

# IR-4 Ornamental Horticulture Program Research Report Cover Sheet

**Researcher(s)** Christian Nansen

**Trial:** 2020 CA

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**Project Title:** Thrips Efficacy

**Protocol #:** 20-019

PR#	Research Target	Crop/Plant	Product	EPA Reg. #	Production Site	Status
34272	Thrips, Western Flower <i>Frankliniella occidentalis</i>	Marigold, French <i>Tagetes patula</i>	BW133 <i>BW133</i>	68539-13 <i>Bioworks</i>	Greenhouse	C
34275	Thrips, Western Flower <i>Frankliniella occidentalis</i>	Marigold, French <i>Tagetes patula</i>	ISM-555 <i>ISM-555, A21377X</i>	- <i>Syngenta Crop</i>	Greenhouse	C
34276	Thrips, Western Flower <i>Frankliniella occidentalis</i>	Marigold, French <i>Tagetes patula</i>	MBI 203 SC2 <i>MBI 203</i>	- <i>Marrone Bio In</i>	Greenhouse	C
34277	Thrips, Western Flower <i>Frankliniella occidentalis</i>	Marigold, French <i>Tagetes patula</i>	MBI 306 <i>MBI 306</i>	- <i>Marrone Bio In</i>	Greenhouse	C
34278	Thrips, Western Flower <i>Frankliniella occidentalis</i>	Marigold, French <i>Tagetes patula</i>	SP3014 <i>SP3014</i>	- <i>SePRO Corpor</i>	Greenhouse	C
34279	Thrips, Western Flower <i>Frankliniella occidentalis</i>	Marigold, French <i>Tagetes patula</i>	V-10433 <i>V-10433</i>	- <i>Valent USA</i>	Greenhouse	C
34471	Thrips, Western Flower <i>Frankliniella occidentalis</i>	Marigold, French <i>Tagetes patula</i>	Velifer <i>Beauveria bassiana strain P</i>	71840-22 <i>BASF Corporat</i>	Greenhouse	C

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<b>Protocol #:</b>	S20-019	<b>PRnumbers:</b>	34272, 34275, 34276, 34277, 34278, 34279, 34471

**Narrative Summary (Results/Discussion)**

Western flower thrips (*Franklinella occidentalis*) are common pests in various ornamental and vegetable crops. They can damage flowers, fruits, foliage, and noticeably affect a plant's cosmetic appearance. Western flower thrips cause damage by puncturing the outer layer of host tissue, and sucking out the cell contents. Infestations result in stippling, discolored flecking, or silverying of the leaf surface. Western flower thrips feeding can also stunt plant growth and cause affected leaves to drop early. Finally, and probably most importantly, western flower thrips vector various viral plant pathogens, which can severely damage or kill ornamental and vegetable crops (<http://ipm.ucanr.edu/PMG/PESTNOTES/pn7429.html>).

The purpose of this study was to determine efficacy of new active ingredient formulations and new biopesticides (here referred to as "products" or "insecticides") for managing Western flower thrips infestation in horticultural plants. A total of 70 individually potted marigold 'Safari Yellow' plants were used and subjected to one of 10 treatments (seven replications). Nine of the treatments were combinations of dosage and product of foliar insecticides, and one treatment was water only (positive control). Western flower thrips counts (based on sampling of flowers) of immatures and adults were performed: 0 (baseline prior to spray applications), 3, 7, 14, 21, 28, 35, and 42 days after onset of spray applications (= days after application, DAT). Individual plants were also assessed for possible signs of phytotoxicity of both leaves and flowers.

We predicted that foliar applications of insecticides would cause significant decrease in Western flower thrips counts over time compared to counts on positive control plants. We also predicted that foliar applications of insecticides would not cause significant increase in phytotoxicity of neither leaves nor flowers.

Regarding foliar applications of insecticides, the study demonstrated consistent and significant reduction of Western flower thrips immatures by ISM-555. The product did not demonstrate significant effect on counts of Western flower thrips adults. Some of the other combinations of dosage and product caused significant reductions in counts of immatures at a few of the time points after onset of treatments. Regarding phytotoxicity, BW133 at the high rate caused a significant increase in signs of phytotoxicity of both leaves and flowers.

As ISM-555 (applied at 0.01 fluid ounces per Gallon or 0.3 ml per liter) showed consistent ability to suppress Western flower thrips immatures and did not appear to cause phytotoxicity to either leaves nor flowers, this product was highlighted as having the best performance of the examined biopesticides.

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### Results Table

#### *Western flower thrips - immatures*

Table 1 shows average counts of immature Western flower thrips as a function of treatment and days after onset of treatments. It is seen that counts of immature Western flower thrips on marigold plants treated with ISM-555 were significantly lower than counts from control plants at four of the time points (14, 28, 35, and 42 DAT). Some of the other combinations of dosage and product also caused significant reductions in immature Western flower thrips at a few of the time points after treatment; but not consistently.

#### *Western flower thrips - adults*

Table 2 shows average counts of adult Western flower thrips as a function of treatment and days after onset of treatments. Based on pairwise tukey comparisons of the combinations of dosage and product, it is seen that none of the average counts varied significantly ( $P > 0.05$ ).

#### *Phytotoxicity - foliar*

We performed assessments of foliar phytotoxicity 3-28 days after onset of treatments. Based on pairwise tukey comparisons, Table 3 shows that BW133 at the high rate caused a significant increase in signs of foliar phytotoxicity at 21 and 28 DAT. There were only few and inconsistent signs of foliar phytotoxicity for other combinations of dosage and products.

#### *Phytotoxicity - flowers*

We performed assessments of flower phytotoxicity 3-28 days after onset of treatments. Based on pairwise tukey comparisons, Table 4 shows that BW133 at the high rate caused a significant increase in signs of flower phytotoxicity at all time points. None of the other combinations of dosage and product were found to cause significant increase in signs of phytotoxicity of flowers.

**Table 1.** Western flower thrips - immatures

<b>Treatment #</b>	<b>Product</b>	<b>Days after onset of treatments</b>						
		<b>0</b>	<b>3</b>	<b>7</b>	<b>14</b>	<b>21</b>	<b>28</b>	<b>35</b>
1	BW133	16.29	10.57	7.43	<b>7.57bc</b>	5.14	4.71	5.11
2	BW133	13.29	6.43	5.57	5.29	5.43	4.00	4.86
3	ISM-555	13.43	7.29	<b>1.57a</b>	<b>0.29a</b>	0.71	<b>1.00a</b>	<b>1.29a</b>
4	MBI 203 SC2	14.00	12.00	4.29	4.57	2.71	<b>0.29a</b>	3.57
5	MBI 306	13.57	13.71	10.29	3.86	3.71	7.00	7.14
6	SP3014	13.57	14.00	7.71	<b>3.14ab</b>	4.43	<b>1.00a</b>	5.43
7	V-10433	14.57	6.86	3.00	<b>3.29ab</b>	2.71	<b>1.14a</b>	5.57
8	Velifer	13.71	10.71	8.57	<b>3.14ab</b>	4.71	4.00	5.71
9	BotaniGuard Maxx	13.57	12.43	<b>13.57b</b>	<b>9.14c</b>	4.43	5.14	9.71
10	Water	14.86	13.14	7.86	<b>7.00bc</b>	5.00	<b>8.71b</b>	<b>13.29b</b>
	F-value	0.31	2.66	2.16	4.39	1.18	3.51	2.04
	P-value	0.97	0.01	0.04	<0.01	0.33	<0.01	0.05
								<0.01

Based on pairwise tukey comparisons, we present the combinations of dosage and product. As is standard in presentation of results in scientific literature, statistical differences are highlighted in bold and with letters,

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while average counts without bold letters did not vary significantly from other treatments. In some cases, more than one letter was used to show that average counts from two treatments varied significantly, but only one of the two also varied significantly from a third treatment.

**Table 2.** Western flower thrips – adults

Treatment #	Product	Days after onset of treatments						
		0	3	7	14	21	28	35
1	BW133	7.86	2.29	0.14	1.71	0.14	0.43	1.33
2	BW133	9.29	2.14	1.57	1.00	0.14	0.86	0.86
3	ISM-555	5.71	1.86	1.00	1.29	0.14	0.29	0.00
4	MBI 203 SC2	8.29	2.00	0.71	0.86	0.43	0.00	0.86
5	MBI 306	9.57	2.71	0.71	1.43	0.71	1.00	0.43
6	SP3014	4.57	3.14	2.00	1.00	0.14	0.71	0.71
7	V-10433	6.43	2.00	0.71	1.00	0.00	0.00	0.71
8	Velifer	5.43	2.43	2.00	1.29	0.29	0.71	0.57
9	BotaniGuard Maxx	7.14	4.57	1.57	2.14	0.71	0.86	0.71
10	Water	6.14	3.43	1.14	2.00	0.86	1.14	0.57
	F-value	1.10	1.75	1.29	0.78	1.47	1.60	0.67
	P-value	0.38	0.10	0.26	0.63	0.18	0.14	0.73
								0.12

Average counts did not vary significantly among treatments ( $P > 0.05$ ).

**Table 3.** Phytotoxicity - foliar

Treatment #	Product	Days after onset of treatments						
		0	3	7	14	21	28	35
1	BW133	0.00	0.00	0.00	<b>0.00a</b>	0.14		
2	BW133	0.00	0.00	0.00	<b>1.00b</b>	<b>1.71b</b>		
3	ISM-555	0.00	0.00	0.00	<b>0.00a</b>	<b>0.00a</b>		
4	MBI 203 SC2	0.00	0.00	0.00	<b>0.00a</b>	<b>0.00a</b>		
5	MBI 306	0.00	0.00	0.00	<b>0.00a</b>	<b>0.00a</b>		
6	SP3014	0.57	0.14	0.00	<b>0.00a</b>	<b>0.00a</b>		
7	V-10433	0.00	0.00	0.00	<b>0.00a</b>	<b>0.00a</b>		
8	Velifer	0.00	0.00	0.00	<b>0.00a</b>	<b>0.00a</b>		
9	BotaniGuard Maxx	0.00	0.00	0.00	0.43	<b>0.00a</b>		
10	Water	0.00	0.00	0.00	<b>0.00a</b>	<b>0.00a</b>		
	F-value	1.00	1.00		2.58	9.93		
	P-value	0.45	0.45		0.01	<0.001		

Based on pairwise tukey, we present comparisons of the combinations of dosage and product. As is standard in presentation of results in scientific literature, statistical differences are highlighted in bold and with letters, while average counts without bold letters did not vary significantly from other treatments.

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**Table 4.** Phytotoxicity - flowers

Treatment #	Product	Days after onset of treatments						
		0	3	7	14	21	28	35
1	BW133		<b>2.71a</b>	<b>1.29a</b>	<b>1.29a</b>	<b>2.00a</b>	<b>1.43a</b>	
2	BW133		<b>5.43b</b>	<b>6.29b</b>	<b>6.29b</b>	<b>3.43b</b>	<b>2.86b</b>	
3	ISM-555		<b>0.00a</b>	<b>0.00a</b>	<b>0.00a</b>	<b>0.00a</b>	<b>0.00a</b>	
4	MBI 203 SC2		<b>0.29a</b>	<b>1.29a</b>	<b>1.29a</b>	<b>0.00a</b>	<b>0.00a</b>	
5	MBI 306		<b>0.00a</b>	<b>0.00a</b>	<b>0.00a</b>	<b>0.00a</b>	<b>0.00a</b>	
6	SP3014		<b>0.29a</b>	<b>0.14a</b>	<b>0.29a</b>	<b>0.00a</b>	<b>0.00a</b>	
7	V-10433		<b>0.00a</b>	<b>0.00a</b>	<b>0.00a</b>	<b>0.00a</b>	<b>0.00a</b>	
8	Velifer		<b>0.57a</b>	<b>0.57a</b>	<b>0.57a</b>	<b>0.00a</b>	<b>0.00a</b>	
9	BotaniGuard Maxx		<b>0.71a</b>	<b>1.00a</b>	<b>1.00a</b>	<b>0.14a</b>	<b>0.00a</b>	
10	Water		<b>0.00a</b>	<b>0.00a</b>	<b>0.00a</b>	<b>0.00a</b>	<b>0.00a</b>	
		19.35	16.94	16.71	13.89	7.72		
		<0.01	<0.01	<0.01	<0.01	<0.01		

Based on pairwise tukey, we present comparisons of the combinations of dosage and product. As is standard in presentation of results in scientific literature, statistical differences are highlighted in bold and with letters, while average counts without bold letters did not vary significantly from other treatments.

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### **Materials & Methods/Recordkeeping**

Name(s) of Personnel Conducting Research: Christian Nansen, Haleh Khodaverdi

Location of Trial (city/state): Davis, CA

Use Site (greenhouse/shadehouse/field container/etc): Greenhouse

#### Crop History

Crop Cultivar/Variety:	Marigold 'Safari Yellow'
Date of Seeding:	
Date of Emergence:	Click here to enter text.
Date of Transplanting:	10/29/2020
Potting Mix:	UC Agronomy mix (equal parts peat, sand, redwood bark and scoria)
Pot size & spacing:	6.5-inch pots
Row spacing:	

Product(s) applied prior to start of experiment:

Product	Rate	Application Type	Date of Application	Crop Growth Stage	Application Volume
Fertilizer		With	Daily	All	n/a

### **Experiment Information**

**Experiment Information** UC Agronomy mix (equal parts peat, sand, redwood bark and scoria)

Experimental Design: Randomized complete block

Number of Reps: Seven

This study was conducted in a research greenhouse on the University of California campus in Davis, CA. Plants (marigold 'Safari Yellow') were transplanted into UC Agronomy mix (equal parts peat, sand, redwood bark and scoria) in 6-inch pots, and placed in individual dome cages. Plants received daily irrigation and fertilizer via a drip system. Plants were infested multiple times between October 30<sup>th</sup> and December 5<sup>th</sup> to ensure consistent Western flower thrips infestation levels in all plants. We used adult Western flower thrips from a colony maintained by the Nansen lab. To assess Western flower thrips establishment on the plants immediately before onset of spray applications (DAT = 0), a pre-count was performed on December 9<sup>th</sup>. There were 10 treatments, each replicated seven times (marigold plants = 70). Treatments were applied and counts of immature and adult Western flower thrips were performed according to the schedule in Table 5 below. Pump spray applications were conducted using a Dramm BP-4 backpack sprayer.

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**Table 5.** Days of applications of treatments and of evaluation of marigold plants

Treatment # Product	Application Day					Evaluation Day						
	0	3	7	10	14	0	3	14	21	28	35	42
1 BW133	x		x		x	x	x	x	x	x	x	x
2 BW133	x	x		x	x	x	x	x	x	x	x	x
3 ISM-555	x	x		x	x	x	x	x	x	x	x	x
4 MBI 203 SC2	x	x			x	x	x	x	x	x	x	x
5 MBI 306	x	x			x	x	x	x	x	x	x	x
6 SP3014	x	x		x	x	x	x	x	x	x	x	x
7 V-10433	x	x		x	x	x	x	x	x	x	x	x
8 Velifer	x	x	x	x	x	x	x	x	x	x	x	x
9 BotaniGuard Maxx	x					x	x	x	x	x	x	x
10 Water	x				x	x	x	x	x	x	x	x

For each evaluation day, one fully open flower with visible pollen in the center was selected per plant, and collected in a centrifuge tube with 70% ethanol. Immature and adult Western flower thrips were collected through alcohol extraction. Flowers were dissected in 70% ethanol and were rinsed with 70% ethanol to dislodge Western flower thrips. The solution was strained through filter paper, and adults and immatures were counted [<http://ipm.ucanr.edu/PMG/PESTNOTES/pn7429.html>]. Phytotoxicity of leaves was scored on a 0 to 10 scale (0 = no phytotoxicity, 10 = dead plant). Phytotoxicity of flowers was also scored on a 0 to 10 scale, with 0% = no flowers showing signs of phytotoxicity and 100% = to all flowers showing signs of phytotoxicity. Thus, flower phytotoxicity was based on dichotomous assessment of individual flowers (phytotoxicity yes/no).

Statistical analysis: Separate pairwise tukey analyses of variance were performed in R for each combination of days after onset of treatments.

Raw Data: Dates, treatments, counts of immature and adult Western flower thrips, environmental conditions.  
Please see attached file: S20-019 IR4 Raw Data.

Application Equipment: Dramm hydraulic sprayer  
Christian Nansen performed all spray applications.

# Ornamental Horticulture Program

## Research Report Form

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**Project Title:** Efficacy of Management Tools for Thrips

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The following products and dosages were applied to individually potted marigold plants (Table 6).

**Table 6.** Products and dosages used as treatments

Treatment #	Product	Treatment	From Protocol	For Experiment/Ordering		
				Amount Added	Total Amount	Unit
1	BW133	Foliar	Pound(s)	Gallon(s)	Pound(s)	0.01
			3	100	Gram(s)	3.6
2	BW133	Foliar	Pound(s)	Gallon(s)	Pound(s)	0.01
			5	100	Gram(s)	5.99
3	ISM-555	Foliar + Capsil @ 0.05%	Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.01
			3.84	100	mL(s)	0.3
					uL(s)	300.03
4	MBI 203 SC2	Foliar	Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.34
			128	100	mL(s)	10
					uL(s)	10001.06
5	MBI 306	Foliar	Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.01
			5	100	mL(s)	0.39
					uL(s)	390.67
6	SP3014	Foliar + Capsil @ .05%	Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.03
			13	100	mL(s)	1.02
					uL(s)	1015.73
7	V-10433	Foliar	Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.03
			11	100	mL(s)	0.86
					uL(s)	859.47
8	Velifer	Foliar	Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.03
			13	100	mL(s)	1.02
					uL(s)	1015.73
9	BotaniGuard Maxx	Foliar	Quart(s)	Gallon(s)	Quart(s)	0
			1	100	mL(s)	2.5
10	Water	Foliar	NA	NA	NA	NA

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**Photos**



Adult Western flower thrips are transferred to individual marigold plants. Individual plants are potentially infested multiple times to ensure consistency among plants.

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Marigold plants are kept in individual cages in a complete randomized setup (10 treatments x 7 replications = 70 plants). On the days of spray applications, plants from the same treatment are placed together. Detailed color coding is used to ensure that plants are subjected to the correct treatment. Christian Nansen applying foliar treatments (photo from different trial, so not marigold plants).

