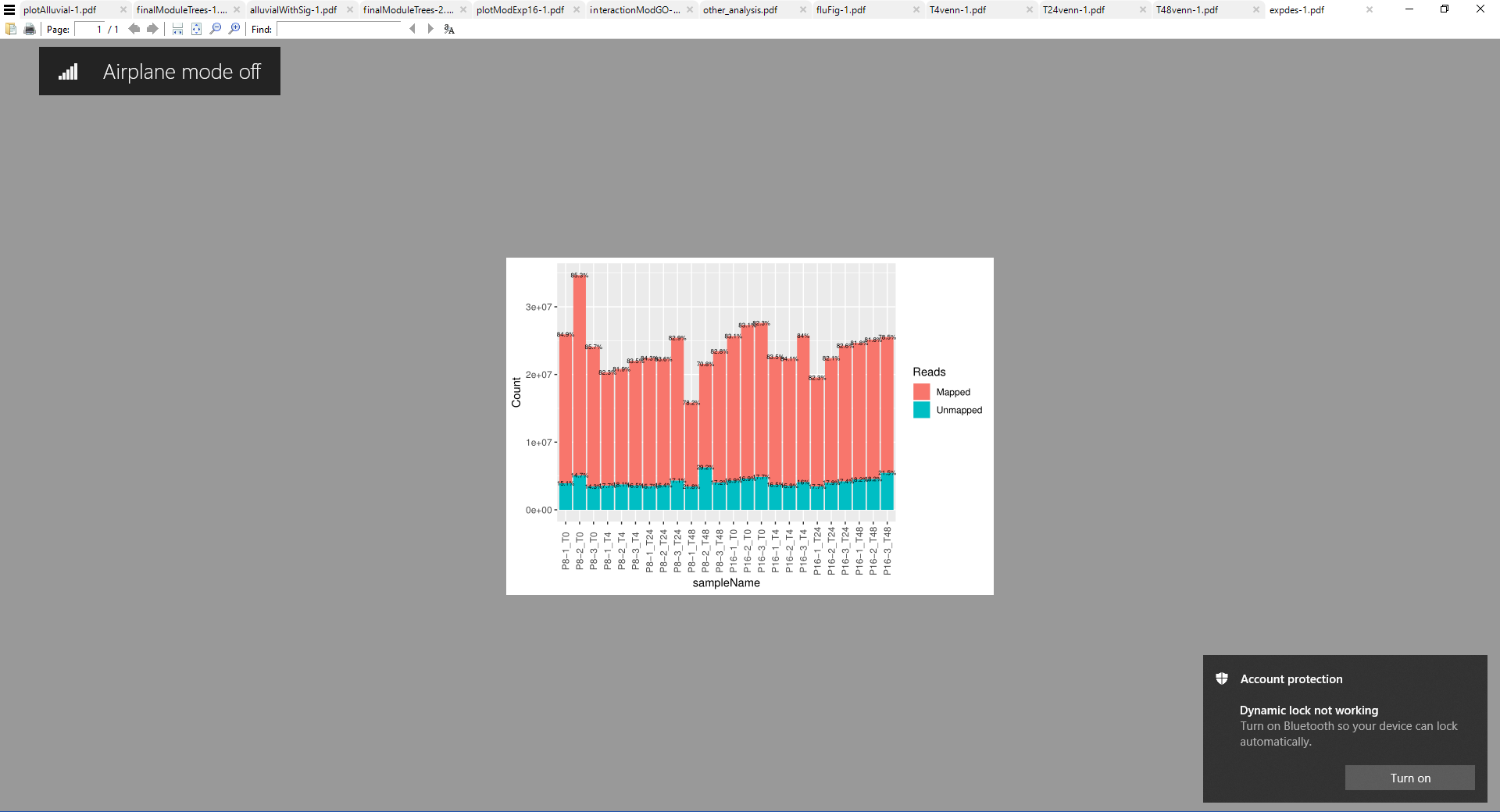
# Developmentally regulated defense rapidly inhibits *Phytophthora capsici* infection in cucumber fruit. Supplementary material

