35	<b>2.42</b> $\pm$ 0.17	<b>4.78</b> $\pm$ 0.67
	10-3	<b>1.95</b> $\pm$ 0.25	<b>1.23</b> $\pm$ 0.11	<b>1.53</b> $\pm$ 0.05	<b>2.16</b> $\pm$ 0.30	<b>3.51</b> $\pm$ 0.80
	10-4	<b>2.25</b> $\pm$ 0.37	<b>0.81</b> $\pm$ 0.20	<b>1.49</b> $\pm$ 0.44	<b>1.79</b> $\pm$ 0.54	<b>4.08</b> $\pm$ 0.37
Lyciumoside II	WT	<b>2.39</b> $\pm$ 0.38	<b>3.65</b> $\pm$ 1.17	<b>4.22</b> $\pm$ 0.51	<b>1.64</b> $\pm$ 0.11	<b>3.66</b> $\pm$ 0.60
	10-3	<b>2.58</b> $\pm$ 0.25	<b>3.21</b> $\pm$ 0.40	<b>3.98</b> $\pm$ 0.75	<b>2.43</b> $\pm$ 0.37	<b>3.02</b> $\pm$ 0.55
	10-4	<b>2.71</b> $\pm$ 0.19	<b>2.56</b> $\pm$ 0.27	<b>3.17</b> $\pm$ 0.32	<b>4.31</b> $\pm$ 2.02	<b>2.78</b> $\pm$ 0.33
Lyciumoside IV	WT	<b>339.31</b> $\pm$ 39.83	<b>604.60</b> $\pm$ 257.82	<b>388.82</b> $\pm$ 50.61	<b>329.36</b> $\pm$ 17.80	<b>751.60</b> $\pm$ 99.53
	10-3	<b>371.79</b> $\pm$ 12.54	<b>418.69</b> $\pm$ 41.93	<b>399.94</b> $\pm$ 55.69	<b>403.76</b> $\pm$ 59.68	<b>686.03</b> $\pm$ 62.16
	10-4	<b>434.44</b> $\pm$ 24.38	<b>335.42</b> $\pm$ 41.74	<b>348.47</b> $\pm$ 47.93	<b>740.98</b> $\pm$ 302.79	<b>631.12</b> $\pm$ 73.05
Nicotianoside I	WT	<b>268.78</b> $\pm$ 29.05	<b>377.25</b> $\pm$ 85.33	<b>306.27</b> $\pm$ 22.64	<b>286.18</b> $\pm$ 7.78	<b>520.05</b> $\pm$ 56.29
	10-3	<b>283.22</b> $\pm$ 14.43	<b>310.94</b> $\pm$ 13.69	<b>290.43</b> $\pm$ 22.06	<b>303.10</b> $\pm$ 28.15	<b>476.38</b> $\pm$ 26.44
	10-4	<b>299.43</b> $\pm$ 21.02	<b>212.98</b> $\pm$ 11.58	<b>271.78</b> $\pm$ 32.91	** <b>353.27</b> $\pm$ 10.51	<b>462.49</b> $\pm$ 26.00
Nicotianoside II	WT	<b>434.22</b> $\pm$ 124.93	<b>345.57</b> $\pm$ 55.88	<b>228.99</b> $\pm$ 20.05	<b>172.63</b> $\pm$ 7.95	<b>372.10</b> $\pm$ 53.58
	10-3	<b>409.25</b> $\pm$ 92.68	<b>382.82</b> $\pm$ 65.24	<b>203.65</b> $\pm$ 22.71	<b>146.57</b> $\pm$ 13.81	<b>340.91</b> $\pm$ 18.38
	10-4	<b>388.45</b> $\pm$ 113.38	<b>179.92</b> $\pm$ 47.49	<b>155.28</b> $\pm$ 25.98	<b>161.73</b> $\pm$ 49.68	<b>281.71</b> $\pm$ 25.75
Nicotianoside III	WT	<b>10.81</b> $\pm$ 1.37	<b>15.80</b> $\pm$ 4.00	<b>11.95</b> $\pm$ 0.95	<b>9.73</b> $\pm$ 0.70	<b>21.77</b> $\pm$ 3.08