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Phytotoxicity was assessed of both leaves and flowers. No signs of phytotoxicity (left and score = 0) and clear signs of flower phytotoxicity on individual flowers. Half of flowers on plant to the right showed signs of phytotoxicity, so score = 5.

## TAB NAME: Readme

<b>Label</b>	<b>Explanation</b>
DAT	Days after initial treatment
Plant #	Number assigned to plant
Treatment	Experimental treatment
Color	Color assigned to experimental treatment
Treatment number	Number assigned to experimental treatment
Height (cm)	Plant height
Width (cm)	Plant width
Immatures	Number of immature thrips
Adults	Number of adult thrips
Damage	Thrips damage (0-10 scale)
Phytoxicity (floral)	Phytoxicity assessed on flower (0-10 scale)
Phytoxicity (foliar)	Phytoxicity assessed on leaves (0-10 scale)
Comment	

<b>Treatment #</b>	<b>Treatment</b>
1	BW133 Low
2	BW133 High
3	ISM-555
4	MBI 203 SC2
5	MBI 306
6	SP3014
7	V-10433
8	Velifer
9	BotaniGuard Maxx
10	Water spray

<b>Date</b>	<b>DAT</b>
Bought as plugs, NA	NA
10/27/2020	-43
10/30/2020	-40
11/5/2020	-34
11/12/2020	-27
11/26/2020	-13
12/3/2020	-6
12/9/2020	0
12/12/2020	3
12/16/2020	7
12/19/2020	10
12/23/2020	14
12/30/2020	21
1/6/2021	28
1/13/2021	35
1/20/2021	42

<b>Plant</b>	<b>Application (DAT)</b>	<b>Evaluation (DAT)</b>
Marigold ( <i>Tagetes Patula</i> )	0, 7, 14	0, 3, 7, 14, 21, 28, 35, 42
Marigold ( <i>Tagetes Patula</i> )	0, 7, 14	0, 3, 7, 14, 21, 28, 35, 42
Marigold ( <i>Tagetes Patula</i> )	0, 7, 14	0, 3, 7, 14, 21, 28, 35, 42
Marigold ( <i>Tagetes Patula</i> )	0, 7	0, 3, 7, 14, 21, 28, 35, 42
Marigold ( <i>Tagetes Patula</i> )	0, 7	0, 3, 7, 14, 21, 28, 35, 42
Marigold ( <i>Tagetes Patula</i> )	0, 7, 14	0, 3, 7, 14, 21, 28, 35, 42
Marigold ( <i>Tagetes Patula</i> )	0, 3, 7, 10, 14	0, 3, 7, 14, 21, 28, 35, 42
Marigold ( <i>Tagetes Patula</i> )	0, 7, 14	0, 3, 7, 14, 21, 28, 35, 42
Marigold ( <i>Tagetes Patula</i> )		0, 3, 7, 14, 21, 28, 35, 42
Marigold ( <i>Tagetes Patula</i> )		0, 3, 7, 14, 21, 28, 35, 42

<b>Action</b>
Planting
Transplanting
Thrips infestations
Spray week 0, Evaluating population, damage, measuring plants
Spray week 1, Evaluating population, phytotoxicity
Spray week 2, Evaluating population, phytotoxicity
Spray week 2
Spray week 3, Evaluating population, phytotoxicity
Evaluating population, phytotoxicity
Evaluating population, phytotoxicity, measuring plants
Evaluating population
Evaluating population

TAB NAME: HOBOData

Plot Title: 20-019 Thrips IR4

#	Date Time, GMT-08:00	Temp, °F (LGR S/N: 844307, SEN S/N: 844307)	RH, % (LGR S/N: 844307, SEN S/N: 844307)
1	11/3/2020 10:00	83.959	62.5
2	11/3/2020 11:00	96.481	50.633
3	11/3/2020 12:00	98.528	51.309
4	11/3/2020 13:00	98.38	55.466
5	11/3/2020 14:00	97.99	57.276
6	11/3/2020 15:00	94.609	60.584
7	11/3/2020 16:00	89.316	66.125
8	11/3/2020 17:00	80.802	74.97
9	11/3/2020 18:00	78.91	79.306
10	11/3/2020 19:00	77.945	78.821
11	11/3/2020 20:00	76.811	79.224
12	11/3/2020 21:00	75.724	79.997
13	11/3/2020 22:00	74.64	80.474
14	11/3/2020 23:00	74.077	80.642
15	11/4/2020 0:00	73.386	80.664
16	11/4/2020 1:00	72.696	80.53
17	11/4/2020 2:00	72.178	80.599
18	11/4/2020 3:00	71.877	80.355
19	11/4/2020 4:00	71.317	80.574
20	11/4/2020 5:00	71.404	78.834
21	11/4/2020 6:00	71.704	68.889
22	11/4/2020 7:00	72.61	64.275
23	11/4/2020 8:00	78.121	68.236
24	11/4/2020 9:00	84.857	64.182
25	11/4/2020 10:00	90.379	58.411
26	11/4/2020 11:00	96.579	54.484
27	11/4/2020 12:00	98.136	54.96
28	11/4/2020 13:00	98.528	56.739
29	11/4/2020 14:00	97.306	59.454
30	11/4/2020 15:00	94.419	63.026
31	11/4/2020 16:00	89.593	68.83
32	11/4/2020 17:00	81.154	76.801
33	11/4/2020 18:00	79.304	80.656
34	11/4/2020 19:00	78.559	80.568
35	11/4/2020 20:00	77.727	80.602
36	11/4/2020 21:00	77.203	80.856
37	11/4/2020 22:00	76.636	81.13
38	11/4/2020 23:00	76.071	81.271
39	11/5/2020 0:00	75.637	81.193
40	11/5/2020 1:00	75.42	81.115
41	11/5/2020 2:00	74.899	81.053
42	11/5/2020 3:00	74.683	81.392
43	11/5/2020 4:00	74.163	81.563

44	11/5/2020 5:00	73.947	79.262
45	11/5/2020 6:00	73.299	79.608
46	11/5/2020 7:00	73.645	71.928
47	11/5/2020 8:00	78.953	73.296
48	11/5/2020 9:00	85.894	66.343
49	11/5/2020 10:00	92.057	60.181
50	11/5/2020 11:00	98.971	55.511
51	11/5/2020 12:00	100.159	54.33
52	11/5/2020 13:00	100.706	54.731
53	11/5/2020 14:00	99.91	56.363
54	11/5/2020 15:00	95.806	58.792
55	11/5/2020 16:00	90.055	65.139
56	11/5/2020 17:00	81.73	72.745
57	11/5/2020 18:00	79.567	78.819
58	11/5/2020 19:00	78.822	80.44
59	11/5/2020 20:00	78.076	80.749
60	11/5/2020 21:00	77.378	80.877
61	11/5/2020 22:00	76.899	80.82
62	11/5/2020 23:00	75.942	80.601
63	11/6/2020 0:00	75.767	80.66
64	11/6/2020 1:00	75.942	79.388
65	11/6/2020 2:00	75.29	80.314
66	11/6/2020 3:00	75.508	77.336
67	11/6/2020 4:00	75.724	73.51
68	11/6/2020 5:00	74.899	77.723
69	11/6/2020 6:00	74.77	75.929
70	11/6/2020 7:00	70.459	79.849
71	11/6/2020 8:00	70.887	81.195
72	11/6/2020 9:00	81.687	75.426
73	11/6/2020 10:00	79.743	67.202
74	11/6/2020 11:00	80.935	66.965
75	11/6/2020 12:00	90.797	56.863
76	11/6/2020 13:00	90.657	56.947
77	11/6/2020 14:00	90.471	56.36
78	11/6/2020 15:00	86.709	59.979
79	11/6/2020 16:00	80.89	65.636
80	11/6/2020 17:00	74.77	76.768
81	11/6/2020 18:00	72.394	80.364
82	11/6/2020 19:00	70.716	81.508
83	11/6/2020 20:00	69.386	82.139
84	11/6/2020 21:00	68.527	82.44
85	11/6/2020 22:00	68.356	82.343
86	11/6/2020 23:00	67.798	82.249
87	11/7/2020 0:00	66.515	82.721
88	11/7/2020 1:00	66.301	82.544
89	11/7/2020 2:00	67.158	82.17
90	11/7/2020 3:00	66.6	82.203

91	11/7/2020 4:00	67.456	78.506
92	11/7/2020 5:00	65.745	81.491
93	11/7/2020 6:00	65.959	81.441
94	11/7/2020 7:00	65.102	82.27
95	11/7/2020 8:00	67.885	82.234
96	11/7/2020 9:00	80.757	75.464
97	11/7/2020 10:00	85.307	61.827
98	11/7/2020 11:00	85.035	54.98
99	11/7/2020 12:00	83.332	57.428
100	11/7/2020 13:00	87.483	61.095
101	11/7/2020 14:00	89.224	58.849
102	11/7/2020 15:00	86.029	60.107
103	11/7/2020 16:00	79.48	61.983
104	11/7/2020 17:00	74.163	71.03
105	11/7/2020 18:00	70.673	74.772
106	11/7/2020 19:00	68.443	76.724
107	11/7/2020 20:00	66.729	78.369
108	11/7/2020 21:00	64.888	78.984
109	11/7/2020 22:00	64.674	79.551
110	11/7/2020 23:00	66.558	70.635
111	11/8/2020 0:00	67.114	69.132
112	11/8/2020 1:00	66.558	71.27
113	11/8/2020 2:00	64.546	77.281
114	11/8/2020 3:00	63.347	78.105
115	11/8/2020 4:00	62.875	78.102
116	11/8/2020 5:00	62.406	77.191
117	11/8/2020 6:00	61.848	77.335
118	11/8/2020 7:00	61.419	77.648
119	11/8/2020 8:00	67.071	79.215
120	11/8/2020 9:00	81.199	67.606
121	11/8/2020 10:00	86.074	55.537
122	11/8/2020 11:00	89.316	52.965
123	11/8/2020 12:00	89.685	49.858
124	11/8/2020 13:00	88.167	50.342
125	11/8/2020 14:00	86.029	52.333
126	11/8/2020 15:00	82.042	56.573
127	11/8/2020 16:00	79.041	63.504
128	11/8/2020 17:00	72.007	68.635
129	11/8/2020 18:00	67.842	73.514
130	11/8/2020 19:00	65.916	74.761
131	11/8/2020 20:00	64.332	75.226
132	11/8/2020 21:00	62.962	75.444
133	11/8/2020 22:00	62.105	75.848
134	11/8/2020 23:00	61.205	75.799
135	11/9/2020 0:00	60.818	75.124
136	11/9/2020 1:00	60.433	75.028
137	11/9/2020 2:00	60.046	74.642

138	11/9/2020 3:00	59.959	71.801
139	11/9/2020 4:00	59.702	70.28
140	11/9/2020 5:00	59.745	68.664
141	11/9/2020 6:00	59.486	70.803
142	11/9/2020 7:00	59.702	69.294
143	11/9/2020 8:00	65.487	75.275
144	11/9/2020 9:00	79.128	64.85
145	11/9/2020 10:00	85.487	55.428
146	11/9/2020 11:00	87.802	53.819
147	11/9/2020 12:00	87.665	52.033
148	11/9/2020 13:00	87.62	52.321
149	11/9/2020 14:00	84.99	59.957
150	11/9/2020 15:00	80.625	64.156
151	11/9/2020 16:00	75.16	69.548
152	11/9/2020 17:00	72.221	73.274
153	11/9/2020 18:00	68.999	75.666
154	11/9/2020 19:00	66.943	77.003
155	11/9/2020 20:00	64.931	78.86
156	11/9/2020 21:00	63.433	79.276
157	11/9/2020 22:00	62.191	79.486
158	11/9/2020 23:00	61.506	79.302
159	11/10/2020 0:00	60.818	79.221
160	11/10/2020 1:00	60.003	78.971
161	11/10/2020 2:00	59.445	78.42
162	11/10/2020 3:00	58.582	79.183
163	11/10/2020 4:00	57.765	79.413
164	11/10/2020 5:00	57.031	79.527
165	11/10/2020 6:00	56.512	79.565
166	11/10/2020 7:00	56.944	75.993
167	11/10/2020 8:00	62.447	78.052
168	11/10/2020 9:00	77.464	70.065
169	11/10/2020 10:00	85.984	58.457
170	11/10/2020 11:00	88.351	55.843
171	11/10/2020 12:00	88.03	57.212
172	11/10/2020 13:00	87.71	57.784
173	11/10/2020 14:00	86.709	60.319
174	11/10/2020 15:00	82.886	63.372
175	11/10/2020 16:00	78.777	71.845
176	11/10/2020 17:00	73.256	77.429
177	11/10/2020 18:00	70.974	79.257
178	11/10/2020 19:00	69.942	79.944
179	11/10/2020 20:00	68.356	80.992
180	11/10/2020 21:00	66.9	81.556
181	11/10/2020 22:00	66.13	82.044
182	11/10/2020 23:00	65.959	82.325
183	11/11/2020 0:00	64.888	82.695
184	11/11/2020 1:00	64.546	82.652

185	11/11/2020 2:00	66.772	71.1
186	11/11/2020 3:00	67.586	65.66
187	11/11/2020 4:00	67.842	64.095
188	11/11/2020 5:00	67.372	65.352
189	11/11/2020 6:00	66.643	67.734
190	11/11/2020 7:00	66.472	71.756
191	11/11/2020 8:00	68.871	79.115
192	11/11/2020 9:00	73.126	78.77
193	11/11/2020 10:00	74.338	79.043
194	11/11/2020 11:00	75.898	78.958
195	11/11/2020 12:00	76.593	79.756
196	11/11/2020 13:00	77.639	77.252
197	11/11/2020 14:00	79.304	73.641
198	11/11/2020 15:00	79.48	74.605
199	11/11/2020 16:00	79.084	75.667
200	11/11/2020 17:00	73.688	80.935
201	11/11/2020 18:00	70.587	82.541
202	11/11/2020 19:00	68.527	83.096
203	11/11/2020 20:00	67.199	83.358
204	11/11/2020 21:00	65.017	83.309
205	11/11/2020 22:00	63.39	83.402
206	11/11/2020 23:00	61.934	83.416
207	11/12/2020 0:00	60.647	83.401
208	11/12/2020 1:00	59.702	83.331
209	11/12/2020 2:00	58.885	83.276
210	11/12/2020 3:00	57.936	83.278
211	11/12/2020 4:00	57.979	82.231
212	11/12/2020 5:00	57.592	81.095
213	11/12/2020 6:00	56.901	80.562
214	11/12/2020 7:00	56.772	77.569
215	11/12/2020 8:00	62.919	79.061
216	11/12/2020 9:00	77.945	67.291
217	11/12/2020 10:00	81.864	57.837
218	11/12/2020 11:00	84.182	56.21
219	11/12/2020 12:00	83.779	56.587
220	11/12/2020 13:00	87.757	59.819
221	11/12/2020 14:00	89.085	59.65
222	11/12/2020 15:00	85.939	60.962
223	11/12/2020 16:00	80.537	65.159
224	11/12/2020 17:00	73.558	77.196
225	11/12/2020 18:00	70.974	79.701
226	11/12/2020 19:00	69.129	80.003
227	11/12/2020 20:00	67.671	80.602
228	11/12/2020 21:00	66.429	80.837
229	11/12/2020 22:00	66.13	81.081
230	11/12/2020 23:00	64.418	81.632
231	11/13/2020 0:00	64.418	81.733

232	11/13/2020 1:00	64.803	82.609
233	11/13/2020 2:00	64.632	82.061
234	11/13/2020 3:00	63.903	82.022
235	11/13/2020 4:00	63.561	81.502
236	11/13/2020 5:00	63.99	78.102
237	11/13/2020 6:00	64.418	75.898
238	11/13/2020 7:00	64.974	70.361
239	11/13/2020 8:00	66.344	80.238
240	11/13/2020 9:00	66.686	80.714
241	11/13/2020 10:00	68.356	80.89
242	11/13/2020 11:00	71.791	77.556
243	11/13/2020 12:00	75.117	70.31
244	11/13/2020 13:00	74.64	73.946
245	11/13/2020 14:00	72.394	77.758
246	11/13/2020 15:00	70.587	78.503
247	11/13/2020 16:00	68.013	80.874
248	11/13/2020 17:00	66.857	83.19
249	11/13/2020 18:00	65.872	83.665
250	11/13/2020 19:00	66.985	82.804
251	11/13/2020 20:00	67.885	78.765
252	11/13/2020 21:00	66.643	82.536
253	11/13/2020 22:00	66.214	83.135
254	11/13/2020 23:00	65.788	83.306
255	11/14/2020 0:00	65.23	83.733
256	11/14/2020 1:00	67.199	71.061
257	11/14/2020 2:00	68.013	66.675
258	11/14/2020 3:00	68.614	64.05
259	11/14/2020 4:00	68.742	62.629
260	11/14/2020 5:00	68.27	63.231
261	11/14/2020 6:00	66.214	74.526
262	11/14/2020 7:00	64.033	81.56
263	11/14/2020 8:00	67.114	82.064
264	11/14/2020 9:00	81.376	71.489
265	11/14/2020 10:00	85.035	61.467
266	11/14/2020 11:00	87.62	60.86
267	11/14/2020 12:00	86.572	61.232
268	11/14/2020 13:00	92.151	58.493
269	11/14/2020 14:00	93.992	57.787
270	11/14/2020 15:00	92.151	58.082
271	11/14/2020 16:00	84.632	65.39
272	11/14/2020 17:00	75.247	76.605
273	11/14/2020 18:00	73.342	80.789
274	11/14/2020 19:00	71.964	81.685
275	11/14/2020 20:00	69.985	82.442
276	11/14/2020 21:00	68.185	82.878
277	11/14/2020 22:00	66.686	83.244
278	11/14/2020 23:00	65.53	83.473