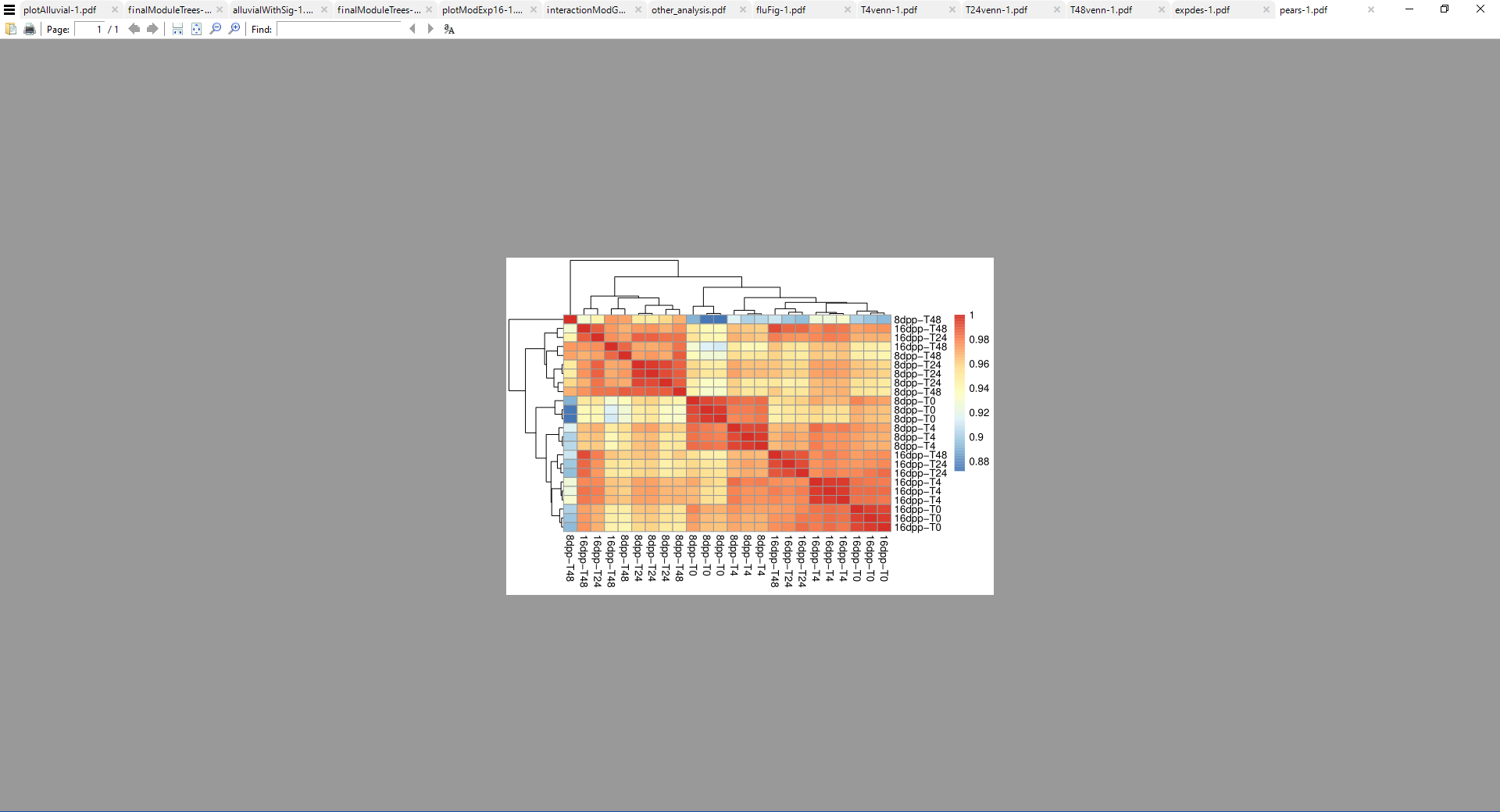
**Supplementary Table 1. Cucumber cultivars tested for age-related resistance to *P. capsici.*** Each line was tested using 3-10 fruit and was evaluated using a disease rating in scale of 1-9 (1=no symptom; 9=extensive mycelial growth and sporulation).

