SCEPTREPLUS

Final Trial Report

Trial code:	SP61
Title:	**Screening of efficacy and crop safety of novel products for the control of *Tetranychus urticae* (two-spotted spider mite) on hardy nursery stock**
Crop:	*Choisya* / HNS
Target:	Two-spotted spider mite, *Tetranychus urticae*, TETRUR
Lead researcher:	Dr Jennifer Banfield-Zanin
Organisation:	Stockbridge Technology Centre, Cawood, Selby, YO8 3TZ
Period:	September 2021 to November 2021
Report date:	30th November 2021
Report author:	Dr Jennifer Banfield-Zanin
ORETO Number: (certificate should be attached)	435

I the undersigned, hereby declare that the work was performed according to the procedures herein described and that this report is an accurate and faithful record of the results obtained.

07.01.2022 J. A. Banfield-Zanin
Date Authors signature

Trial Summary

Introduction

Two-spotted spider mite (*Tetranychus urticae*) is an important economic pest of hardy nursery stock. Feeding causes visible damage to foliage, which, combined with webbing produced by active stages, impacts the visual appearance of ornamental crops, in addition to impacts on growth. The aim of this trial was to evaluate the efficacy of selected plant protection products against two-spotted spider mite on containerised *Choisya*, for incorporation into control strategies. Potential efficacy against a non-target pest present in the crop, glasshouse mealybug (*Pseudococcus viburni*), was also evaluated.

Methods

Containerised *Choisya* were artificially infested with two-spotted spider mite in September and again in October 2021. Spray programmes started on the 18th October, based on three applications and with water rates set to suit crop size. Conventional products were applied at the first application only. The biopesticide AHDB9928 was applied every four days, while the remaining biopesticides were typically re-applied after eight days, in line with manufacturer recommendations. Efficacy was determined by counting the number of live spider mite on marked stems, with additional counts of live mealybugs and egg sacs. Assessments were made pre-application, and on four further occasions (three days after application, and a final count made seven days after the final application). The crop was also monitored for evidence of phytotoxicity at each assessment.

Results

Low numbers of two-spotted spider mite were observed throughout the trial, including on untreated control plots. No treatments caused phytotoxic effects at the tested rates or application intervals. All products mixed well in deionised water. Means presented in the table below are back-transformed following square root transformation (specifically, square root of $x + 0.5$) for analyses.

	Mean total numbers of live two-spotted spider mite per plot				
Date	**16.10.2021**	**21.10.2021**	**25.10.2021**	**29.10.2021**	**02.11.2021**
Treatment					
Untreated	10.77	9.87	7.65	3.06	4.45
FLiPPER (Bio)	10.44	1.62	1.74	1.06	0.89
AHDB9819 (Bio)	7.45	0.66	0.70	0.10	0.35
AHDB9944	10.71	1.61	0.90	1.06	0.15
AHDB9967 (Bio)	9.14	2.45	0.71	0.46	0.03
AHDB9738 (Bio)	14.06	2.73	3.57	4.45	3.70
AHDB9739	10.79	3.86	1.48	2.24	0.38
AHDB9928 (Bio)	8.46	4.15	1.23	1.03	0.11
	Not significantly different from untreated control ($p > 0.05$)				
	Significantly different from untreated control ($p < 0.05$)				

* *Bio = biopesticide*

Conclusions

Most treatments showed statistically significant reductions in the numbers of mites compared with the untreated control within seven days of the initial treatment

application, but mite numbers in only three treatments remained significantly lower than those in the untreated control at the end of the trial. No treatments caused phytotoxic effects at the tested rates or application intervals. By the final assessment date:

- Two conventional pesticide treatments tested, AHDB9944 and AHDB9739, reduced two-spotted spider mite numbers by 96% and 91% respectively.
- The physically acting biopesticides AHDB9819 and AHDB9738 reduced two-spotted spider mite numbers by 88% and 36% respectively.
- The botanical product AHDB9967 and the mycopesticide AHDB9928 reduced two-spotted spider mite numbers by 99% and 96% respectively.
- There was no notable, statistically significant, impact of any treatment on the numbers of the non-target glasshouse mealybug present in the crop, although the selected industry standard, FLiPPER, appeared to check population growth.

Take home message

This work has identified a number of safe and potentially effective products for controlling two-spotted spider mite on containerised hardy nursery stock. One conventional treatment and two biopesticides showed statistically significant reductions in mite numbers compared with the untreated control by the end of the trial.

Objectives

1. To evaluate the effectiveness of selected plant protection products against two-spotted spider mite on containerised *Choisya* as measured by pest occurrence.
2. To monitor the treated crop for phytotoxicity.

Trial conduct

UK regulatory guidelines were followed but EPPO guidelines took precedence. The following EPPO guidelines were followed:

Relevant EPPO guideline(s)		**Variation from EPPO**
PP 1/152(4)	Design and analysis of efficacy evaluation trials	None
PP 1/181(4)	Conduct and reporting of efficacy evaluation trials including GEP	None
PP 1/135(4)	Phytotoxicity assessment	None
PP 1/239(2)	Dose expression for plant protection products	None

There were no deviations from EPPO guidance. There were no specific EPPO guidelines for *Tetranychus urticae* on ornamental or hardy nursery crops.

Test site

Item	**Details**
Location address	F20 (veg prop.), STC, Cawood, Selby, YO8 3TZ
Crop	*Choisya ternata*
Cultivar	Sundance
Soil or substrate type	Potting mixture – as supplied.
Agronomic practice	1L pots on benches in unheated glasshouse. Overhead watering until start of trial. Watering to base of pot only and via capillary matting from start of trial for duration. No additional feed provided.
Prior history of site	Containerised honeysuckle on benches.

Trial design

Item	**Details**
Trial design:	Incomplete Trojan square
Number of replicates:	6
Row spacing:	30cm (between pots; 120cm between plots)
Plot size: (w x l)	0.8m x 1.0m
Plot size: (m^2)	0.8m^2
Number of plants per plot:	12
Leaf Wall Area calculations	2.67m^2 *[Calculation = 2 x 0.5m x (0.8m^2 ÷ 0.3m)]*

Treatment details

AHDB Code	Active substance	Product name	Formulation batch number	Content of active substance in product	Formulation type	Adjuvant
Untreated	Water only	NA	NA	NA	NA	None
	Fatty acids	FLiPPER	A1434A	479.8g/L	EW	None
AHDB9819	Confidential					None
AHDB9944	Confidential					None
AHDB9967	Confidential					None
AHDB9738	Confidential					None
AHDB9739	Confidential					None
AHDB9928	Confidential					None

All treatment products were mixed for application using deionised water.

Application schedule

Treatment number	Treatment: product name or AHDB code	Rate of active substance (ml or g a.s./ha)	Rate of product (l or kg/ha)	Application code
1	Water only	NA	NA	ABC
2	FLiPPER	4,606.08 g a.s./ha	9.6 L/ha	AC
3	AHDB9819			AC
4	AHDB9944			A
5	AHDB9967			AC
6	AHDB9738			A
7	AHDB9739			A
8	AHDB9928			ABC

Application details

	Application A	Application B	Application C
Application date	18.10.2021	22.10.2021	26.10.2021
Time of day	09:20	08:30	08:20
Crop growth stage (Max, min average BBCH)	50	50	51
Crop height (cm)	50cm	50cm	50cm
Crop coverage (%)*	100	100	100
Application Method	Spray	Spray	Spray
Application Placement	Foliar	Foliar	Foliar
Application equipment	Oxford Precision Sprayer	Oxford Precision Sprayer	Oxford Precision Sprayer
Nozzle pressure	2 bar	2 bar	2 bar

	Application A	Application B	Application C
Nozzle type	Hollow cone (HC)	Hollow cone (HC)	Hollow cone (HC)
Nozzle size	30HCX4	30HCX4	30HCX4
Application water volume/ha	600L/ha	600L/ha	600L/ha
Temperature of air - shade (°C)	15.3	10.9	10.2
Relative humidity (%)	87.8	90.5	97
Wind speed range (m/s)	0	0	0
Dew presence (Y/N)	N	N	N
Temperature of soil - 2-5 cm (°C)	Ambient	Ambient	Ambient
Wetness of soil - 2-5 cm	Damp	Damp	Damp
Cloud cover (%)	100	20	95

* Plants were placed in a wide-spread grid to maximise light availability to the plants.

Untreated levels of pests/pathogens at application and through the assessment period

Common name	Scientific Name	EPPO Code	Infestation level pre-application	Infestation level at start of assessment period	Infestation level at end of assessment period
Two-spotted spider mite	*Tetranychus urticae*	TETRUR	12[1]	12[1]	6[1]
Glasshouse mealybug[2]	*Pseudococcus viburni*	PSECOB	10[1]	18[1]	23[1]

[1] Mean total number per plot.
[2] Non target pest. Assessed throughout trial.

Assessment details

Assessments of efficacy were made by counting the number of live adult and juvenile spider mite on marked stems, on each of four *Choisya* plants in the middle of each plot, to assess levels of infestation. Additionally, counts were made of mealybug adult, juvenile and egg sac numbers above each stem marker on the same plants. A pre-treatment assessment was made two days prior to the first spray application. Subsequently, assessments across all trial plots were then completed three days after each spray (effectively at four-day intervals), with an additional final assessment taking place seven days after the final treatment application. Phytotoxicity was assessed at each assessment point by examining leaves for evidence of damage (e.g., scorch).

	Evaluation Timing (DA)*				
Evaluation date	**After conventional pesticides**	**After Bio-pesticides**	**Crop Growth Stage (BBCH)**	**Evaluation type (efficacy, phytotox)**	**Assessment**
16.10.2021	-2	-2	50	Infestation level, phytotoxicity	Number of live spider mite and mealybug. Phytotoxic leaf damage.
21.10.2021	3	3	50	Efficacy, phytotoxicity	Number of live spider mite and mealybug. Phytotoxic leaf damage.
25.10.2021	7	7 / 3	51	Efficacy, phytotoxicity	Number of live spider mite and mealybug. Phytotoxic leaf damage.
29.10.2021	11	3	51	Efficacy, phytotoxicity	Number of live spider mite and mealybug. Phytotoxic leaf damage.
02.11.2021	15	7	52	Efficacy, phytotoxicity	Number of live spider mite and mealybug. Phytotoxic leaf damage.

* DA – days after application

Statistical analysis

The trial layout was designed by Andrew Jukes (Warwick University) as an incomplete Trojan Square for eight treatments, each replicated six times. Statistical analyses were completed by Steve Langton (Steve Langton Statistical Consultancy).

Data were analysed by *anova* using terms for treatments and replicates (blocks). Analysis was based on the total number for each plot using a square root transformation (specifically square root of $x + 0.5$). Comparisons between each treatment and the untreated control used Dunnett's test (also used to L.S.D. values). Residuals from the analysis of variance were checked graphically for non-normality, heteroscedasticity, and spatial correlation. Residuals were approximately normally distributed for most variables using the square root transformation. As a further check a non-parametric Friedman's test was also performed on each variable. All analyses were carried out in Genstat (21st ed.).

There were some moderate spatial patterns in this dataset. Differences between replicate blocks were only significant for two of the 35 variables, which is no more than would be expected by chance. However, examination of residual plots showed there was sometimes a trend from left to right, and as such, results below are therefore based on *anova* models including a covariate term as well as the term for replicate blocks.

Results

Phytotoxicity

There was no evidence of phytotoxicity with any treatment.

Efficacy

Numbers of spider mite remained low throughout the trial. As such, the number of live adult and live juveniles were added together to obtain a total number of live two-spotted spider mites per plot. The results for the mean number of total live two-spotted spider mites per plot on the five assessment dates are shown in Table 1 and Figure 1 (analyses for adult and juvenile spider mite are presented separately in Appendix A, Tables A1 and A2, for reference and comparison).

Table 1. Live total (adult and juvenile combined) two-spotted spider mite (*Tetranychus urticae*) as a mean of the total numbers per plot, by treatment, on five assessment dates during the trial. Means are shown as transformed (square root of x + 0.5) for analysis, and back-transformed (i.e. not raw means). Shading indicates significant differences from the untreated control (at $p < 0.05$). A0 = two days before first treatment application; A1 = 3 days after first treatment application; A2 = 7 days after first treatment application; A3 = 11 days after first treatment application; A4 = 15 days after first treatment application. Bio = biopesticide.

Date	**16.10.2021 (A0)**		**21.10.2021 (A1)**		**25.10.2021 (A2 / B1)**		**29.10.2021 (A3 / C1)**		**02.11.2021 (A4)**	
	Sqrt *x* + 0.5	**Back-trans.**	**Sqrt *x* + 0.5**	**Back-trans.**	**Sqrt *x* + 0.5**	**Back-trans.**	**Sqrt *x* + 0.5**	**Back-trans.**	**Sqrt *x* + 0.5**	**Back-trans.**
Treatment										
Untreated	3.36	10.77	3.22	9.87	2.86	7.65	1.89	3.06	2.23	4.45
FLiPPER (Bio)	3.31	10.44	1.46	1.62	1.50	1.74	1.25	1.06	1.18	0.89
AHDB9819 (Bio)	2.82	7.45	1.08	0.66	1.09	0.70	0.77	0.10	0.92	0.35
AHDB9944	3.35	10.71	1.45	1.61	1.18	0.90	1.25	1.06	0.81	0.15
AHDB9967 (Bio)	3.10	9.14	1.72	2.45	1.10	0.71	0.98	0.46	0.73	0.03
AHDB9738 (Bio)	3.82	14.06	1.80	2.73	2.02	3.57	2.22	4.45	2.05	3.70
AHDB9739	3.36	10.79	2.09	3.86	1.41	1.48	1.66	2.24	0.94	0.38
AHDB9928 (Bio)	2.99	8.46	2.16	4.15	1.31	1.23	1.24	1.03	0.78	0.11
F value	0.37	-	3.95	-	3.11	-	0.96	-	2.74	-
p-value	0.913	-	0.003	-	0.012	-	0.473	-	0.023	-
d.f.	7, 34	-	7, 34	-	7, 34	-	7, 34	-	7, 34	-
L.S.D.	1.82	-	1.30	-	1.35	-	1.87	-	1.40	-
Friedman's *P*	0.883	-	0.098	-	0.607	-	0.765	-	0.073	-

	Not significantly different from untreated control ($p > 0.05$)
	Significantly different from untreated control ($p < 0.05$)

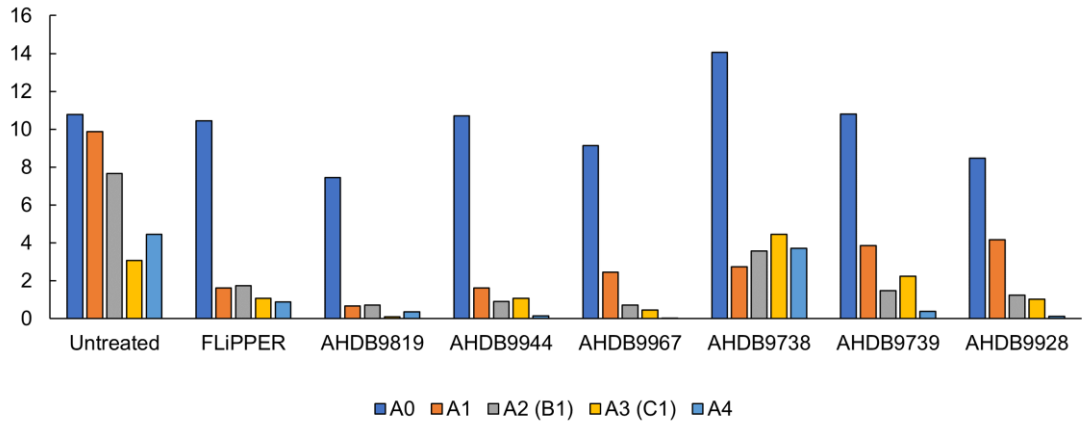

Figure 1. Live total (adult and juvenile combined) numbers of two-spotted spider mite (*Tetranychus urticae*) as a mean of the total numbers per plot, by treatment, on five assessment dates during the trial. Back-transformed means are shown (i.e. not raw means). A0 = two days before first treatment application; A1 = 3 days after first treatment application; A2 = 7 days after first treatment application; A3 = 11 days after first treatment application; A4 = 15 days after first treatment application.