<b>Compound</b>	<b>Line</b>	<b>Con</b>	<b>W+W</b>	<b>W+OS</b>	<b>Lan</b>	<b>Lan+MJ</b>
Nicotianoside IV	10-3	<b>11.45</b> ± 0.62	<b>13.42</b> ± 0.26	<b>11.12</b> ± 0.95	<b>10.82</b> ± 1.00	<b>20.61</b> ± 1.81
	10-4	<b>11.65</b> ± 0.86	<b>8.89</b> ± 0.45	<b>9.71</b> ± 1.32	<b>17.16</b> ± 3.52	<b>17.74</b> ± 1.51
	WT	<b>93.72</b> ± 22.08	<b>119.91</b> ± 19.92	<b>91.18</b> ± 7.12	<b>67.86</b> ± 5.63	<b>160.11</b> ± 26.77
	10-3	<b>91.50</b> ± 9.48	<b>122.43</b> ± 10.08	<b>84.53</b> ± 5.48	<b>73.25</b> ± 7.38	<b>162.90</b> ± 12.29
Nicotianoside V	10-4	<b>90.92</b> ± 11.71	<b>61.71</b> ± 8.35	<b>71.55</b> ± 9.15	<b>103.67</b> ± 13.20	<b>126.18</b> ± 8.10
	WT	<b>122.78</b> ± 31.82	<b>139.85</b> ± 13.95	<b>134.13</b> ± 11.10	<b>81.17</b> ± 9.66	<b>234.02</b> ± 40.51
	10-3	<b>110.59</b> ± 16.94	<b>160.79</b> ± 16.94	<b>114.20</b> ± 11.39	<b>65.48</b> ± 6.89	<b>234.94</b> ± 14.75
	10-4	<b>88.10</b> ± 23.63	* <b>65.83</b> ± 9.89	<b>88.83</b> ± 16.06	<b>85.95</b> ± 27.06	<b>164.50</b> ± 9.50
Attenoside	WT	<b>2.14</b> ± 0.38	<b>6.52</b> ± 2.40	<b>7.12</b> ± 0.57	<b>1.62</b> ± 0.28	<b>3.30</b> ± 0.70
	10-3	<b>2.30</b> ± 0.26	<b>5.50</b> ± 0.54	<b>6.53</b> ± 1.48	<b>2.17</b> ± 0.25	<b>2.93</b> ± 0.65
	10-4	<b>2.29</b> ± 0.17	<b>2.99</b> ± 0.36	<b>4.81</b> ± 0.79	<b>6.05</b> ± 2.51	<b>1.68</b> ± 0.30
Nicotianoside VI	WT	<b>71.47</b> ± 14.94	<b>163.87</b> ± 27.72	<b>159.07</b> ± 18.14	<b>40.67</b> ± 2.91	<b>59.56</b> ± 10.43
	10-3	<b>79.74</b> ± 8.00	<b>161.91</b> ± 19.09	<b>148.49</b> ± 27.33	<b>47.39</b> ± 5.49	<b>57.80</b> ± 9.26
	10-4	<b>76.89</b> ± 11.57	<b>73.35</b> ± 10.68	<b>111.30</b> ± 11.83	<b>77.60</b> ± 22.10	<b>34.34</b> ± 2.16
Nicotianoside VII	WT	<b>17.47</b> ± 3.70	<b>36.69</b> ± 3.48	<b>45.77</b> ± 7.16	<b>12.02</b> ± 1.00	<b>15.19</b> ± 2.87
	10-3	<b>17.12</b> ± 2.45	<b>38.44</b> ± 2.75	<b>40.26</b> ± 9.23	<b>10.47</b> ± 0.85	<b>14.29</b> ± 1.88
	10-4	<b>13.61</b> ± 2.78	* <b>14.99</b> ± 1.84	<b>28.82</b> ± 3.87	<b>15.84</b> ± 6.37	<b>8.07</b> ± 0.93

**Table S4.** HGL-DTGS in one line of *TPS10M* and WT (mean  $\pm$  SEM, n = 4). Values are peak areas in counts\*s normalized to mg fresh mass relative to an internal standard. There were no significant differences (corrected  $P > 0.05$ ) in Welch's t-tests or Wilcoxon rank-sum tests between line M-1 and WT within each treatment after Bonferroni corrections for multiple comparisons (individual HGL-DTGs and total HGL-DTGs were tested, total HGL-DTGs are shown in Figure 4).