279	11/15/2020 0:00	64.546	83.598
280	11/15/2020 1:00	63.518	83.616
281	11/15/2020 2:00	62.704	83.809
282	11/15/2020 3:00	61.891	83.853
283	11/15/2020 4:00	61.462	83.848
284	11/15/2020 5:00	61.075	83.945
285	11/15/2020 6:00	60.733	83.853
286	11/15/2020 7:00	60.217	83.763
287	11/15/2020 8:00	65.487	83.443
288	11/15/2020 9:00	81.199	70.728
289	11/15/2020 10:00	87.118	57.893
290	11/15/2020 11:00	90.194	59.868
291	11/15/2020 12:00	91.776	58.43
292	11/15/2020 13:00	93.659	59.94
293	11/15/2020 14:00	95.855	60.029
294	11/15/2020 15:00	94.896	59.917
295	11/15/2020 16:00	88.122	66.313
296	11/15/2020 17:00	77.421	74.687
297	11/15/2020 18:00	75.985	81.47
298	11/15/2020 19:00	74.511	82.2
299	11/15/2020 20:00	73.083	82.771
300	11/15/2020 21:00	71.404	82.972
301	11/15/2020 22:00	70.286	83.239
302	11/15/2020 23:00	69.213	83.358
303	11/16/2020 0:00	68.313	83.397
304	11/16/2020 1:00	67.627	83.336
305	11/16/2020 2:00	66.9	83.295
306	11/16/2020 3:00	66.301	83.27
307	11/16/2020 4:00	65.745	83.251
308	11/16/2020 5:00	65.574	83.329
309	11/16/2020 6:00	65.701	82.896
310	11/16/2020 7:00	65.316	83.073
311	11/16/2020 8:00	70.072	82.706
312	11/16/2020 9:00	82.263	73.393
313	11/16/2020 10:00	88.03	61.081
314	11/16/2020 11:00	92.197	61.346
315	11/16/2020 12:00	94.181	59.543
316	11/16/2020 13:00	95.23	60.825
317	11/16/2020 14:00	97.257	60.367
318	11/16/2020 15:00	94.372	60.219
319	11/16/2020 16:00	87.3	68.195
320	11/16/2020 17:00	76.681	76.385
321	11/16/2020 18:00	75.074	81.646
322	11/16/2020 19:00	73.17	82.474
323	11/16/2020 20:00	71.62	82.871
324	11/16/2020 21:00	69.901	83.216
325	11/16/2020 22:00	68.742	83.475

326	11/16/2020 23:00	67.627	83.636
327	11/17/2020 0:00	67.242	83.713
328	11/17/2020 1:00	67.714	83.447
329	11/17/2020 2:00	67.586	83.581
330	11/17/2020 3:00	67.714	82.794
331	11/17/2020 4:00	67.114	82.77
332	11/17/2020 5:00	67.242	80.986
333	11/17/2020 6:00	67.5	77.804
334	11/17/2020 7:00	67.329	77.889
335	11/17/2020 8:00	68.999	81.224
336	11/17/2020 9:00	76.246	79.953
337	11/17/2020 10:00	77.859	72.565
338	11/17/2020 11:00	82.042	67.189
339	11/17/2020 12:00	76.158	70.925
340	11/17/2020 13:00	74.467	81.314
341	11/17/2020 14:00	73.602	81.78
342	11/17/2020 15:00	72.307	82.981
343	11/17/2020 16:00	70.459	83.639
344	11/17/2020 17:00	70.543	84.052
345	11/17/2020 18:00	70.286	84.07
346	11/17/2020 19:00	71.017	83.254
347	11/17/2020 20:00	71.661	79.678
348	11/17/2020 21:00	71.834	79.541
349	11/17/2020 22:00	71.49	80.283
350	11/17/2020 23:00	70.63	82.164
351	11/18/2020 0:00	70.115	83.192
352	11/18/2020 1:00	68.785	84.106
353	11/18/2020 2:00	69.085	84.219
354	11/18/2020 3:00	68.657	84.414
355	11/18/2020 4:00	68.742	84.026
356	11/18/2020 5:00	68.614	84.01
357	11/18/2020 6:00	67.928	84.422
358	11/18/2020 7:00	67.285	84.588
359	11/18/2020 8:00	69.6	84.534
360	11/18/2020 9:00	76.246	83.492
361	11/18/2020 10:00	82.708	75.593
362	11/18/2020 11:00	89.915	66.511
363	11/18/2020 12:00	81.154	70.351
364	11/18/2020 13:00	84.137	70.133
365	11/18/2020 14:00	82.62	72.328
366	11/18/2020 15:00	83.959	72.352
367	11/18/2020 16:00	82.042	71.642
368	11/18/2020 17:00	74.295	81.163
369	11/18/2020 18:00	72.351	83.317
370	11/18/2020 19:00	71.49	83.793
371	11/18/2020 20:00	70.459	83.941
372	11/18/2020 21:00	69.256	84.116

373	11/18/2020 22:00	68.313	84.321
374	11/18/2020 23:00	67.5	84.442
375	11/19/2020 0:00	66.772	84.399
376	11/19/2020 1:00	66.344	84.444
377	11/19/2020 2:00	66.301	84.215
378	11/19/2020 3:00	65.444	84.231
379	11/19/2020 4:00	64.375	84.464
380	11/19/2020 5:00	63.475	84.692
381	11/19/2020 6:00	63.304	84.817
382	11/19/2020 7:00	62.791	84.873
383	11/19/2020 8:00	68.356	84.526
384	11/19/2020 9:00	75.551	80.739
385	11/19/2020 10:00	85.849	67.317
386	11/19/2020 11:00	85.397	69.823
387	11/19/2020 12:00	90.703	65.017
388	11/19/2020 13:00	90.009	66.009
389	11/19/2020 14:00	93.612	59.998
390	11/19/2020 15:00	88.214	64.215
391	11/19/2020 16:00	81.775	66.781
392	11/19/2020 17:00	74.034	80.061
393	11/19/2020 18:00	71.704	82.167
394	11/19/2020 19:00	69.514	82.612
395	11/19/2020 20:00	67.627	82.657
396	11/19/2020 21:00	65.788	83.006
397	11/19/2020 22:00	64.717	82.973
398	11/19/2020 23:00	63.819	82.686
399	11/20/2020 0:00	63.219	80.475
400	11/20/2020 1:00	62.49	79.675
401	11/20/2020 2:00	61.59	79.313
402	11/20/2020 3:00	60.733	79.49
403	11/20/2020 4:00	59.959	79.677
404	11/20/2020 5:00	59.445	79.159
405	11/20/2020 6:00	59.745	76.339
406	11/20/2020 7:00	59.873	70.489
407	11/20/2020 8:00	66.301	73.7
408	11/20/2020 9:00	80.537	69.513
409	11/20/2020 10:00	85.487	59.813
410	11/20/2020 11:00	89.085	59.65
411	11/20/2020 12:00	90.797	61.937
412	11/20/2020 13:00	91.449	61.188
413	11/20/2020 14:00	95.472	58.986
414	11/20/2020 15:00	90.797	61.442
415	11/20/2020 16:00	83.959	62.955
416	11/20/2020 17:00	73.818	77.064
417	11/20/2020 18:00	71.447	80.589
418	11/20/2020 19:00	69.17	81.526
419	11/20/2020 20:00	67.199	82.226

420	11/20/2020 21:00	65.487	82.644
421	11/20/2020 22:00	64.074	82.942
422	11/20/2020 23:00	63.005	82.933
423	11/21/2020 0:00	62.533	82.128
424	11/21/2020 1:00	62.233	78.285
425	11/21/2020 2:00	62.49	77.123
426	11/21/2020 3:00	61.977	76.411
427	11/21/2020 4:00	60.948	77.954
428	11/21/2020 5:00	59.616	79.306
429	11/21/2020 6:00	58.669	79.244
430	11/21/2020 7:00	57.807	79.771
431	11/21/2020 8:00	64.76	78.607
432	11/21/2020 9:00	79.524	70.33
433	11/21/2020 10:00	86.164	59.623
434	11/21/2020 11:00	90.147	58.957
435	11/21/2020 12:00	90.844	62.003
436	11/21/2020 13:00	91.17	61.381
437	11/21/2020 14:00	94.705	59.05
438	11/21/2020 15:00	85.622	63.799
439	11/21/2020 16:00	79.041	70.538
440	11/21/2020 17:00	74.25	79.614
441	11/21/2020 18:00	71.317	81.53
442	11/21/2020 19:00	69.386	82.292
443	11/21/2020 20:00	68.27	82.231
444	11/21/2020 21:00	67.413	82.252
445	11/21/2020 22:00	66.087	82.291
446	11/21/2020 23:00	65.017	81.932
447	11/22/2020 0:00	64.117	81.596
448	11/22/2020 1:00	62.704	82.473
449	11/22/2020 2:00	61.677	82.915
450	11/22/2020 3:00	60.904	82.991
451	11/22/2020 4:00	60.089	83.233
452	11/22/2020 5:00	58.842	83.685
453	11/22/2020 6:00	57.722	83.979
454	11/22/2020 7:00	57.204	84.322
455	11/22/2020 8:00	62.533	84.474
456	11/22/2020 9:00	76.986	77.07
457	11/22/2020 10:00	84.542	62.855
458	11/22/2020 11:00	88.579	62.052
459	11/22/2020 12:00	90.844	62.864
460	11/22/2020 13:00	91.683	62.815
461	11/22/2020 14:00	93.992	60.657
462	11/22/2020 15:00	81.376	70.029
463	11/22/2020 16:00	79.216	77.375
464	11/22/2020 17:00	74.034	79.483
465	11/22/2020 18:00	72.394	81.298
466	11/22/2020 19:00	71.49	82.038

467	11/22/2020 20:00	71.577	82.79
468	11/22/2020 21:00	71.017	83.38
469	11/22/2020 22:00	69.685	83.543
470	11/22/2020 23:00	68.27	83.466
471	11/23/2020 0:00	66.301	83.669
472	11/23/2020 1:00	65.059	83.885
473	11/23/2020 2:00	63.946	84.016
474	11/23/2020 3:00	62.875	84.028
475	11/23/2020 4:00	62.105	84.15
476	11/23/2020 5:00	61.075	84.311
477	11/23/2020 6:00	60.303	84.456
478	11/23/2020 7:00	59.83	84.806
479	11/23/2020 8:00	65.829	84.551
480	11/23/2020 9:00	79.48	75.49
481	11/23/2020 10:00	84.632	65.032
482	11/23/2020 11:00	89.685	63.801
483	11/23/2020 12:00	92.01	64.284
484	11/23/2020 13:00	92.856	64.696
485	11/23/2020 14:00	96.145	62.339
486	11/23/2020 15:00	91.355	65.803
487	11/23/2020 16:00	83.779	66.025
488	11/23/2020 17:00	74.381	79.682
489	11/23/2020 18:00	72.523	81.856
490	11/23/2020 19:00	70.502	82.657
491	11/23/2020 20:00	68.742	83.123
492	11/23/2020 21:00	67.372	83.379
493	11/23/2020 22:00	65.872	83.466
494	11/23/2020 23:00	65.23	83.485
495	11/24/2020 0:00	65.487	83.268
496	11/24/2020 1:00	64.803	80.819
497	11/24/2020 2:00	64.76	78.504
498	11/24/2020 3:00	64.546	76.861
499	11/24/2020 4:00	64.204	75.238
500	11/24/2020 5:00	63.39	76.204
501	11/24/2020 6:00	62.362	77.082
502	11/24/2020 7:00	61.205	78.781
503	11/24/2020 8:00	66.943	80.975
504	11/24/2020 9:00	81.154	71.409
505	11/24/2020 10:00	86.119	63.208
506	11/24/2020 11:00	90.797	62.83
507	11/24/2020 12:00	93.234	63.044
508	11/24/2020 13:00	93.47	61.081
509	11/24/2020 14:00	96.917	60.716
510	11/24/2020 15:00	91.308	63.672
511	11/24/2020 16:00	83.287	65.087
512	11/24/2020 17:00	74.295	79.908
513	11/24/2020 18:00	72.739	81.495

514	11/24/2020 19:00	70.93	81.817
515	11/24/2020 20:00	69.256	82.301
516	11/24/2020 21:00	67.5	82.768
517	11/24/2020 22:00	66.772	83.179
518	11/24/2020 23:00	65.403	83.532
519	11/25/2020 0:00	64.247	84.079
520	11/25/2020 1:00	64.161	84.388
521	11/25/2020 2:00	63.903	84.502
522	11/25/2020 3:00	63.475	84.496
523	11/25/2020 4:00	63.176	83.153
524	11/25/2020 5:00	62.875	81.192
525	11/25/2020 6:00	62.062	79.98
526	11/25/2020 7:00	60.904	82.026
527	11/25/2020 8:00	66.214	83.559
528	11/25/2020 9:00	79.743	75.077
529	11/25/2020 10:00	84.094	65.132
530	11/25/2020 11:00	88.718	65.318
531	11/25/2020 12:00	90.703	63.984
532	11/25/2020 13:00	90.797	60.324
533	11/25/2020 14:00	94.609	60.772
534	11/25/2020 15:00	89.454	63.323
535	11/25/2020 16:00	81.244	64.6
536	11/25/2020 17:00	73.342	79.06
537	11/25/2020 18:00	70.803	80.59
538	11/25/2020 19:00	68.785	81.326
539	11/25/2020 20:00	67.5	81.374
540	11/25/2020 21:00	65.829	81.426
541	11/25/2020 22:00	65.102	81.058
542	11/25/2020 23:00	63.903	79.895
543	11/26/2020 0:00	63.561	79.956
544	11/26/2020 1:00	63.219	81.912
545	11/26/2020 2:00	62.276	82.916
546	11/26/2020 3:00	61.633	82.91
547	11/26/2020 4:00	61.075	78.227
548	11/26/2020 5:00	60.604	74.121
549	11/26/2020 6:00	60.132	74.572
550	11/26/2020 7:00	59.916	76.775
551	11/26/2020 8:00	66.13	77.908
552	11/26/2020 9:00	79.7	69.286
553	11/26/2020 10:00	83.914	60.512
554	11/26/2020 11:00	88.351	61.755
555	11/26/2020 12:00	90.424	61.317
556	11/26/2020 13:00	90.239	59.716
557	11/26/2020 14:00	94.039	61.597
558	11/26/2020 15:00	88.626	62.362
559	11/26/2020 16:00	80.537	61.137
560	11/26/2020 17:00	72.523	75.518

561	11/26/2020 18:00	70.115	77.551
562	11/26/2020 19:00	68.443	78.542
563	11/26/2020 20:00	67.5	78.119
564	11/26/2020 21:00	66.558	78.193
565	11/26/2020 22:00	65.574	78.858
566	11/26/2020 23:00	64.931	80.503
567	11/27/2020 0:00	64.459	79.757
568	11/27/2020 1:00	64.418	72.955
569	11/27/2020 2:00	64.418	69.5
570	11/27/2020 3:00	63.304	70.875
571	11/27/2020 4:00	61.59	74.31
572	11/27/2020 5:00	60.69	74.157
573	11/27/2020 6:00	60.39	74.442
574	11/27/2020 7:00	59.401	74.808
575	11/27/2020 8:00	65.403	76.406
576	11/27/2020 9:00	78.996	70.134
577	11/27/2020 10:00	83.736	61.628
578	11/27/2020 11:00	88.167	63.239
579	11/27/2020 12:00	90.612	62.291
580	11/27/2020 13:00	90.565	60.398
581	11/27/2020 14:00	94.372	61.252
582	11/27/2020 15:00	88.855	64.122
583	11/27/2020 16:00	80.845	61.861
584	11/27/2020 17:00	72.61	77.196
585	11/27/2020 18:00	70.072	79.125
586	11/27/2020 19:00	67.798	79.586
587	11/27/2020 20:00	66.043	80.176
588	11/27/2020 21:00	64.375	80.538
589	11/27/2020 22:00	63.048	80.809
590	11/27/2020 23:00	61.934	81.202
591	11/28/2020 0:00	60.69	81.426
592	11/28/2020 1:00	59.529	81.731
593	11/28/2020 2:00	58.626	82.237
594	11/28/2020 3:00	57.722	81.73
595	11/28/2020 4:00	57.29	80.035
596	11/28/2020 5:00	56.988	80.772
597	11/28/2020 6:00	56.512	82.292
598	11/28/2020 7:00	56.556	80.021
599	11/28/2020 8:00	62.704	77.382
600	11/28/2020 9:00	77.553	72.365
601	11/28/2020 10:00	84.362	63.202
602	11/28/2020 11:00	88.947	62.697
603	11/28/2020 12:00	91.87	62.308
604	11/28/2020 13:00	92.151	57.67
605	11/28/2020 14:00	96.192	55.976
606	11/28/2020 15:00	90.333	61.619
607	11/28/2020 16:00	82.53	61.949

608	11/28/2020 17:00	72.955	77.101
609	11/28/2020 18:00	70.372	79.552
610	11/28/2020 19:00	68.099	80.087
611	11/28/2020 20:00	66.258	80.637
612	11/28/2020 21:00	64.717	81.239
613	11/28/2020 22:00	63.304	81.622
614	11/28/2020 23:00	62.062	81.695
615	11/29/2020 0:00	60.991	81.613
616	11/29/2020 1:00	60.046	81.795
617	11/29/2020 2:00	58.928	81.954
618	11/29/2020 3:00	57.979	82.033
619	11/29/2020 4:00	57.204	82.133
620	11/29/2020 5:00	56.728	82.025
621	11/29/2020 6:00	56.165	82.077
622	11/29/2020 7:00	56.165	74.838
623	11/29/2020 8:00	59.959	77.168
624	11/29/2020 9:00	75.508	70.746
625	11/29/2020 10:00	85.622	62.708
626	11/29/2020 11:00	89.04	63.164
627	11/29/2020 12:00	91.449	60.442
628	11/29/2020 13:00	90.194	61.73
629	11/29/2020 14:00	95.518	56.374
630	11/29/2020 15:00	90.147	60.394
631	11/29/2020 16:00	82.353	62.811
632	11/29/2020 17:00	72.653	77.441
633	11/29/2020 18:00	70.158	79.292
634	11/29/2020 19:00	68.099	80.319
635	11/29/2020 20:00	66.429	81.092
636	11/29/2020 21:00	64.717	81.618
637	11/29/2020 22:00	63.433	82.089
638	11/29/2020 23:00	62.362	82.032
639	11/30/2020 0:00	61.419	81.915
640	11/30/2020 1:00	60.39	81.464
641	11/30/2020 2:00	59.272	81.699
642	11/30/2020 3:00	59.099	80.656
643	11/30/2020 4:00	57.679	81.353
644	11/30/2020 5:00	57.85	71.684
645	11/30/2020 6:00	57.979	65.363
646	11/30/2020 7:00	57.807	64.64
647	11/30/2020 8:00	62.362	72.247
648	11/30/2020 9:00	76.899	71.425
649	11/30/2020 10:00	84.857	62.336
650	11/30/2020 11:00	89.546	63.148
651	11/30/2020 12:00	92.386	59.551
652	11/30/2020 13:00	92.809	58.009
653	11/30/2020 14:00	97.111	55.368
654	11/30/2020 15:00	90.194	61.977