Efficacy on non-target mealybug numbers

The results for the mean numbers of total live glasshouse mealybugs per plot on the five assessment dates are shown in Table 2 and Figure 2. (Analyses for adult and nymph numbers, and numbers of egg sacs, are presented separately in Appendix A, Tables A3, A4, and A5, for reference and comparison).

Table 2. Live total (adults and nymphs combined) numbers of glasshouse mealybug (*Pseudococcus viburni*) as a mean of the total numbers per plot, by treatment, on five assessment dates during the trial. Means are shown as transformed (square root of *x* + 0.5) for analysis, and back-transformed (i.e. not raw means). Shading indicates significant differences from the untreated control (at $p < 0.05$). A0 = two days before first treatment application; A1 = 3 days after first treatment application; A2 = 7 days after first treatment application; A3 = 11 days after first treatment application; A4 = 15 days after first treatment application. Bio = biopesticide.

Date	**16.10.2021 (A0)**		**21.10.2021 (A1)**		**25.10.2021 (A2 / B1)**		**29.10.2021 (A3 / C1)**		**02.11.2021 (A4)**	
	Sqrt *x* + 0.5	**Back-trans.**	**Sqrt *x* + 0.5**	**Back-trans.**	**Sqrt *x* + 0.5**	**Back-trans.**	**Sqrt *x* + 0.5**	**Back-trans.**	**Sqrt *x* + 0.5**	**Back-trans.**
Treatment										
Untreated	3.02	8.63	3.46	11.44	4.05	15.87	4.47	19.47	4.34	18.33
FLiPPER (Bio)	3.07	8.93	2.79	7.26	3.28	10.26	3.15	9.39	3.21	9.83
AHDB9819 (Bio)	3.67	12.95	3.63	12.67	5.09	25.38	5.58	30.66	5.88	34.10
AHDB9944	2.93	8.11	2.84	7.58	3.24	10.01	3.76	13.63	3.46	11.46
AHDB9967 (Bio)	2.90	7.91	3.74	13.46	3.81	14.01	4.19	17.10	4.89	23.37
AHDB9738 (Bio)	2.35	5.02	2.97	8.31	3.24	10.01	3.85	14.32	4.48	19.61
AHDB9739	2.59	6.23	2.61	6.32	3.72	13.33	3.82	14.11	3.72	13.35
AHDB9928 (Bio)	3.07	8.95	3.65	12.80	4.39	18.79	4.16	16.79	4.08	16.16

Date	16.10.2021 (A0)		21.10.2021 (A1)		25.10.2021 (A2 / B1)		29.10.2021 (A3 / C1)		02.11.2021 (A4)	
	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.
Treatment										
F value	0.43	-	0.58	-	0.62	-	0.62	-	1.18	-
p-value	0.878	-	0.765	-	0.739	-	0.738	-	0.342	-
d.f.	7, 34	-	7, 34	-	7, 34	-	7, 34	-	7, 34	-
L.S.D.	2.18	-	2.32	-	3.06	-	3.30	-	3.06	-
Friedman's *P*	0.700	-	0.179	-	0.133	-	0.382	-	0.138	-

	Not significantly different from untreated control ($p > 0.05$)
	Significantly different from untreated control ($p < 0.05$)

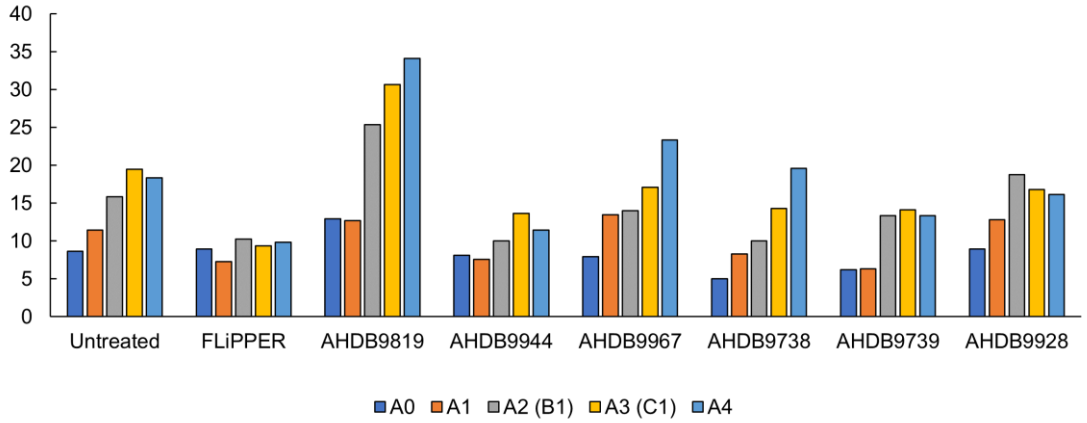

Figure 2. Live total (adults and nymphs combined) glasshouse mealybug (*Pseudococcus viburni*) as mean of total numbers per plot, by treatment, on five assessment dates during the trial. Back-transformed means are shown (i.e., not raw means). A0 = two days before first treatment application; A1 = 3 days after first treatment application; A2 = 7 days after first treatment application; A3 = 11 days after first treatment application; A4 = 15 days after first treatment application.

Percentage reduction in numbers of two-spotted spider mite and glasshouse mealybug (Henderson-Tilton formula)

The Henderson-Tilton formula (Eq.1) was used to calculate percentage efficacy based on the back-transformed means of the total numbers of live two-spotted spider mite (Table 3) and glasshouse mealybug (Table 4) per plot. Percentage reductions in number were calculated relative to the pre-application assessment (A0; 16.10.2021), and also relative to the previous assessment.

Equation 1. Henderson-Tilton formula.

$$\textit{Corrected \% efficacy} = \left(1 - \frac{(\textit{n. on control before spray} \times \textit{n. on treatment plot after spray})}{(\textit{n. on control after spray} \times \textit{n. on treatment plot before spray})}\right) \times 100$$

Table 3. Percentage reduction in back-transformed mean total number of live (adult and juvenile combined) two-spotted spider mite (*Tetranychus urticae*) per plot, compared to both the baseline count (A0, count made on 16.10.2021), and previous assessment count. A1 = 3 days after first treatment application; A2 = 7 days after first

treatment application; A3 = 11 days after first treatment application; A4 = 15 days after first treatment application. Bio = biopesticide.

	Compared with A0 assessment (pre-treatment; 16.10.2021)				Compared with previous assessment			
Treatment	**A1**	**A2**	**A3**	**A4**	**A1**	**A2**	**A3**	**A4**
FLiPPER (Bio)	83.1	76.5	64.3	79.4	83.1	-38.6	-52.3	42.3
AHDB9819 (Bio)	90.3	86.8	95.3	88.6	90.3	-36.8	64.3	-140.7
AHDB9944	83.6	88.2	65.2	96.6	83.6	27.9	-194.4	90.3
AHDB9967 (Bio)	70.8	89.1	82.3	99.2	70.8	62.6	-62.0	95.5
AHDB9738 (Bio)	78.8	64.3	-11.4	36.3	78.8	-68.7	-211.6	42.8
AHDB9739	61.0	80.7	26.9	91.5	61.0	50.5	-278.4	88.3
AHDB9928 (Bio)	46.5	79.5	57.1	96.9	46.5	61.8	-109.3	92.7

Table 4. Percentage reduction in back-transformed mean total number of live (adults and nymphs combined) glasshouse mealybug (*Pseudococcus viburni*) per plot, compared to both the baseline count (A0, count made on 16.10.2021), and previous assessment count. A1 = 3 days after first treatment application; A2 = 7 days after first treatment application; A3 = 11 days after first treatment application; A4 = 15 days after first treatment application. Bio = biopesticide.

	Compared with A0 assessment (pre-treatment; 16.10.2021)				Compared with previous assessment			
Treatment	**A1**	**A2**	**A3**	**A4**	**A1**	**A2**	**A3**	**A4**
FLiPPER (Bio)	38.7	37.5	53.4	48.2	38.7	-1.9	25.4	-11.2
AHDB9819 (Bio)	26.2	-6.6	-4.9	-24.0	26.2	-44.4	1.5	-18.1
AHDB9944	29.5	32.9	25.5	33.5	29.5	4.8	-11.0	10.7
AHDB9967 (Bio)	-28.4	3.7	4.2	-39.1	-28.4	25.0	0.5	-45.2
AHDB9738 (Bio)	-24.9	-8.4	-26.4	-83.9	-24.9	13.2	-16.6	-45.5
AHDB9739	23.5	-16.4	-0.4	-0.9	23.5	-52.0	13.7	-0.5
AHDB9928 (Bio)	-7.9	-14.2	16.8	15.0	-7.9	-5.8	27.2	-2.2

Discussion

The numbers of two-spotted spider mite present in the crop throughout the trial were low, with numbers in the untreated control plots also decreasing throughout the trial assessment period (though these increased slightly at the last assessment relative to the previous one). Eggs were not observed on the foliage, and as such were not counted. The industry standard, FLiPPER, performed as expected, significantly decreasing two-spotted spider mite numbers at the first and second post-treatment assessment and maintaining numbers at low levels for the rest of the trial assessment period relative to the untreated control. Although at later assessment points the

reductions were not found to be statistically significant, this was likely due to the low numbers observed in the control plots at those stages of the trial.

The two conventional experimental treatments trialled, AHDB9944 and AHDB9739, led to sustained reductions in total two-spotted spider mite numbers, achieving over 96% and 91% corrected percentage efficacy, respectively. Only AHDB9944 showed a statistically significant reduction by the final assessment of the trial (significant reductions were noted at the A1, A2 and A4 assessments). Reductions caused by treatment with AHDB9739, in contrast, were only statistically significantly different from the control at the second post-initial treatment assessment (A2), although this may be a factor of both the mode of action (with which rapid and immediate knock-down would not be the sole contributing factor to control), and the decreasing numbers on control plots.

In addition to the industry standard (FLiPPER), two further physically acting biopesticides were trialled. AHDB9819 reduced the numbers of live total two-spotted spider mite by over 88% by the end of the trial assessment phase, suggesting the potential for sustained control of population growth over the assessment period, although counts were only statistically significantly different from those of the untreated controls at the A1 and A2 assessments. AHDB9738, however, reduced numbers by approximately 36% over the course of the trial. Although a significant decrease was noted at the first post-treatment application (A1), the reduction was not sustained, suggesting a potential need for repeat applications to achieve adequate suppression of numbers through time. An outlier plot may also have affected the statistical outcome of the analyses for this particular product, although the statistical report did not suggest a major influence at all assessment dates.

Two further biopesticides were tested, with both showing significant reductions in total live two-spotted spider mite numbers over the trial duration. The botanically derived AHDB9967 achieved reductions of over 99% (with statistically significant reductions noted at the A1, A2 and A4 assessments). The mycopesticide AHDB9928 achieved control of over 96%, although statistical significance was only noted at the A2 and the final A4 assessments, as might be expected from the mode of action associated with these types of biopesticide.

No treatment was found to have a statistically significant impact on total live glasshouse mealybug numbers over the course of the trial, although FLiPPER appeared to check population growth, with a corrected percentage reduction of 48.2% over the course of the trial and showed reduced numbers of mealybug egg sacs relative to the control plots at the second post-initial treatment assessment (assessment A2; Table A5).

All treatments mixed well with deionised water, and no adjuvants were required.

Conclusions

- Most treatments showed statistically significant reductions in the numbers of mites within seven days of the initial treatment application (A1 and A2).
- By the final assessment date, the two conventional treatments tested, AHDB9944 and AHDB9739, reduced two-spotted spider mite numbers by 96% and 91% respectively, although this was statistically significant at the end of the trial for AHDB9944 only.

- The physically acting biopesticide AHDB9819 reduced two-spotted spider mite numbers by 88% by the end of the trial assessment phase, although this was not statistically significant. AHDB9738 reduced numbers by 36% over the duration of the trial.
- The two remaining, low-risk biopesticides, the botanical AHDB9967 and the mycopesticide AHDB9928, statistically significantly reduced two-spotted spider mite numbers by 99% and 96% respectively by the final assessment date.
- Low numbers or more significantly the absence of any reproduction may have made the treatments appear more effective than they would be with more severe infestations. Conversely, where primary mode of action might be nymphicidal, ovicidal, or through reduction of viable oviposition, low numbers and absence of reproduction may have made those treatments appear less effective than would be the case with more severe infestations.
- There was no notable, statistically significant, impact of treatment on numbers of the non-target glasshouse mealybug present in the crop, although the industry standard, FLiPPER, appeared to check population growth.
- No treatments caused phytotoxic effects at the tested rates or application intervals.

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We would also like to thank the SCEPTREplus consortium for input into trial design and product selection, as well as industry representative Alastair Hazell for useful discussion on selection of crop variety and industry standard.

Appendix

a. Statistical analyses of adult and juvenile two-spotted spider mite data, with analyses on each life stage conducted separately.

Table A1. Live adult two-spotted spider mite (*Tetranychus urticae*) as mean of total numbers per plot, by treatment, on five assessment dates during the trial. Means are shown as transformed (square root of $x + 0.5$) for analysis, and back-transformed (i.e. not raw means). Shading indicates significant differences from the untreated control (at $p < 0.05$). A0 = two days before first treatment application; A1 = 3 days after first treatment application; A2 = 7 days after first treatment application; A3 = 11 days after first treatment application; A4 = 15 days after first treatment application. Bio = biopesticide.

Date	**16.10.2021 (A0)**		**21.10.2021 (A1)**		**25.10.2021 (A2 / B1)**		**29.10.2021 (A3 / C1)**		**02.11.2021 (A4)**	
	Sqrt $x + 0.5$	**Back-trans.**	**Sqrt $x + 0.5$**	**Back-trans.**	**Sqrt $x + 0.5$**	**Back-trans.**	**Sqrt $x + 0.5$**	**Back-trans.**	**Sqrt $x + 0.5$**	**Back-trans.**
Treatment										
Untreated	2.09	3.89	1.91	3.15	1.92	3.19	1.36	1.35	1.47	1.65
FLiPPER (Bio)	1.78	2.65	0.93	0.36	0.99	0.47	0.84	0.20	0.78	0.11
AHDB9819 (Bio)	1.72	2.45	0.75	0.06	0.79	0.12	0.69	0.00	0.75	0.06
AHDB9944	1.93	3.21	0.79	0.13	0.72	0.02	0.62	0.00	0.66	0.00
AHDB9967 (Bio)	1.89	3.06	1.05	0.61	0.82	0.17	0.74	0.04	0.72	0.02
AHDB9738 (Bio)	1.98	3.43	1.06	0.63	0.92	0.35	2.17	4.21	1.07	0.65
AHDB9739	2.14	4.09	1.08	0.68	0.97	0.43	1.43	1.56	0.71	0.00
AHDB9928 (Bio)	1.63	2.17	1.12	0.75	0.84	0.21	0.78	0.11	0.70	0.00
F value	0.29	-	4.38	-	5.551	-	1.57	-	3.60	-
p-value	0.955	-	0.001	-	<0.001	-	0.177	-	0.005	-
d.f.	7, 34	-	7, 34	-	7, 34	-	7, 34	-	7, 34	-
L.S.D.	1.33	-	0.69	-	0.65	-	1.63	-	0.58	-
Friedman's *P*	0.807	-	0.167	-	0.079	-	0.082	-	0.009	-

	Not significantly different from untreated control ($p > 0.05$)
	Significantly different from untreated control ($p < 0.05$)

Table A2. Live juvenile two-spotted spider mite (*Tetranychus urticae*) as mean of total numbers per plot, by treatment, on five assessment dates during the trial. Means are shown as transformed (square root of $x + 0.5$) for analysis, and back-transformed (i.e. not raw means). Shading indicates significant differences from the untreated control (at $p < 0.05$). A0 = two days before first treatment application; A1 = 3 days after first treatment application; A2 = 7 days after first treatment application; A3 = 11 days after first treatment application; A4 = 15 days after first treatment application. Bio = biopesticide.