<b>Compound</b>	<b>Line</b>	<b>Con</b>	<b>W+W</b>	<b>W+OS</b>	<b>Lan</b>	<b>Lan+MJ</b>
Lyciumoside I	WT	<b>2.76</b> $\pm$ 0.19	<b>1.47</b> $\pm$ 0.25	<b>2.62</b> $\pm$ 0.82	<b>2.54</b> $\pm$ 0.37	<b>17.72</b> $\pm$ 4.19
	M-1	<b>2.53</b> $\pm$ 0.51	<b>2.07</b> $\pm$ 0.33	<b>2.27</b> $\pm$ 0.32	<b>2.24</b> $\pm$ 0.93	<b>12.83</b> $\pm$ 3.14
Lyciumoside II	WT	<b>14.28</b> $\pm$ 8.08	<b>15.86</b> $\pm$ 5.01	<b>6.57</b> $\pm$ 0.80	<b>34.63</b> $\pm$ 3.06	<b>9.66</b> $\pm$ 2.00
	M-1	<b>24.55</b> $\pm$ 3.57	<b>24.05</b> $\pm$ 3.76	<b>18.90</b> $\pm$ 8.52	<b>19.58</b> $\pm$ 5.95	<b>6.62</b> $\pm$ 1.05
Lyciumoside IV	WT	<b>976.42</b> $\pm$ 160.26	<b>1063.14</b> $\pm$ 136.72	<b>455.57</b> $\pm$ 5.59	<b>1602.69</b> $\pm$ 177.44	<b>1352.12</b> $\pm$ 343.99
	M-1	<b>1273.83</b> $\pm$ 216.23	<b>1412.91</b> $\pm$ 140.18	<b>646.58</b> $\pm$ 83.34	<b>1159.98</b> $\pm$ 342.72	<b>1249.35</b> $\pm$ 214.24
Nicotianoside I	WT	<b>143.42</b> $\pm$ 69.75	<b>144.33</b> $\pm$ 44.34	<b>236.96</b> $\pm$ 22.44	<b>15.19</b> $\pm$ 1.71	<b>666.60</b> $\pm$ 126.48
	M-1	<b>25.74</b> $\pm$ 20.88	<b>93.25</b> $\pm$ 39.06	<b>161.16</b> $\pm$ 52.98	<b>13.62</b> $\pm$ 2.06	<b>698.44</b> $\pm$ 105.94
Nicotianoside II	WT	<b>59.52</b> $\pm$ 30.22	<b>23.09</b> $\pm$ 14.62	<b>106.98</b> $\pm$ 18.41	<b>0.04</b> $\pm$ 0.01	<b>317.89</b> $\pm$ 51.95
	M-1	<b>1.01</b> $\pm$ 0.79	<b>7.84</b> $\pm$ 4.82	<b>42.43</b> $\pm$ 21.53	<b>0.07</b> $\pm$ 0.04	<b>310.25</b> $\pm$ 39.75
Nicotianoside III	WT	<b>12.56</b> $\pm$ 2.36	<b>13.95</b> $\pm$ 0.90	<b>11.19</b> $\pm$ 0.57	<b>14.16</b> $\pm$ 2.50	<b>27.75</b> $\pm$ 5.21
	M-1	<b>8.71</b> $\pm$ 2.61	<b>14.15</b> $\pm$ 1.84	<b>9.41</b> $\pm$ 1.99	<b>8.31</b> $\pm$ 2.46	<b>28.44</b> $\pm$ 3.99
Nicotianoside IV	WT	<b>38.92</b> $\pm$ 15.88	<b>51.49</b> $\pm$ 10.07	<b>48.59</b> $\pm$ 5.43	<b>10.91</b> $\pm$ 1.70	<b>146.51</b> $\pm$ 23.42
	M-1	<b>15.52</b> $\pm$ 10.85	<b>41.94</b> $\pm$ 13.82	<b>37.98</b> $\pm$ 11.21	<b>7.88</b> $\pm$ 0.94	<b>160.12</b> $\pm$ 18.18
Nicotianoside V	WT	<b>16.73</b> $\pm$ 8.90	<b>12.16</b> $\pm$ 7.42	<b>55.56</b> $\pm$ 11.82	<b>0.01</b> $\pm$ 0.01	<b>157.35</b> $\pm$ 23.05
	M-1	<b>0.43</b> $\pm$ 0.40	<b>3.74</b> $\pm$ 2.15	<b>21.84</b> $\pm$ 11.57	<b>0.10</b> $\pm$ 0.06	<b>172.57</b> $\pm$ 16.79

