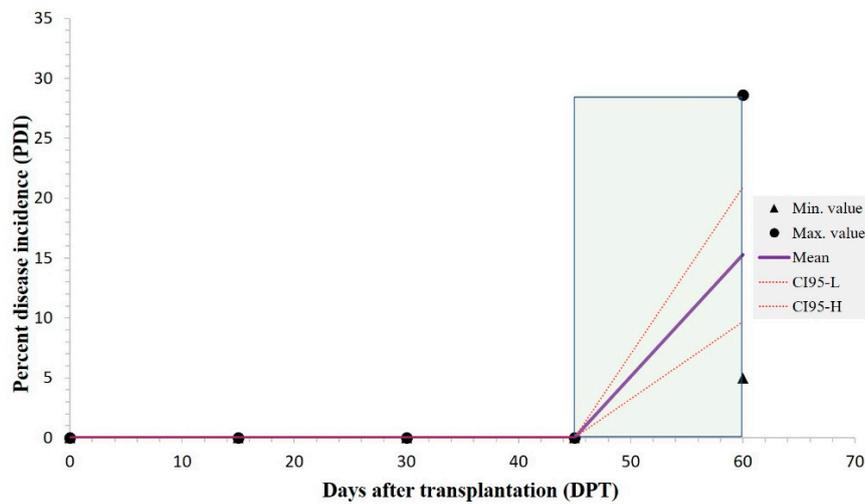
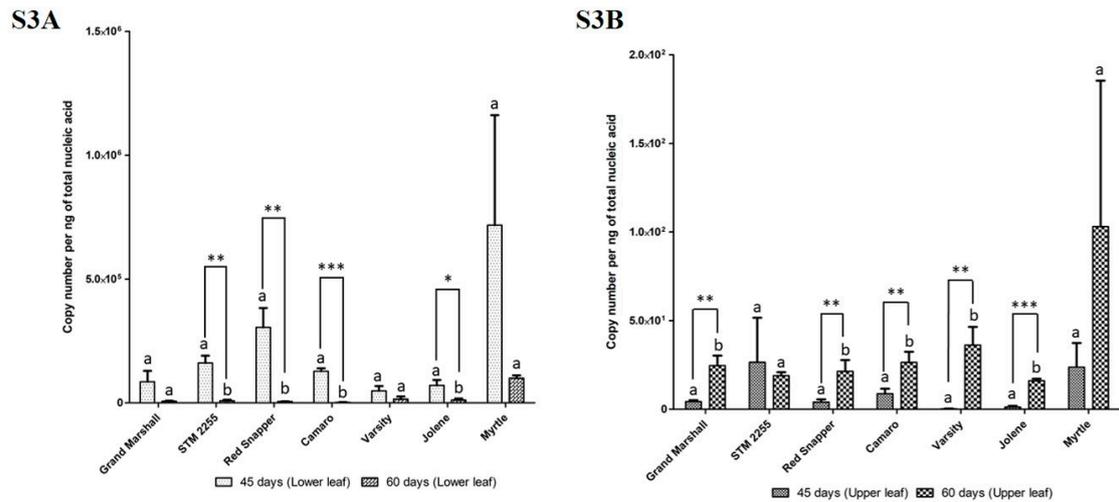