655	11/30/2020 16:00	83.377	64.078
656	11/30/2020 17:00	73.645	77.954
657	11/30/2020 18:00	71.447	80.486
658	11/30/2020 19:00	69.427	80.993
659	11/30/2020 20:00	67.671	81.319
660	11/30/2020 21:00	66.173	81.493
661	11/30/2020 22:00	65.017	80.895
662	11/30/2020 23:00	63.946	80.791
663	12/1/2020 0:00	63.048	80.302
664	12/1/2020 1:00	62.49	80.362
665	12/1/2020 2:00	61.848	80.208
666	12/1/2020 3:00	61.032	79.831
667	12/1/2020 4:00	61.934	66.339
668	12/1/2020 5:00	62.875	60.102
669	12/1/2020 6:00	62.704	59.021
670	12/1/2020 7:00	61.376	61.669
671	12/1/2020 8:00	65.701	72.058
672	12/1/2020 9:00	81.819	70.39
673	12/1/2020 10:00	85.939	63.101
674	12/1/2020 11:00	90.379	60.102
675	12/1/2020 12:00	93.234	57.757
676	12/1/2020 13:00	92.856	58.614
677	12/1/2020 14:00	97.599	56.085
678	12/1/2020 15:00	91.123	61.16
679	12/1/2020 16:00	82.976	62.837
680	12/1/2020 17:00	73.386	78.297
681	12/1/2020 18:00	71.231	80.226
682	12/1/2020 19:00	69.213	81.044
683	12/1/2020 20:00	67.586	81.104
684	12/1/2020 21:00	66.13	81.335
685	12/1/2020 22:00	64.931	81.518
686	12/1/2020 23:00	63.819	81.685
687	12/2/2020 0:00	62.533	82.053
688	12/2/2020 1:00	61.633	82.091
689	12/2/2020 2:00	60.647	82.167
690	12/2/2020 3:00	59.873	81.898
691	12/2/2020 4:00	59.185	81.688
692	12/2/2020 5:00	58.626	81.57
693	12/2/2020 6:00	58.325	80.761
694	12/2/2020 7:00	58.066	78.359
695	12/2/2020 8:00	61.848	79.675
696	12/2/2020 9:00	77.378	74.185
697	12/2/2020 10:00	85.127	64.928
698	12/2/2020 11:00	91.029	62.05
699	12/2/2020 12:00	93.943	56.763
700	12/2/2020 13:00	94.23	57.679
701	12/2/2020 14:00	98.528	51.972

702	12/2/2020 15:00	90.891	60.426
703	12/2/2020 16:00	79.304	68.091
704	12/2/2020 17:00	73.558	78.926
705	12/2/2020 18:00	71.704	81.962
706	12/2/2020 19:00	69.557	82.363
707	12/2/2020 20:00	68.013	81.742
708	12/2/2020 21:00	66.515	82.595
709	12/2/2020 22:00	65.23	83.46
710	12/2/2020 23:00	64.674	83.614
711	12/3/2020 0:00	64.418	82.386
712	12/3/2020 1:00	63.304	82.697
713	12/3/2020 2:00	62.447	82.888
714	12/3/2020 3:00	61.376	83.174
715	12/3/2020 4:00	60.39	83.809
716	12/3/2020 5:00	60.174	81.885
717	12/3/2020 6:00	60.132	78.808
718	12/3/2020 7:00	59.099	81.479
719	12/3/2020 8:00	61.761	82.926
720	12/3/2020 9:00	75.16	77.806
721	12/3/2020 10:00	84.317	66.105
722	12/3/2020 11:00	83.779	63.482
723	12/3/2020 12:00	84.945	59.52
724	12/3/2020 13:00	87.028	59.322
725	12/3/2020 14:00	94.323	53.305
726	12/3/2020 15:00	86.211	61.569
727	12/3/2020 16:00	77.553	68.642
728	12/3/2020 17:00	73.515	76.923
729	12/3/2020 18:00	71.231	80.382
730	12/3/2020 19:00	69.256	81.229
731	12/3/2020 20:00	67.885	80.705
732	12/3/2020 21:00	67.158	82.196
733	12/3/2020 22:00	65.788	83.605
734	12/3/2020 23:00	64.717	83.768
735	12/4/2020 0:00	63.262	83.954
736	12/4/2020 1:00	62.406	84.408
737	12/4/2020 2:00	61.333	83.488
738	12/4/2020 3:00	60.818	84.132
739	12/4/2020 4:00	60.089	81.302
740	12/4/2020 5:00	60.003	79.91
741	12/4/2020 6:00	59.83	78.107
742	12/4/2020 7:00	59.616	77.18
743	12/4/2020 8:00	63.09	77.816
744	12/4/2020 9:00	80.008	73.687
745	12/4/2020 10:00	83.779	59.823
746	12/4/2020 11:00	85.127	44.164
747	12/4/2020 12:00	85.442	39.763
748	12/4/2020 13:00	92.104	43.855

749	12/4/2020 14:00	98.283	31.697
750	12/4/2020 15:00	92.714	31.187
751	12/4/2020 16:00	84.137	36.995
752	12/4/2020 17:00	72.997	50.798
753	12/4/2020 18:00	70.93	51.344
754	12/4/2020 19:00	68.913	51.76
755	12/4/2020 20:00	67.5	52.186
756	12/4/2020 21:00	65.916	51.973
757	12/4/2020 22:00	64.546	52.336
758	12/4/2020 23:00	63.133	52.723
759	12/5/2020 0:00	62.362	52.911
760	12/5/2020 1:00	61.462	52.41
761	12/5/2020 2:00	60.775	53.034
762	12/5/2020 3:00	59.873	53.79
763	12/5/2020 4:00	59.572	52.818
764	12/5/2020 5:00	58.455	53.708
765	12/5/2020 6:00	57.204	54.156
766	12/5/2020 7:00	57.376	52.342
767	12/5/2020 8:00	61.205	53.16
768	12/5/2020 9:00	78.602	49.921
769	12/5/2020 10:00	85.894	41.228
770	12/5/2020 11:00	90.424	38.66
771	12/5/2020 12:00	92.057	39.447
772	12/5/2020 13:00	91.495	36.759
773	12/5/2020 14:00	79.392	48.192
774	12/5/2020 15:00	77.727	53.972
775	12/5/2020 16:00	75.985	52.638
776	12/5/2020 17:00	72.61	54.108
777	12/5/2020 18:00	69.557	55.109
778	12/5/2020 19:00	67.971	55.72
779	12/5/2020 20:00	67.543	57.542
780	12/5/2020 21:00	66.472	57.936
781	12/5/2020 22:00	64.803	58.396
782	12/5/2020 23:00	63.732	58.931
783	12/6/2020 0:00	62.704	60.058
784	12/6/2020 1:00	62.276	60.109
785	12/6/2020 2:00	61.761	60.769
786	12/6/2020 3:00	61.333	60.672
787	12/6/2020 4:00	60.26	60.869
788	12/6/2020 5:00	60.132	56.984
789	12/6/2020 6:00	59.702	57.008
790	12/6/2020 7:00	59.572	56.878
791	12/6/2020 8:00	62.791	55.241
792	12/6/2020 9:00	78.91	54.787
793	12/6/2020 10:00	84.767	44.879
794	12/6/2020 11:00	92.104	39.693
795	12/6/2020 12:00	87.163	43.007

796	12/6/2020 13:00	89.269	41.634
797	12/6/2020 14:00	94.991	37.931
798	12/6/2020 15:00	91.17	35.684
799	12/6/2020 16:00	82.396	42.31
800	12/6/2020 17:00	72.696	56.286
801	12/6/2020 18:00	70.201	55.93
802	12/6/2020 19:00	68.099	55.27
803	12/6/2020 20:00	68.27	54.637
804	12/6/2020 21:00	68.356	48.84
805	12/6/2020 22:00	68.484	47.086
806	12/6/2020 23:00	67.757	46.23
807	12/7/2020 0:00	67.158	46.158
808	12/7/2020 1:00	66.985	45.402
809	12/7/2020 2:00	66.686	45.835
810	12/7/2020 3:00	65.53	47.493
811	12/7/2020 4:00	64.974	47.805
812	12/7/2020 5:00	64.589	47.714
813	12/7/2020 6:00	64.288	47.63
814	12/7/2020 7:00	64.418	46.488
815	12/7/2020 8:00	67.671	46.386
816	12/7/2020 9:00	83.824	46.517
817	12/7/2020 10:00	88.763	42.594
818	12/7/2020 11:00	94.563	36.426
819	12/7/2020 12:00	92.338	34.609
820	12/7/2020 13:00	97.111	30.151
821	12/7/2020 14:00	100.857	30.171
822	12/7/2020 15:00	94.753	32.832
823	12/7/2020 16:00	86.437	37.815
824	12/7/2020 17:00	74.424	50.52
825	12/7/2020 18:00	74.511	49.629
826	12/7/2020 19:00	73.818	47.743
827	12/7/2020 20:00	73.515	45.212
828	12/7/2020 21:00	72.394	44.746
829	12/7/2020 22:00	71.274	44.378
830	12/7/2020 23:00	70.716	41.134
831	12/8/2020 0:00	70.201	40.502
832	12/8/2020 1:00	69.858	39.443
833	12/8/2020 2:00	69.814	38.768
834	12/8/2020 3:00	69.427	38.477
835	12/8/2020 4:00	67.158	41.979
836	12/8/2020 5:00	65.273	46.289
837	12/8/2020 6:00	64.332	47.25
838	12/8/2020 7:00	63.133	48.565
839	12/8/2020 8:00	65.444	52.156
840	12/8/2020 9:00	83.377	49.088
841	12/8/2020 10:00	87.847	43.524
842	12/8/2020 11:00	93.612	37.047

843	12/8/2020 12:00	90.982	36.485
844	12/8/2020 13:00	92.763	35.801
845	12/8/2020 14:00	98.971	33.864
846	12/8/2020 15:00	92.527	33.978
847	12/8/2020 16:00	83.779	40.045
848	12/8/2020 17:00	72.869	51.772
849	12/8/2020 18:00	70.587	53.203
850	12/8/2020 19:00	68.356	53.591
851	12/8/2020 20:00	66.772	54.333
852	12/8/2020 21:00	65.23	53.904
853	12/8/2020 22:00	64.161	54.404
854	12/8/2020 23:00	62.962	54.889
855	12/9/2020 0:00	62.49	55.308
856	12/9/2020 1:00	62.191	55.466
857	12/9/2020 2:00	61.761	54.61
858	12/9/2020 3:00	61.333	52.739
859	12/9/2020 4:00	60.174	55.242
860	12/9/2020 5:00	59.358	55.236
861	12/9/2020 6:00	58.928	53.654
862	12/9/2020 7:00	58.626	52.867
863	12/9/2020 8:00	63.518	51.823
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866	12/9/2020 11:00	93.092	38.738
867	12/9/2020 12:00	84.9	29.429
868	12/9/2020 13:00	92.574	27.248
869	12/9/2020 14:00	95.04	26.39
870	12/9/2020 15:00	81.288	32.648
871	12/9/2020 16:00	75.81	36.96
872	12/9/2020 17:00	74.943	33.319
873	12/9/2020 18:00	73.947	33.13
874	12/9/2020 19:00	71.661	33.987
875	12/9/2020 20:00	69.643	35.533
876	12/9/2020 21:00	70.716	36.308
877	12/9/2020 22:00	70.329	37.207
878	12/9/2020 23:00	69.643	37.169
879	12/10/2020 0:00	69.3	36.675
880	12/10/2020 1:00	68.828	35.968
881	12/10/2020 2:00	68.443	35.025
882	12/10/2020 3:00	68.356	34.095
883	12/10/2020 4:00	68.614	32.173
884	12/10/2020 5:00	68.356	31.535
885	12/10/2020 6:00	67.114	32.585
886	12/10/2020 7:00	65.059	35.325
887	12/10/2020 8:00	67.242	36.088
888	12/10/2020 9:00	81.909	29.87
889	12/10/2020 10:00	90.194	21.971

890	12/10/2020 11:00	95.855	19.748
891	12/10/2020 12:00	98.087	19.132
892	12/10/2020 13:00	98.724	19.229
893	12/10/2020 14:00	100.756	17.679
894	12/10/2020 15:00	90.424	30.866
895	12/10/2020 16:00	82.931	42.882
896	12/10/2020 17:00	72.394	53.467
897	12/10/2020 18:00	70.63	54.607
898	12/10/2020 19:00	68.956	56.381
899	12/10/2020 20:00	67.5	56.262
900	12/10/2020 21:00	66.087	55.323
901	12/10/2020 22:00	64.632	55.084
902	12/10/2020 23:00	63.219	56.609
903	12/11/2020 0:00	62.019	57.741
904	12/11/2020 1:00	60.991	58.25
905	12/11/2020 2:00	60.174	58.151
906	12/11/2020 3:00	59.572	57.921
907	12/11/2020 4:00	60.775	52.326
908	12/11/2020 5:00	60.003	52.943
909	12/11/2020 6:00	60.26	51.546
910	12/11/2020 7:00	60.39	49.814
911	12/11/2020 8:00	62.447	48.8
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914	12/11/2020 11:00	75.29	51.476
915	12/11/2020 12:00	89.132	41.762
916	12/11/2020 13:00	77.902	43.108
917	12/11/2020 14:00	75.204	54.216
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919	12/11/2020 16:00	69.557	65.618
920	12/11/2020 17:00	66.857	65.159
921	12/11/2020 18:00	65.059	66.075
922	12/11/2020 19:00	64.332	66.09
923	12/11/2020 20:00	62.533	68.558
924	12/11/2020 21:00	62.834	70.524
925	12/11/2020 22:00	62.791	71.532
926	12/11/2020 23:00	62.962	70.125
927	12/12/2020 0:00	62.962	69.766
928	12/12/2020 1:00	62.105	72.192
929	12/12/2020 2:00	63.133	69.008
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931	12/12/2020 4:00	64.589	64.685
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934	12/12/2020 7:00	64.161	64.271
935	12/12/2020 8:00	64.888	64.137
936	12/12/2020 9:00	67.285	63.898

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938	12/12/2020 11:00	73.99	65.136
939	12/12/2020 12:00	80.139	56.108
940	12/12/2020 13:00	85.757	47.044
941	12/12/2020 14:00	79.435	50.819
942	12/12/2020 15:00	82.218	54.064
943	12/12/2020 16:00	73.947	59.688
944	12/12/2020 17:00	70.63	60.962
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946	12/12/2020 19:00	68.099	62.805
947	12/12/2020 20:00	66.558	62.723
948	12/12/2020 21:00	65.017	63.368
949	12/12/2020 22:00	65.23	64.458
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962	12/13/2020 11:00	64.247	71.193
963	12/13/2020 12:00	64.931	72.522
964	12/13/2020 13:00	65.316	74.105
965	12/13/2020 14:00	67.714	72.983
966	12/13/2020 15:00	66.258	72.8
967	12/13/2020 16:00	66.985	75.12
968	12/13/2020 17:00	66.344	71.303
969	12/13/2020 18:00	66.772	68.565
970	12/13/2020 19:00	65.658	67.637
971	12/13/2020 20:00	64.888	67.052
972	12/13/2020 21:00	63.903	67.548
973	12/13/2020 22:00	63.048	66.589
974	12/13/2020 23:00	62.62	66.632
975	12/14/2020 0:00	61.633	67.994
976	12/14/2020 1:00	60.733	67.848
977	12/14/2020 2:00	59.916	67.822
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979	12/14/2020 4:00	59.572	62.519
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981	12/14/2020 6:00	59.445	62.363
982	12/14/2020 7:00	58.411	62.037
983	12/14/2020 8:00	60.991	59.966

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986	12/14/2020 11:00	90.518	39.395
987	12/14/2020 12:00	90.844	39.17
988	12/14/2020 13:00	90.286	38.165
989	12/14/2020 14:00	92.95	37.399
990	12/14/2020 15:00	86.074	42.872
991	12/14/2020 16:00	78.339	47.368
992	12/14/2020 17:00	70.716	60.462
993	12/14/2020 18:00	67.413	61.33
994	12/14/2020 19:00	65.788	60.298
995	12/14/2020 20:00	65.059	59.701
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997	12/14/2020 22:00	64.288	56.304
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1008	12/15/2020 9:00	78.822	50.13
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1011	12/15/2020 12:00	77.509	44.548
1012	12/15/2020 13:00	81.066	42.902
1013	12/15/2020 14:00	80.58	39.588
1014	12/15/2020 15:00	78.076	43.453
1015	12/15/2020 16:00	73.256	50.944
1016	12/15/2020 17:00	69.213	48.933
1017	12/15/2020 18:00	66.857	50.002
1018	12/15/2020 19:00	64.674	51.879
1019	12/15/2020 20:00	63.475	52.285
1020	12/15/2020 21:00	62.49	52.705
1021	12/15/2020 22:00	61.547	52.509
1022	12/15/2020 23:00	60.818	52.453
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1025	12/16/2020 2:00	59.959	51.152
1026	12/16/2020 3:00	59.185	51.588
1027	12/16/2020 4:00	59.486	51.611
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1030	12/16/2020 7:00	58.798	52.85