|  |  |  |  |
| --- | --- | --- | --- |
| **Cucumber Varieties** | **Disease rating**  **16 dpp** | **ARR (R/S)** | |
| 8 dpp | 16 dpp |
| Ashley | 7.0±0.0 | S | S |
| Boston Pickling | 5.0±0.7 | S | S |
| Boston Pickling Improved | 7.0±0.0 | S | S |
| Certified Organic Boothby's | 8.0±0.0 | S | S |
| Chinese Long | 6.5±0.5 | S | S |
| Delikatesse | 7.0±0.0 | S | S |
| Gy14 | 7.7±0.1 | S | S |
| Homemade Pickles | 5.1±0.1 | S | S |
| **Long Green Improved** | 2.5±0.3 | S | **R** |
| Miniature White | 7.6±0.4 | S | S |
| Muncher | 7.5±0.3 | S | S |
| National Pickling | 7.3±0.3 | S | S |
| Parisian Pickling | 7±0.0.0 | S | S |
| **Pointsett 76** | 3.0±0.2 | S | **R** |
| Rhinish Pickle | 4.5±1.0 | S | S |
| Russian Cucumber | 6.1±0.8 | S | S |
| Spacemaster 80 | 6.5±0.4 | S | S |
| Tanja | 8.0±0.0 | S | S |
| Tendergreen Burpless | 8.0±0.0 | S | S |
| **Vlaspik** | 3.0±0.9 | S | **R** |
| White Wonder | 7.3±0.2 | S | S |
| Zarnista | 4.4±0.5 | S | S |

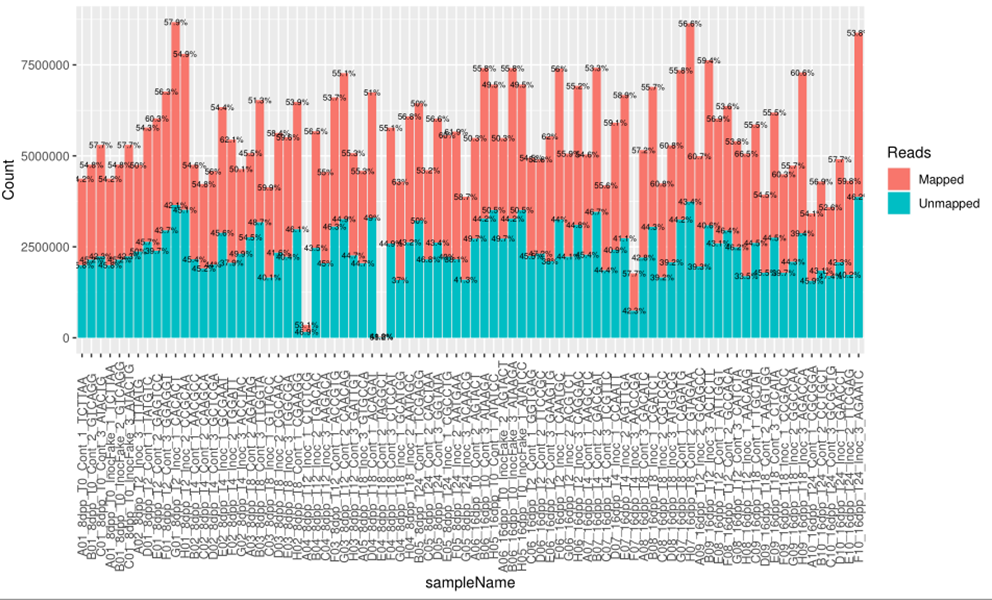
**Supplementary Table 2. Modules with significant age X splined-time interactions.** Interaction effects from ANOVA results with p.value < 0.05.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Module Label | Sum squares | Mean squares | F statistic | p.value |
| 1 | 308.136 | 77.034 | 19.16826 | <0. 00001 |
| 2 | 123.6053 | 30.90132 | 6.487137 | 3.25E-05 |
| 3 | 98.88136 | 24.72034 | 4.995946 | 0.000504 |
| 4 | 306.6218 | 76.65545 | 16.89029 | <0. 00001 |
| 5 | 1075.054 | 268.7634 | 62.45953 | <0. 00001 |
| 6 | 371.5039 | 92.87597 | 23.68249 | <0. 00001 |
| 7 | 313.2442 | 78.31105 | 19.6506 | <0. 00001 |
| 8 | 470.4843 | 117.6211 | 32.58048 | <0. 00001 |
| 9 | 943.9662 | 235.9915 | 53.58098 | <0. 00001 |
| 10 | 175.5037 | 43.87593 | 10.03392 | <0. 00001 |
| 11 | 81.95365 | 20.48841 | 6.820058 | 1.76E-05 |
| 12 | 503.8 | 125.95 | 30.90154 | <0. 00001 |
| 13 | 215.9883 | 53.99709 | 15.80341 | <0. 00001 |
| 14 | 63.23226 | 15.80807 | 4.090013 | 0.002585 |
| 15 | 62.82783 | 15.70696 | 3.655595 | 0.005576 |
| 16 | 99.67868 | 24.91967 | 6.618309 | 2.58E-05 |
| 17 | 66.41233 | 16.60308 | 3.577923 | 0.006391 |
| 18 | 60.29175 | 15.07294 | 5.078788 | 0.000437 |
| 19 | 127.2717 | 31.81792 | 7.032769 | 0.000012 |
| 21 | 51.30819 | 12.82705 | 3.176431 | 0.012891 |
| 23 | 81.27097 | 20.31774 | 4.512998 | 0.001224 |
| 24 | 35.66451 | 8.916127 | 2.431749 | 0.04553 |