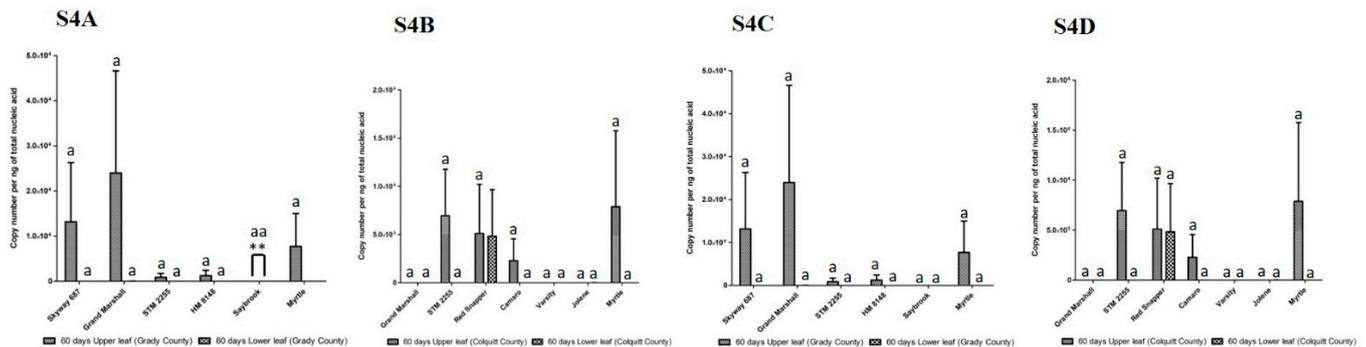
Supplementary Figure S1. Area under the disease progress curve (AUDPC) over time at Grady County: Seven different cultivars with four replications and 10-10 plants from each cultivar was used. The data were collected at 15 days of time interval at Grady County, Georgia. Blue color dashed line indicates the disease progress curve. Blue rectangular box is used to calculate AUDPC based on disease severity recorded on each plot at every 15 days of time interval. The percent disease ratings were calculated based on number of plants showing phenotypic symptoms out of the total number of plants per plot/replication. The mean and maximum values are shown with the black color triangle and circle, respectively.



Supplementary Figure S2. Area under the disease progress curve (AUDPC) over time: Seven different cultivars with four replications and 10-10 plants from each cultivar was used. The data were collected at 15 days of time interval at Colquitt County, Georgia. Blue color dashed line indicates the disease progress curve. Blue rectangular box is used to calculate AUDPC based on disease severity recorded on each plot at every 15 days of time interval. The percent disease ratings were calculated based on number of plants showing phenotypic symptoms out of the total number of plants per plot/replication. The mean and Maximum values are shown with the black color triangle and circle, respectively.



Supplementary Figure S3. Quantification (qPCR) of virus copy number in symptomatic tomato plants with tomato yellow leaf curl virus (TYLCV) and tomato chlorosis virus (ToCV) at 45 and 60 DPT. TYLCV copy number were quantified in from the lower foliage of symptomatic tissues (Fig. S3A), while for ToCV it was in the top second leaves (Fig. S3B) and samples were pooled from at least five individual plants. The graphs represent an average of four replicates form each variety. Y-axis represent virus copy number per ng of total nucleic acid, x-axis showed tomato varieties used in this study. *** indicates p value 0.0001-0.001, ** indicates p value 0.001-0.01, * indicates p value 0.01-0.05, ns ≥ 0.05 not significant. Significant differences are indicated using different lower-case letters.



Supplementary Figure S4. Quantification (qPCR) of virus copy number in symptomatic tomato plants with tomato yellow leaf curl virus (TYLCV) and tomato chlorosis virus (ToCV) at Grady and Colquitt County after 45 and 60 DPT. TYLCV copy number were quantified from the in the top second of symptomatic tissues (Fig. S4A and Fig. S4B), while for ToCV it was in the lower foliage (Fig. S4C and Fig. S4D) at Grady and Colquitt County, respectively. The samples were pooled from at least five individual plants. The graphs represent an average of four replicates form each variety. *** indicates p value 0.0001-0.001, ** indicates p value 0.001-0.01, * indicates p value 0.01-0.05, ns ≥ 0.05 not significant. Significant differences are indicated using different lower-case letters.

Supplementary Table S1: Statistics analysis for TYLCV (45 days Vs 60 days) performed by XLSTAT using ANOVA and Tukey (HSD) test with 95% of confidence interval.