Date	16.10.2021 (A0)		21.10.2021 (A1)		25.10.2021 (A2 / B1)		29.10.2021 (A3 / C1)		02.11.2021 (A4)	
	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.
Treatment										
Untreated	2.65	6.54	2.70	6.80	2.26	4.59	1.52	1.80	1.86	2.98
FLiPPER (Bio)	2.88	7.78	1.30	1.20	1.32	1.23	1.18	0.88	1.15	0.81
AHDB9819 (Bio)	2.32	4.87	1.02	0.55	0.95	0.40	0.73	0.03	0.86	0.24
AHDB9944	2.80	7.34	1.40	1.46	1.17	0.88	1.30	1.18	0.83	0.19
AHDB9967 (Bio)	2.55	5.99	1.48	1.68	1.00	0.50	0.96	0.43	0.72	0.02
AHDB9738 (Bio)	3.33	10.58	1.52	1.82	1.86	2.95	0.83	0.19	1.93	3.24
AHDB9739	2.67	6.63	1.83	2.84	1.22	0.99	1.05	0.60	0.94	0.38
AHDB9928 (Bio)	2.56	6.03	1.94	3.25	1.17	0.88	1.19	0.91	0.79	0.12
F value	0.56	-	2.72	-	1.74	-	1.11	-	2.38	-
p-value	0.785	-	0.024	-	0.133	-	0.377	-	0.043	-
d.f.	7, 34	-	7, 34	-	7, 34	-	7, 34	-	7, 34	-
L.S.D.	1.46	-	1.24	-	1.35	-	0.97	-	1.23	-
Friedman's *P*	0.982	-	0.146	-	0.798	-	0.198	-	0.082	-

	Not significantly different from untreated control ($p > 0.05$)
	Significantly different from untreated control ($p < 0.05$)

Table A3. Live adult glasshouse mealybug (*Pseudococcus viburni*) as mean of total numbers per plot, by treatment, on five assessment dates during the trial. Means are shown as transformed (square root of *x* + 0.5) for analysis, and back-transformed (i.e. not raw means). Shading indicates significant differences from the untreated control (at $p < 0.05$). A0 = two days before first treatment application; A1 = 3 days after first treatment application; A2 = 7 days after first treatment application; A3 = 11 days after first treatment application; A4 = 15 days after first treatment application. Bio = biopesticide.

Date	16.10.2021 (A0)		21.10.2021 (A1)		25.10.2021 (A2 / B1)		29.10.2021 (A3 / C1)		02.11.2021 (A4)	
	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.
Treatment										
Untreated	0.96	0.43	0.99	0.48	1.57	1.97	1.43	1.53	1.69	2.36
FLiPPER (Bio)	0.85	0.22	0.77	0.10	0.96	0.43	0.83	0.19	0.78	0.11
AHDB9819 (Bio)	1.78	2.65	1.30	1.19	1.25	1.06	1.33	1.28	1.34	1.29
AHDB9944	1.30	1.19	1.20	0.94	1.09	0.68	1.53	1.83	1.43	1.54
AHDB9967 (Bio)	0.77	0.09	0.70	-0.01	1.12	0.74	1.00	0.50	1.22	0.98
AHDB9738 (Bio)	0.85	0.22	0.68	0.00	0.94	0.38	0.99	0.47	0.88	0.28
AHDB9739	1.03	0.55	0.71	0.00	0.88	0.27	0.71	0.00	1.13	0.78

Date	16.10.2021 (A0)		21.10.2021 (A1)		25.10.2021 (A2 / B1)		29.10.2021 (A3 / C1)		02.11.2021 (A4)	
	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.
Treatment										
AHDB9928 (Bio)	1.10	0.70	1.31	1.21	2.07	3.78	1.50	1.76	1.46	1.64
F value	2.27	-	1.58	-	3.23	-	2.04	-	1.38	-
p-value	0.052	-	0.176	-	0.010	-	0.078	-	0.245	-
d.f.	7, 34	-	7, 34	-	7, 34	-	7, 34	-	7, 34	-
L.S.D.	0.77	-	0.81	-	0.88	-	0.85	-	0.96	-
Friedman's *P*	0.581	-	0.020	-	0.050	-	0.198	-	0.566	-

	Not significantly different from untreated control ($p > 0.05$)
	Significantly different from untreated control ($p < 0.05$)

Table A4. Live juvenile glasshouse mealybug (*Pseudococcus viburni*) as mean of total numbers per plot, by treatment, on five assessment dates during the trial. Means are shown as transformed (square root of $x + 0.5$) for analysis, and back-transformed (i.e. not raw means). Shading indicates significant differences from the untreated control (at $p < 0.05$). A0 = two days before first treatment application; A1 = 3 days after first treatment application; A2 = 7 days after first treatment application; A3 = 11 days after first treatment application; A4 = 15 days after first treatment application. Bio = biopesticide.

Date	16.10.2021 (A0)		21.10.2021 (A1)		25.10.2021 (A2 / B1)		29.10.2021 (A3 / C1)		02.11.2021 (A4)	
	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.
Treatment										
Untreated	2.94	8.14	3.40	11.03	3.70	13.22	3.96	15.19	3.99	15.42
FLiPPER (Bio)	3.01	8.56	2.79	7.28	3.14	9.39	3.19	9.67	3.23	9.96
AHDB9819 (Bio)	3.09	9.08	3.40	11.04	4.87	23.23	5.35	28.09	5.67	31.61
AHDB9944	2.70	6.78	2.55	5.98	3.06	8.88	3.44	11.34	3.07	8.92
AHDB9967 (Bio)	2.89	7.87	3.74	13.52	3.72	13.37	4.14	16.65	4.76	22.12
AHDB9738 (Bio)	2.19	4.28	3.01	8.56	3.12	9.21	3.72	13.31	4.50	19.77
AHDB9739	2.45	5.50	2.61	6.32	3.68	13.02	3.82	14.11	3.60	12.45
AHDB9928 (Bio)	2.92	8.01	3.48	11.64	3.81	14.04	3.81	14.03	3.82	14.11
F value	0.28	-	0.62	-	0.48	-	0.49	-	1.26	-
p-value	0.958	-	0.735	-	0.844	-	0.833	-	0.299	-
d.f.	7, 34	-	7, 34	-	7, 34	-	7, 34	-	7, 34	-
L.S.D.	2.27	-	2.25	-	3.14	-	3.43	-	3.02	-
Friedman's *P*	0.968	-	0.179	-	0.154	-	0.423	-	0.165	-

	Not significantly different from untreated control ($p > 0.05$)

Date	16.10.2021 (A0)		21.10.2021 (A1)		25.10.2021 (A2 / B1)		29.10.2021 (A3 / C1)		02.11.2021 (A4)	
	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.
Treatment										
	Significantly different from untreated control ($p < 0.05$)									

Table A5. Mean total numbers of glasshouse mealybug (*Pseudococcus viburni*) egg sacs per plot, by treatment, on four assessment dates during the trial; no egg sacs were observed at the A0 assessment. Means are shown as transformed (square root of $x + 0.5$) for analysis, and back-transformed (i.e. not raw means). Shading indicates significant differences from the untreated control (at $p < 0.05$). A1 = 3 days after first treatment application; A2 = 7 days after first treatment application; A3 = 11 days after first treatment application; A4 = 15 days after first treatment application. Bio = biopesticide.

Date	21.10.2021 (A1)		25.10.2021 (A2 / B1)		29.10.2021 (A3 / C1)		02.11.2021 (A4)	
	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.	Sqrt *x* + 0.5	Back-trans.
Treatment								
Untreated	0.93	0.37	1.29	1.17	1.01	0.52	1.35	1.33
FLiPPER (Bio)	0.75	0.06	0.76	0.08	0.87	0.26	0.75	0.07
AHDB9819 (Bio)	0.85	0.22	0.89	0.29	1.18	0.90	1.33	1.26
AHDB9944	0.77	0.09	0.82	0.17	0.83	0.18	1.20	0.94
AHDB9967 (Bio)	0.80	0.14	0.81	0.15	0.72	0.03	0.98	0.45
AHDB9738 (Bio)	0.75	0.07	0.86	0.24	0.98	0.45	0.85	0.22
AHDB9739	0.71	0.00	0.94	0.38	0.85	0.23	1.18	0.90
AHDB9928 (Bio)	0.70	0.00	1.11	0.72	1.08	0.66	0.87	0.26
F value	0.40	-	2.21	-	0.82	-	1.00	-
p-value	0.894	-	0.058	-	0.578	-	0.448	-
d.f.	7, 34	-	7, 34	-	7, 34	-	7, 34	-
L.S.D.	0.48	-	0.48	-	0.64	-		-
Friedman's *P*	0.780	-	0.044	-	0.342	-	0.106	-

	Not significantly different from untreated control ($p > 0.05$)
	Significantly different from untreated control ($p < 0.05$)

b. Crop diary

Date	Event
25.03.2021	*Choisya* 'Sundance' (in 1L pots) collected and placed into unheated glasshouse.
06.09.2021	Plants moved into unheated glasshouse unit allocated for trial.

c. Trial diary

Date	Event
25.03.2021	*Choisya* 'Sundance' (in 1L pots) collected and placed into unheated glasshouse.
06.09.2021	Plants moved into unheated glasshouse unit allocated for trial.
21.09.2021	Trial laid out into plots (3 x 4 grid per plot), onto capillary matting. Spacing to allow for adequate light late in season.
22.09.2021	Plots labelled. Crop infested with two-spotted spider mite from stock culture.
01.10.2021	Pest levels checked – noted to be low. Additional two-spotted spider mite from stock culture added to each plant.
12.10.2021	Thermometer and hygrometer placed in glasshouse for trial duration.
16.10.2021	Assessment A0 (pre-treatment) – initial count of spider mite and mealybug numbers. Phytotoxicity assessment. Infestation material removed.
18.10.2021	Treatment application 1 (T1(A)) – all sprays applied.
21.10.2021	Assessment A1 – efficacy assessment (spider mite counts, mealybug counts) and phytotoxicity assessment.
22.10.2021	Treatment application 2 (T2(B)) – Treatment 8 spray applied (microbial). All other treatments sprayed with water.
25.10.2021	Assessment A2 (B1) – efficacy assessment (spider mite counts, mealybug counts) and phytotoxicity assessment.
26.10.2021	Treatment application 3 (T3(C)) – Treatments 2 (physically acting), 3 (physically acting), 5 (botanical), and 8 (microbial) sprays applied. All other treatments sprayed with water.
29.10.2021	Assessment A3 (C1) – efficacy assessment (spider mite counts, mealybug counts) and phytotoxicity assessment.
02.11.2021	Assessment A4 – final efficacy assessment (spider mite counts, mealybug counts) and phytotoxicity assessment.

d. Trial photos

Figure A1. Rows of *Choisya in situ*.

Figure A2. Glasshouse mealybug on *Choisya* foliage (left), and clustered under stem marker (right). Mealybug numbers were only counted above the stem marker.

e. Climatological data during study period

Trial took place in an unheated glasshouse. Measures taken from calibrated thermometer and hygrometer left *in situ* in the unit.

Day	October 2021				November 2021			
	Air min. (°C)	Air max. (°C)	RH min. (%)	RH max. (%)	Air min. (°C)	Air max. (°C)	RH min. (%)	RH max. (%)
1					8.8	21.4	21.4	95.8
2					4.6	16	69.5	99.9
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13	9.8	22.8	NA	NA				
14	9.8	22.8	65.9	98.2				
15	7.3	19	62	97				
16	NA	NA	41.9	97.9				
17	NA	NA	60.1	98				
18	5.9	28.1	61.1	98.9				
19	11.4	16.2	85.5	99.1				
20	11.5	25.2	67	98.8				
21	5.8	25.1	NA	NA				
22	6.2	23.3	24.9	97.9				
23	10	23.8	38.8	98.3				
24	7	24.2	NA	NA				
25	7.5	16	88	98				
26	7.3	25.4	29.6	99.5				
27	11.5	22.2	52.3	96.4				
28	11.9	22.4	38.2	96				
29	12.2	25.6	32.7	98.5				
30	9.1	19.6	31.6	97.2				
31	17.3	25.9	23.2	97.9				