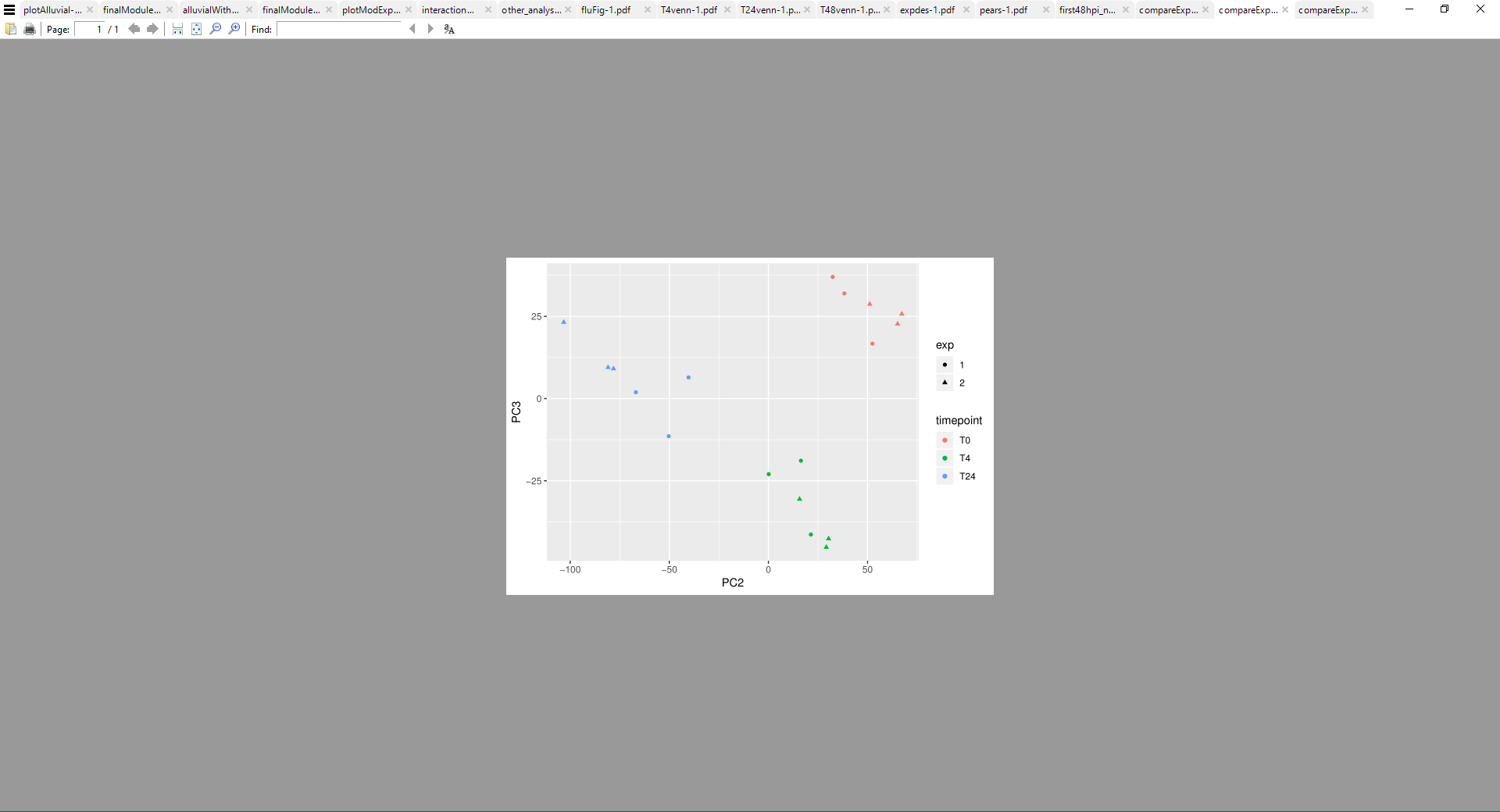
**Supplementary Figure 1. Transcriptome experiment 1: RNAseq Reads quasi-mapping to the cucumber transcriptome**