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 1): Grand Marshall					
Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
45U vs 60U	627.500	0.033	2.447	0.975	No
Tukey's d critical value:			3.46		
Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
45U	44042.500	13622.500	10709.444	77375.556	A
60U	43415.000	13622.500	10081.944	76748.056	A

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 2): Red Snapper					
Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
60U vs 45U	26885.000	3.110	2.447	0.021	Yes
Tukey's d critical value:			3.46		
Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
60U	40900.000	6112.687	25942.794	55857.206	A
45U	14015.000	6112.687	-942.206	28972.206	B

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 3): STM 2255					
Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
60U vs 45U	73092.500	1.615	2.447	0.158	No
Tukey's d critical value:			3.46		

Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
60U	92675.000	32009.325	14351.006	170998.994	A
45U	19582.500	32009.325	-58741.494	97906.494	A

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 4): Camaro

Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
60U vs 45U	26495.500	0.576	2.447	0.586	No
Tukey's d critical value:			3.46		

Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
60U	61095.500	32549.057	-18549.172	140740.172	A
45U	34600.000	32549.057	-45044.672	114244.672	A

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 5): Varsity

Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
60U vs 45U	14882.500	1.802	2.447	0.122	No
Tukey's d critical value:			3.46		

Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
60U	23567.500	5841.099	9274.847	37860.153	A
45U	8685.000	5841.099	-5607.653	22977.653	A

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 6): Jolene

Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
60U vs 45U	18450.000	0.480	2.447	0.648	No
Tukey's d critical value:			3.46		

Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
60U	66125.000	27186.191	-397.210	132647.210	A
45U	47675.000	27186.191	-18847.210	114197.210	A

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 7): Myrtle

Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
60U vs 45U	114375.000	2.690	2.447	0.036	Yes
Tukey's d critical value:			3.46		
Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
60U	212750.000	30070.360	139170.482	286329.518	A
45U	98375.000	30070.360	24795.482	171954.518	B

Supplementary Table S2: Statistics analysis for ToCV (45 days Vs 60 days) performed by XLSTAT using ANOVA and Tukey (HSD) test with 95% of confidence interval.

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 1): Grand Marshall					
Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
60L vs 45L	270.953	2.254	2.447	0.065	No
Tukey's d critical value:			3.46		
Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
60L	299.700	84.984	91.753	507.647	A
45L	28.748	84.984	-179.200	236.695	A

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 2): Red Snapper					
Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
60L vs 45L	14.173	0.290	2.447	0.781	No
Tukey's d critical value:			3.46		
Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
60L	70.125	34.521	-14.345	154.595	A
45L	55.953	34.521	-28.517	140.422	A

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 3): STM 2255					
Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
60L vs 45L	10.175	1.522	2.447	0.179	No
Tukey's d critical value:			3.46		
Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
60L	30.400	4.727	18.833	41.967	A
45L	20.225	4.727	8.658	31.792	A

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 4): Camaro

Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
60L vs 45L	112.733	2.020	2.447	0.090	No
Tukey's d critical value:			3.46		
Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
60L	120.835	39.460	24.279	217.391	A
45L	8.103	39.460	-88.453	104.658	A

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 5): Varsity

Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
60L vs 45L	79.051	0.821	2.447	0.443	No
Tukey's d critical value:			3.46		
Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
60L	116.360	68.096	-50.266	282.986	A
45L	37.309	68.096	-129.317	203.935	A

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 6): Jolene

Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
60L vs 45L	33.042	2.612	2.447	0.040	Yes
Tukey's d critical value:			3.46		
Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
60L	37.182	8.944	15.296	59.068	A
45L	4.140	8.944	-17.746	26.026	B

Days / Tukey (HSD) / Analysis of the differences between the categories with a confidence interval of 95% (Var 7): Myrtle

Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
60L vs 45L	16.393	1.116	2.447	0.307	No
Tukey's d critical value:			3.46		
Category	LS means	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
60L	31.974	10.388	6.556	57.392	A
45L	15.581	10.388	-9.837	40.999	A