f. Raw data from assessments

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
16-Oct-21	A0	1.1	0	3	3	10	2.50	0	1	1	0	7	1.75
16-Oct-21	A0	1.1	4	1	5			0	1	1	0		
16-Oct-21	A0	1.1	1	1	2			1	3	4	0		
16-Oct-21	A0	1.1	0	0	0			0	1	1	0		
16-Oct-21	A0	1.2	0	0	0	13	3.25	0	1	1	0	26	6.5
16-Oct-21	A0	1.2	0	1	1			0	9	9	0		
16-Oct-21	A0	1.2	1	10	11			0	10	10	0		
16-Oct-21	A0	1.2	0	1	1			0	6	6	0		
16-Oct-21	A0	1.3	4	7	11	32	8.00	0	0	0	0	8	2
16-Oct-21	A0	1.3	2	4	6			0	5	5	0		
16-Oct-21	A0	1.3	2	3	5			0	3	3	0		
16-Oct-21	A0	1.3	5	5	10			0	0	0	0		
16-Oct-21	A0	1.4	0	1	1	4	1.00	0	0	0	0	0	0
16-Oct-21	A0	1.4	0	0	0			0	0	0	0		
16-Oct-21	A0	1.4	1	0	1			0	0	0	0		
16-Oct-21	A0	1.4	1	1	2			0	0	0	0		
16-Oct-21	A0	1.5	0	0	0	10	2.50	0	0	0	0	4	1
16-Oct-21	A0	1.5	0	0	0			0	3	3	0		
16-Oct-21	A0	1.5	1	0	1			0	1	1	0		
16-Oct-21	A0	1.5	5	4	9			0	0	0	0		
16-Oct-21	A0	1.6	0	1	1	5	1.25	0	6	6	0	20	5
16-Oct-21	A0	1.6	0	1	1			0	12	12	0		
16-Oct-21	A0	1.6	1	1	2			2	0	2	0		
16-Oct-21	A0	1.6	0	1	1			0	0	0	0		
16-Oct-21	A0	2.1	1	2	3	18	4.50	0	1	1	0	5	1.25
16-Oct-21	A0	2.1	2	4	6			1	2	3	0		
16-Oct-21	A0	2.1	1	6	7			0	1	1	0		
16-Oct-21	A0	2.1	1	1	2			0	0	0	0		
16-Oct-21	A0	2.2	2	5	7	20	5.00	0	3	3	0	8	2
16-Oct-21	A0	2.2	0	2	2			0	4	4	0		
16-Oct-21	A0	2.2	0	2	2			0	1	1	0		
16-Oct-21	A0	2.2	4	5	9			0	0	0	0		
16-Oct-21	A0	2.3	0	1	1	10	2.50	1	17	18	0	20	5
16-Oct-21	A0	2.3	0	3	3			0	0	0	0		
16-Oct-21	A0	2.3	1	2	3			0	0	0	0		
16-Oct-21	A0	2.3	0	3	3			0	2	2	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
16-Oct-21	A0	2.4	1	2	3	5	1.25	0	3	3	0	28	7
16-Oct-21	A0	2.4	1	1	2			0	3	3	0		
16-Oct-21	A0	2.4	0	0	0			0	0	0	0		
16-Oct-21	A0	2.4	0	0	0			0	22	22	0		
16-Oct-21	A0	2.5	0	1	1	7	1.75	1	1	2	0	2	0.5
16-Oct-21	A0	2.5	0	1	1			0	0	0	0		
16-Oct-21	A0	2.5	1	2	3			0	0	0	0		
16-Oct-21	A0	2.5	1	1	2			0	0	0	0		
16-Oct-21	A0	2.6	1	0	1	3	0.75	0	1	1	0	2	0.5
16-Oct-21	A0	2.6	0	0	0			0	0	0	0		
16-Oct-21	A0	2.6	0	0	0			0	0	0	0		
16-Oct-21	A0	2.6	0	2	2			0	1	1	0		
16-Oct-21	A0	3.1	2	3	5	27	6.75	0	0	0	0	7	1.75
16-Oct-21	A0	3.1	3	6	9			0	4	4	0		
16-Oct-21	A0	3.1	3	4	7			0	0	0	0		
16-Oct-21	A0	3.1	3	3	6			0	3	3	0		
16-Oct-21	A0	3.2	0	0	0	7	1.75	0	0	0	0	15	3.75
16-Oct-21	A0	3.2	1	0	1			2	2	4	0		
16-Oct-21	A0	3.2	0	1	1			2	7	9	0		
16-Oct-21	A0	3.2	2	3	5			1	1	2	0		
16-Oct-21	A0	3.3	0	1	1	9	2.25	0	13	13	0	38	9.5
16-Oct-21	A0	3.3	0	3	3			0	2	2	0		
16-Oct-21	A0	3.3	0	1	1			0	13	13	0		
16-Oct-21	A0	3.3	1	3	4			0	10	10	0		
16-Oct-21	A0	3.4	1	2	3	5	1.25	4	5	9	0	13	3.25
16-Oct-21	A0	3.4	0	0	0			0	1	1	0		
16-Oct-21	A0	3.4	0	1	1			0	1	1	0		
16-Oct-21	A0	3.4	0	1	1			0	2	2	0		
16-Oct-21	A0	3.5	0	1	1	5	1.25	1	0	1	0	7	1.75
16-Oct-21	A0	3.5	1	1	2			3	1	4	0		
16-Oct-21	A0	3.5	1	1	2			2	0	2	0		
16-Oct-21	A0	3.5	0	0	0			0	0	0	0		
16-Oct-21	A0	3.6	1	1	2	5	1.25	0	0	0	0	8	2
16-Oct-21	A0	3.6	0	1	1			0	4	4	0		
16-Oct-21	A0	3.6	0	2	2			1	1	2	0		
16-Oct-21	A0	3.6	0	0	0			0	2	2	0		
16-Oct-21	A0	4.1	1	2	3	10	2.50	0	0	0	0	9	2.25
16-Oct-21	A0	4.1	1	2	3			0	1	1	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
16-Oct-21	A0	4.1	1	0	1			0	0	0	0		
16-Oct-21	A0	4.1	0	3	3			0	8	8	0		
16-Oct-21	A0	4.2	2	4	6	19	4.75	0	0	0	0	9	2.25
16-Oct-21	A0	4.2	3	5	8			0	0	0	0		
16-Oct-21	A0	4.2	0	0	0			0	9	9	0		
16-Oct-21	A0	4.2	2	3	5			0	0	0	0		
16-Oct-21	A0	4.3	0	0	0	10	2.50	3	1	4	0	8	2
16-Oct-21	A0	4.3	5	4	9			0	2	2	0		
16-Oct-21	A0	4.3	0	1	1			0	1	1	0		
16-Oct-21	A0	4.3	0	0	0			0	1	1	0		
16-Oct-21	A0	4.4	1	9	10	16	4.00	0	1	1	0	6	1.5
16-Oct-21	A0	4.4	0	1	1			0	3	3	0		
16-Oct-21	A0	4.4	2	3	5			1	1	2	0		
16-Oct-21	A0	4.4	0	0	0			0	0	0	0		
16-Oct-21	A0	4.5	0	1	1	3	0.75	0	1	1	0	1	0.25
16-Oct-21	A0	4.5	0	0	0			0	0	0	0		
16-Oct-21	A0	4.5	0	0	0			0	0	0	0		
16-Oct-21	A0	4.5	0	2	2			0	0	0	0		
16-Oct-21	A0	4.6	0	1	1	14	3.50	0	1	1	0	23	5.75
16-Oct-21	A0	4.6	0	0	0			1	3	4	0		
16-Oct-21	A0	4.6	2	4	6			0	0	0	0		
16-Oct-21	A0	4.6	2	5	7			3	15	18	0		
16-Oct-21	A0	5.1	1	3	4	5	1.25	0	3	3	0	5	1.25
16-Oct-21	A0	5.1	0	0	0			0	1	1	0		
16-Oct-21	A0	5.1	0	1	1			0	1	1	0		
16-Oct-21	A0	5.1	0	0	0			0	0	0	0		
16-Oct-21	A0	5.2	5	4	9	10	2.50	0	0	0	0	3	0.75
16-Oct-21	A0	5.2	0	0	0			0	0	0	0		
16-Oct-21	A0	5.2	0	1	1			0	3	3	0		
16-Oct-21	A0	5.2	0	0	0			0	0	0	0		
16-Oct-21	A0	5.3	4	6	10	25	6.25	0	0	0	0	2	0.5
16-Oct-21	A0	5.3	1	1	2			0	1	1	0		
16-Oct-21	A0	5.3	0	2	2			0	1	1	0		
16-Oct-21	A0	5.3	6	5	11			0	0	0	0		
16-Oct-21	A0	5.4	1	3	4	5	1.25	0	4	4	0	18	4.5
16-Oct-21	A0	5.4	0	0	0			0	0	0	0		
16-Oct-21	A0	5.4	0	1	1			0	1	1	0		
16-Oct-21	A0	5.4	0	0	0			0	13	13	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
16-Oct-21	A0	5.5	0	1	1	6	1.50	0	0	0	0	7	1.75
16-Oct-21	A0	5.5	0	2	2			0	2	2	0		
16-Oct-21	A0	5.5	0	1	1			0	2	2	0		
16-Oct-21	A0	5.5	1	1	2			0	3	3	0		
16-Oct-21	A0	5.6	2	0	2	8	2.00	0	2	2	0	20	5
16-Oct-21	A0	5.6	1	1	2			0	8	8	0		
16-Oct-21	A0	5.6	0	2	2			0	3	3	0		
16-Oct-21	A0	5.6	0	2	2			1	6	7	0		
16-Oct-21	A0	6.1	0	0	0	1	0.25	0	1	1	0	6	1.5
16-Oct-21	A0	6.1	0	0	0			0	0	0	0		
16-Oct-21	A0	6.1	0	0	0			0	0	0	0		
16-Oct-21	A0	6.1	0	1	1			0	5	5	0		
16-Oct-21	A0	6.2	5	8	13	21	5.25	0	0	0	0	1	0.25
16-Oct-21	A0	6.2	1	0	1			0	0	0	0		
16-Oct-21	A0	6.2	2	5	7			0	1	1	0		
16-Oct-21	A0	6.2	0	0	0			0	0	0	0		
16-Oct-21	A0	6.3	0	0	0	37	9.25	0	0	0	0	5	1.25
16-Oct-21	A0	6.3	0	1	1			0	0	0	0		
16-Oct-21	A0	6.3	8	25	33			0	4	4	0		
16-Oct-21	A0	6.3	2	1	3			0	1	1	0		
16-Oct-21	A0	6.4	0	1	1	9	2.25	0	5	5	0	11	2.75
16-Oct-21	A0	6.4	0	4	4			0	6	6	0		
16-Oct-21	A0	6.4	0	2	2			0	0	0	0		
16-Oct-21	A0	6.4	0	2	2			0	0	0	0		
16-Oct-21	A0	6.5	8	19	27	27	6.75	0	3	3	0	6	1.5
16-Oct-21	A0	6.5	0	0	0			0	2	2	0		
16-Oct-21	A0	6.5	0	0	0			0	0	0	0		
16-Oct-21	A0	6.5	0	0	0			1	0	1	0		
16-Oct-21	A0	6.6	0	0	0	2	0.50	0	0	0	0	3	0.75
16-Oct-21	A0	6.6	0	1	1			0	0	0	0		
16-Oct-21	A0	6.6	0	0	0			3	0	3	0		
16-Oct-21	A0	6.6	1	0	1			0	0	0	0		
16-Oct-21	A0	7.1	0	1	1	4	1.00	0	1	1	0	10	2.5
16-Oct-21	A0	7.1	0	1	1			0	7	7	0		
16-Oct-21	A0	7.1	0	0	0			0	0	0	0		
16-Oct-21	A0	7.1	1	1	2			0	2	2	0		
16-Oct-21	A0	7.2	0	2	2	18	4.50	0	7	7	0	18	4.5
16-Oct-21	A0	7.2	0	0	0			0	0	0	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
16-Oct-21	A0	7.2	5	6	11			1	6	7	0		
16-Oct-21	A0	7.2	2	3	5			0	4	4	0		
16-Oct-21	A0	7.3	8	11	19	28	7.00	0	0	0	0	2	0.5
16-Oct-21	A0	7.3	4	1	5			0	0	0	0		
16-Oct-21	A0	7.3	0	2	2			0	2	2	0		
16-Oct-21	A0	7.3	1	1	2			0	0	0	0		
16-Oct-21	A0	7.4	1	0	1	7	1.75	1	1	2	0	2	0.5
16-Oct-21	A0	7.4	2	1	3			0	0	0	0		
16-Oct-21	A0	7.4	1	1	2			0	0	0	0		
16-Oct-21	A0	7.4	0	1	1			0	0	0	0		
16-Oct-21	A0	7.5	0	0	0	12	3.00	0	3	3	0	7	1.75
16-Oct-21	A0	7.5	0	1	1			1	1	2	0		
16-Oct-21	A0	7.5	3	6	9			1	1	2	0		
16-Oct-21	A0	7.5	0	2	2			0	0	0	0		
16-Oct-21	A0	7.6	0	0	0	4	1.00	0	0	0	0	4	1
16-Oct-21	A0	7.6	0	2	2			0	0	0	0		
16-Oct-21	A0	7.6	1	1	2			0	1	1	0		
16-Oct-21	A0	7.6	0	0	0			0	3	3	0		
16-Oct-21	A0	8.1	0	0	0	3	0.75	0	0	0	0	10	2.5
16-Oct-21	A0	8.1	1	1	2			1	5	6	0		
16-Oct-21	A0	8.1	0	1	1			0	3	3	0		
16-Oct-21	A0	8.1	0	0	0			1	0	1	0		
16-Oct-21	A0	8.2	2	2	4	9	2.25	0	0	0	0	5	1.25
16-Oct-21	A0	8.2	1	2	3			0	0	0	0		
16-Oct-21	A0	8.2	0	0	0			2	3	5	0		
16-Oct-21	A0	8.2	0	2	2			0	0	0	0		
16-Oct-21	A0	8.3	1	3	4	7	1.75	0	0	0	0	5	1.25
16-Oct-21	A0	8.3	0	0	0			0	0	0	0		
16-Oct-21	A0	8.3	0	1	1			0	2	2	0		
16-Oct-21	A0	8.3	2	0	2			0	3	3	0		
16-Oct-21	A0	8.4	2	1	3	19	4.75	0	1	1	0	3	0.75
16-Oct-21	A0	8.4	1	4	5			0	1	1	0		
16-Oct-21	A0	8.4	1	1	2			0	1	1	0		
16-Oct-21	A0	8.4	4	5	9			0	0	0	0		
16-Oct-21	A0	8.5	0	2	2	6	1.50	1	9	10	0	23	5.75
16-Oct-21	A0	8.5	0	1	1			0	4	4	0		
16-Oct-21	A0	8.5	0	3	3			0	6	6	0		
16-Oct-21	A0	8.5	0	0	0			0	3	3	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
16-Oct-21	A0	8.6	0	2	2	11	2.75	0	2	2	0	14	3.5
16-Oct-21	A0	8.6	1	3	4			0	8	8	0		
16-Oct-21	A0	8.6	0	2	2			0	1	1	0		
16-Oct-21	A0	8.6	0	3	3			0	3	3	0		
21-Oct-21	A1	1.1	1	3	4	13	3.25	0	0	0	0	8	2
21-Oct-21	A1	1.1	4	2	6			0	0	0	0		
21-Oct-21	A1	1.1	1	1	2			0	7	7	0		
21-Oct-21	A1	1.1	0	1	1			0	1	1	0		
21-Oct-21	A1	1.2	1	2	3	19	4.75	1	3	4	0	40	10
21-Oct-21	A1	1.2	1	1	2			0	7	7	0		
21-Oct-21	A1	1.2	2	10	12			2	8	10	0		
21-Oct-21	A1	1.2	1	1	2			0	19	19	0		
21-Oct-21	A1	1.3	2	3	5	26	6.50	0	0	0	0	20	5
21-Oct-21	A1	1.3	3	3	6			0	11	11	0		
21-Oct-21	A1	1.3	2	5	7			0	9	9	0		
21-Oct-21	A1	1.3	3	5	8			0	0	0	0		
21-Oct-21	A1	1.4	1	1	2	8	2.00	0	0	0	0	0	0
21-Oct-21	A1	1.4	0	2	2			0	0	0	0		
21-Oct-21	A1	1.4	0	3	3			0	0	0	0		
21-Oct-21	A1	1.4	0	1	1			0	0	0	0		
21-Oct-21	A1	1.5	0	0	0	0	0.00	0	0	0	0	0	0
21-Oct-21	A1	1.5	0	0	0			0	0	0	0		
21-Oct-21	A1	1.5	0	0	0			0	0	0	0		
21-Oct-21	A1	1.5	0	0	0			0	0	0	0		
21-Oct-21	A1	1.6	0	2	2	7	1.75	0	8	8	0	43	10.75
21-Oct-21	A1	1.6	1	1	2			0	25	25	0		
21-Oct-21	A1	1.6	1	1	2			0	7	7	2		
21-Oct-21	A1	1.6	0	1	1			1	2	3	2		
21-Oct-21	A1	2.1	0	0	0	8	2.00	0	0	0	0	1	0.25
21-Oct-21	A1	2.1	0	3	3			0	0	0	0		
21-Oct-21	A1	2.1	0	5	5			0	1	1	0		
21-Oct-21	A1	2.1	0	0	0			0	0	0	0		
21-Oct-21	A1	2.2	0	0	0	1	0.25	0	0	0	0	2	0.5
21-Oct-21	A1	2.2	0	0	0			0	0	0	0		
21-Oct-21	A1	2.2	0	0	0			0	2	2	0		
21-Oct-21	A1	2.2	0	1	1			0	0	0	0		
21-Oct-21	A1	2.3	0	0	0	0	0.00	0	0	0	0	8	2
21-Oct-21	A1	2.3	0	0	0			0	0	0	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
21-Oct-21	A1	2.3	0	0	0			0	6	6	0		
21-Oct-21	A1	2.3	0	0	0			1	1	2	0		
21-Oct-21	A1	2.4	0	0	0	0	0.00	0	0	0	0	3	0.75
21-Oct-21	A1	2.4	0	0	0			0	0	0	0		
21-Oct-21	A1	2.4	0	0	0			0	1	1	0		
21-Oct-21	A1	2.4	0	0	0			0	2	2	0		
21-Oct-21	A1	2.5	0	0	0	1	0.25	0	0	0	0	0	0
21-Oct-21	A1	2.5	0	0	0			0	0	0	0		
21-Oct-21	A1	2.5	0	0	0			0	0	0	0		
21-Oct-21	A1	2.5	1	0	1			0	0	0	0		
21-Oct-21	A1	2.6	0	0	0	0	0.00	0	3	3	0	12	3
21-Oct-21	A1	2.6	0	0	0			0	3	3	0		
21-Oct-21	A1	2.6	0	0	0			0	2	2	0		
21-Oct-21	A1	2.6	0	0	0			0	4	4	0		
21-Oct-21	A1	3.1	0	0	0	4	1.00	0	0	0	0	26	6.5
21-Oct-21	A1	3.1	1	2	3			0	16	16	0		
21-Oct-21	A1	3.1	0	0	0			0	0	0	0		
21-Oct-21	A1	3.1	1	0	1			0	10	10	0		
21-Oct-21	A1	3.2	0	0	0	0	0.00	0	0	0	0	34	8.5
21-Oct-21	A1	3.2	0	0	0			3	2	5	0		
21-Oct-21	A1	3.2	0	0	0			4	16	20	0		
21-Oct-21	A1	3.2	0	0	0			1	8	9	0		
21-Oct-21	A1	3.3	0	0	0	2	0.50	0	14	14	0	48	12
21-Oct-21	A1	3.3	0	1	1			0	3	3	0		
21-Oct-21	A1	3.3	0	0	0			0	15	15	0		
21-Oct-21	A1	3.3	0	1	1			0	16	16	0		
21-Oct-21	A1	3.4	0	0	0	2	0.50	0	8	8	0	17	4.25
21-Oct-21	A1	3.4	1	0	1			0	0	0	0		
21-Oct-21	A1	3.4	0	1	1			3	2	5	1		
21-Oct-21	A1	3.4	0	0	0			0	4	4	2		
21-Oct-21	A1	3.5	0	1	1	2	0.50	0	6	6	0	18	4.5
21-Oct-21	A1	3.5	0	0	0			0	7	7	0		
21-Oct-21	A1	3.5	0	1	1			0	4	4	0		
21-Oct-21	A1	3.5	0	0	0			0	1	1	0		
21-Oct-21	A1	3.6	0	0	0	0	0.00	0	1	1	0	5	1.25
21-Oct-21	A1	3.6	0	0	0			0	0	0	0		
21-Oct-21	A1	3.6	0	0	0			0	2	2	0		
21-Oct-21	A1	3.6	0	0	0			0	2	2	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
21-Oct-21	A1	4.1	0	0	0	2	0.50	0	0	0	0	25	6.25
21-Oct-21	A1	4.1	0	1	1			0	6	6	0		
21-Oct-21	A1	4.1	0	0	0			0	9	9	0		
21-Oct-21	A1	4.1	0	1	1			0	10	10	0		
21-Oct-21	A1	4.2	0	1	1	2	0.50	0	1	1	0	21	5.25
21-Oct-21	A1	4.2	1	0	1			0	0	0	1		
21-Oct-21	A1	4.2	0	0	0			0	20	20	0		
21-Oct-21	A1	4.2	0	0	0			0	0	0	0		
21-Oct-21	A1	4.3	0	0	0	0	0.00	0	0	0	0	1	0.25
21-Oct-21	A1	4.3	0	0	0			0	1	1	0		
21-Oct-21	A1	4.3	0	0	0			0	0	0	0		
21-Oct-21	A1	4.3	0	0	0			0	0	0	0		
21-Oct-21	A1	4.4	1	1	2	5	1.25	0	1	1	0	10	2.5
21-Oct-21	A1	4.4	0	1	1			0	6	6	0		
21-Oct-21	A1	4.4	0	1	1			0	1	1	0		
21-Oct-21	A1	4.4	0	1	1			1	1	2	0		
21-Oct-21	A1	4.5	0	0	0	1	0.25	0	0	0	0	10	2.5
21-Oct-21	A1	4.5	0	0	0			0	4	4	0		
21-Oct-21	A1	4.5	0	1	1			0	2	2	0		
21-Oct-21	A1	4.5	0	0	0			1	3	4	0		
21-Oct-21	A1	4.6	0	0	0	4	1.00	0	0	0	0	8	2
21-Oct-21	A1	4.6	0	4	4			4	2	6	0		
21-Oct-21	A1	4.6	0	0	0			2	0	2	0		
21-Oct-21	A1	4.6	0	0	0			0	0	0	0		
21-Oct-21	A1	5.1	0	2	2	6	1.50	0	9	9	0	11	2.75
21-Oct-21	A1	5.1	1	1	2			0	0	0	0		
21-Oct-21	A1	5.1	0	1	1			0	1	1	0		
21-Oct-21	A1	5.1	0	1	1			0	1	1	0		
21-Oct-21	A1	5.2	1	2	3	3	0.75	0	0	0	0	7	1.75
21-Oct-21	A1	5.2	0	0	0			0	0	0	0		
21-Oct-21	A1	5.2	0	0	0			0	7	7	0		
21-Oct-21	A1	5.2	0	0	0			0	0	0	0		
21-Oct-21	A1	5.3	1	0	1	2	0.50	0	0	0	0	5	1.25
21-Oct-21	A1	5.3	1	0	1			0	0	0	1		
21-Oct-21	A1	5.3	0	0	0			0	5	5	0		
21-Oct-21	A1	5.3	0	0	0			0	0	0	0		
21-Oct-21	A1	5.4	0	1	1	2	0.50	0	4	4	0	21	5.25
21-Oct-21	A1	5.4	0	0	0			0	0	0	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