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1040	12/16/2020 17:00	70.115	52.478
1041	12/16/2020 18:00	70.243	49.994
1042	12/16/2020 19:00	69.728	49.256
1043	12/16/2020 20:00	69.3	49.226
1044	12/16/2020 21:00	65.872	63.505
1045	12/16/2020 22:00	65.916	57.376
1046	12/16/2020 23:00	66.301	56.772
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1055	12/17/2020 8:00	65.487	62.625
1056	12/17/2020 9:00	71.404	62.811
1057	12/17/2020 10:00	77.509	59.841
1058	12/17/2020 11:00	86.572	47.497
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1060	12/17/2020 13:00	91.917	40.134
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1068	12/17/2020 21:00	64.803	60.774
1069	12/17/2020 22:00	63.862	58.644
1070	12/17/2020 23:00	63.133	57.355
1071	12/18/2020 0:00	62.704	56.717
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1081	12/18/2020 10:00	87.483	32.163
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1083	12/18/2020 12:00	93.992	29.138
1084	12/18/2020 13:00	93.706	29.126
1085	12/18/2020 14:00	96.917	27.796
1086	12/18/2020 15:00	88.306	32.167
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1088	12/18/2020 17:00	71.447	51.192
1089	12/18/2020 18:00	68.27	52.213
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1091	12/18/2020 20:00	64.974	55.752
1092	12/18/2020 21:00	63.819	56.356
1093	12/18/2020 22:00	62.319	56.716
1094	12/18/2020 23:00	61.848	58.144
1095	12/19/2020 0:00	61.333	59.051
1096	12/19/2020 1:00	60.26	58.988
1097	12/19/2020 2:00	59.659	59.172
1098	12/19/2020 3:00	59.142	58.862
1099	12/19/2020 4:00	58.626	57.96
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1103	12/19/2020 8:00	60.046	53.069
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1105	12/19/2020 10:00	74.077	52.999
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1107	12/19/2020 12:00	91.917	33.198
1108	12/19/2020 13:00	90.147	32.433
1109	12/19/2020 14:00	92.104	32.956
1110	12/19/2020 15:00	86.664	35.662
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1113	12/19/2020 18:00	67.329	55.576
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1115	12/19/2020 20:00	64.033	58.091
1116	12/19/2020 21:00	62.834	59.211
1117	12/19/2020 22:00	61.547	59.218
1118	12/19/2020 23:00	60.733	59.443
1119	12/20/2020 0:00	59.83	59.453
1120	12/20/2020 1:00	59.272	59.521
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1122	12/20/2020 3:00	58.325	59.204
1123	12/20/2020 4:00	57.722	57.853
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1125	12/20/2020 6:00	56.944	55.312
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1131	12/20/2020 12:00	90.75	30.881
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1134	12/20/2020 15:00	90.982	32.544
1135	12/20/2020 16:00	74.899	45.598
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1138	12/20/2020 19:00	66.814	59.793
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1141	12/20/2020 22:00	63.819	60.657
1142	12/20/2020 23:00	63.048	61
1143	12/21/2020 0:00	62.105	61.238
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1145	12/21/2020 2:00	60.561	60.75
1146	12/21/2020 3:00	60.991	56.816
1147	12/21/2020 4:00	59.529	59.779
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1158	12/21/2020 15:00	72.955	53.635
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1160	12/21/2020 17:00	64.074	62.234
1161	12/21/2020 18:00	62.062	63.873
1162	12/21/2020 19:00	61.506	63.821
1163	12/21/2020 20:00	60.39	63.113
1164	12/21/2020 21:00	59.745	62.909
1165	12/21/2020 22:00	58.842	62.998
1166	12/21/2020 23:00	58.755	61.055
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1169	12/22/2020 2:00	58.842	57.651
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1174	12/22/2020 7:00	61.162	52.972
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1177	12/22/2020 10:00	67.757	50.888
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1186	12/22/2020 19:00	65.145	50.538
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1189	12/22/2020 22:00	63.775	48.484
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1193	12/23/2020 2:00	61.59	40.222
1194	12/23/2020 3:00	60.733	41.354
1195	12/23/2020 4:00	59.486	45.418
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1197	12/23/2020 6:00	57.29	49.836
1198	12/23/2020 7:00	55.733	53.585
1199	12/23/2020 8:00	56.165	56.445
1200	12/23/2020 9:00	74.511	42.131
1201	12/23/2020 10:00	87.3	31.833
1202	12/23/2020 11:00	91.87	25.969
1203	12/23/2020 12:00	90.797	26.735
1204	12/23/2020 13:00	86.799	29.837
1205	12/23/2020 14:00	90.333	29.56
1206	12/23/2020 15:00	81.466	34.589
1207	12/23/2020 16:00	77.639	42.088
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1209	12/23/2020 18:00	63.903	56.847
1210	12/23/2020 19:00	62.49	58.199
1211	12/23/2020 20:00	61.075	58.792
1212	12/23/2020 21:00	60.303	59.317
1213	12/23/2020 22:00	60.003	60.232
1214	12/23/2020 23:00	59.873	60.63
1215	12/24/2020 0:00	59.358	60.087
1216	12/24/2020 1:00	58.842	59.013
1217	12/24/2020 2:00	59.616	55.62
1218	12/24/2020 3:00	59.616	54.47

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1224	12/24/2020 9:00	62.791	55.545
1225	12/24/2020 10:00	69.129	52.779
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1227	12/24/2020 12:00	82.575	36.147
1228	12/24/2020 13:00	89.04	31.521
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1250	12/25/2020 11:00	71.231	52.406
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1253	12/25/2020 14:00	68.785	56.581
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1260	12/25/2020 21:00	63.219	66.606
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1276	12/26/2020 13:00	85.035	39.362
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1302	12/27/2020 15:00	86.572	33.967
1303	12/27/2020 16:00	78.69	40.023
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1305	12/27/2020 18:00	66.686	56.561
1306	12/27/2020 19:00	64.931	57.806
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1308	12/27/2020 21:00	64.161	59.563
1309	12/27/2020 22:00	63.946	59.634
1310	12/27/2020 23:00	63.862	57.356
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1323	12/28/2020 12:00	76.768	52.729
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1325	12/28/2020 14:00	78.208	47.065
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1329	12/28/2020 18:00	71.317	56.42
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1334	12/28/2020 23:00	61.977	62.131
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1406	12/31/2020 23:00	64.717	53

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1532	1/6/2021 5:00	57.979	62.66
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1552	1/7/2021 1:00	63.304	58.984
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1554	1/7/2021 3:00	61.977	60.053
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1572	1/7/2021 21:00	62.533	65.945
1573	1/7/2021 22:00	62.019	65.412
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1576	1/8/2021 1:00	63.39	54.526
1577	1/8/2021 2:00	63.39	53.483
1578	1/8/2021 3:00	63.09	54.166
1579	1/8/2021 4:00	60.861	59.984
1580	1/8/2021 5:00	62.791	54.936
1581	1/8/2021 6:00	62.791	54.356
1582	1/8/2021 7:00	62.105	55.155
1583	1/8/2021 8:00	62.834	55.305
1584	1/8/2021 9:00	66.643	58.041
1585	1/8/2021 10:00	74.034	53.875
1586	1/8/2021 11:00	76.289	52.851
1587	1/8/2021 12:00	88.488	38.205
1588	1/8/2021 13:00	88.671	39.153
1589	1/8/2021 14:00	84.452	44.054
1590	1/8/2021 15:00	74.683	63.079
1591	1/8/2021 16:00	72.739	66.442
1592	1/8/2021 17:00	69.471	65.552
1593	1/8/2021 18:00	65.615	67.548
1594	1/8/2021 19:00	64.074	67.311

1595	1/8/2021 20:00	63.262	66.072
1596	1/8/2021 21:00	62.319	65.952
1597	1/8/2021 22:00	61.162	65.273
1598	1/8/2021 23:00	60.818	64.785
1599	1/9/2021 0:00	60.818	61.123
1600	1/9/2021 1:00	60.647	57.953
1601	1/9/2021 2:00	60.39	54.956
1602	1/9/2021 3:00	59.572	57.147
1603	1/9/2021 4:00	59.099	55.547
1604	1/9/2021 5:00	58.411	56.302
1605	1/9/2021 6:00	58.755	51.587
1606	1/9/2021 7:00	58.541	50.55
1607	1/9/2021 8:00	59.959	49.157
1608	1/9/2021 9:00	77.072	48.194
1609	1/9/2021 10:00	85.849	34.988
1610	1/9/2021 11:00	89.87	30.119
1611	1/9/2021 12:00	93.517	28.753
1612	1/9/2021 13:00	93.47	28.239
1613	1/9/2021 14:00	96.435	27.222
1614	1/9/2021 15:00	89.87	30.408
1615	1/9/2021 16:00	80.845	37.854
1616	1/9/2021 17:00	70.673	57.163
1617	1/9/2021 18:00	67.242	61.404
1618	1/9/2021 19:00	66.087	62.68
1619	1/9/2021 20:00	65.23	61.43
1620	1/9/2021 21:00	64.033	61.117
1621	1/9/2021 22:00	62.875	60.809
1622	1/9/2021 23:00	62.105	61.56
1623	1/10/2021 0:00	61.547	62.701
1624	1/10/2021 1:00	61.075	62.513
1625	1/10/2021 2:00	60.647	61.399
1626	1/10/2021 3:00	59.83	62.514
1627	1/10/2021 4:00	59.315	61.134
1628	1/10/2021 5:00	58.669	61.743
1629	1/10/2021 6:00	58.582	58.991
1630	1/10/2021 7:00	60.733	53.552
1631	1/10/2021 8:00	61.205	53.497
1632	1/10/2021 9:00	64.76	58.122
1633	1/10/2021 10:00	70.803	56.071
1634	1/10/2021 11:00	82.13	46.405
1635	1/10/2021 12:00	85.532	38.147
1636	1/10/2021 13:00	78.822	44.964
1637	1/10/2021 14:00	85.262	38.858
1638	1/10/2021 15:00	76.246	57.129
1639	1/10/2021 16:00	74.597	57.947
1640	1/10/2021 17:00	72.136	57.712
1641	1/10/2021 18:00	68.527	61.252

1642	1/10/2021 19:00	66.943	61.17
1643	1/10/2021 20:00	65.916	61.932
1644	1/10/2021 21:00	65.23	63.155
1645	1/10/2021 22:00	64.503	63.117
1646	1/10/2021 23:00	64.247	58.348
1647	1/11/2021 0:00	63.819	57.412
1648	1/11/2021 1:00	62.791	58.075
1649	1/11/2021 2:00	61.72	60.413
1650	1/11/2021 3:00	60.904	60.517
1651	1/11/2021 4:00	60.346	58.344
1652	1/11/2021 5:00	59.272	60.839
1653	1/11/2021 6:00	58.541	60.54
1654	1/11/2021 7:00	58.239	58.252
1655	1/11/2021 8:00	58.755	61.432
1656	1/11/2021 9:00	70.502	56.262
1657	1/11/2021 10:00	83.287	40.358
1658	1/11/2021 11:00	85.397	39.279
1659	1/11/2021 12:00	88.306	36.59
1660	1/11/2021 13:00	90.147	34.286
1661	1/11/2021 14:00	93.659	32.959
1662	1/11/2021 15:00	88.718	35.275
1663	1/11/2021 16:00	80.58	40.813
1664	1/11/2021 17:00	72.955	57.229
1665	1/11/2021 18:00	70.029	62.333
1666	1/11/2021 19:00	69.042	60.614
1667	1/11/2021 20:00	67.586	61.552
1668	1/11/2021 21:00	66.214	62.253
1669	1/11/2021 22:00	65.53	62.571
1670	1/11/2021 23:00	66.173	57.065
1671	1/12/2021 0:00	65.701	54.741
1672	1/12/2021 1:00	64.418	57.643
1673	1/12/2021 2:00	64.033	55.402
1674	1/12/2021 3:00	63.133	57.385
1675	1/12/2021 4:00	62.875	54.486
1676	1/12/2021 5:00	62.704	53.184
1677	1/12/2021 6:00	63.048	51.196
1678	1/12/2021 7:00	63.689	51.276
1679	1/12/2021 8:00	65.403	52.183
1680	1/12/2021 9:00	66.814	55.657
1681	1/12/2021 10:00	73.774	56.095
1682	1/12/2021 11:00	74.295	56.538
1683	1/12/2021 12:00	77.639	54.594
1684	1/12/2021 13:00	79.041	48.656
1685	1/12/2021 14:00	77.684	60.069
1686	1/12/2021 15:00	76.246	59.885
1687	1/12/2021 16:00	74.597	62.149
1688	1/12/2021 17:00	72.394	62.249

1689	1/12/2021 18:00	72.136	51.401
1690	1/12/2021 19:00	72.437	48.969
1691	1/12/2021 20:00	70.93	50.012
1692	1/12/2021 21:00	70.372	50.353
1693	1/12/2021 22:00	68.956	51.826
1694	1/12/2021 23:00	67.456	56.381
1695	1/13/2021 0:00	67.028	52.743
1696	1/13/2021 1:00	66.9	53.478
1697	1/13/2021 2:00	67.242	52.261
1698	1/13/2021 3:00	66.13	55.663
1699	1/13/2021 4:00	65.53	53.558
1700	1/13/2021 5:00	66.515	52.797
1701	1/13/2021 6:00	66.344	52.099
1702	1/13/2021 7:00	65.273	54.092
1703	1/13/2021 8:00	67.199	56.177
1704	1/13/2021 9:00	70.759	57.689
1705	1/13/2021 10:00	79.041	54.388
1706	1/13/2021 11:00	81.509	48.37
1707	1/13/2021 12:00	85.172	49.541
1708	1/13/2021 13:00	93.045	40.406
1709	1/13/2021 14:00	97.063	36.982
1710	1/13/2021 15:00	93.092	37.757
1711	1/13/2021 16:00	83.736	46.213
1712	1/13/2021 17:00	74.206	61.756
1713	1/13/2021 18:00	73.083	66.822
1714	1/13/2021 19:00	71.704	67.005
1715	1/13/2021 20:00	70.243	66.949
1716	1/13/2021 21:00	69.514	66.62
1717	1/13/2021 22:00	68.785	65.803
1718	1/13/2021 23:00	68.484	63.484
1719	1/14/2021 0:00	68.356	61.355
1720	1/14/2021 1:00	68.27	58.51
1721	1/14/2021 2:00	67.842	57.96
1722	1/14/2021 3:00	67.798	56.774
1723	1/14/2021 4:00	67.543	56.144
1724	1/14/2021 5:00	67.028	55.153
1725	1/14/2021 6:00	65.829	55.241
1726	1/14/2021 7:00	65.403	55.268
1727	1/14/2021 8:00	66.558	58.184
1728	1/14/2021 9:00	82.53	53.802
1729	1/14/2021 10:00	88.214	42.391
1730	1/14/2021 11:00	93.234	38.466
1731	1/14/2021 12:00	97.111	35.563
1732	1/14/2021 13:00	95.904	34.144
1733	1/14/2021 14:00	100.357	33.498
1734	1/14/2021 15:00	95.423	34.55
1735	1/14/2021 16:00	87.528	40.158

1736	1/14/2021 17:00	74.727	54.804
1737	1/14/2021 18:00	72.653	64.952
1738	1/14/2021 19:00	71.19	65.599
1739	1/14/2021 20:00	69.858	64.603
1740	1/14/2021 21:00	68.614	64.689
1741	1/14/2021 22:00	66.814	63.36
1742	1/14/2021 23:00	65.916	64.551
1743	1/15/2021 0:00	65.316	64.581
1744	1/15/2021 1:00	65.102	64.446
1745	1/15/2021 2:00	66.385	55.102
1746	1/15/2021 3:00	65.829	55.455
1747	1/15/2021 4:00	65.359	54.897
1748	1/15/2021 5:00	64.204	56.751
1749	1/15/2021 6:00	64.589	53.823
1750	1/15/2021 7:00	63.99	54.053
1751	1/15/2021 8:00	65.017	54.226
1752	1/15/2021 9:00	68.999	59.534
1753	1/15/2021 10:00	74.338	56.419
1754	1/15/2021 11:00	80.625	48.799
1755	1/15/2021 12:00	89.685	41.658
1756	1/15/2021 13:00	88.214	42.799
1757	1/15/2021 14:00	96.87	35.551
1758	1/15/2021 15:00	83.691	46.475
1759	1/15/2021 16:00	82.53	45.003
1760	1/15/2021 17:00	73.688	63.019
1761	1/15/2021 18:00	72.912	65.763
1762	1/15/2021 19:00	72.912	63.391
1763	1/15/2021 20:00	72.739	59.645
1764	1/15/2021 21:00	72.739	53.65
1765	1/15/2021 22:00	71.877	53.114
1766	1/15/2021 23:00	70.416	60.106
1767	1/16/2021 0:00	69.685	56.287
1768	1/16/2021 1:00	70.243	50.47
1769	1/16/2021 2:00	69.471	50.73
1770	1/16/2021 3:00	67.671	56.794
1771	1/16/2021 4:00	66.173	58.782
1772	1/16/2021 5:00	65.316	58.679
1773	1/16/2021 6:00	64.632	57.42
1774	1/16/2021 7:00	63.862	57.896
1775	1/16/2021 8:00	65.059	56.306
1776	1/16/2021 9:00	81.952	50.872
1777	1/16/2021 10:00	88.718	39.674
1778	1/16/2021 11:00	93.517	36.795
1779	1/16/2021 12:00	98.92	33.357
1780	1/16/2021 13:00	99.959	31.264
1781	1/16/2021 14:00	104.36	28.439
1782	1/16/2021 15:00	97.939	32.153

1783	1/16/2021 16:00	93.186	35.859
1784	1/16/2021 17:00	80.58	50.58
1785	1/16/2021 18:00	75.247	60.947
1786	1/16/2021 19:00	74.511	59.494
1787	1/16/2021 20:00	73.472	59.223
1788	1/16/2021 21:00	71.877	58.208
1789	1/16/2021 22:00	70.63	58.951
1790	1/16/2021 23:00	69.728	59.146
1791	1/17/2021 0:00	68.571	59.707
1792	1/17/2021 1:00	67.627	60.311
1793	1/17/2021 2:00	66.472	60.566
1794	1/17/2021 3:00	65.53	61.074
1795	1/17/2021 4:00	64.717	61.59
1796	1/17/2021 5:00	63.946	61.814
1797	1/17/2021 6:00	63.304	61.141
1798	1/17/2021 7:00	62.791	60.331
1799	1/17/2021 8:00	63.819	59.889
1800	1/17/2021 9:00	81.509	51.517
1801	1/17/2021 10:00	89.316	40.019
1802	1/17/2021 11:00	96.337	35.523
1803	1/17/2021 12:00	99.712	33.178
1804	1/17/2021 13:00	100.557	31.365
1805	1/17/2021 14:00	105.136	27.018
1806	1/17/2021 15:00	100.108	30.211
1807	1/17/2021 16:00	93.801	33.754
1808	1/17/2021 17:00	80.492	50.379
1809	1/17/2021 18:00	74.597	61.011
1810	1/17/2021 19:00	73.774	60.217
1811	1/17/2021 20:00	72.567	58.479
1812	1/17/2021 21:00	71.62	57.608
1813	1/17/2021 22:00	72.136	50.608
1814	1/17/2021 23:00	72.955	42.103
1815	1/18/2021 0:00	72.955	41.936
1816	1/18/2021 1:00	72.221	44.767
1817	1/18/2021 2:00	72.351	42.032
1818	1/18/2021 3:00	72.523	35.479
1819	1/18/2021 4:00	71.92	32.821
1820	1/18/2021 5:00	71.19	31.321
1821	1/18/2021 6:00	70.803	30.04
1822	1/18/2021 7:00	70.115	29.235
1823	1/18/2021 8:00	70.63	34.073
1824	1/18/2021 9:00	84.452	35.617
1825	1/18/2021 10:00	90.612	29.935
1826	1/18/2021 11:00	96.773	26.978
1827	1/18/2021 12:00	99.959	25.17
1828	1/18/2021 13:00	99.959	23.519
1829	1/18/2021 14:00	104.05	20.853