<b>Compound</b>	<b>Line</b>	<b>Con</b>	<b>W+W</b>	<b>W+OS</b>	<b>Lan</b>	<b>Lan+MJ</b>
Attenoside	WT	<b>4.16</b> ± 1.96	<b>13.44</b> ± 5.15	<b>4.69</b> ± 0.35	<b>15.50</b> ± 0.77	<b>2.85</b> ± 0.62
	M-1	<b>7.11</b> ± 1.14	<b>16.04</b> ± 2.21	<b>14.23</b> ± 6.02	<b>10.15</b> ± 2.41	<b>2.45</b> ± 0.30
Nicotianoside VI	WT	<b>37.90</b> ± 15.40	<b>88.61</b> ± 7.31	<b>107.33</b> ± 6.03	<b>11.79</b> ± 1.07	<b>49.70</b> ± 6.20
	M-1	<b>12.64</b> ± 5.94	<b>71.84</b> ± 20.69	<b>124.51</b> ± 12.50	<b>11.68</b> ± 0.63	<b>44.17</b> ± 5.00
Nicotianoside VII	WT	<b>3.50</b> ± 1.75	<b>6.95</b> ± 2.44	<b>28.66</b> ± 3.02	<b>0.16</b> ± 0.03	<b>8.64</b> ± 0.58
	M-1	<b>0.29</b> ± 0.22	<b>3.08</b> ± 1.41	<b>16.94</b> ± 5.80	<b>0.18</b> ± 0.05	<b>7.19</b> ± 0.70

**Table S5.** Statistical analysis of growth for two lines of *TPS10* and WT plants grown alone or in competition (Fig. 8), after applying the Bonferroni correction for the number of tests listed (No. tests). Significant *P*-values (<0.05) are in **bold**.

Measurement	Day	Individual/Competing	Effect	Test	Test statistic	DF	No. tests	Corrected P
Rosette diameter	27	Individual	Line	Kruskal-Wallis	$\chi^2 = 5.053$	2	2	0.1599
Rosette diameter	27	Individual v. competing	Competition	Wilcoxon rank-sum	W = 217		3	0.1068
Rosette diameter	27	Individual v. competing	Competition	Wilcoxon rank-sum	W = 181		3	0.9840
Rosette diameter	27	Individual v. competing	Competition	Wilcoxon rank-sum	W = 129		3	1.0000
Rosette diameter	27	Competing	Line	Kruskal-Wallis	$\chi^2 = 7.0211$	2	3	0.0896
Rosette diameter	27	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 1.8998$	2	3	1.0000
Rosette diameter	30	Individual	Line	Kruskal-Wallis	$\chi^2 = 3.8116$	2	2	0.2974
Rosette diameter	30	Individual v. competing	Competition	Wilcoxon rank-sum	W = 228		3	<b>0.0446</b>
Rosette diameter	30	Individual v. competing	Competition	Wilcoxon rank-sum	W = 213		3	0.1460
Rosette diameter	30	Individual v. competing	Competition	Wilcoxon rank-sum	W = 158		3	1.0000
Rosette diameter	30	Competing	Line	Kruskal-Wallis	$\chi^2 = 4.9625$	2	3	0.2509
Rosette diameter	30	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 1.1909$	2	3	1.0000
Rosette diameter	34	Individual	Line	Kruskal-Wallis	$\chi^2 = 1.7395$	2	2	0.8382
Rosette diameter	34	Individual v. competing	Competition	Wilcoxon rank-sum	W = 275		3	<b>0.0003</b>
Rosette diameter	34	Individual v. competing	Competition	Wilcoxon rank-sum	W = 289		3	<b>&lt;0.0001</b>
Rosette diameter	34	Individual v. competing	Competition	Wilcoxon rank-sum	W = 289		3	<b>&lt;0.0001</b>
Rosette diameter	34	Competing	Line	Kruskal-Wallis	$\chi^2 = 14.8551$	2	4	<b>0.0024</b>
Rosette diameter	34	Competing	Line	Wilcoxon rank-sum	W = 221		4	<b>0.0028</b>

