

Supplemental tables and figures

Table S1. Total number of thrips per plant for five onion entries counted at five times two weeks apart during the 2019, 2020 and 2021 growing seasons when plants were grown at the Fabian Garcia Science Center and Leyendecker Plant Science Research Center, Las Cruces, NM^z.

Entry1	Observation date ^y				
	2	3	4	5	
2019					
NMSU 12-236	10.9 ^x ±2.9 ^w	28.8 ±3.9	47.3 ±6.4	43.2 ±5.5	8.0 ±1.9
NMSU 12-238	11.8 ±2.9	28.6 ±3.9	55.6 ±6.4	26.6 ±5.5	4.0 ±1.9
NMSU 12-243	9.1 ±2.9	18.5 ±3.9	37.0 ±6.4	27.5 ±5.5	4.4 ±1.9
NMSU 12-337	13.0 ±3.3	20.2 ±4.4	31.3 ±7.2	44.7 ±6.2	22.9 ±2.2
Rumba	46.9 ±3.5	66.6 ±4.7	99.3 ±7.6	49.6 ±6.6	9.6 ±2.3
	***	***	***	**	***
2020					
NMSU 12-236	10.8 ±2.4	35.6 ±5.5	61.3 ±6.3	41.8 ±6.5	5.8 ±1.4
NMSU 12-238	20.0 ±2.5	53.0 ±5.6	40.6 ±6.5	5.7 ±6.7	1.0 ±1.5
NMSU 12-243	11.0 ±2.4	35.2 ±5.5	44.6 ±6.3	21.9 ±6.5	1.6 ±1.4
NMSU 12-337	12.4 ±2.4	32.1 ±5.5	61.2 ±6.3	34.0 ±6.5	5.9 ±1.4
Stockton Early Yellow	46.9 ±2.4	71.9 ±5.5	48.7 ±6.3	17.8 ±6.5	2.8 ±1.4
	***	***	*	***	**
2021					
NMSU 12-236	0.8 ±1.9	1.6 ±2.3	6.5 ±2.8	-	10.7 ±2.0
NMSU 12-238	4.1 ±1.9	7.3 ±2.3	13.8 ±2.8	-	6.8 ±2.0
NMSU 12-243	11.1 ±2.0	10.4 ±2.4	10.9 ±2.9	-	6.9 ±2.1
NMSU 12-337	3.2 ±1.8	8.3 ±2.2	13.2 ±2.7	-	14.6 ±1.9
Stockton Early Yellow	11.2 ±2.0	28.2 ±2.4	27.2 ±3.0	-	5.8 ±2.1
	***	***	***		*

^zSeeds of each entry were sown in a greenhouse in January. In March, plants were transplanted to the field, and thrips-infested bulbs, from the previous year's study, were placed in October of the previous year to ensure that onion thrips were in the field. The field was arranged as a RCBD with three blocks and four replications in each block. Conventional vegetable cultural practices and drip irrigation were utilized for all trials.^yThe observation dates were 8, 10, 12, 14 and 16 weeks after transplanting for the first year of the study, 8, 10, 12, 15 and 17 for the second and 6, 8, 10, and 14 weeks after transplanting for the third year of the study. No data were collected at the 4th observation date in the 3rd year of the study.^xThrips were counted by separating the leaves and examining the axil. Ten plants per plot were chosen randomly to undergo thrips count and the same ten plants were revisited at different time periods and thrips loads were counted. Plot means were calculated for thrips number per leaf at each observation date using the Proc Means statement in SAS Studio. Also, Proc MIXED statement with fixed effects was used to calculate means and random effects were not considered. Entry means highlighted in italics represent that an entry mean was different from the thrips attractive entry.^wStandard error of the mean. NS, *, **, ***Nonsignificant at P = 0.05, significant at P = 0.05, significant at P = 0.01, and significant at P = 0.001, respectively. Test was conducted at $\alpha = 0.05$.

Table S2. Number of juvenile thrips per plant for five onion entries counted at five times two weeks apart during the 2019, 2020 and 2021 growing seasons when plants were grown at the Fabian Garcia Science Center and Leyendecker Plant Science Research Center, Las Cruces, NM^z.