1830	1/18/2021 15:00	99.266	23.117
1831	1/18/2021 16:00	92.104	25.831
1832	1/18/2021 17:00	78.514	35.448
1833	1/18/2021 18:00	74.597	38.192
1834	1/18/2021 19:00	73.515	36.664
1835	1/18/2021 20:00	72.351	36.636
1836	1/18/2021 21:00	70.846	37.439
1837	1/18/2021 22:00	69.6	38.149
1838	1/18/2021 23:00	68.356	39.122
1839	1/19/2021 0:00	68.4	34.646
1840	1/19/2021 1:00	67.158	35.504
1841	1/19/2021 2:00	66.301	33.784
1842	1/19/2021 3:00	65.574	34.055
1843	1/19/2021 4:00	64.375	35.187
1844	1/19/2021 5:00	63.732	35.221
1845	1/19/2021 6:00	63.133	36.07
1846	1/19/2021 7:00	62.875	35.548
1847	1/19/2021 8:00	64.845	38.384
1848	1/19/2021 9:00	79.347	37.772
1849	1/19/2021 10:00	82.396	28.708
1850	1/19/2021 11:00	87.573	22.214
1851	1/19/2021 12:00	83.646	21.185
1852	1/19/2021 13:00	90.657	18.597
1853	1/19/2021 14:00	90.009	19.862
1854	1/19/2021 15:00	93.943	23.599
1855	1/19/2021 16:00	88.075	25.819
1856	1/19/2021 17:00	75.074	36.92
1857	1/19/2021 18:00	71.964	40.607
1858	1/19/2021 19:00	70.286	39.77
1859	1/19/2021 20:00	69.386	38.979
1860	1/19/2021 21:00	68.013	38.733
1861	1/19/2021 22:00	66.943	39.107
1862	1/19/2021 23:00	66.214	39.099
1863	1/20/2021 0:00	65.916	34.552
1864	1/20/2021 1:00	65.788	32.795
1865	1/20/2021 2:00	65.444	31.604
1866	1/20/2021 3:00	65.188	30.898
1867	1/20/2021 4:00	64.76	31.086
1868	1/20/2021 5:00	64.375	31.137
1869	1/20/2021 6:00	64.332	30.163
1870	1/20/2021 7:00	63.99	30.216
1871	1/20/2021 8:00	66.258	32.301
1872	1/20/2021 9:00	82.353	35.438
1873	1/20/2021 10:00	89.685	28.224
1874	1/20/2021 11:00	95.567	25.596
1875	1/20/2021 12:00	98.233	27.481
1876	1/20/2021 13:00	98.823	23.778

1877	1/20/2021 14:00	102.621	21.72
1878	1/20/2021 15:00	98.823	23.478
1879	1/20/2021 16:00	91.823	27.144
1880	1/20/2021 17:00	78.033	36.943
1881	1/20/2021 18:00	72.394	43.791
1882	1/20/2021 19:00	70.158	42.891
1883	1/20/2021 20:00	68.443	42.454
1884	1/20/2021 21:00	66.558	42.469
1885	1/20/2021 22:00	64.803	42.491
1886	1/20/2021 23:00	63.604	43.167
1887	1/21/2021 0:00	62.577	43.622
1888	1/21/2021 1:00	61.848	44.029
1889	1/21/2021 2:00	60.775	44.573
1890	1/21/2021 3:00	59.83	45.089
1891	1/21/2021 4:00	58.928	46.051
1892	1/21/2021 5:00	58.239	46.512
1893	1/21/2021 6:00	57.549	46.782
1894	1/21/2021 7:00	56.815	47.865
1895	1/21/2021 8:00	58.928	49.27
1896	1/21/2021 9:00	74.163	44.135
1897	1/21/2021 10:00	87.573	32.524
1898	1/21/2021 11:00	91.87	28.244
1899	1/21/2021 12:00	94.372	28.826
1900	1/21/2021 13:00	92.291	28.846
1901	1/21/2021 14:00	93.423	27.283
1902	1/21/2021 15:00	85.442	30.781
1903	1/21/2021 16:00	81.066	35.998
1904	1/21/2021 17:00	75.333	46.74
1905	1/21/2021 18:00	71.361	46.44
1906	1/21/2021 19:00	69.557	45.865
1907	1/21/2021 20:00	67.928	45.465
1908	1/21/2021 21:00	66.558	47.788
1909	1/21/2021 22:00	64.674	52.004
1910	1/21/2021 23:00	64.76	52.941
1911	1/22/2021 0:00	64.117	51.526
1912	1/22/2021 1:00	63.048	55.353
1913	1/22/2021 2:00	63.39	55.441
1914	1/22/2021 3:00	63.518	54.353
1915	1/22/2021 4:00	63.775	52.927
1916	1/22/2021 5:00	65.059	52.375
1917	1/22/2021 6:00	65.444	53.304
1918	1/22/2021 7:00	63.689	58.181
1919	1/22/2021 8:00	65.53	61.163
1920	1/22/2021 9:00	79.347	50.684
1921	1/22/2021 10:00	81.066	42.296
1922	1/22/2021 11:00	76.203	51.543
1923	1/22/2021 12:00	79.743	44.092

1924	1/22/2021 13:00	76.071	55.69
1925	1/22/2021 14:00	89.407	38.082
1926	1/22/2021 15:00	81.775	38.731
1927	1/22/2021 16:00	73.731	57.231
1928	1/22/2021 17:00	69.514	62.227
1929	1/22/2021 18:00	64.247	64.796
1930	1/22/2021 19:00	63.219	64.9
1931	1/22/2021 20:00	64.803	63.261
1932	1/22/2021 21:00	64.375	62.32
1933	1/22/2021 22:00	63.433	62.088
1934	1/22/2021 23:00	63.005	60.202
1935	1/23/2021 0:00	62.919	59.663
1936	1/23/2021 1:00	62.704	58.873
1937	1/23/2021 2:00	62.919	55.403
1938	1/23/2021 3:00	63.133	53.985
1939	1/23/2021 4:00	62.62	55.014
1940	1/23/2021 5:00	62.191	55.739
1941	1/23/2021 6:00	61.29	57.739
1942	1/23/2021 7:00	59.873	59.456
1943	1/23/2021 8:00	60.904	62.236
1944	1/23/2021 9:00	75.42	54.452
1945	1/23/2021 10:00	81.597	43.036
1946	1/23/2021 11:00	88.947	40.446
1947	1/23/2021 12:00	90.612	38.113
1948	1/23/2021 13:00	92.244	33.392
1949	1/23/2021 14:00	95.423	29.93
1950	1/23/2021 15:00	92.763	29.413
1951	1/23/2021 16:00	87.483	33.09
1952	1/23/2021 17:00	74.683	43.771
1953	1/23/2021 18:00	70.502	51.375
1954	1/23/2021 19:00	68.099	50.63
1955	1/23/2021 20:00	66.087	50.167
1956	1/23/2021 21:00	64.375	50.513
1957	1/23/2021 22:00	63.347	50.281
1958	1/23/2021 23:00	62.276	50.171
1959	1/24/2021 0:00	61.547	50.461
1960	1/24/2021 1:00	61.761	48.056
1961	1/24/2021 2:00	61.119	48.643
1962	1/24/2021 3:00	59.788	50.176
1963	1/24/2021 4:00	59.099	51.335
1964	1/24/2021 5:00	57.979	52.174
1965	1/24/2021 6:00	57.074	53.021
1966	1/24/2021 7:00	56.642	54.564
1967	1/24/2021 8:00	58.669	56.952
1968	1/24/2021 9:00	66.643	57.013
1969	1/24/2021 10:00	77.77	45.226
1970	1/24/2021 11:00	71.361	53.387

1971	1/24/2021 12:00	75.942	50.245
1972	1/24/2021 13:00	72.567	53.887
1973	1/24/2021 14:00	72.437	55.276
1974	1/24/2021 15:00	77.421	44.939
1975	1/24/2021 16:00	72.567	57.717
1976	1/24/2021 17:00	65.872	61.752
1977	1/24/2021 18:00	64.204	67.042
1978	1/24/2021 19:00	63.518	67.846
1979	1/24/2021 20:00	62.875	68.146
1980	1/24/2021 21:00	63.39	65.401
1981	1/24/2021 22:00	63.648	59.103
1982	1/24/2021 23:00	62.791	61.388
1983	1/25/2021 0:00	61.419	62.573
1984	1/25/2021 1:00	60.561	58.214
1985	1/25/2021 2:00	61.848	51.231
1986	1/25/2021 3:00	61.032	55.433
1987	1/25/2021 4:00	60.174	51.168
1988	1/25/2021 5:00	60.474	48.534
1989	1/25/2021 6:00	60.948	45.484
1990	1/25/2021 7:00	60.775	44.798
1991	1/25/2021 8:00	61.462	46.095
1992	1/25/2021 9:00	67.071	52.029
1993	1/25/2021 10:00	82.708	39.881
1994	1/25/2021 11:00	78.296	42.865
1995	1/25/2021 12:00	88.671	31.862
1996	1/25/2021 13:00	90.518	28.77
1997	1/25/2021 14:00	93.234	25.505
1998	1/25/2021 15:00	90.055	25.086
1999	1/25/2021 16:00	84.945	28.023
2000	1/25/2021 17:00	70.286	48.304
2001	1/25/2021 18:00	66.301	49.297
2002	1/25/2021 19:00	63.39	49.436
2003	1/25/2021 20:00	61.761	49.035
2004	1/25/2021 21:00	60.474	49.194
2005	1/25/2021 22:00	59.272	50.262
2006	1/25/2021 23:00	58.582	50.584
2007	1/26/2021 0:00	58.023	50.635
2008	1/26/2021 1:00	56.815	50.422
2009	1/26/2021 2:00	55.647	50.952
2010	1/26/2021 3:00	54.777	51.163
2011	1/26/2021 4:00	54.169	51.607
2012	1/26/2021 5:00	54.473	48.916
2013	1/26/2021 6:00	53.559	50.487
2014	1/26/2021 7:00	53.166	50.181
2015	1/26/2021 8:00	56.556	52.187
2016	1/26/2021 9:00	73.947	46.777
2017	1/26/2021 10:00	86.527	35.515

2018	1/26/2021 11:00	81.597	34.771
2019	1/26/2021 12:00	76.289	43.807
2020	1/26/2021 13:00	72.221	45.553
2021	1/26/2021 14:00	60.647	40.034
2022	1/26/2021 15:00	59.185	40.112
2023	1/26/2021 16:00	56.901	42.483
2024	1/26/2021 17:00	54.126	47.268
2025	1/26/2021 18:00	49.959	58.476
2026	1/26/2021 19:00	48.182	67.191
2027	1/26/2021 20:00	46.166	71.251
2028	1/26/2021 21:00	45.082	74.384
2029	1/26/2021 22:00	44.582	76.018
2030	1/26/2021 23:00	44.492	77.993
2031	1/27/2021 0:00	44.218	79.158
2032	1/27/2021 1:00	43.259	80.295
2033	1/27/2021 2:00	42.663	81.221
2034	1/27/2021 3:00	42.755	81.871
2035	1/27/2021 4:00	43.259	82.03
2036	1/27/2021 5:00	43.306	82.389
2037	1/27/2021 6:00	44.082	83.052
2038	1/27/2021 7:00	45.217	83.48
2039	1/27/2021 8:00	46.571	83.163
2040	1/27/2021 9:00	48.137	81.507
2041	1/27/2021 10:00	53.82	76.689
2042	1/27/2021 11:00	73.947	53.774
2043	1/27/2021 12:00	71.704	46.334
2044	1/27/2021 13:00	67.671	48.568
2045	1/27/2021 14:00	69.814	46.401
2046	1/27/2021 15:00	66.814	47.004
2047	1/27/2021 16:00	63.133	49.889
2048	1/27/2021 17:00	62.019	54.204
2049	1/27/2021 18:00	63.518	53.893
2050	1/27/2021 19:00	64.974	56.451
2051	1/27/2021 20:00	66.214	53.765
2052	1/27/2021 21:00	64.845	55.467
2053	1/27/2021 22:00	65.444	56.307
2054	1/27/2021 23:00	65.017	57.09
2055	1/28/2021 0:00	65.188	58.728
2056	1/28/2021 1:00	67.158	58.475
2057	1/28/2021 2:00	66.772	58.803
2058	1/28/2021 3:00	65.017	59.131
2059	1/28/2021 4:00	64.674	60.615
2060	1/28/2021 5:00	65.487	59.202
2061	1/28/2021 6:00	65.615	58.134
2062	1/28/2021 7:00	64.632	58.231
2063	1/28/2021 8:00	65.615	58.435
2064	1/28/2021 9:00	68.571	54.63

2065	1/28/2021 10:00	71.92	50.179
2066	1/28/2021 11:00	70.974	49.569
2067	1/28/2021 12:00	69.471	54.639
2068	1/28/2021 13:00	67.456	48.362

	A	B	C	D	E	F	G	H
1	TAB NAME: EvaluationData							
2	DAT	Date	Plant #	Treatment #	Immature	Adult	Phytotoxicity (Foliar)	Phytotoxicity (flower)
3	0	12/9/2020	12	1	18	14		
4	0	12/9/2020	13	1	15	4		
5	0	12/9/2020	16	1	17	6		
6	0	12/9/2020	33	1	24	6		
7	0	12/9/2020	50	1	12	6		
8	0	12/9/2020	59	1	12	14		
9	0	12/9/2020	61	1	16	5		
10	0	12/9/2020	2	2	13	9		
11	0	12/9/2020	11	2	16	11		
12	0	12/9/2020	22	2	15	14		
13	0	12/9/2020	29	2	13	8		
14	0	12/9/2020	42	2	11	4		
15	0	12/9/2020	58	2	14	15		
16	0	12/9/2020	66	2	11	4		
17	0	12/9/2020	7	3	19	4		
18	0	12/9/2020	19	3	16	3		
19	0	12/9/2020	40	3	15	12		
20	0	12/9/2020	51	3	8	3		
21	0	12/9/2020	55	3	20	3		
22	0	12/9/2020	57	3	10	3		
23	0	12/9/2020	63	3	6	12		
24	0	12/9/2020	9	4	16	12		
25	0	12/9/2020	26	4	11	3		
26	0	12/9/2020	45	4	16	4		
27	0	12/9/2020	46	4	20	7		
28	0	12/9/2020	53	4	18	6		
29	0	12/9/2020	62	4	7	12		
30	0	12/9/2020	68	4	10	14		
31	0	12/9/2020	3	5	14	11		
32	0	12/9/2020	14	5	11	8		
33	0	12/9/2020	15	5	12	15		
34	0	12/9/2020	17	5	11	4		
35	0	12/9/2020	18	5	20	3		
36	0	12/9/2020	24	5	19	14		
37	0	12/9/2020	54	5	8	12		
38	0	12/9/2020	6	6	11	13		
39	0	12/9/2020	27	6	11	4		
40	0	12/9/2020	31	6	16	2		
41	0	12/9/2020	34	6	18	3		
42	0	12/9/2020	56	6	8	4		

	A	B	C	D	E	F	G	H
43	0	12/9/2020	65	6	12	3		
44	0	12/9/2020	70	6	19	3		
45	0	12/9/2020	10	7	14	6		
46	0	12/9/2020	30	7	13	9		
47	0	12/9/2020	43	7	11	3		
48	0	12/9/2020	47	7	18	14		
49	0	12/9/2020	48	7	19	6		
50	0	12/9/2020	49	7	10	4		
51	0	12/9/2020	52	7	17	3		
52	0	12/9/2020	4	8	14	15		
53	0	12/9/2020	5	8	19	3		
54	0	12/9/2020	32	8	18	5		
55	0	12/9/2020	36	8	8	4		
56	0	12/9/2020	37	8	16	3		
57	0	12/9/2020	44	8	3	5		
58	0	12/9/2020	60	8	18	3		
59	0	12/9/2020	1	9	13	9		
60	0	12/9/2020	23	9	15	4		
61	0	12/9/2020	25	9	14	9		
62	0	12/9/2020	28	9	18	15		
63	0	12/9/2020	35	9	13	2		
64	0	12/9/2020	38	9	10	5		
65	0	12/9/2020	39	9	12	6		
66	0	12/9/2020	8	10	11	6		
67	0	12/9/2020	20	10	18	14		
68	0	12/9/2020	21	10	19	8		
69	0	12/9/2020	41	10	8	2		
70	0	12/9/2020	64	10	13	4		
71	0	12/9/2020	67	10	23	5		
72	0	12/9/2020	69	10	12	4		
73	3	12/12/2020	13	1	7	2	0	2
74	3	12/12/2020	12	1	10	2	0	0
75	3	12/12/2020	16	1	12	6	0	0
76	3	12/12/2020	33	1	18	1	0	4
77	3	12/12/2020	50	1	14	3	0	5
78	3	12/12/2020	59	1	8	2	0	3
79	3	12/12/2020	61	1	5	0	0	5
80	3	12/12/2020	2	2	8	3	0	5
81	3	12/12/2020	11	2	9	1	0	5
82	3	12/12/2020	22	2	5	0	0	6
83	3	12/12/2020	29	2	9	2	0	5
84	3	12/12/2020	42	2	6	6	0	5