**Supplementary Figure 2. Between sample Pearson’s correlations**

**Supplementary Figure 3. Transcriptome experiment 2: 3’mRNA-seq reads quasi-mapping to a 3’-extended cucumber transcriptome.**

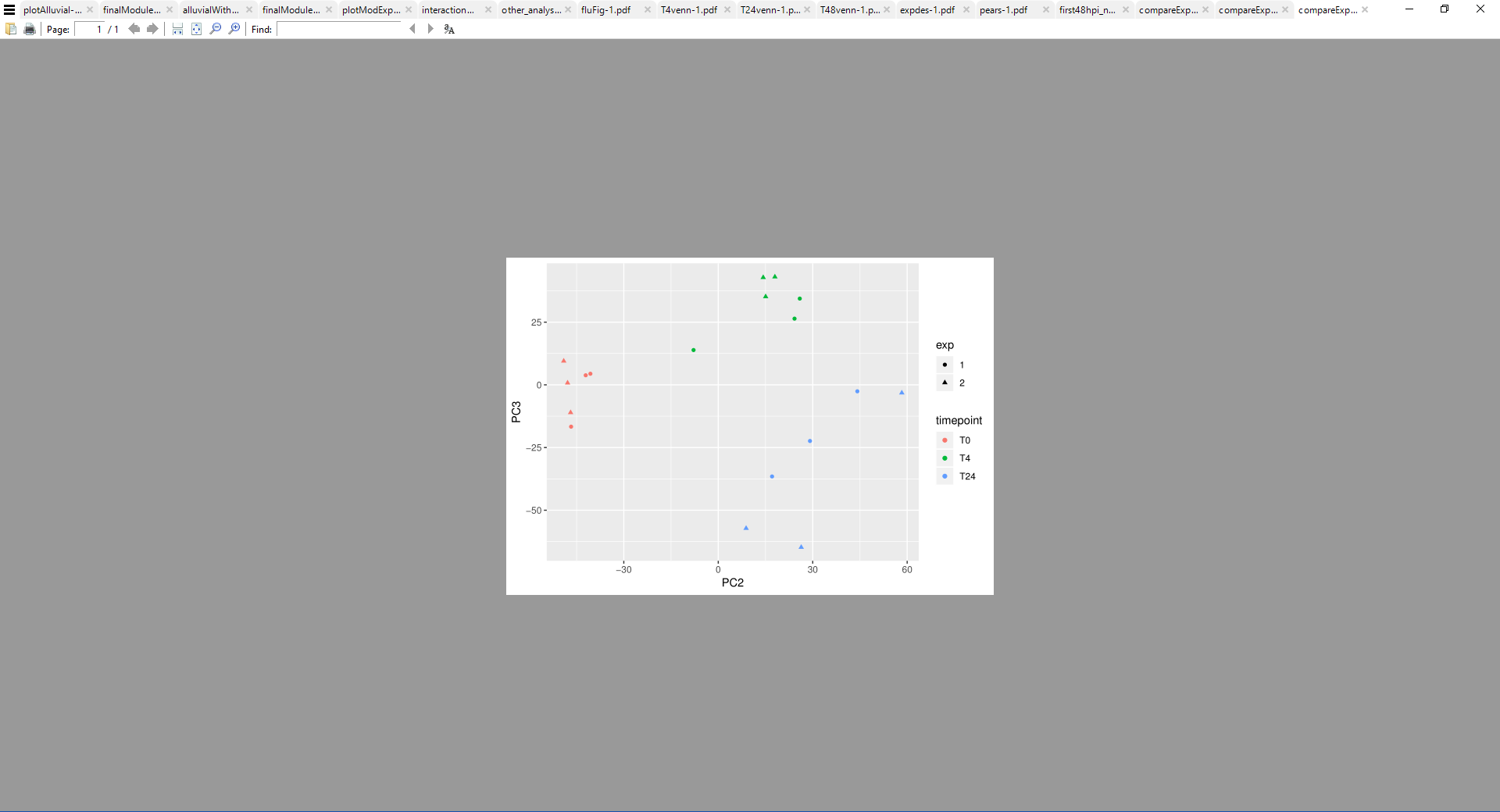
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**Supplementary Figure 4. Principal component analysis of shared timepoints in both transcriptome experiments.** Samples at timepoint 0 and inoculated samples at 4 and 24 hpi of 8 dpp (A) and 16 dpp (B) fruit.