21-Oct-21	A1	5.4	0	0	0			0	2	2	0		
21-Oct-21	A1	5.4	0	1	1			0	15	15	0		
21-Oct-21	A1	5.5	0	0	0	1	0.25	0	0	0	0	0	0
21-Oct-21	A1	5.5	0	1	1			0	0	0	0		
21-Oct-21	A1	5.5	0	0	0			0	0	0	0		
21-Oct-21	A1	5.5	0	0	0			0	0	0	0		
21-Oct-21	A1	5.6	0	0	0	1	0.25	0	10	10	0	56	14
21-Oct-21	A1	5.6	0	1	1			0	36	36	0		
21-Oct-21	A1	5.6	0	0	0			0	1	1	0		
21-Oct-21	A1	5.6	0	0	0			0	9	9	0		
21-Oct-21	A1	6.1	0	0	0	0	0.00	0	0	0	0	3	0.75
21-Oct-21	A1	6.1	0	0	0			0	2	2	0		
21-Oct-21	A1	6.1	0	0	0			0	0	0	0		
21-Oct-21	A1	6.1	0	0	0			0	1	1	0		
21-Oct-21	A1	6.2	0	0	0	0	0.00	0	3	3	0	3	0.75
21-Oct-21	A1	6.2	0	0	0			0	0	0	0		
21-Oct-21	A1	6.2	0	0	0			0	0	0	0		
21-Oct-21	A1	6.2	0	0	0			0	0	0	0		
21-Oct-21	A1	6.3	0	0	0	3	0.75	0	0	0	0	2	0.5
21-Oct-21	A1	6.3	0	0	0			0	1	1	0		
21-Oct-21	A1	6.3	0	0	0			0	0	0	0		
21-Oct-21	A1	6.3	3	0	3			0	1	1	0		
21-Oct-21	A1	6.4	0	2	2	5	1.25	0	0	0	0	7	1.75
21-Oct-21	A1	6.4	0	0	0			0	0	0	0		
21-Oct-21	A1	6.4	0	1	1			0	2	2	0		
21-Oct-21	A1	6.4	0	2	2			0	5	5	0		
21-Oct-21	A1	6.5	0	1	1	8	2.00	0	0	0	0	9	2.25
21-Oct-21	A1	6.5	0	5	5			0	6	6	0		
21-Oct-21	A1	6.5	0	0	0			0	3	3	0		
21-Oct-21	A1	6.5	0	2	2			0	0	0	0		
21-Oct-21	A1	6.6	0	0	0	0	0.00	0	0	0	0	0	0
21-Oct-21	A1	6.6	0	0	0			0	0	0	0		
21-Oct-21	A1	6.6	0	0	0			0	0	0	0		
21-Oct-21	A1	6.6	0	0	0			0	0	0	0		
21-Oct-21	A1	7.1	0	0	0	2	0.50	0	0	0	0	28	7
21-Oct-21	A1	7.1	0	1	1			0	18	18	0		
21-Oct-21	A1	7.1	0	0	0			0	6	6	0		
21-Oct-21	A1	7.1	0	1	1			0	4	4	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
21-Oct-21	A1	7.2	0	1	1	5	1.25	0	9	9	0	25	6.25
21-Oct-21	A1	7.2	0	0	0			0	1	1	0		
21-Oct-21	A1	7.2	0	3	3			0	8	8	0		
21-Oct-21	A1	7.2	0	1	1			0	7	7	0		
21-Oct-21	A1	7.3	2	2	4	6	1.50	0	0	0	0	4	1
21-Oct-21	A1	7.3	0	1	1			0	0	0	0		
21-Oct-21	A1	7.3	0	0	0			0	1	1	0		
21-Oct-21	A1	7.3	0	1	1			0	3	3	0		
21-Oct-21	A1	7.4	0	0	0	4	1.00	0	0	0	0	0	0
21-Oct-21	A1	7.4	1	1	2			0	0	0	0		
21-Oct-21	A1	7.4	0	2	2			0	0	0	0		
21-Oct-21	A1	7.4	0	0	0			0	0	0	0		
21-Oct-21	A1	7.5	0	2	2	5	1.25	0	0	0	0	1	0.25
21-Oct-21	A1	7.5	0	0	0			0	0	0	0		
21-Oct-21	A1	7.5	0	2	2			0	0	0	0		
21-Oct-21	A1	7.5	0	1	1			0	1	1	0		
21-Oct-21	A1	7.6	0	0	0	2	0.50	0	0	0	0	1	0.25
21-Oct-21	A1	7.6	0	0	0			0	0	0	0		
21-Oct-21	A1	7.6	2	0	2			0	1	1	0		
21-Oct-21	A1	7.6	0	0	0			0	0	0	0		
21-Oct-21	A1	8.1	0	1	1	5	1.25	0	0	0	0	7	1.75
21-Oct-21	A1	8.1	0	0	0			0	0	0	0		
21-Oct-21	A1	8.1	0	3	3			1	3	4	0		
21-Oct-21	A1	8.1	0	1	1			0	3	3	0		
21-Oct-21	A1	8.2	0	0	0	1	0.25	0	0	0	0	0	0
21-Oct-21	A1	8.2	0	1	1			0	0	0	0		
21-Oct-21	A1	8.2	0	0	0			0	0	0	0		
21-Oct-21	A1	8.2	0	0	0			0	0	0	0		
21-Oct-21	A1	8.3	0	0	0	5	1.25	0	0	0	0	12	3
21-Oct-21	A1	8.3	0	0	0			2	3	5	0		
21-Oct-21	A1	8.3	0	1	1			0	2	2	0		
21-Oct-21	A1	8.3	3	1	4			0	5	5	0		
21-Oct-21	A1	8.4	0	1	1	3	0.75	1	9	10	0	16	4
21-Oct-21	A1	8.4	0	0	0			0	0	0	0		
21-Oct-21	A1	8.4	0	1	1			0	3	3	0		
21-Oct-21	A1	8.4	0	1	1			0	3	3	0		
21-Oct-21	A1	8.5	0	1	1	6	1.50	3	16	19	0	36	9
21-Oct-21	A1	8.5	0	2	2			0	4	4	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
21-Oct-21	A1	8.5	1	1	2			0	9	9	0		
21-Oct-21	A1	8.5	0	1	1			0	4	4	0		
21-Oct-21	A1	8.6	1	1	2	7	1.75	0	3	3	0	28	7
21-Oct-21	A1	8.6	1	1	2			0	2	2	0		
21-Oct-21	A1	8.6	0	2	2			0	19	19	0		
21-Oct-21	A1	8.6	0	1	1			1	3	4	0		
25-Oct-21	A2	1.1	2	2	4	14	3.50	0	0	0	0	8	2
25-Oct-21	A2	1.1	2	5	7			1	1	2	0		
25-Oct-21	A2	1.1	0	1	1			3	2	5	0		
25-Oct-21	A2	1.1	1	1	2			0	1	1	1		
25-Oct-21	A2	1.2	0	0	0	1	0.25	0	16	16	0	60	15
25-Oct-21	A2	1.2	0	0	0			0	13	13	0		
25-Oct-21	A2	1.2	0	0	0			1	15	16	1		
25-Oct-21	A2	1.2	1	0	1			1	14	15	1		
25-Oct-21	A2	1.3	2	4	6	32	8.00	0	5	5	0	22	5.5
25-Oct-21	A2	1.3	2	5	7			0	6	6	0		
25-Oct-21	A2	1.3	3	4	7			0	5	5	0		
25-Oct-21	A2	1.3	4	8	12			0	6	6	0		
25-Oct-21	A2	1.4	0	3	3	10	2.50	1	1	2	1	4	1
25-Oct-21	A2	1.4	1	3	4			0	1	1	0		
25-Oct-21	A2	1.4	1	1	2			0	0	0	0		
25-Oct-21	A2	1.4	1	0	1			1	0	1	0		
25-Oct-21	A2	1.5	0	0	0	0	0.00	0	0	0	1	0	0
25-Oct-21	A2	1.5	0	0	0			0	0	0	0		
25-Oct-21	A2	1.5	0	0	0			0	0	0	0		
25-Oct-21	A2	1.5	0	0	0			0	0	0	0		
25-Oct-21	A2	1.6	1	1	2	7	1.75	6	15	21	0	46	11.5
25-Oct-21	A2	1.6	2	0	2			0	16	16	0		
25-Oct-21	A2	1.6	1	1	2			0	8	8	2		
25-Oct-21	A2	1.6	0	1	1			1	0	1	1		
25-Oct-21	A2	2.1	1	0	1	2	0.50	0	1	1	0	2	0.5
25-Oct-21	A2	2.1	0	0	0			0	0	0	0		
25-Oct-21	A2	2.1	0	1	1			0	1	1	0		
25-Oct-21	A2	2.1	0	0	0			0	0	0	0		
25-Oct-21	A2	2.2	0	0	0	2	0.50	0	0	0	0	4	1
25-Oct-21	A2	2.2	0	0	0			0	2	2	0		
25-Oct-21	A2	2.2	1	1	2			0	0	0	0		
25-Oct-21	A2	2.2	0	0	0			0	2	2	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
25-Oct-21	A2	2.3	0	0	0	0	0.00	0	6	6	0	9	2.25
25-Oct-21	A2	2.3	0	0	0			1	2	3	0		
25-Oct-21	A2	2.3	0	0	0			0	0	0	0		
25-Oct-21	A2	2.3	0	0	0			0	0	0	0		
25-Oct-21	A2	2.4	0	0	0	0	0.00	0	28	28	0	41	10.25
25-Oct-21	A2	2.4	0	0	0			0	6	6	0		
25-Oct-21	A2	2.4	0	0	0			0	6	6	0		
25-Oct-21	A2	2.4	0	0	0			0	1	1	0		
25-Oct-21	A2	2.5	0	1	1	1	0.25	1	0	1	0	2	0.5
25-Oct-21	A2	2.5	0	0	0			0	0	0	0		
25-Oct-21	A2	2.5	0	0	0			0	0	0	0		
25-Oct-21	A2	2.5	0	0	0			0	1	1	0		
25-Oct-21	A2	2.6	0	0	0	3	0.75	0	0	0	0	1	0.25
25-Oct-21	A2	2.6	0	1	1			1	0	1	0		
25-Oct-21	A2	2.6	0	0	0			0	0	0	0		
25-Oct-21	A2	2.6	0	2	2			0	0	0	0		
25-Oct-21	A2	3.1	0	0	0	2	0.50	0	0	0	1	27	6.75
25-Oct-21	A2	3.1	2	0	2			0	17	17	0		
25-Oct-21	A2	3.1	0	0	0			0	0	0	0		
25-Oct-21	A2	3.1	0	0	0			0	10	10	0		
25-Oct-21	A2	3.2	0	0	0	1	0.25	0	5	5	0	34	8.5
25-Oct-21	A2	3.2	0	0	0			1	4	5	0		
25-Oct-21	A2	3.2	0	0	0			6	8	14	0		
25-Oct-21	A2	3.2	1	0	1			1	9	10	0		
25-Oct-21	A2	3.3	0	1	1	4	1.00	0	19	19	0	77	19.25
25-Oct-21	A2	3.3	0	2	2			0	17	17	0		
25-Oct-21	A2	3.3	0	1	1			0	29	29	0		
25-Oct-21	A2	3.3	0	0	0			0	12	12	0		
25-Oct-21	A2	3.4	0	0	0	1	0.25	0	13	13	0	62	15.5
25-Oct-21	A2	3.4	0	1	1			0	11	11	0		
25-Oct-21	A2	3.4	0	0	0			0	4	4	1		
25-Oct-21	A2	3.4	0	0	0			0	34	34	0		
25-Oct-21	A2	3.5	0	0	0	2	0.50	0	5	5	0	18	4.5
25-Oct-21	A2	3.5	0	1	1			0	7	7	0		
25-Oct-21	A2	3.5	0	0	0			0	4	4	0		
25-Oct-21	A2	3.5	0	1	1			1	1	2	0		
25-Oct-21	A2	3.6	0	0	0	0	0.00	0	6	6	0	13	3.25
25-Oct-21	A2	3.6	0	0	0			0	3	3	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
25-Oct-21	A2	3.6	0	0	0			1	2	3	1		
25-Oct-21	A2	3.6	0	0	0			0	1	1	0		
25-Oct-21	A2	4.1	0	0	0	1	0.25	0	1	1	0	45	11.25
25-Oct-21	A2	4.1	0	1	1			1	2	3	0		
25-Oct-21	A2	4.1	0	0	0			1	21	22	0		
25-Oct-21	A2	4.1	0	0	0			0	19	19	0		
25-Oct-21	A2	4.2	0	1	1	3	0.75	0	0	0	0	20	5
25-Oct-21	A2	4.2	0	0	0			0	0	0	1		
25-Oct-21	A2	4.2	0	1	1			0	20	20	0		
25-Oct-21	A2	4.2	0	1	1			0	0	0	1		
25-Oct-21	A2	4.3	0	0	0	0	0.00	0	0	0	0	2	0.5
25-Oct-21	A2	4.3	0	0	0			1	1	2	0		
25-Oct-21	A2	4.3	0	0	0			0	0	0	0		
25-Oct-21	A2	4.3	0	0	0			0	0	0	0		
25-Oct-21	A2	4.4	1	1	2	3	0.75	0	2	2	0	6	1.5
25-Oct-21	A2	4.4	0	1	1			0	2	2	0		
25-Oct-21	A2	4.4	0	0	0			0	1	1	0		
25-Oct-21	A2	4.4	0	0	0			0	1	1	0		
25-Oct-21	A2	4.5	0	0	0	0	0.00	0	0	0	0	15	3.75
25-Oct-21	A2	4.5	0	0	0			0	7	7	0		
25-Oct-21	A2	4.5	0	0	0			0	2	2	0		
25-Oct-21	A2	4.5	0	0	0			0	6	6	0		
25-Oct-21	A2	4.6	0	2	2	2	0.50	0	0	0	0	6	1.5
25-Oct-21	A2	4.6	0	0	0			0	1	1	0		
25-Oct-21	A2	4.6	0	0	0			2	2	4	0		
25-Oct-21	A2	4.6	0	0	0			0	1	1	0		
25-Oct-21	A2	5.1	0	0	0	0	0.00	0	5	5	0	10	2.5
25-Oct-21	A2	5.1	0	0	0			0	1	1	0		
25-Oct-21	A2	5.1	0	0	0			0	1	1	0		
25-Oct-21	A2	5.1	0	0	0			1	2	3	0		
25-Oct-21	A2	5.2	0	1	1	1	0.25	0	0	0	0	1	0.25
25-Oct-21	A2	5.2	0	0	0			0	0	0	0		
25-Oct-21	A2	5.2	0	0	0			0	1	1	0		
25-Oct-21	A2	5.2	0	0	0			0	0	0	0		
25-Oct-21	A2	5.3	0	1	1	1	0.25	0	1	1	0	16	4
25-Oct-21	A2	5.3	0	0	0			0	4	4	0		
25-Oct-21	A2	5.3	0	0	0			1	9	10	0		
25-Oct-21	A2	5.3	0	0	0			0	1	1	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
25-Oct-21	A2	5.4	0	0	0	0	0.00	0	5	5	0	19	4.75
25-Oct-21	A2	5.4	0	0	0			0	8	8	0		
25-Oct-21	A2	5.4	0	0	0			0	3	3	0		
25-Oct-21	A2	5.4	0	0	0			0	3	3	0		
25-Oct-21	A2	5.5	0	0	0	1	0.25	0	0	0	0	2	0.5
25-Oct-21	A2	5.5	0	0	0			0	1	1	0		
25-Oct-21	A2	5.5	0	0	0			0	0	0	0		
25-Oct-21	A2	5.5	0	1	1			0	1	1	0		
25-Oct-21	A2	5.6	0	0	0	1	0.25	0	11	11	0	56	14
25-Oct-21	A2	5.6	0	0	0			0	6	6	0		
25-Oct-21	A2	5.6	1	0	1			3	29	32	0		
25-Oct-21	A2	5.6	0	0	0			1	6	7	1		
25-Oct-21	A2	6.1	0	0	0	0	0.00	1	0	1	0	2	0.5
25-Oct-21	A2	6.1	0	0	0			1	0	1	0		
25-Oct-21	A2	6.1	0	0	0			0	0	0	0		
25-Oct-21	A2	6.1	0	0	0			0	0	0	0		
25-Oct-21	A2	6.2	0	1	1	5	1.25	0	4	4	0	6	1.5
25-Oct-21	A2	6.2	0	2	2			0	1	1	0		
25-Oct-21	A2	6.2	0	2	2			0	1	1	0		
25-Oct-21	A2	6.2	0	0	0			0	0	0	0		
25-Oct-21	A2	6.3	0	1	1	18	4.50	0	1	1	0	5	1.25
25-Oct-21	A2	6.3	0	14	14			0	4	4	0		
25-Oct-21	A2	6.3	0	2	2			0	0	0	0		
25-Oct-21	A2	6.3	0	1	1			0	0	0	0		
25-Oct-21	A2	6.4	0	0	0	1	0.25	1	6	7	0	11	2.75
25-Oct-21	A2	6.4	0	0	0			0	4	4	0		
25-Oct-21	A2	6.4	0	0	0			0	0	0	0		
25-Oct-21	A2	6.4	0	1	1			0	0	0	0		
25-Oct-21	A2	6.5	0	0	0	1	0.25	0	0	0	0	12	3
25-Oct-21	A2	6.5	0	0	0			0	1	1	1		
25-Oct-21	A2	6.5	1	0	1			0	10	10	0		
25-Oct-21	A2	6.5	0	0	0			0	1	1	0		
25-Oct-21	A2	6.6	0	0	0	0	0.00	0	0	0	0	2	0.5
25-Oct-21	A2	6.6	0	0	0			0	0	0	0		
25-Oct-21	A2	6.6	0	0	0			0	2	2	0		
25-Oct-21	A2	6.6	0	0	0			0	0	0	0		
25-Oct-21	A2	7.1	0	0	0	2	0.50	0	1	1	0	18	4.5
25-Oct-21	A2	7.1	0	1	1			0	11	11	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
25-Oct-21	A2	7.1	0	1	1			0	4	4	0		
25-Oct-21	A2	7.1	0	0	0			0	2	2	1		
25-Oct-21	A2	7.2	0	0	0	4	1.00	0	10	10	0	26	6.5
25-Oct-21	A2	7.2	0	0	0			0	1	1	0		
25-Oct-21	A2	7.2	0	2	2			0	12	12	0		
25-Oct-21	A2	7.2	1	1	2			0	3	3	0		
25-Oct-21	A2	7.3	0	0	0	1	0.25	1	18	19	0	25	6.25
25-Oct-21	A2	7.3	1	0	1			0	2	2	0		
25-Oct-21	A2	7.3	0	0	0			0	4	4	0		
25-Oct-21	A2	7.3	0	0	0			0	0	0	0		
25-Oct-21	A2	7.4	0	0	0	1	0.25	0	0	0	0	3	0.75
25-Oct-21	A2	7.4	0	1	1			0	0	0	0		
25-Oct-21	A2	7.4	0	0	0			0	2	2	0		
25-Oct-21	A2	7.4	0	0	0			0	1	1	0		
25-Oct-21	A2	7.5	1	0	1	2	0.50	0	4	4	2	11	2.75
25-Oct-21	A2	7.5	0	0	0			1	2	3	0		
25-Oct-21	A2	7.5	0	0	0			0	3	3	0		
25-Oct-21	A2	7.5	0	1	1			0	1	1	0		
25-Oct-21	A2	7.6	0	0	0	0	0.00	0	2	2	0	6	1.5
25-Oct-21	A2	7.6	0	0	0			0	3	3	0		
25-Oct-21	A2	7.6	0	0	0			0	0	0	0		
25-Oct-21	A2	7.6	0	0	0			0	1	1	0		
25-Oct-21	A2	8.1	0	0	0	3	0.75	0	0	0	0	9	2.25
25-Oct-21	A2	8.1	0	0	0			0	0	0	0		
25-Oct-21	A2	8.1	0	2	2			4	2	6	0		
25-Oct-21	A2	8.1	0	1	1			2	1	3	0		
25-Oct-21	A2	8.2	0	0	0	2	0.50	1	0	1	0	4	1
25-Oct-21	A2	8.2	0	1	1			1	0	1	0		
25-Oct-21	A2	8.2	0	0	0			0	1	1	0		
25-Oct-21	A2	8.2	0	1	1			1	0	1	0		
25-Oct-21	A2	8.3	1	0	1	2	0.50	0	2	2	0	11	2.75
25-Oct-21	A2	8.3	0	0	0			0	0	0	0		
25-Oct-21	A2	8.3	0	0	0			0	5	5	0		
25-Oct-21	A2	8.3	1	0	1			1	3	4	1		
25-Oct-21	A2	8.4	0	0	0	0	0.00	1	4	5	0	19	4.75
25-Oct-21	A2	8.4	0	0	0			2	6	8	2		
25-Oct-21	A2	8.4	0	0	0			0	0	0	0		
25-Oct-21	A2	8.4	0	0	0			0	6	6	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
25-Oct-21	A2	8.5	0	0	0	0	0.00	0	2	2	0	54	13.5
25-Oct-21	A2	8.5	0	0	0			1	12	13	0		
25-Oct-21	A2	8.5	0	0	0			1	9	10	0		
25-Oct-21	A2	8.5	0	0	0			3	26	29	1		
25-Oct-21	A2	8.6	0	1	1	2	0.50	0	1	1	0	40	10
25-Oct-21	A2	8.6	0	0	0			0	22	22	0		
25-Oct-21	A2	8.6	0	1	1			0	6	6	0		
25-Oct-21	A2	8.6	0	0	0			6	5	11	1		
29-Oct-21	A3	1.1	0	0	0	1	0.25	0	0	0	0	6	1.5
29-Oct-21	A3	1.1	0	0	0			6	0	6	0		
29-Oct-21	A3	1.1	1	0	1			0	0	0	0		
29-Oct-21	A3	1.1	0	0	0			0	0	0	0		
29-Oct-21	A3	1.2	0	0	0	1	0.25	0	21	21	0	64	16
29-Oct-21	A3	1.2	0	0	0			0	8	8	0		
29-Oct-21	A3	1.2	0	0	0			0	19	19	0		
29-Oct-21	A3	1.2	1	0	1			0	16	16	0		
29-Oct-21	A3	1.3	2	2	4	18	4.50	0	5	5	0	19	4.75
29-Oct-21	A3	1.3	1	4	5			0	4	4	0		
29-Oct-21	A3	1.3	1	1	2			0	6	6	0		
29-Oct-21	A3	1.3	1	6	7			0	4	4	0		
29-Oct-21	A3	1.4	0	0	0	0	0.00	0	0	0	0	5	1.25
29-Oct-21	A3	1.4	0	0	0			0	1	1	0		
29-Oct-21	A3	1.4	0	0	0			0	1	1	0		
29-Oct-21	A3	1.4	0	0	0			0	3	3	0		
29-Oct-21	A3	1.5	0	0	0	0	0.00	0	0	0	1	4	1
29-Oct-21	A3	1.5	0	0	0			0	0	0	0		
29-Oct-21	A3	1.5	0	0	0			0	0	0	0		
29-Oct-21	A3	1.5	0	0	0			3	1	4	0		
29-Oct-21	A3	1.6	1	2	3	11	2.75	3	23	26	0	64	16
29-Oct-21	A3	1.6	2	1	3			0	36	36	0		
29-Oct-21	A3	1.6	1	2	3			0	1	1	2		
29-Oct-21	A3	1.6	0	2	2			0	1	1	2		
29-Oct-21	A3	2.1	0	0	0	1	0.25	0	0	0	0	0	0
29-Oct-21	A3	2.1	0	0	0			0	0	0	0		
29-Oct-21	A3	2.1	0	1	1			0	0	0	0		
29-Oct-21	A3	2.1	0	0	0			0	0	0	0		
29-Oct-21	A3	2.2	0	0	0	0	0.00	0	0	0	0	3	0.75
29-Oct-21	A3	2.2	0	0	0			0	0	0	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