	A	B	C	D	E	F	G	H
85	3	12/12/2020	58	2	4	3	0	8
86	3	12/12/2020	66	2	4	0	0	4
87	3	12/12/2020	7	3	8	2	0	0
88	3	12/12/2020	19	3	6	2	0	0
89	3	12/12/2020	40	3	12	1	0	0
90	3	12/12/2020	51	3	7	2	0	0
91	3	12/12/2020	55	3	5	0	0	0
92	3	12/12/2020	57	3	8	3	0	0
93	3	12/12/2020	63	3	5	3	0	0
94	3	12/12/2020	9	4	10	4	0	0
95	3	12/12/2020	26	4	19	3	0	0
96	3	12/12/2020	45	4	12	4	0	1
97	3	12/12/2020	46	4	11	1	0	1
98	3	12/12/2020	53	4	9	0	0	0
99	3	12/12/2020	62	4	8	0	0	0
100	3	12/12/2020	68	4	15	2	0	0
101	3	12/12/2020	3	5	9	4	0	0
102	3	12/12/2020	14	5	8	3	0	0
103	3	12/12/2020	15	5	11	2	0	0
104	3	12/12/2020	17	5	14	5	0	0
105	3	12/12/2020	18	5	28	2	0	0
106	3	12/12/2020	24	5	13	0	0	0
107	3	12/12/2020	54	5	13	3	0	0
108	3	12/12/2020	6	6	13	4	0	1
109	3	12/12/2020	27	6	25	6	0	0
110	3	12/12/2020	31	6	8	5	0	0
111	3	12/12/2020	34	6	10	2	0	1
112	3	12/12/2020	56	6	11	1	4	0
113	3	12/12/2020	65	6	22	2	0	0
114	3	12/12/2020	70	6	9	2	0	0
115	3	12/12/2020	10	7	6	2	0	0
116	3	12/12/2020	30	7	13	2	0	0
117	3	12/12/2020	43	7	3	0	0	0
118	3	12/12/2020	47	7	6	2	0	0
119	3	12/12/2020	48	7	6	5	0	0
120	3	12/12/2020	49	7	8	2	0	0
121	3	12/12/2020	52	7	6	1	0	0
122	3	12/12/2020	4	8	16	2	0	0
123	3	12/12/2020	5	8	15	2	0	2
124	3	12/12/2020	32	8	9	5	0	0
125	3	12/12/2020	36	8	8	1	0	0
126	3	12/12/2020	37	8	10	2	0	0

	A	B	C	D	E	F	G	H
127	3	12/12/2020	44	8	5	0	0	2
128	3	12/12/2020	60	8	12	5	0	0
129	3	12/12/2020	1	9	15	4	0	5
130	3	12/12/2020	23	9	8	6	0	0
131	3	12/12/2020	25	9	11	3	0	0
132	3	12/12/2020	28	9	18	7	0	0
133	3	12/12/2020	35	9	11	2	0	0
134	3	12/12/2020	38	9	13	5	0	0
135	3	12/12/2020	39	9	11	5	0	0
136	3	12/12/2020	8	10	13	4	0	0
137	3	12/12/2020	20	10	28	1	0	0
138	3	12/12/2020	21	10	7	3	0	0
139	3	12/12/2020	41	10	10	5	0	0
140	3	12/12/2020	64	10	14	4	0	0
141	3	12/12/2020	67	10	8	4	0	0
142	3	12/12/2020	69	10	12	3	0	0
143	7	12/16/2020	13	1	8	0	0	1
144	7	12/16/2020	12	1	6	1	0	0
145	7	12/16/2020	16	1	12	0	0	0
146	7	12/16/2020	33	1	8	0	0	1
147	7	12/16/2020	50	1	4	0	0	2
148	7	12/16/2020	59	1	0	0	0	2
149	7	12/16/2020	61	1	14	0	0	3
150	7	12/16/2020	2	2	14	4	0	7
151	7	12/16/2020	11	2	11	1	0	6
152	7	12/16/2020	22	2	3	1	0	6
153	7	12/16/2020	29	2	4	0	0	5
154	7	12/16/2020	42	2	0	0	0	5
155	7	12/16/2020	58	2	1	0	0	8
156	7	12/16/2020	66	2	6	5	0	7
157	7	12/16/2020	7	3	5	1	0	0
158	7	12/16/2020	19	3	5	4	0	0
159	7	12/16/2020	40	3	0	0	0	0
160	7	12/16/2020	51	3	1	0	0	0
161	7	12/16/2020	55	3	0	2	0	0
162	7	12/16/2020	57	3	0	0	0	0
163	7	12/16/2020	63	3	0	0	0	0
164	7	12/16/2020	9	4	5	0	0	7
165	7	12/16/2020	26	4	3	2	0	1
166	7	12/16/2020	45	4	3	2	0	1
167	7	12/16/2020	46	4	9	0	0	0
168	7	12/16/2020	53	4	8	0	0	0

	A	B	C	D	E	F	G	H
169	7	12/16/2020	62	4	2	0	0	0
170	7	12/16/2020	68	4	0	1	0	0
171	7	12/16/2020	3	5	24	2	0	0
172	7	12/16/2020	14	5	8	0	0	0
173	7	12/16/2020	15	5	3	0	0	0
174	7	12/16/2020	17	5	14	0	0	0
175	7	12/16/2020	18	5	15	1	0	0
176	7	12/16/2020	24	5	8	0	0	0
177	7	12/16/2020	54	5	0	2	0	0
178	7	12/16/2020	6	6	13	3	0	1
179	7	12/16/2020	27	6	25	3	0	0
180	7	12/16/2020	31	6	2	6	0	0
181	7	12/16/2020	34	6	7	0	0	0
182	7	12/16/2020	56	6	2	0	1	0
183	7	12/16/2020	65	6	2	1	0	0
184	7	12/16/2020	70	6	3	1	0	0
185	7	12/16/2020	10	7	2	0	0	0
186	7	12/16/2020	30	7	9	2	0	0
187	7	12/16/2020	43	7	3	0	0	0
188	7	12/16/2020	47	7	0	1	0	0
189	7	12/16/2020	48	7	1	1	0	0
190	7	12/16/2020	49	7	2	0	0	0
191	7	12/16/2020	52	7	4	1	0	0
192	7	12/16/2020	4	8	20	3	0	2
193	7	12/16/2020	5	8	14	5	0	2
194	7	12/16/2020	32	8	20	2	0	0
195	7	12/16/2020	36	8	5	0	0	0
196	7	12/16/2020	37	8	0	1	0	0
197	7	12/16/2020	44	8	0	3	0	0
198	7	12/16/2020	60	8	1	0	0	0
199	7	12/16/2020	1	9	13	3	0	6
200	7	12/16/2020	23	9	9	1	0	0
201	7	12/16/2020	25	9	28	4	0	0
202	7	12/16/2020	28	9	25	0	0	1
203	7	12/16/2020	35	9	7	0	0	0
204	7	12/16/2020	38	9	4	1	0	0
205	7	12/16/2020	39	9	9	2	0	0
206	7	12/16/2020	8	10	15	2	0	0
207	7	12/16/2020	20	10	13	3	0	0
208	7	12/16/2020	21	10	8	1	0	0
209	7	12/16/2020	41	10	5	1	0	0
210	7	12/16/2020	64	10	3	0	0	0

	A	B	C	D	E	F	G	H
211	7	12/16/2020	67	10	3	0	0	0
212	7	12/16/2020	69	10	8	1	0	0
213	14	12/23/2020	13	1	9	1	0	1
214	14	12/23/2020	12	1	8	4	0	0
215	14	12/23/2020	16	1	4	1	0	0
216	14	12/23/2020	33	1	4	0	0	1
217	14	12/23/2020	50	1	10	1	0	2
218	14	12/23/2020	59	1	2	3	0	2
219	14	12/23/2020	61	1	16	2	0	3
220	14	12/23/2020	2	2	4	0	0	7
221	14	12/23/2020	11	2	10	0	0	6
222	14	12/23/2020	22	2	0	0	0	6
223	14	12/23/2020	29	2	11	2	0	5
224	14	12/23/2020	42	2	5	2	0	5
225	14	12/23/2020	58	2	0	2	0	8
226	14	12/23/2020	66	2	7	1	0	7
227	14	12/23/2020	7	3	0	0	0	0
228	14	12/23/2020	19	3	0	0	0	0
229	14	12/23/2020	40	3	0	2	0	0
230	14	12/23/2020	51	3	0	0	0	0
231	14	12/23/2020	55	3	0	4	0	0
232	14	12/23/2020	57	3	0	0	0	0
233	14	12/23/2020	63	3	2	3	0	0
234	14	12/23/2020	9	4	1	2	0	7
235	14	12/23/2020	26	4	5	0	0	1
236	14	12/23/2020	45	4	3	1	0	1
237	14	12/23/2020	46	4	7	0	0	0
238	14	12/23/2020	53	4	8	0	0	0
239	14	12/23/2020	62	4	4	2	0	0
240	14	12/23/2020	68	4	4	1	0	0
241	14	12/23/2020	3	5	3	2	0	0
242	14	12/23/2020	14	5	3	2	0	0
243	14	12/23/2020	15	5	6	0	0	0
244	14	12/23/2020	17	5	3	1	0	0
245	14	12/23/2020	18	5	5	2	0	0
246	14	12/23/2020	24	5	3	1	0	0
247	14	12/23/2020	54	5	4	2	0	0
248	14	12/23/2020	6	6	0	0	0	1
249	14	12/23/2020	27	6	0	2	0	0
250	14	12/23/2020	31	6	7	1	0	0
251	14	12/23/2020	34	6	0	0	0	0
252	14	12/23/2020	56	6	4	2	0	1

	A	B	C	D	E	F	G	H
253	14	12/23/2020	65	6	6	2	0	0
254	14	12/23/2020	70	6	5	0	0	0
255	14	12/23/2020	10	7	0	0	0	0
256	14	12/23/2020	30	7	7	2	0	0
257	14	12/23/2020	43	7	4	0	0	0
258	14	12/23/2020	47	7	2	3	0	0
259	14	12/23/2020	48	7	3	1	0	0
260	14	12/23/2020	49	7	4	1	0	0
261	14	12/23/2020	52	7	3	0	0	0
262	14	12/23/2020	4	8	4	3	0	2
263	14	12/23/2020	5	8	6	3	0	2
264	14	12/23/2020	32	8	3	0	0	0
265	14	12/23/2020	36	8	4	1	0	0
266	14	12/23/2020	37	8	3	0	0	0
267	14	12/23/2020	44	8	2	0	0	0
268	14	12/23/2020	60	8	0	2	0	0
269	14	12/23/2020	1	9	18	5	0	6
270	14	12/23/2020	23	9	6	0	0	0
271	14	12/23/2020	25	9	8	3	0	0
272	14	12/23/2020	28	9	11	1	0	1
273	14	12/23/2020	35	9	5	2	0	0
274	14	12/23/2020	38	9	9	4	0	0
275	14	12/23/2020	39	9	7	0	0	0
276	14	12/23/2020	8	10	6	2	0	0
277	14	12/23/2020	20	10	3	1	0	0
278	14	12/23/2020	21	10	17	5	0	0
279	14	12/23/2020	41	10	6	0	0	0
280	14	12/23/2020	64	10	6	3	0	0
281	14	12/23/2020	67	10	4	1	0	0
282	14	12/23/2020	69	10	7	2	0	0
283	21	12/30/2020	13	1	18	0	0	4
284	21	12/30/2020	12	1	3	0	0	0
285	21	12/30/2020	16	1	2	0	0	0
286	21	12/30/2020	33	1	3	0	0	1
287	21	12/30/2020	50	1	3	0	0	3
288	21	12/30/2020	59	1	0	1	0	3
289	21	12/30/2020	61	1	7	0	0	3
290	21	12/30/2020	2	2	3	0	0	0
291	21	12/30/2020	11	2	9	0	0	4
292	21	12/30/2020	22	2	2	0	0	5
293	21	12/30/2020	29	2	4	1	0	5
294	21	12/30/2020	42	2	2	0	2	5

	A	B	C	D	E	F	G	H
295	21	12/30/2020	58	2	3	0	2	1
296	21	12/30/2020	66	2	15	0	3	4
297	21	12/30/2020	7	3	3	0	0	0
298	21	12/30/2020	19	3	0	0	0	0
299	21	12/30/2020	40	3	0	0	0	0
300	21	12/30/2020	51	3	0	0	0	0
301	21	12/30/2020	55	3	2	0	0	0
302	21	12/30/2020	57	3	0	0	0	0
303	21	12/30/2020	63	3	0	1	0	0
304	21	12/30/2020	9	4	6	0	0	0
305	21	12/30/2020	26	4	3	2	0	0
306	21	12/30/2020	45	4	0	0	0	0
307	21	12/30/2020	46	4	3	0	0	0
308	21	12/30/2020	53	4	2	0	0	0
309	21	12/30/2020	62	4	3	0	0	0
310	21	12/30/2020	68	4	2	1	0	0
311	21	12/30/2020	3	5	3	0	0	0
312	21	12/30/2020	14	5	8	1	0	0
313	21	12/30/2020	15	5	11	0	0	0
314	21	12/30/2020	17	5	3	1	0	0
315	21	12/30/2020	18	5	1	2	0	0
316	21	12/30/2020	24	5	0	1	0	0
317	21	12/30/2020	54	5	0	0	0	0
318	21	12/30/2020	6	6	5	0	0	0
319	21	12/30/2020	27	6	3	1	0	0
320	21	12/30/2020	31	6	4	0	0	0
321	21	12/30/2020	34	6	3	0	0	0
322	21	12/30/2020	56	6	3	0	0	0
323	21	12/30/2020	65	6	9	0	0	0
324	21	12/30/2020	70	6	4	0	0	0
325	21	12/30/2020	10	7	0	0	0	0
326	21	12/30/2020	30	7	3	0	0	0
327	21	12/30/2020	43	7	0	0	0	0
328	21	12/30/2020	47	7	0	0	0	0
329	21	12/30/2020	48	7	13	0	0	0
330	21	12/30/2020	49	7	1	0	0	0
331	21	12/30/2020	52	7	2	0	0	0
332	21	12/30/2020	4	8	5	0	0	0
333	21	12/30/2020	5	8	9	2	0	0
334	21	12/30/2020	32	8	7	0	0	0
335	21	12/30/2020	36	8	0	0	0	0
336	21	12/30/2020	37	8	4	0	0	0

	A	B	C	D	E	F	G	H
337	21	12/30/2020	44	8	3	0	0	0
338	21	12/30/2020	60	8	5	0	0	0
339	21	12/30/2020	1	9	8	1	0	0
340	21	12/30/2020	23	9	0	0	0	0
341	21	12/30/2020	25	9	4	0	0	0
342	21	12/30/2020	28	9	3	2	0	0
343	21	12/30/2020	35	9	4	0	0	0
344	21	12/30/2020	38	9	8	2	3	1
345	21	12/30/2020	39	9	4	0	0	0
346	21	12/30/2020	8	10	5	0	0	0
347	21	12/30/2020	20	10	4	0	0	0
348	21	12/30/2020	21	10	6	2	0	0
349	21	12/30/2020	41	10	7	0	0	0
350	21	12/30/2020	64	10	3	2	0	0
351	21	12/30/2020	67	10	6	0	0	0
352	21	12/30/2020	69	10	4	2	0	0
353	28	1/6/2021	13	1	5	0	0	3
354	28	1/6/2021	12	1	13	2	0	0
355	28	1/6/2021	16	1	1	0	0	0
356	28	1/6/2021	33	1	2	1	0	0
357	28	1/6/2021	50	1	0	0	0	3
358	28	1/6/2021	59	1	3	0	0	3
359	28	1/6/2021	61	1	9	0	1	1
360	28	1/6/2021	2	2	4	2	2	2
361	28	1/6/2021	11	2	4	1	4	7
362	28	1/6/2021	22	2	8	0	2	4
363	28	1/6/2021	29	2	3	2	2	3
364	28	1/6/2021	42	2	7	1	2	4
365	28	1/6/2021	58	2	0	0	0	0
366	28	1/6/2021	66	2	2	0	0	0
367	28	1/6/2021	7	3	0	1	0	0
368	28	1/6/2021	19	3	3	0	0	0
369	28	1/6/2021	40	3	2	0	0	0
370	28	1/6/2021	51	3	0	0	0	0
371	28	1/6/2021	55	3	0	1	0	0
372	28	1/6/2021	57	3	0	0	0	0
373	28	1/6/2021	63	3	2	0	0	0
374	28	1/6/2021	9	4	0	0	0	0
375	28	1/6/2021	26	4	0	0	0	0
376	28	1/6/2021	45	4	0	0	0	0
377	28	1/6/2021	46	4	0	0	0	0
378	28	1/6/2021	53	4	0	0	0	0

	A	B	C	D	E	F	G	H
379	28	1/6/2021	62	4	0	0	0	0
380	28	1/6/2021	68	4	2	0	0	0
381	28	1/6/2021	3	5	8	2	0	0
382	28	1/6/2021	14	5	10	0	0	0
383	28	1/6/2021	15	5	0	0	0	0
384	28	1/6/2021	17	5	1	0	0	0
385	28	1/6/2021	18	5	2	3	0	0
386	28	1/6/2021	24	5	22	1	0	0
387	28	1/6/2021	54	5	6	1	0	0
388	28	1/6/2021	6	6	5	1	0	0
389	28	1/6/2021	27	6	1	2	0	0
390	28	1/6/2021	31	6	0	0	0	0
391	28	1/6/2021	34	6	0	0	0	0
392	28	1/6/2021	56	6	0	1	0	0
393	28	1/6/2021	65	6	0	1	0	0
394	28	1/6/2021	70	6	1	0	0	0
395	28	1/6/2021	10	7	6	0	0	0
396	28	1/6/2021	30	7	1	0	0	0
397	28	1/6/2021	43	7	0	0	0	0
398	28	1/6/2021	47	7	1	0	0	0
399	28	1/6/2021	48	7	0	0	0	0
400	28	1/6/2021	49	7	0	0	0	0
401	28	1/6/2021	52	7	0	0	0	0
402	28	1/6/2021	4	8	12	2	0	0
403	28	1/6/2021	5	8	9	0	0	0
404	28	1/6/2021	32	8	2	2	0	0
405	28	1/6/2021	36	8	0	0	0	0
406	28	1/6/2021	37	8	5	1	0	0
407	28	1/6/2021	44	8	0	0	0	0
408	28	1/6/2021	60	8	0	0	0	0
409	28	1/6/2021	1	9	7	0	0	0
410	28	1/6/2021	23	9	8	3	0	0
411	28	1/6/2021	25	9	5	0	0	0
412	28	1/6/2021	28	9	6	1	0	0
413	28	1/6/2021	35	9	0	1	0	0
414	28	1/6/2021	38	9	7	0	0	0
415	28	1/6/2021	39	9	3	1	0	0
416	28	1/6/2021	8	10	14	0	0	0
417	28	1/6/2021	20	10	6	0	0	0
418	28	1/6/2021	21	10	8	1	0	0
419	28	1/6/2021	41	10	0	0	0	0
420	28	1/6/2021	64	10	15	2	0	0