**B**

**A**



**Supplementary Figure 5. Module preservation statistics for susceptible and resistant weighted gene co-expression networks.** Zsummary scores by module size for 8 dpp (A) and 16 dpp (B). Median Rank scores by module size for 8 dpp (C) and 16 dpp (D). Median rank scores by Zsummary scores for 8 dpp (E) and 16 dpp (F).

**A**

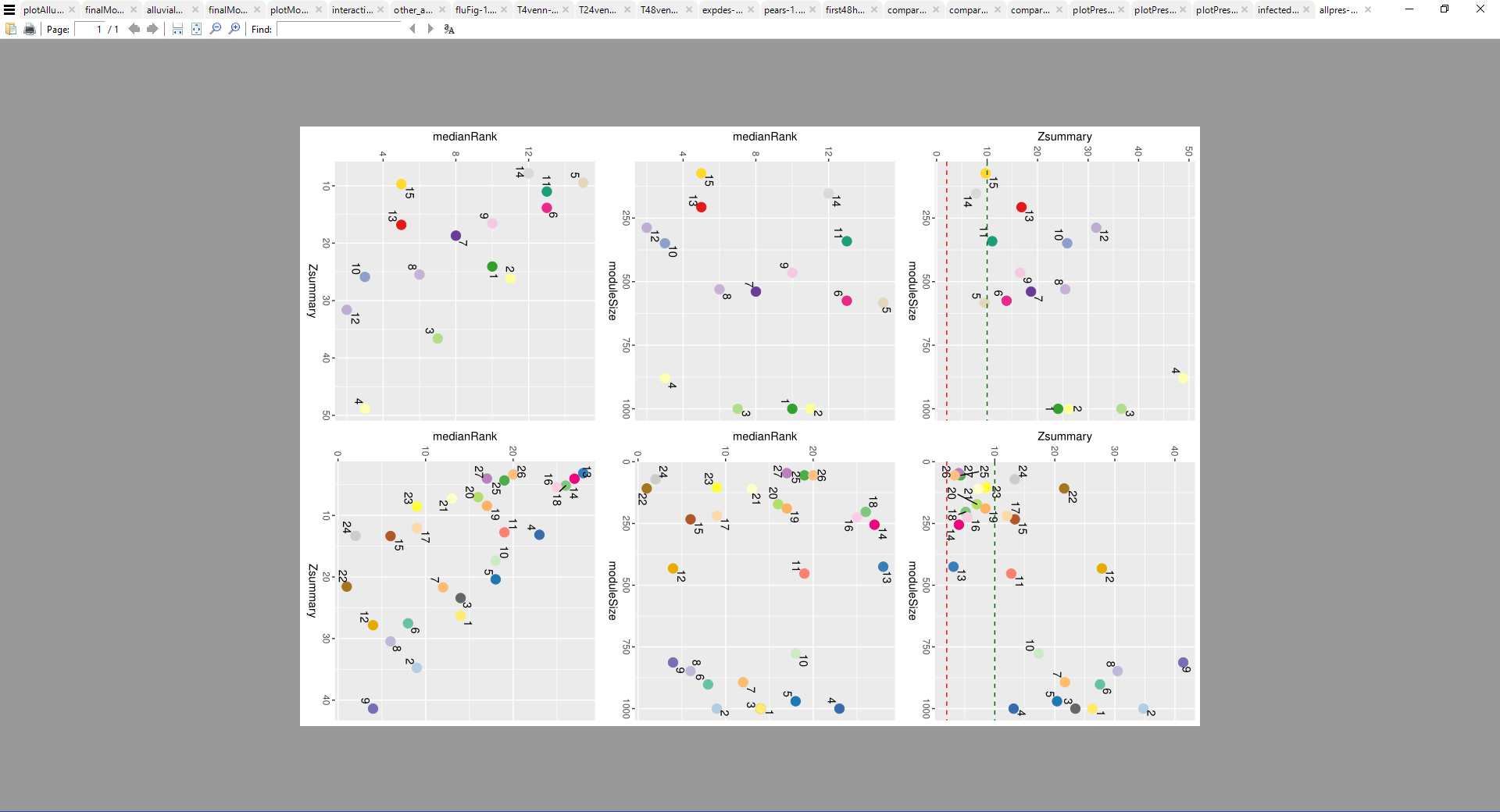
**C**

**E**

**B**

**D**

**F**

****