Measurement	Day	Individual/Competing	Effect	Test	Test statistic	DF	No. tests	Corrected P
Rosette diameter	34	Competing	Line	Wilcoxon rank-sum	$W = 669$		4	<b>0.0045</b>
Rosette diameter	34	Competing	Line	Wilcoxon rank-sum	$W = 439$		4	1.0000
Rosette diameter	34	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 0.1589$	2	4	1.0000
Rosette diameter	41	Individual	Line	Kruskal-Wallis	$\chi^2 = 0.7884$	2	2	1.0000
Rosette diameter	41	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 290$		3	<b>&lt;0.0001</b>
Rosette diameter	41	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 282$		3	<b>&lt;0.0001</b>
Rosette diameter	41	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 281$		3	<b>0.0001</b>
Rosette diameter	41	Competing	Line	Kruskal-Wallis	$\chi^2 = 0.6326$	2	3	1.0000
Rosette diameter	41	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 0.4569$	2	3	1.0000
Rosette diameter	44	Individual	Line	Kruskal-Wallis	$\chi^2 = 0.5341$	2	2	1.0000
Rosette diameter	44	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 283$		3	<b>&lt;0.0001</b>
Rosette diameter	44	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 257$		3	<b>&lt;0.0001</b>
Rosette diameter	44	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 258$		3	<b>0.0003</b>
Rosette diameter	44	Competing	Line	Kruskal-Wallis	$\chi^2 = 0.6977$	2	3	1.0000
Rosette diameter	44	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 0.9869$	2	3	1.0000
Rosette diameter	48	Individual	Line	Kruskal-Wallis	$\chi^2 = 1.1015$	2	2	1.0000
Rosette diameter	48	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 272$		3	<b>&lt;0.0001</b>
Rosette diameter	48	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 248$		3	<b>0.0001</b>
Rosette diameter	48	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 266$		3	<b>0.0001</b>
Rosette diameter	48	Competing	Line	Kruskal-Wallis	$\chi^2 = 0.2088$	2	3	1.0000