Entry	Observation date ^y				
	1	2	3	4	5

NMSU 12-236	7.9 ^x ±2.6 ^w	25.2 ±3.7	42.7 ±5.8	39.5 ±5.2	6.6 ±1.7
NMSU 12-238	7.1 ±2.6	24.4 ±3.7	50.0 ±5.8	23.6 ±5.2	3.1 ±1.7
NMSU 12-243	5.6 ±2.6	16.1 ±3.7	32.7 ±5.8	25.2 ±5.2	3.4 ±1.7
NMSU 12-337	8.7 ±2.9	17.6 ±4.2	27.8 ±6.6	40.7 ±5.9	20.0 ±2.0
Rumba	36.5 ±3.1	56.2 ±4.5	86.8 ±7.0	43.9 ±6.2	8.0 ±2.1
	***	***	***	**	***
2020					
NMSU 12-236	8.9 ±2.1	28.8 ±4.7	56.0 ±6.0	39.5 ±6.1	4.8 ±1.2
NMSU 12-238	17.1 ±2.2	44.6 ±4.8	37.0 ±6.2	5.0 ±6.3	0.9 ±1.3
NMSU 12-243	9.4 ±2.1	28.4 ±4.7	40.1 ±6.0	20.6 ±6.1	1.5 ±1.2
NMSU 12-337	10.4 ±2.1	25.9 ±4.7	56.8 ±6.0	31.7 ±6.1	5.3 ±1.2
Stockton Early Yellow	40.6 ±2.1	59.9 ±4.7	43.6 ±6.0	16.4 ±6.1	2.5 ±1.2
	***	***	*	***	**
2021					
NMSU 12-236	0.6 ±1.8	1.2 ±2.3	6.0 ±2.7	-	10.4 ±2.0
NMSU 12-238	3.5 ±1.8	6.4 ±2.3	12.7 ±2.7	-	6.5 ±2.0
NMSU 12-243	9.9 ±1.9	9.5 ±2.4	10.2 ±2.8	-	6.5 ±2.1
NMSU 12-337	3.0 ±1.7	7.4 ±2.2	12.6 ±2.6	-	13.6 ±1.9
Stockton Early Yellow	9.1 ±1.9	26.5 ±2.4	25.3 ±2.8	-	5.7 ±2.1
	***	***	***	-	*

^zSeeds of each entry were sown in a greenhouse in January. In March, plants were transplanted to the field, and thrips-infested bulbs, from the previous year’s study, were placed in October of the previous year to ensure that onion thrips were in the field. The field was arranged as a RCBD with three blocks and four replications in each block. Conventional vegetable cultural practices and drip irrigation were utilized for all trials.^vThe observation dates were 8, 10, 12, 14 and 16 weeks after transplanting for the first year of the study, 8, 10, 12, 15 and 17 for the second and 6, 8, 10, and 14 weeks after transplanting for the third year of the study. No data were collected at the 4th observation date in the 3rd year of the study.^xJuvenile thrips were counted by separating the leaves and examining the axil. Ten plants per plot were chosen randomly to undergo thrips count and the same ten plants were revisited at different time periods and thrips loads were counted. Plot means were calculated for thrips number per leaf at each observation date using the Proc Means statement in SAS Studio. Also, Proc MIXED statement with fixed effects was used to calculate means and random effects were not considered. Entry means highlighted in italics represent that an entry mean was different from the thrips attractive entry.^wStandard error of the mean. NS, *, **, ***Nonsignificant at P = 0.05, significant at P = 0.05, significant at P = 0.01, and significant at P = 0.001, respectively. Test was conducted at α = 0.05.

Figure S1. Maximum air temperatures from May 1st to August 31st for 2019, 2020, and 2021 (New Mexico Climate Center in Fabian Garcia Science Center in 2019 and Leyendecker Plant Science Research Center in 2020 and 2021).