29-Oct-21	A3	2.2	0	0	0			0	2	2	0		
29-Oct-21	A3	2.2	0	0	0			0	1	1	0		
29-Oct-21	A3	2.3	0	1	1	3	0.75	0	17	17	0	22	5.5
29-Oct-21	A3	2.3	0	0	0			0	0	0	0		
29-Oct-21	A3	2.3	0	1	1			0	1	1	0		
29-Oct-21	A3	2.3	0	1	1			2	2	4	0		
29-Oct-21	A3	2.4	0	0	0	1	0.25	1	24	25	0	38	9.5
29-Oct-21	A3	2.4	0	1	1			0	3	3	0		
29-Oct-21	A3	2.4	0	0	0			0	9	9	0		
29-Oct-21	A3	2.4	0	0	0			0	1	1	0		
29-Oct-21	A3	2.5	0	0	0	0	0.00	0	0	0	0	0	0
29-Oct-21	A3	2.5	0	0	0			0	0	0	0		
29-Oct-21	A3	2.5	0	0	0			0	0	0	0		
29-Oct-21	A3	2.5	0	0	0			0	0	0	0		
29-Oct-21	A3	2.6	0	0	0	0	0.00	0	1	1	0	2	0.5
29-Oct-21	A3	2.6	0	0	0			0	0	0	1		
29-Oct-21	A3	2.6	0	0	0			0	1	1	0		
29-Oct-21	A3	2.6	0	0	0			0	0	0	0		
29-Oct-21	A3	3.1	0	0	0	1	0.25	0	1	1	1	40	10
29-Oct-21	A3	3.1	1	0	1			0	31	31	0		
29-Oct-21	A3	3.1	0	0	0			0	0	0	0		
29-Oct-21	A3	3.1	0	0	0			0	8	8	0		
29-Oct-21	A3	3.2	0	0	0	0	0.00	1	14	15	0	25	6.25
29-Oct-21	A3	3.2	0	0	0			0	4	4	0		
29-Oct-21	A3	3.2	0	0	0			0	0	0	1		
29-Oct-21	A3	3.2	0	0	0			2	4	6	1		
29-Oct-21	A3	3.3	0	0	0	1	0.25	0	15	15	0	83	20.75
29-Oct-21	A3	3.3	0	1	1			0	12	12	0		
29-Oct-21	A3	3.3	0	0	0			0	46	46	0		
29-Oct-21	A3	3.3	0	0	0			0	10	10	0		
29-Oct-21	A3	3.4	0	0	0	2	0.50	0	8	8	0	92	23
29-Oct-21	A3	3.4	1	0	1			0	10	10	0		
29-Oct-21	A3	3.4	0	1	1			1	9	10	3		
29-Oct-21	A3	3.4	0	0	0			2	62	64	2		
29-Oct-21	A3	3.5	0	0	0	0	0.00	0	1	1	0	16	4
29-Oct-21	A3	3.5	0	0	0			0	14	14	1		
29-Oct-21	A3	3.5	0	0	0			0	1	1	0		
29-Oct-21	A3	3.5	0	0	0			0	0	0	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
29-Oct-21	A3	3.6	0	0	0	0	0.00	0	0	0	0	13	3.25
29-Oct-21	A3	3.6	0	0	0			1	5	6	0		
29-Oct-21	A3	3.6	0	0	0			0	3	3	0		
29-Oct-21	A3	3.6	0	0	0			0	4	4	0		
29-Oct-21	A3	4.1	0	0	0	2	0.50	0	0	0	0	44	11
29-Oct-21	A3	4.1	0	0	0			0	6	6	0		
29-Oct-21	A3	4.1	0	2	2			0	21	21	0		
29-Oct-21	A3	4.1	0	0	0			0	17	17	0		
29-Oct-21	A3	4.2	0	1	1	2	0.50	0	1	1	0	13	3.25
29-Oct-21	A3	4.2	0	1	1			1	0	1	1		
29-Oct-21	A3	4.2	0	0	0			0	10	10	0		
29-Oct-21	A3	4.2	0	0	0			0	1	1	0		
29-Oct-21	A3	4.3	0	0	0	0	0.00	0	0	0	0	5	1.25
29-Oct-21	A3	4.3	0	0	0			1	4	5	0		
29-Oct-21	A3	4.3	0	0	0			0	0	0	0		
29-Oct-21	A3	4.3	0	0	0			0	0	0	0		
29-Oct-21	A3	4.4	0	1	1	1	0.25	0	0	0	0	9	2.25
29-Oct-21	A3	4.4	0	0	0			2	4	6	0		
29-Oct-21	A3	4.4	0	0	0			0	1	1	0		
29-Oct-21	A3	4.4	0	0	0			0	2	2	0		
29-Oct-21	A3	4.5	0	0	0	1	0.25	0	1	1	1	26	6.5
29-Oct-21	A3	4.5	0	0	0			0	5	5	0		
29-Oct-21	A3	4.5	0	0	0			0	0	0	0		
29-Oct-21	A3	4.5	0	1	1			4	16	20	0		
29-Oct-21	A3	4.6	0	2	2	3	0.75	0	0	0	0	13	3.25
29-Oct-21	A3	4.6	0	0	0			3	3	6	0		
29-Oct-21	A3	4.6	0	0	0			0	4	4	0		
29-Oct-21	A3	4.6	0	1	1			0	3	3	0		
29-Oct-21	A3	5.1	0	0	0	0	0.00	0	1	1	0	20	5
29-Oct-21	A3	5.1	0	0	0			0	1	1	0		
29-Oct-21	A3	5.1	0	0	0			0	0	0	0		
29-Oct-21	A3	5.1	0	0	0			0	18	18	0		
29-Oct-21	A3	5.2	0	0	0	0	0.00	0	0	0	0	2	0.5
29-Oct-21	A3	5.2	0	0	0			0	2	2	0		
29-Oct-21	A3	5.2	0	0	0			0	0	0	0		
29-Oct-21	A3	5.2	0	0	0			0	0	0	0		
29-Oct-21	A3	5.3	0	0	0	0	0.00	0	2	2	0	11	2.75
29-Oct-21	A3	5.3	0	0	0			1	3	4	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
29-Oct-21	A3	5.3	0	0	0			0	3	3	0		
29-Oct-21	A3	5.3	0	0	0			0	2	2	0		
29-Oct-21	A3	5.4	0	0	0	0	0.00	0	25	25	0	38	9.5
29-Oct-21	A3	5.4	0	0	0			0	1	1	0		
29-Oct-21	A3	5.4	0	0	0			0	9	9	0		
29-Oct-21	A3	5.4	0	0	0			2	1	3	0		
29-Oct-21	A3	5.5	0	0	0	2	0.50	1	12	13	0	15	3.75
29-Oct-21	A3	5.5	0	2	2			0	0	0	0		
29-Oct-21	A3	5.5	0	0	0			0	2	2	0		
29-Oct-21	A3	5.5	0	0	0			0	0	0	0		
29-Oct-21	A3	5.6	0	0	0	1	0.25	0	4	4	0	23	5.75
29-Oct-21	A3	5.6	0	0	0			0	4	4	0		
29-Oct-21	A3	5.6	0	1	1			0	15	15	0		
29-Oct-21	A3	5.6	0	0	0			0	0	0	0		
29-Oct-21	A3	6.1	0	0	0	0	0.00	1	2	3	0	5	1.25
29-Oct-21	A3	6.1	0	0	0			0	2	2	0		
29-Oct-21	A3	6.1	0	0	0			0	0	0	0		
29-Oct-21	A3	6.1	0	0	0			0	0	0	0		
29-Oct-21	A3	6.2	0	0	0	5	1.25	0	9	9	0	11	2.75
29-Oct-21	A3	6.2	1	0	1			0	0	0	0		
29-Oct-21	A3	6.2	0	0	0			0	2	2	0		
29-Oct-21	A3	6.2	4	0	4			0	0	0	0		
29-Oct-21	A3	6.3	1	0	1	47	11.75	1	7	8	0	14	3.5
29-Oct-21	A3	6.3	45	0	45			0	2	2	0		
29-Oct-21	A3	6.3	1	0	1			0	3	3	1		
29-Oct-21	A3	6.3	0	0	0			0	1	1	0		
29-Oct-21	A3	6.4	0	0	0	0	0.00	0	0	0	0	15	3.75
29-Oct-21	A3	6.4	0	0	0			0	2	2	0		
29-Oct-21	A3	6.4	0	0	0			0	4	4	0		
29-Oct-21	A3	6.4	0	0	0			0	9	9	0		
29-Oct-21	A3	6.5	0	0	0	0	0.00	0	0	0	0	12	3
29-Oct-21	A3	6.5	0	0	0			0	8	8	0		
29-Oct-21	A3	6.5	0	0	0			0	4	4	0		
29-Oct-21	A3	6.5	0	0	0			0	0	0	0		
29-Oct-21	A3	6.6	0	0	0	0	0.00	0	0	0	1	5	1.25
29-Oct-21	A3	6.6	0	0	0			1	1	2	0		
29-Oct-21	A3	6.6	0	0	0			3	0	3	0		
29-Oct-21	A3	6.6	0	0	0			0	0	0	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
29-Oct-21	A3	7.1	0	0	0	6	1.50	0	3	3	0	24	6
29-Oct-21	A3	7.1	1	3	4			0	12	12	1		
29-Oct-21	A3	7.1	0	0	0			0	0	0	0		
29-Oct-21	A3	7.1	2	0	2			0	9	9	1		
29-Oct-21	A3	7.2	0	0	0	3	0.75	0	5	5	0	14	3.5
29-Oct-21	A3	7.2	0	0	0			0	1	1	0		
29-Oct-21	A3	7.2	0	2	2			0	6	6	0		
29-Oct-21	A3	7.2	1	0	1			0	2	2	0		
29-Oct-21	A3	7.3	0	0	0	0	0.00	0	0	0	0	14	3.5
29-Oct-21	A3	7.3	0	0	0			0	0	0	0		
29-Oct-21	A3	7.3	0	0	0			0	0	0	0		
29-Oct-21	A3	7.3	0	0	0			0	14	14	0		
29-Oct-21	A3	7.4	0	0	0	0	0.00	0	1	1	0	2	0.5
29-Oct-21	A3	7.4	0	0	0			0	0	0	0		
29-Oct-21	A3	7.4	0	0	0			0	0	0	0		
29-Oct-21	A3	7.4	0	0	0			0	1	1	0		
29-Oct-21	A3	7.5	7	0	7	11	2.75	0	0	0	0	41	10.25
29-Oct-21	A3	7.5	4	0	4			0	2	2	0		
29-Oct-21	A3	7.5	0	0	0			0	3	3	0		
29-Oct-21	A3	7.5	0	0	0			0	36	36	0		
29-Oct-21	A3	7.6	0	0	0	0	0.00	0	1	1	0	5	1.25
29-Oct-21	A3	7.6	0	0	0			0	2	2	0		
29-Oct-21	A3	7.6	0	0	0			0	0	0	0		
29-Oct-21	A3	7.6	0	0	0			0	2	2	0		
29-Oct-21	A3	8.1	0	1	1	1	0.25	0	0	0	0	5	1.25
29-Oct-21	A3	8.1	0	0	0			3	2	5	0		
29-Oct-21	A3	8.1	0	0	0			0	0	0	0		
29-Oct-21	A3	8.1	0	0	0			0	0	0	0		
29-Oct-21	A3	8.2	0	0	0	2	0.50	0	0	0	0	1	0.25
29-Oct-21	A3	8.2	0	0	0			0	0	0	0		
29-Oct-21	A3	8.2	0	2	2			0	0	0	0		
29-Oct-21	A3	8.2	0	0	0			1	0	1	0		
29-Oct-21	A3	8.3	0	0	0	0	0.00	0	8	8	0	19	4.75
29-Oct-21	A3	8.3	0	0	0			0	0	0	0		
29-Oct-21	A3	8.3	0	0	0			1	3	4	1		
29-Oct-21	A3	8.3	0	0	0			0	7	7	0		
29-Oct-21	A3	8.4	0	1	1	1	0.25	1	1	2	0	14	3.5
29-Oct-21	A3	8.4	0	0	0			1	8	9	1		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
29-Oct-21	A3	8.4	0	0	0			0	1	1	0		
29-Oct-21	A3	8.4	0	0	0			0	2	2	1		
29-Oct-21	A3	8.5	0	0	0	1	0.25	0	4	4	0	55	13.75
29-Oct-21	A3	8.5	0	0	0			1	19	20	0		
29-Oct-21	A3	8.5	0	1	1			0	5	5	1		
29-Oct-21	A3	8.5	0	0	0			4	22	26	1		
29-Oct-21	A3	8.6	0	0	0	2	0.50	0	1	1	0	36	9
29-Oct-21	A3	8.6	0	0	0			0	14	14	0		
29-Oct-21	A3	8.6	0	1	1			0	9	9	0		
29-Oct-21	A3	8.6	1	0	1			0	12	12	0		
02-Nov-21	A4	1.1	1	0	1	5	1.25	0	1	1	0	14	3.5
02-Nov-21	A4	1.1	0	2	2			1	1	2	0		
02-Nov-21	A4	1.1	1	1	2			1	7	8	0		
02-Nov-21	A4	1.1	0	0	0			0	3	3	1		
02-Nov-21	A4	1.2	0	0	0	0	0.00	4	15	19	0	66	16.5
02-Nov-21	A4	1.2	0	0	0			0	6	6	0		
02-Nov-21	A4	1.2	0	0	0			0	20	20	0		
02-Nov-21	A4	1.2	0	0	0			0	21	21	0		
02-Nov-21	A4	1.3	1	0	1	15	3.75	0	4	4	0	19	4.75
02-Nov-21	A4	1.3	1	4	5			0	3	3	0		
02-Nov-21	A4	1.3	0	3	3			0	4	4	0		
02-Nov-21	A4	1.3	2	4	6			0	8	8	0		
02-Nov-21	A4	1.4	0	1	1	4	1.00	0	1	1	0	5	1.25
02-Nov-21	A4	1.4	1	1	2			0	2	2	0		
02-Nov-21	A4	1.4	0	0	0			1	1	2	0		
02-Nov-21	A4	1.4	0	1	1			0	0	0	1		
02-Nov-21	A4	1.5	0	0	0	0	0.00	0	0	0	1	6	1.5
02-Nov-21	A4	1.5	0	0	0			3	3	6	0		
02-Nov-21	A4	1.5	0	0	0			0	0	0	0		
02-Nov-21	A4	1.5	0	0	0			0	0	0	0		
02-Nov-21	A4	1.6	1	3	4	13	3.25	4	8	12	1	29	7.25
02-Nov-21	A4	1.6	3	1	4			0	12	12	0		
02-Nov-21	A4	1.6	1	1	2			1	3	4	2		
02-Nov-21	A4	1.6	1	2	3			1	0	1	6		
02-Nov-21	A4	2.1	0	0	0	3	0.75	0	0	0	0	0	0
02-Nov-21	A4	2.1	0	2	2			0	0	0	0		
02-Nov-21	A4	2.1	0	1	1			0	0	0	0		
02-Nov-21	A4	2.1	0	0	0			0	0	0	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
02-Nov-21	A4	2.2	0	0	0	1	0.25	0	0	0	0	0	0
02-Nov-21	A4	2.2	0	1	1			0	0	0	0		
02-Nov-21	A4	2.2	0	0	0			0	0	0	0		
02-Nov-21	A4	2.2	0	0	0			0	0	0	0		
02-Nov-21	A4	2.3	0	1	1	1	0.25	0	11	11	0	16	4
02-Nov-21	A4	2.3	0	0	0			2	3	5	0		
02-Nov-21	A4	2.3	0	0	0			0	0	0	0		
02-Nov-21	A4	2.3	0	0	0			0	0	0	0		
02-Nov-21	A4	2.4	0	0	0	0	0.00	0	20	20	0	37	9.25
02-Nov-21	A4	2.4	0	0	0			0	11	11	0		
02-Nov-21	A4	2.4	0	0	0			0	4	4	0		
02-Nov-21	A4	2.4	0	0	0			0	2	2	0		
02-Nov-21	A4	2.5	0	0	0	0	0.00	0	2	2	0	2	0.5
02-Nov-21	A4	2.5	0	0	0			0	0	0	0		
02-Nov-21	A4	2.5	0	0	0			0	0	0	0		
02-Nov-21	A4	2.5	0	0	0			0	0	0	0		
02-Nov-21	A4	2.6	0	0	0	0	0.00	0	3	3	0	9	2.25
02-Nov-21	A4	2.6	0	0	0			0	5	5	0		
02-Nov-21	A4	2.6	0	0	0			0	0	0	0		
02-Nov-21	A4	2.6	0	0	0			0	1	1	0		
02-Nov-21	A4	3.1	1	0	1	3	0.75	0	0	0	1	54	13.5
02-Nov-21	A4	3.1	1	0	1			0	41	41	0		
02-Nov-21	A4	3.1	0	1	1			0	0	0	1		
02-Nov-21	A4	3.1	0	0	0			0	13	13	0		
02-Nov-21	A4	3.2	0	0	0	0	0.00	1	15	16	0	38	9.5
02-Nov-21	A4	3.2	0	0	0			0	5	5	0		
02-Nov-21	A4	3.2	0	0	0			4	4	8	0		
02-Nov-21	A4	3.2	0	0	0			0	9	9	0		
02-Nov-21	A4	3.3	0	0	0	1	0.25	0	22	22	0	87	21.75
02-Nov-21	A4	3.3	0	1	1			0	14	14	0		
02-Nov-21	A4	3.3	0	0	0			0	47	47	1		
02-Nov-21	A4	3.3	0	0	0			0	4	4	0		
02-Nov-21	A4	3.4	0	0	0	1	0.25	0	7	7	1	83	20.75
02-Nov-21	A4	3.4	0	0	0			0	1	1	0		
02-Nov-21	A4	3.4	0	1	1			0	5	5	4		
02-Nov-21	A4	3.4	0	0	0			1	69	70	3		
02-Nov-21	A4	3.5	0	0	0	0	0.00	0	2	2	0	11	2.75
02-Nov-21	A4	3.5	0	0	0			0	2	2	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
02-Nov-21	A4	3.5	0	0	0			1	5	6	0		
02-Nov-21	A4	3.5	0	0	0			0	1	1	0		
02-Nov-21	A4	3.6	0	0	0	0	0.00	0	9	9	0	17	4.25
02-Nov-21	A4	3.6	0	0	0			0	4	4	0		
02-Nov-21	A4	3.6	0	0	0			1	2	3	1		
02-Nov-21	A4	3.6	0	0	0			0	1	1	0		
02-Nov-21	A4	4.1	0	0	0	0	0.00	1	18	19	0	66	16.5
02-Nov-21	A4	4.1	0	0	0			0	46	46	0		
02-Nov-21	A4	4.1	0	0	0			0	1	1	0		
02-Nov-21	A4	4.1	0	0	0			0	0	0	0		
02-Nov-21	A4	4.2	0	0	0	0	0.00	0	3	3	0	16	4
02-Nov-21	A4	4.2	0	0	0			0	0	0	1		
02-Nov-21	A4	4.2	0	0	0			0	13	13	0		
02-Nov-21	A4	4.2	0	0	0			0	0	0	1		
02-Nov-21	A4	4.3	0	0	0	0	0.00	1	1	2	0	2	0.5
02-Nov-21	A4	4.3	0	0	0			0	0	0	0		
02-Nov-21	A4	4.3	0	0	0			0	0	0	0		
02-Nov-21	A4	4.3	0	0	0			0	0	0	1		
02-Nov-21	A4	4.4	0	0	0	1	0.25	0	0	0	0	5	1.25
02-Nov-21	A4	4.4	0	0	0			0	1	1	0		
02-Nov-21	A4	4.4	0	0	0			0	3	3	0		
02-Nov-21	A4	4.4	0	1	1			0	1	1	0		
02-Nov-21	A4	4.5	0	0	0	0	0.00	0	1	1	1	12	3
02-Nov-21	A4	4.5	0	0	0			0	4	4	0		
02-Nov-21	A4	4.5	0	0	0			0	0	0	1		
02-Nov-21	A4	4.5	0	0	0			3	4	7	0		
02-Nov-21	A4	4.6	0	0	0	1	0.25	1	0	1	2	9	2.25
02-Nov-21	A4	4.6	0	1	1			0	0	0	0		
02-Nov-21	A4	4.6	0	0	0			0	1	1	0		
02-Nov-21	A4	4.6	0	0	0			5	2	7	0		
02-Nov-21	A4	5.1	0	0	0	0	0.00	0	1	1	0	47	11.75
02-Nov-21	A4	5.1	0	0	0			0	2	2	0		
02-Nov-21	A4	5.1	0	0	0			0	1	1	0		
02-Nov-21	A4	5.1	0	0	0			0	43	43	0		
02-Nov-21	A4	5.2	0	0	0	0	0.00	0	0	0	0	11	2.75
02-Nov-21	A4	5.2	0	0	0			0	0	0	0		
02-Nov-21	A4	5.2	0	0	0			0	11	11	0		
02-Nov-21	A4	5.2	0	0	0			0	0	0	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
02-Nov-21	A4	5.3	0	0	0	0	0.00	0	0	0	0	17	4.25
02-Nov-21	A4	5.3	0	0	0			1	7	8	1		
02-Nov-21	A4	5.3	0	0	0			0	8	8	0		
02-Nov-21	A4	5.3	0	0	0			0	1	1	0		
02-Nov-21	A4	5.4	0	0	0	0	0.00	0	27	27	0	49	12.25
02-Nov-21	A4	5.4	0	0	0			0	5	5	0		
02-Nov-21	A4	5.4	0	0	0			2	13	15	1		
02-Nov-21	A4	5.4	0	0	0			0	2	2	0		
02-Nov-21	A4	5.5	0	0	0	0	0.00	2	5	7	0	16	4
02-Nov-21	A4	5.5	0	0	0			0	3	3	0		
02-Nov-21	A4	5.5	0	0	0			0	3	3	0		
02-Nov-21	A4	5.5	0	0	0			0	3	3	0		
02-Nov-21	A4	5.6	0	0	0	0	0.00	0	2	2	0	9	2.25
02-Nov-21	A4	5.6	0	0	0			2	2	4	0		
02-Nov-21	A4	5.6	0	0	0			0	1	1	0		
02-Nov-21	A4	5.6	0	0	0			0	2	2	1		
02-Nov-21	A4	6.1	0	0	0	0	0.00	0	1	1	0	3	0.75
02-Nov-21	A4	6.1	0	0	0			0	0	0	0		
02-Nov-21	A4	6.1	0	0	0			0	0	0	0		
02-Nov-21	A4	6.1	0	0	0			0	2	2	0		
02-Nov-21	A4	6.2	0	1	1	3	0.75	0	3	3	0	22	5.5
02-Nov-21	A4	6.2	0	0	0			1	7	8	0		
02-Nov-21	A4	6.2	0	0	0			0	3	3	0		
02-Nov-21	A4	6.2	0	2	2			0	8	8	0		
02-Nov-21	A4	6.3	0	0	0	33	8.25	0	0	0	0	17	4.25
02-Nov-21	A4	6.3	0	0	0			0	3	3	0		
02-Nov-21	A4	6.3	5	28	33			0	7	7	0		
02-Nov-21	A4	6.3	0	0	0			1	6	7	0		
02-Nov-21	A4	6.4	0	0	0	0	0.00	0	1	1	0	15	3.75
02-Nov-21	A4	6.4	0	0	0			0	12	12	1		
02-Nov-21	A4	6.4	0	0	0			1	1	2	0		
02-Nov-21	A4	6.4	0	0	0			0	0	0	0		
02-Nov-21	A4	6.5	0	0	0	1	0.25	0	0	0	0	18	4.5
02-Nov-21	A4	6.5	0	0	0			0	0	0	0		
02-Nov-21	A4	6.5	0	1	1			0	17	17	0		
02-Nov-21	A4	6.5	0	0	0			0	1	1	0		
02-Nov-21	A4	6.6	0	0	0	1	0.25	0	0	0	0	17	4.25
02-Nov-21	A4	6.6	0	0	0			0	1	1	0		

Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
02-Nov-21	A4	6.6	0	1	1			0	0	0	0		
02-Nov-21	A4	6.6	0	0	0			0	16	16	0		
02-Nov-21	A4	7.1	0	0	0	1	0.25	1	0	1	0	26	6.5
02-Nov-21	A4	7.1	0	1	1			0	13	13	1		
02-Nov-21	A4	7.1	0	0	0			1	1	2	0		
02-Nov-21	A4	7.1	0	0	0			1	9	10	2		
02-Nov-21	A4	7.2	0	0	0	0	0.00	0	3	3	0	17	4.25
02-Nov-21	A4	7.2	0	0	0			2	0	2	0		
02-Nov-21	A4	7.2	0	0	0			0	10	10	0		
02-Nov-21	A4	7.2	0	0	0			0	2	2	0		
02-Nov-21	A4	7.3	0	0	0	0	0.00	0	0	0	0	26	6.5
02-Nov-21	A4	7.3	0	0	0			0	2	2	0		
02-Nov-21	A4	7.3	0	0	0			0	23	23	0		
02-Nov-21	A4	7.3	0	0	0			0	1	1	0		
02-Nov-21	A4	7.4	0	0	0	2	0.50	0	2	2	0	3	0.75
02-Nov-21	A4	7.4	0	0	0			0	0	0	0		
02-Nov-21	A4	7.4	0	0	0			0	0	0	1		
02-Nov-21	A4	7.4	0	2	2			0	1	1	0		
02-Nov-21	A4	7.5	0	0	0	0	0.00	0	8	8	0	10	2.5
02-Nov-21	A4	7.5	0	0	0			0	1	1	0		
02-Nov-21	A4	7.5	0	0	0			0	0	0	2		
02-Nov-21	A4	7.5	0	0	0			0	1	1	1		
02-Nov-21	A4	7.6	0	0	0	0	0.00	0	3	3	0	7	1.75
02-Nov-21	A4	7.6	0	0	0			0	2	2	0		
02-Nov-21	A4	7.6	0	0	0			1	0	1	0		
02-Nov-21	A4	7.6	0	0	0			0	1	1	0		
02-Nov-21	A4	8.1	0	0	0	0	0.00	0	0	0	0	10	2.5
02-Nov-21	A4	8.1	0	0	0			0	1	1	0		
02-Nov-21	A4	8.1	0	0	0			0	3	3	0		
02-Nov-21	A4	8.1	0	0	0			4	2	6	0		
02-Nov-21	A4	8.2	0	0	0	0	0.00	0	0	0	0	0	0
02-Nov-21	A4	8.2	0	0	0			0	0	0	0		
02-Nov-21	A4	8.2	0	0	0			0	0	0	0		
02-Nov-21	A4	8.2	0	0	0			0	0	0	0		
02-Nov-21	A4	8.3	0	0	0	0	0.00	0	8	8	0	30	7.5
02-Nov-21	A4	8.3	0	0	0			1	4	5	0		
02-Nov-21	A4	8.3	0	0	0			0	0	0	0		
02-Nov-21	A4	8.3	0	0	0			0	17	17	0		