Measurement	Day	Individual/Competing	Effect	Test	Test statistic	DF	No. tests	Corrected P
Rosette diameter	48	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 1.4376$	2	3	1.0000
Stalk length	34	Individual	Line	Kruskal-Wallis	$\chi^2 = 1.123$	2	2	1.0000
Stalk length	34	Individual v. competing	Competition	Wilcoxon rank-sum	W = 108		3	0.5934
Stalk length	34	Individual v. competing	Competition	Wilcoxon rank-sum	W = 167		3	1.0000
Stalk length	34	Individual v. competing	Competition	Wilcoxon rank-sum	W = 162		3	1.0000
Stalk length	34	Competing	Line	Kruskal-Wallis	$\chi^2 = 5.3606$	2	3	0.2056
Stalk length	34	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 0.7864$	2	3	1.0000
Stalk length	41	Individual	Line	Kruskal-Wallis	$\chi^2 = 1.9655$	2	2	0.7486
Stalk length	41	Individual v. competing	Competition	Wilcoxon rank-sum	W = 122		3	1.0000
Stalk length	41	Individual v. competing	Competition	Wilcoxon rank-sum	W = 213		3	0.1517
Stalk length	41	Individual v. competing	Competition	Wilcoxon rank-sum	W = 175		3	1.0000
Stalk length	41	Competing	Line	Kruskal-Wallis	$\chi^2 = 4.9075$	2	3	0.2579
Stalk length	41	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 0.4133$	2	3	1.0000
Stalk length	44	Individual	Line	Kruskal-Wallis	$\chi^2 = 0.2858$	2	2	1.0000
Stalk length	44	Individual v. competing	Competition	Wilcoxon rank-sum	W = 186		3	0.3807
Stalk length	44	Individual v. competing	Competition	Wilcoxon rank-sum	W = 254		3	<b>0.0014</b>
Stalk length	44	Individual v. competing	Competition	Wilcoxon rank-sum	W = 225		3	<b>0.0025</b>
Stalk length	44	Competing	Line	Kruskal-Wallis	$\chi^2 = 4.3566$	2	3	0.3396
Stalk length	44	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 0.2875$	2	3	1.0000
Stalk length	48	Individual	Line	Kruskal-Wallis	$\chi^2 = 0.893$	2	2	1.0000

Measurement	Day	Individual/Competing	Effect	Test	Test statistic	DF	No. tests	Corrected P
Stalk length	48	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 228$		3	<b>0.0105</b>
Stalk length	48	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 269$		3	<b>0.0001</b>
Stalk length	48	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 258$		3	<b>&lt;0.0001</b>
Stalk length	48	Competing	Line	Kruskal-Wallis	$\chi^2 = 4.8246$	2	3	0.2688
Stalk length	48	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 0.506$	2	3	1.0000
Stalk length	51	Individual	Line	Kruskal-Wallis	$\chi^2 = 1.3134$	2	2	1.0000
Stalk length	51	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 229$		3	<b>0.0041</b>
Stalk length	51	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 267$		3	<b>0.0001</b>
Stalk length	51	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 246$		3	<b>&lt;0.0001</b>
Stalk length	51	Competing	Line	Kruskal-Wallis	$\chi^2 = 2.5033$	2	3	0.8580
Stalk length	51	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 0.1037$	2	3	1.0000
Stalk length	55	Individual	Line	Kruskal-Wallis	$\chi^2 = 0.4196$	2	2	1.0000
Stalk length	55	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 223$		3	<b>0.0032</b>
Stalk length	55	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 267$		3	<b>0.0001</b>
Stalk length	55	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 221$		3	<b>0.0001</b>
Stalk length	55	Competing	Line	Kruskal-Wallis	$\chi^2 = 1.1865$	2	3	1.0000
Stalk length	55	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 0.1494$	2	3	1.0000
Stalk length	59	Individual	Line	Kruskal-Wallis	$\chi^2 = 0.6218$	2	2	1.0000
Stalk length	59	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 217$		3	<b>0.0023</b>
Stalk length	59	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 265$		3	<b>0.0001</b>

Measurement	Day	Individual/Competing	Effect	Test	Test statistic	DF	No. tests	Corrected P
Stalk length	59	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 242$		3	<b>0.0001</b>
Stalk length	59	Competing	Line	Kruskal-Wallis	$\chi^2 = 1.0272$	2	3	1.0000
Stalk length	59	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 0.2844$	2	3	1.0000
Stalk length	62	Individual	Line	Kruskal-Wallis	$\chi^2 = 1.5353$	2	2	0.9282
Stalk length	62	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 216$		3	<b>0.0028</b>
Stalk length	62	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 262$		3	<b>0.0002</b>
Stalk length	62	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 244$		3	<b>&lt;0.0001</b>
Stalk length	62	Competing	Line	Kruskal-Wallis	$\chi^2 = 0.5701$	2	3	1.0000
Stalk length	62	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 0.5951$	2	3	1.0000
Stalk length	66	Individual	Line	Kruskal-Wallis	$\chi^2 = 3.0814$	2	2	0.4284
Stalk length	66	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 215$		3	<b>0.0030</b>
Stalk length	66	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 258$		3	<b>0.0003</b>
Stalk length	66	Individual v. competing	Competition	Wilcoxon rank-sum	$W = 234$		3	<b>&lt;0.0001</b>
Stalk length	66	Competing	Line	Kruskal-Wallis	$\chi^2 = 1.2635$	2	3	1.0000
Stalk length	66	Competing	Neighbor	Kruskal-Wallis	$\chi^2 = 0.2061$	2	3	1.0000



