**Supplementary information**

**Table S1:** Plant responses to *Grapevine fanleaf virus* (GFLV) strains F13 and GHu, and *Tomato ringspot virus* (ToRSV) strain AP.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Virus  | Sample sizea | Species orsynthetic allopolyploid  | Resistancecategoryb | Inoculated leafc,d | Apical leaf 1 | Apical leaf 2 | Apical leaf 3 | Apical leaf 4 |
| GFLV-F13 | 25 | 4*x*(*N. sylvestris* x *N. tomentosiformis*) | 1 | 0% | 0% | N/T | N/T | N/T |
| 25 | 4*x*(*N. glutinosa* x *N. tabacum*) | 1 | 0% | 0% | N/T | N/T | N/T |
| 19 | 4*x*(*N. sylvestris* x *N. otophora*) | 1 | 0% | 0% | N/T | N/T | N/T |
| 6 | *N. paniculata* | 1 | 0% | 0% | 0% | 0% | N/T |
| 10 | *N. tabacum* | 1 or 2 | N/T | 0% | 0% | 0% | N/T |
| 30 | 4*x*(*N. rustica* x *N. tabacum*) | 2 | 43% | 0% | N/T | N/T | N/T |
| 9 | *N. otophora* | 2 | 44% | 0% | 0% | 0% | N/T |
| 6 | *N. tomentosiformis* | 2 | 67% | 0% | 0% | 0% | N/T |
| 9 | *N. debneyi* | 2 | 89% | 0% | 0% | 0% | N/T |
| 24 | 2*x*(*N. tabacum* x *N.*  *benthamiana*) | 3 | 69% | 50% | 4% | 0% | N/T |
| 16 | 4*x*(*N. quadrivalvis* x *N. tabacum*) | 3 | 100% | 25% | 19% | 6% | N/T |
| 30 | 4*x*(*N. debneyi* x *N. clevelandii*) | 4 | N/T | 70% | 70% | 67% | N/T |
| 24 | *N. clevelandii* | 6 | 100% | 100% | 100% | 100% | N/T |
| 24 | *N. benthamiana* | 6 | 100% | 100% | 100% | 100% | N/T |
| GFLV-GHu | 14 | *N. obtusifolia* | 2 | 13% | 0% | 0% | 0% | 0% |
| 7 | *N. glauca* | 2 | 14% | 0% | 0% | 0% | 0% |
| 13 | *N. sylvestris* | 2 | 54% | 0% | 0% | 8% | 0% |
| 4 | *N. kawakamii* | 2 | 75% | 0% | 0% | 0% | N/T |
| 23 | *N. tabacum* | 2 | 78% | 0% | 4% | 0% | 0% |
| 10 | *N. tomentosiformis* | 2 | 100% | 0% | 10% | 10% | 0% |
| 32 | 4*x*(*N. sylvestris* x *N. tomentosiformis*) | 3 | 50% | 16% | 3% | 3% | 0% |
| 30 | 4*x*(*N. quadrivalvis* x *N. tabacum*) | 3 | 57% | 10% | 10% | 3% | N/T |
| 10 | *N. paniculata* | 3 | 60% | 10% | 30% | 0% | 0% |
| 4 | *N. setchelii* | 3 | 75% | 25% | 0% | 0% | N/T |
| 21 | 4*x*(*N. sylvestris* x *N. otophora*) | 3 | 81% | 10% | 5% | 0% | N/T |
| 8 | *N. glutinosa* | 3 | 100% | 13% | 0% | 0% | N/T |
| 24 | 4*x*(*N. glutinosa* x *N. tabacum*) | 3 | 100% | 12% | 4% | N/T | N/T |
| 30 | 2*x*(*N. tabacum* x *N. benthamiana*) | 4 | 80% | 50% | 57% | 60% | 53% |
| 14 | 4*x*(*N. rustica* x *N. tabacum*) | 4 | 100% | 33% | 24% | 36% | N/T |
| 5 | *N. rustica* | 4 | 100% | 80% | 40% | 60% | 20% |
| 8 | *N. debneyi* | 4 | 100% | 33% | 89% | 89% | 88% |
| 7 | *N. otophora* | 5 | 100% | 0% | 56% | 44% | 78% |
| 24 | *N. suaveolens* | 5 | N/T | 4% | 83% | 79% | N/T |
| 19 | 4*x*(*N. debneyi* x *N. clevelandii*) | 5 | N/T | 93% | 93% | 100% | N/T |
| 8 | *N. attenuata* | 6 | 100% | 100% | 100% | 100% | N/T |
| 24 | *N. clevelandii* | 6 | 100% | 100% | 100% | 100% | N/T |
| 24 | *N. benthamiana* | 6 | 100% | 100% | 100% | 100% | N/T |
| 12 | *N. goodspeedii* | 6 | N/T | 100% | 100% | N/T | N/T |
| ToRSV-AP | 8 | *N. otophora* | 3 | N/T | 100% | 0% | 0% | N/T |
| 16 | *N. tabacum* | 3 | N/T | 88% | 19% | 6% | N/T |
| 16 | *N. setchelii* | 3 | N/T | 100% | 13% | 0% | N/T |
| 11 | *N. kawakamii* | 3 | N/T | 100% | 27% | 0% | N/T |
| 12 | 4*x*(*N. rustica* x *N. tabacum*) | 3 | N/T | 100% | 100% | 0 | N/T |
| 23 | 4*x*(*N. sylvestris* x *N. tomentosiformis*) | 3 | N/T | 100% | 83% | 0% | N/T |
| 27 | 4*x*(*N. sylvestris* x *N. otophora*) | 3 | N/T | 100% | 89% | 26% | N/T |
| 16 | 2*x*(*N. tabacum* x *N. benthamiana*) | 5 | N/T | 75% | 81% | 100% | N/T |
| 12 | 4*x*(*N. quadrivalvis* x *N. tabacum*) | 6 | N/T | 100% | 100% | 100% | N/T |
| 24 | *N. benthamiana* | 6 | N/T | 100% | 100% | 100% | N/T |

aThe sample size denotes the lowest number of samples tested at any given time point to account for missing samples.

bCategories of resistance (1, most resistant, through 6, most susceptible) are indicated for each virus-host combination tested.

cValues represent the percent of plants in the sample showing detectable virus at each given leaf position.

dN/T: Not tested