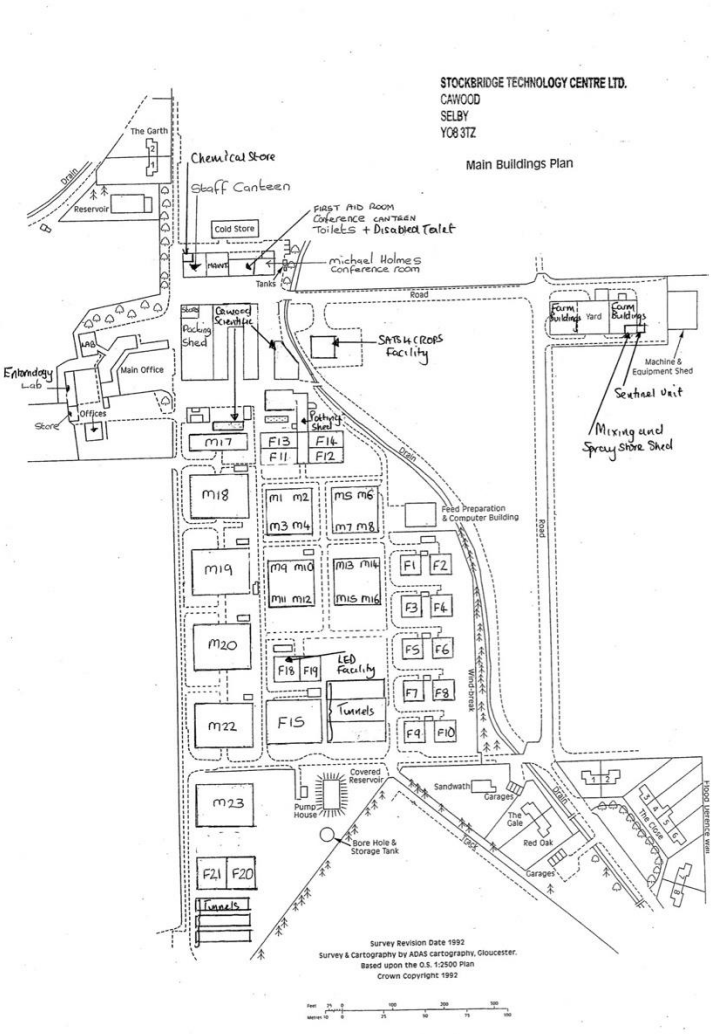
Date	Assessment	Plot	N. adult spider mite	N. juvenile spider mite	Total n. spider mite	Plot total spider mite	Plot mean total spider mite	N. adult mealybug	N. juvenile mealybug	Total n. mealybug	N. mealybug egg sacs	Plot total mealybug	Plot mean total mealybug
02-Nov-21	A4	8.4	0	0	0	0	0.00	0	6	6	0	23	5.75
02-Nov-21	A4	8.4	0	0	0			0	1	1	0		
02-Nov-21	A4	8.4	0	0	0			0	0	0	0		
02-Nov-21	A4	8.4	0	0	0			1	15	16	1		
02-Nov-21	A4	8.5	0	0	0	0	0.00	6	2	8	0	34	8.5
02-Nov-21	A4	8.5	0	0	0			1	8	9	0		
02-Nov-21	A4	8.5	0	0	0			0	11	11	0		
02-Nov-21	A4	8.5	0	0	0			0	6	6	0		
02-Nov-21	A4	8.6	0	1	1	1	0.25	0	1	1	0	21	5.25
02-Nov-21	A4	8.6	0	0	0			0	12	12	1		
02-Nov-21	A4	8.6	0	0	0			0	2	2	0		
02-Nov-21	A4	8.6	0	0	0			0	6	6	0		

g. Trial design

Layout: The trial layout was designed by Andrew Jukes (Warwick University) as an incomplete Trojan Square for eight treatments, each replicated six times. Each square represents a plot if 12 plants, laid out in a 3 x 4 grid. Leading numbers = treatment number; post-decimal numbers = replicate block number. Replicate blocks are coloured differently. Grey blocks with an 'x' indicate buffer plots. Rows were separated either by walkway aisles of fleece divides (see Figure A1 for reference).

X	X	X	X	X	X	X	X
6.6	4.6	7.6	3.6	5.6	2.6	1.6	8.6
1.5	5.5	6.5	7.5	8.5	2.5	4.5	3.5
7.4	2.4	6.4	1.4	5.4	8.4	3.4	4.4
2.3	4.3	6.3	5.3	7.3	8.3	3.3	1.3
8.2	2.2	6.2	5.2	1.2	3.2	7.2	4.2
2.1	8.1	6.1	1.1	5.1	4.1	7.1	3.1

Site map:



h. ORETO certificate

Certificate of

Official Recognition of Efficacy Testing Facilities or Organisations in Great Britain

This certifies that

Stockbridge Technology Centre Limited

complies with the minimum standards laid down in Regulation (EC) 1107/2009[1] for efficacy testing.

The above Facility/Organisation has been officially recognised as being competent to carry out efficacy trials/tests in Great Britain in the following categories:

Agriculture/Horticulture
Biologicals and Semiochemicals
Stored Crops

Date of issue: 19 July 2021
Effective date: 1 April 2021
Expiry date: 31 March 2026

Date: 2021.07.19 14:59:55 Z
HSE Digital Signature

HSE
Chemicals Regulation Division

Certification Number
ORETO 435

Department of Agriculture and Rural Development

[1] Regulation (EC) 1107/2009 as it has effect in Great Britain