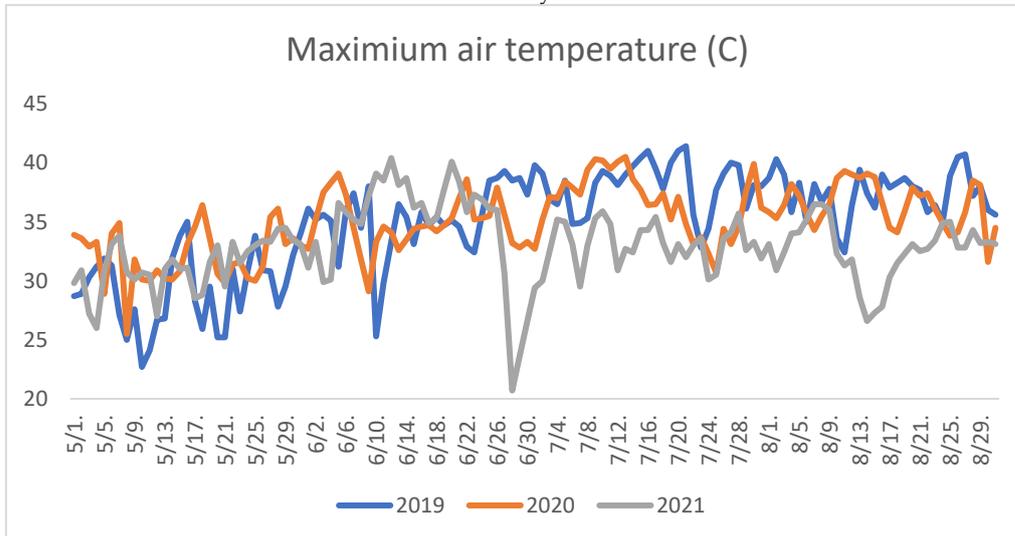


Figure S2. Total precipitation from May 1st to August 31st of each year (New Mexico Climate Center in Fabian Garcia Science Center in 2019 and Leyendecker Plant Science Research Center in 2020 and 2021).

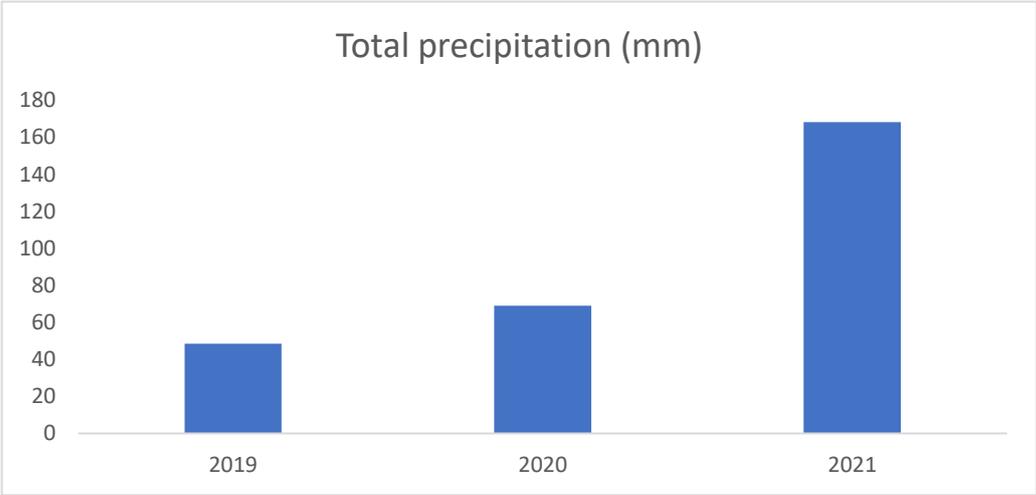
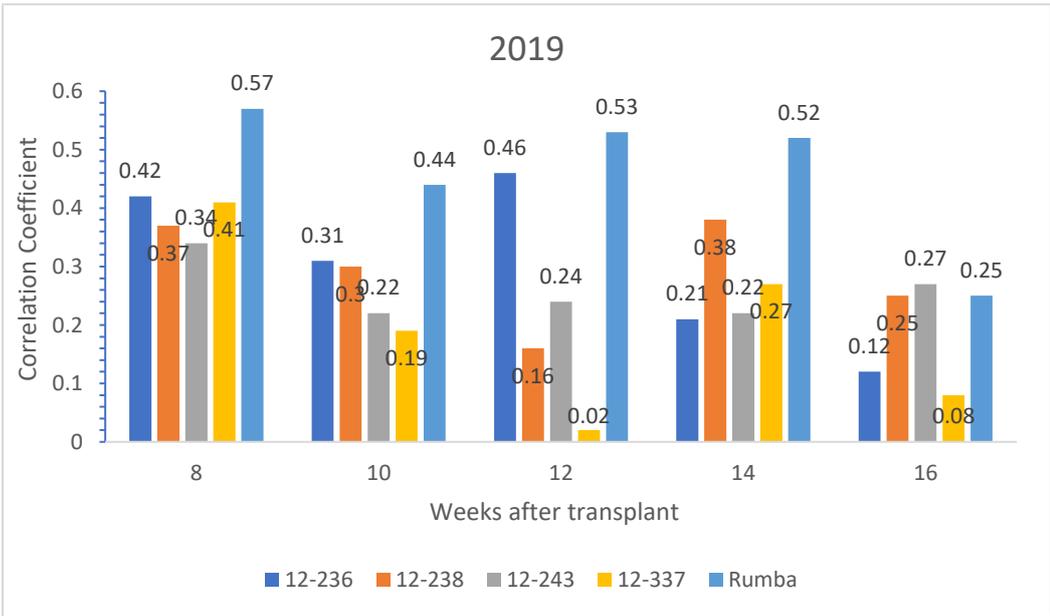
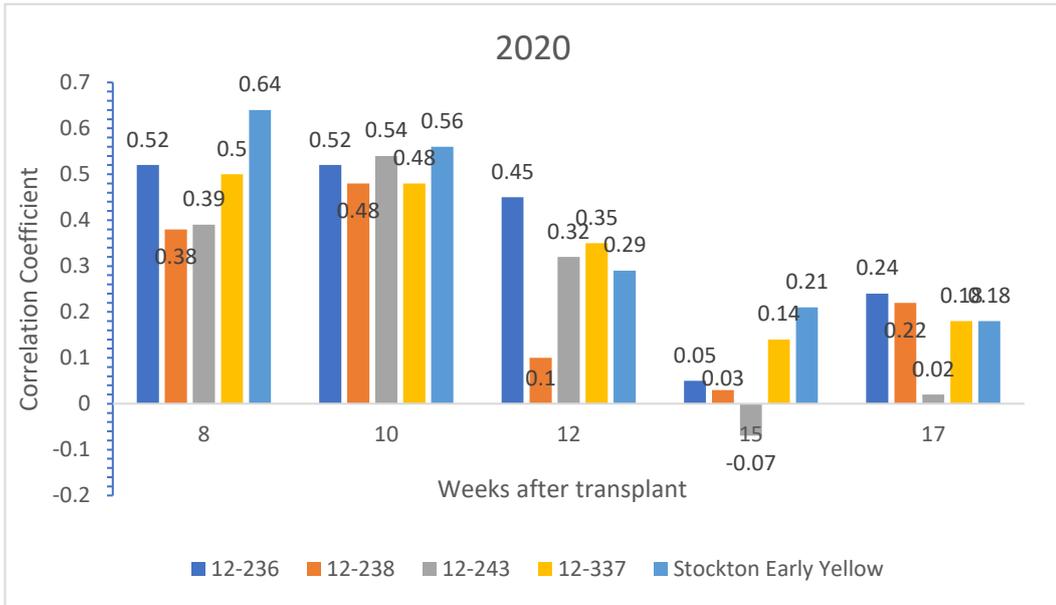