**Table S6.** Statistical analysis of reproduction for two lines of *TPS10* and WT plants grown alone or in competition (Fig. 9), after applying the Bonferroni correction for the number of tests listed (No. tests). Significant corrected *P*-values (<0.05) are in **bold**.

Measurement	Individual/Competing	Effect	Test	Test statistic	DF	No. tests	Corrected P
Buds	Individual	Line	ANOVA	F = 2.681	2, 26	2	0.1748
Buds	Competing	Line	ANOVA minimal model	F = 2.373	2, 72	2	0.2000
Buds	Individual v. competing, WT	Competition	Welch's t-test	t = 3.7759	16.184	2	<b>0.0033</b>
Buds	Individual v. competing, 10-3	Competition	Welch's t-test	t = 4.6398	15.109	2	<b>0.0006</b>
Buds	Individual v. competing, 10-4	Competition	Welch's t-test	t = 6.2095	13.691	2	<b>0.0001</b>
Flowers	Individual	Line	ANOVA	F = 4.191	2, 26	2	0.0528
Flowers	Competing	Line	ANOVA minimal model	F = 1.307	2, 72	2	0.5540
Flowers	Individual v. competing, WT	Competition	Welch's t-test	t = 2.7779	14.608	2	<b>0.0287</b>
Flowers	Individual v. competing, 10-3	Competition	Welch's t-test	t = 1.9182	13.492	2	0.1530
Flowers	Individual v. competing, 10-4	Competition	Welch's t-test	t = 6.4014	16.048	2	<b>&lt;0.0001</b>
Unripe capsules	Individual	Line	ANOVA	F = 2.997	2, 26	2	0.1348
Unripe capsules	Competing	Line	ANOVA minimal model	F = 6.481	2, 72	2	<b>0.0052</b>
Unripe capsules	Competing: 10-3 v. 10-4	Line	Tukey			2	<b>0.0060</b>
Unripe capsules	Competing: WT v. 10-3	Line	Tukey			2	0.0638
Unripe capsules	Competing: WT v. 10-4	Line	Tukey			2	1.0000
Unripe capsules	Individual v. competing, WT	Competition	Welch's t-test	t = 8.0416	14.095	2	<b>&lt;0.0001</b>
Unripe capsules	Individual v. competing, 10-3	Competition	Welch's t-test	t = 7.0834	22.344	2	<b>&lt;0.0001</b>
Unripe capsules	Individual v. competing, 10-4	Competition	Welch's t-test	t = 5.0078	13.499	2	<b>0.0004</b>

Measurement	Individual/Competing	Effect	Test	Test statistic	DF	No. tests	Corrected P
Ripe capsules	Individual	Line	ANOVA	F = 1.807	2, 26	2	0.3680
Ripe capsules	Competing	Line	ANOVA minimal model	F = 5.15	2, 72	2	<b>0.0162</b>
Ripe capsules	Competing: 10-3 v. 10-4	Line	Tukey			2	<b>0.0299</b>
Ripe capsules	Competing: WT v. 10-3	Line	Tukey			2	1.0000
Ripe capsules	Competing: WT v. 10-4	Line	Tukey			2	<b>0.0449</b>
Ripe capsules	Individual v. competing, WT	Competition	Welch's t-test	t = 3.2678	9.621	2	<b>0.0178</b>
Ripe capsules	Individual v. competing, 10-3	Competition	Welch's t-test	t = 5.5625	20.767	2	<b>&lt;0.0001</b>
Ripe capsules	Individual v. competing, 10-4	Competition	Welch's t-test	t = 4.9421	19.738	2	<b>0.0002</b>