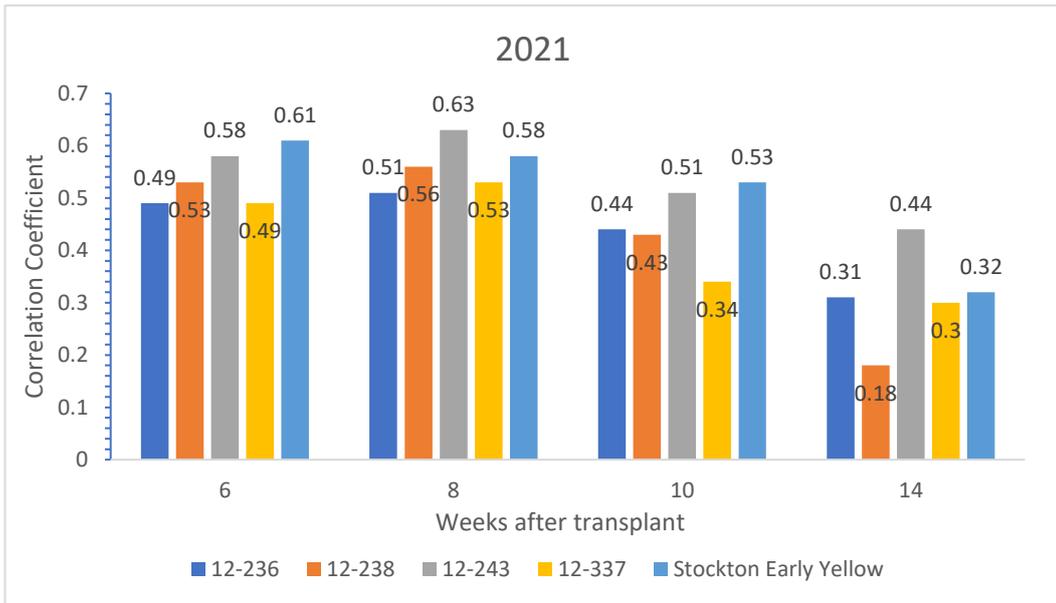
Figure S3. Correlations, on a per plant basis, between total thrips per plant and leaf number through the growing season for entries in A) 2019, B) 2020, and C) 2021, at P<0.001 significance level.



A



B



C