	A	B	C	D	E	F	G	H
421	28	1/6/2021	67	10	5	3	0	0
422	28	1/6/2021	69	10	13	2	0	0
423	35	1/13/2021	13	1	0	0		
424	35	1/13/2021	12	1	16	1		
425	35	1/13/2021	16	1	4	0		
426	35	1/13/2021	33	1	9	2		
427	35	1/13/2021	50	1	0	6		
428	35	1/13/2021	59	1	5	0		
429	35	1/13/2021	61	1	8	1		
430	35	1/13/2021	2	2	14	0		
431	35	1/13/2021	11	2	12	1		
432	35	1/13/2021	22	2	2	1		
433	35	1/13/2021	29	2	0	0		
434	35	1/13/2021	42	2	2	1		
435	35	1/13/2021	58	2	3	0		
436	35	1/13/2021	66	2	1	3		
437	35	1/13/2021	7	3	2	0		
438	35	1/13/2021	19	3	0	0		
439	35	1/13/2021	40	3	3	0		
440	35	1/13/2021	51	3	0	0		
441	35	1/13/2021	55	3	4	0		
442	35	1/13/2021	57	3	0	0		
443	35	1/13/2021	63	3	0	0		
444	35	1/13/2021	9	4	7	0		
445	35	1/13/2021	26	4	4	3		
446	35	1/13/2021	45	4	0	0		
447	35	1/13/2021	46	4	2	0		
448	35	1/13/2021	53	4	4	1		
449	35	1/13/2021	62	4	8	1		
450	35	1/13/2021	68	4	0	1		
451	35	1/13/2021	3	5	5	0		
452	35	1/13/2021	14	5	17	1		
453	35	1/13/2021	15	5	0	0		
454	35	1/13/2021	17	5	0	0		
455	35	1/13/2021	18	5	14	0		
456	35	1/13/2021	24	5	11	1		
457	35	1/13/2021	54	5	3	1		
458	35	1/13/2021	6	6	3	0		
459	35	1/13/2021	27	6	6	0		
460	35	1/13/2021	31	6	7	1		
461	35	1/13/2021	34	6	22	1		
462	35	1/13/2021	56	6	0	3		

	A	B	C	D	E	F	G	H
463	35	1/13/2021	65	6	0	0		
464	35	1/13/2021	70	6	0	0		
465	35	1/13/2021	10	7	9	0		
466	35	1/13/2021	30	7	10	0		
467	35	1/13/2021	43	7	2	1		
468	35	1/13/2021	47	7	14	0		
469	35	1/13/2021	48	7	0	2		
470	35	1/13/2021	49	7	4	2		
471	35	1/13/2021	52	7	0	0		
472	35	1/13/2021	4	8	3	0		
473	35	1/13/2021	5	8	2	0		
474	35	1/13/2021	32	8	7	0		
475	35	1/13/2021	36	8	25	0		
476	35	1/13/2021	37	8	3	0		
477	35	1/13/2021	44	8	0	4		
478	35	1/13/2021	60	8	0	0		
479	35	1/13/2021	1	9	15	2		
480	35	1/13/2021	23	9	16	2		
481	35	1/13/2021	25	9	2	1		
482	35	1/13/2021	28	9	13	0		
483	35	1/13/2021	35	9	0	0		
484	35	1/13/2021	38	9	14	0		
485	35	1/13/2021	39	9	8	0		
486	35	1/13/2021	8	10	28	2		
487	35	1/13/2021	20	10	12	0		
488	35	1/13/2021	21	10	14	0		
489	35	1/13/2021	41	10	11	0		
490	35	1/13/2021	64	10	8	0		
491	35	1/13/2021	67	10	7	0		
492	35	1/13/2021	69	10	13	2		
493	35	1/20/2021	13	1	0	0		
494	35	1/20/2021	12	1	4	2		
495	42	1/20/2021	16	1	0	0		
496	42	1/20/2021	33	1	3	3		
497	42	1/20/2021	50	1	1	0		
498	42	1/20/2021	59	1	0	0		
499	42	1/20/2021	61	1	2	0		
500	42	1/20/2021	2	2	2	0		
501	42	1/20/2021	11	2	14	2		
502	42	1/20/2021	22	2	2	0		
503	42	1/20/2021	29	2	2	2		
504	42	1/20/2021	42	2	5	2		

	A	B	C	D	E	F	G	H
505	42	1/20/2021	58	2	16	3		
506	42	1/20/2021	66	2	11	2		
507	42	1/20/2021	7	3	0	0		
508	42	1/20/2021	19	3	0	0		
509	42	1/20/2021	40	3	0	0		
510	42	1/20/2021	51	3	0	0		
511	42	1/20/2021	55	3	0	0		
512	42	1/20/2021	57	3	0	0		
513	42	1/20/2021	63	3	0	0		
514	42	1/20/2021	9	4	0	2		
515	42	1/20/2021	26	4	0	2		
516	42	1/20/2021	45	4	0	0		
517	42	1/20/2021	46	4	1	0		
518	42	1/20/2021	53	4	0	0		
519	42	1/20/2021	62	4	1	2		
520	42	1/20/2021	68	4	6	1		
521	42	1/20/2021	3	5	8	4		
522	42	1/20/2021	14	5	2	1		
523	42	1/20/2021	15	5	0	0		
524	42	1/20/2021	17	5	0	0		
525	42	1/20/2021	18	5	0	1		
526	42	1/20/2021	24	5	0	1		
527	42	1/20/2021	54	5	0	0		
528	42	1/20/2021	6	6	0	2		
529	42	1/20/2021	27	6	0	0		
530	42	1/20/2021	31	6	2	1		
531	42	1/20/2021	34	6	2	0		
532	42	1/20/2021	56	6	0	0		
533	42	1/20/2021	65	6	0	1		
534	42	1/20/2021	70	6	4	0		
535	42	1/20/2021	10	7	2	0		
536	42	1/20/2021	30	7	0	1		
537	42	1/20/2021	43	7	0	1		
538	42	1/20/2021	47	7	0	1		
539	42	1/20/2021	48	7	3	0		
540	42	1/20/2021	49	7	0	1		
541	42	1/20/2021	52	7	0	0		
542	42	1/20/2021	4	8	4	0		
543	42	1/20/2021	5	8	0	0		
544	42	1/20/2021	32	8	0	2		
545	42	1/20/2021	36	8	0	3		
546	42	1/20/2021	37	8	1	1		

	A	B	C	D	E	F	G	H
547	42	1/20/2021	44	8	10	0		
548	42	1/20/2021	60	8	0	0		
549	42	1/20/2021	1	9	0	0		
550	42	1/20/2021	23	9	0	0		
551	42	1/20/2021	25	9	3	0		
552	42	1/20/2021	28	9	6	0		
553	42	1/20/2021	35	9	2	3		
554	42	1/20/2021	38	9	0	1		
555	42	1/20/2021	39	9	7	1		
556	42	1/20/2021	8	10	0	1		
557	42	1/20/2021	20	10	6	1		
558	42	1/20/2021	21	10	8	1		
559	42	1/20/2021	41	10	5	3		
560	42	1/20/2021	64	10	7	1		
561	42	1/20/2021	67	10	6	1		
562	42	1/20/2021	69	10	17	8		

## TAB NAME: Dates

Date	DAT	Action
27-Oct	-43	Transplanting
28-Oct	-42	
29-Oct	-41	
30-Oct	-40	Infestation
31-Oct	-39	
1-Nov	-38	
2-Nov	-37	
3-Nov	-36	
4-Nov	-35	
5-Nov	-34	Infestation
6-Nov	-33	
7-Nov	-32	
8-Nov	-31	
9-Nov	-30	
10-Nov	-29	
11-Nov	-28	
12-Nov	-27	Infestation
13-Nov	-26	
14-Nov	-25	
15-Nov	-24	
16-Nov	-23	
17-Nov	-22	
18-Nov	-21	
19-Nov	-20	
20-Nov	-19	
21-Nov	-18	
22-Nov	-17	
23-Nov	-16	
24-Nov	-15	
25-Nov	-14	
26-Nov	-13	Infestation
27-Nov	-12	
28-Nov	-11	
29-Nov	-10	
30-Nov	-9	
1-Dec	-8	
2-Dec	-7	
3-Dec	-6	Infestation
4-Dec	-5	Put into separate cages
5-Dec	-4	
6-Dec	-3	
7-Dec	-2	Assignment of plants

8-Dec	-1
9-Dec	0 Day 0, application, evaluating population, meausring height/width
10-Dec	1
11-Dec	2
12-Dec	3 Day 3, application, measuring population, phytoxicity
13-Dec	4
14-Dec	5
15-Dec	6
16-Dec	7 Day 7, application, evaluating population, phytoxicity
17-Dec	8
18-Dec	9
19-Dec	10 Day 10, application
20-Dec	11
21-Dec	12
22-Dec	13
23-Dec	14 Day 14, application, evaluating population, phytoxicity
24-Dec	15
25-Dec	16
26-Dec	17
27-Dec	18
28-Dec	19
29-Dec	20
30-Dec	21 Day 21, evaluating population, phytoxicity
31-Dec	22
1-Jan	23
2-Jan	24
3-Jan	25
4-Jan	26
5-Jan	27
6-Jan	28 Day 28, evaluating population, phytoxicity, meausring height/width
7-Jan	29
8-Jan	30
9-Jan	31
10-Jan	32
11-Jan	33
12-Jan	34
13-Jan	35 Day 35, evaluating population
14-Jan	36
15-Jan	37
16-Jan	38
17-Jan	39
18-Jan	40
19-Jan	41
20-Jan	42 Day 42, evaluating population

From Protocol		For Experiment/Ordering					
Amount Added	Total Amount	Unit	Per 1L	Per 2L	Per 3L	Per 4L	Per 5L
Pound(s) 3	Gallon(s) 100	Pound(s)	0.01	0.02	0.02	0.03	0.04
		Gram(s)	3.60	7.19	10.79	14.38	17.98
Quart(s) 1	Gallon(s) 100	Quart(s)	0.00	0.01	0.01	0.01	0.01
		mL(s)	2.50	5.00	7.50	10.00	12.50
Fluid Ounce(es) 8	Gallon(s) 0.25	Fluid Ounce(es)	8.45	16.91	25.36	33.82	42.27
		mL(s)	250.03	500.05	750.08	1000.11	1250.13
		uL(s)	250026.44	500052.88	750079.32	1000105.76	1250132.21
Gallon(s) 5	Gallon(s) 100	Quart(s)	0.05	0.11	0.16	0.21	0.26
		mL(s)	50.00	100.00	150.00	200.00	250.00
Quart(s) 1	Gallon(s) 100	Quart(s)	0.00	0.01	0.01	0.01	0.01
		mL(s)	2.50	5.00	7.50	10.00	12.50
Fluid Ounce(es) 8	Gallon(s) 0.25	Fluid Ounce(es)	8.45	16.91	25.36	33.82	42.27
		mL(s)	250.03	500.05	750.08	1000.11	1250.13
		uL(s)	250026.44	500052.88	750079.32	1000105.76	1250132.21
Pound(s) 3	Gallon(s) 100	Pound(s)	0.01	0.02	0.02	0.03	0.04
		Gram(s)	3.60	7.19	10.79	14.38	17.98
Fluid Ounce(es) 13	Gallon(s) 100	Fluid Ounce(es)	0.03	0.07	0.10	0.14	0.17
		mL(s)	1.02	2.03	3.05	4.06	5.08
		uL(s)	1015.73	2031.46	3047.20	4062.93	5078.66
Pound(s) 5	Gallon(s) 100	Pound(s)	0.01	0.03	0.04	0.05	0.07
		Gram(s)	5.99	11.98	17.98	23.97	29.96
Quart(s) 2	Gallon(s) 100	Quart(s)	0.01	0.01	0.02	0.02	0.03
		mL(s)	5.00	10.00	15.00	20.00	25.00
Pound(s) 2	Gallon(s) 100	Pound(s)	0.01	0.01	0.02	0.02	0.03
		Gram(s)	2.40	4.79	7.19	9.59	11.98

Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.01	0.02	0.03	0.04	0.05
3.84	100	mL(s)	0.30	0.60	0.90	1.20	1.50
		uL(s)	300.03	600.06	900.10	1200.13	1500.16
Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.02	0.03	0.05	0.06	0.08
5.76	100	mL(s)	0.45	0.90	1.35	1.80	2.25
		uL(s)	450.05	900.10	1350.14	1800.19	2250.24
Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.34	0.68	1.01	1.35	1.69
128	100	mL(s)	10.00	20.00	30.00	40.00	50.01
		uL(s)	10001.06	20002.12	30003.17	40004.23	50005.29
Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.01	0.03	0.04	0.05	0.07
5	100	mL(s)	0.39	0.78	1.17	1.56	1.95
		uL(s)	390.67	781.33	1172.00	1562.67	1953.33
Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.03	0.07	0.10	0.14	0.17
13	100	mL(s)	1.02	2.03	3.05	4.06	5.08
		uL(s)	1015.73	2031.46	3047.20	4062.93	5078.66
Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.03	0.06	0.09	0.12	0.15
11	100	mL(s)	0.86	1.72	2.58	3.44	4.30
		uL(s)	859.47	1718.93	2578.40	3437.86	4297.33

TAB NAME: Reentry Sign

## REENTRY INFORMATION

LOCATION: GH 116 SOUTH

**PRODUCT NAME:** Velifer(*Beauveria bassiana* strain PPRI )  
; Experimental Product

<b>DATE APPLIED:</b>	<b>12/18/2020</b>
<b>TIME APPLIED:</b>	<b>2:00 PM</b>
<b>REENTRY DATE:</b>	<b>12/19/2020</b>
<b>REENTRY TIME:</b>	<b>2:00 PM</b>
<b>CONTACT PERSON:</b>	<b>Christian Nansen</b>
<b>PHONE NUMBER:</b>	<b>530-979-4632</b>

UC DAVIS STUDENT HEALTH CENTER  
Orchard Rd.  
UCD CAMPUS - DAVIS, CA  
Phone: 752-2300 or 911

TAB NAME: TreatmentDays

Treatment #	Color	PR	Product	Treatment	From Protocol		For Experiment/Ordering		Application Day					Evaluation Day				
					Amount Added	Total Amount	Unit	Per 1L	0	3	7	10	14	0	3	14	21	28
1	Orange	34272	BW133	Foliar	Pound(s)	Gallon(s)	Pound(s)	0.01	X		X		X	X	X	X	X	
2	Yellow	34272	BW133	Foliar	Pound(s)	Gallon(s)	Pound(s)	0.01	X		X		X	X	X	X	X	
3	Green	34275	ISM-555	Foliar + Capsil @ 0.05%	Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.01	X		X		X	X	X	X	X	
4	Blue	34276	MBI 203 SC2		Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.34	X		X		X	X	X	X	X	
5	Pink	34277	MBI 306		Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.01	X		X		X	X	X	X	X	
6	Orange/Green	34278	SP3014		Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.01	X		X		X	X	X	X	X	
7	Yellow/Blue	34279	V-10433		Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.02	X		X		X	X	X	X	X	
8	Pink/Green	34471	Velifer		Fluid Ounce(es)	Gallon(s)	Fluid Ounce(es)	0.03	X		X		X	X	X	X	X	
9	Blue/Green	NA	BotaniGuard Maxx		Quart(s)	Gallon(s)	Quart(s)	0.00	X				X	X	X	X	X	
10	Orange/Pink	NA	Water		NA	NA	NA	NA	X				X	X	X	X	X	

Date: 7-Dec 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
0	1	Orange	BW133	3.60	Gram(s)

Date: 7-Dec 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
0	2	Yellow	BW133	5.99	Gram(s)

Date: 7-Dec 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
0	3	Green	ISM-555	300.03	uL(s)
			CapSil	0.5	mL

Date: 7-Dec 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
0	4	Blue	MBI 203 SC2	10.00	mL(s)

Date: 7-Dec 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
0	5	Pink	MBI 306	390.67	uL(s)

Date: 7-Dec 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
0	6	Orange/Green	SP3014	1.02	mL(s)
			CapSil	0.5	mL

Date: 7-Dec 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
0	7	Yellow/Blue	V-10433	859.47	uL(s)

Date: 7-Dec 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
0	8	Pink/Green	Velifer	1.02	mL(s)

Date: 7-Dec 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
0	9	Blue/Green	TaniGuard Ma	2.50	mL(s)

Date: 7-Dec 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
0	10	Orange/Pink	Water	NA	NA

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
3	8	Pink/Green	Velifer	1.02	mL(s)

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
7	1	Orange	BW133	3.60	Gram(s)

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
7	2	Yellow	BW133	5.99	Gram(s)

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
7	3	Green	ISM-555	300.03	uL(s)
			CapSil	0.5	mL

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
7	4	Blue	MBI 203 SC2	10.00	mL(s)

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
7	5	Pink	MBI 306	390.67	uL(s)

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit

7	6	Orange/Green	SP3014	1.02	mL(s)
			CapSil	0.5	mL

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
7	7	Yellow/Blue	V-10433	859.47	uL(s)

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
7	8	Pink/Green	Velifer	1.02	mL(s)

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
10	8	Pink/Green	Velifer	1.02	mL(s)

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
14	1	Orange	BW133	3.60	Gram(s)

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
14	2	Yellow	BW133	5.99	Gram(s)

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
14	3	Green	ISM-555	300.03	uL(s)
14			CapSil	0.5	mL

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
14	6	Orange/Green	SP3014	1.02	mL(s)
14			CapSil	0.5	mL

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
14	7	Yellow/Blue	V-10433	859.47	uL(s)

Date: 2020 IR4 Trial Thripss on Marigold Trial # 20-019

DAT	Trtmnt	Color	Product	Amount Per 1L	Unit
14	8	Pink/Green	Velifer	1.02	mL(s)

TAB NAME: Assignment

Overall needed				Prior to randomization:				Prior to randomization:				Prior to randomization:				Randomization			
Cage	Plant	Treatment	Color	Cage	Damage	Assessment	Cage	Damage	Assessment	Treatment	Random	Cage	Damage	Asse	Treatment	Cage	Damage	Asse	Treatment
1	1	1	Orange	1		3	13		1	1	5324	13	1	1	1	12	2	1	1
2	2	1	Orange	2		2	14		1	5	4000	50	1	1	1	13	1	1	1
3	3	1	Orange	3		2	18		1	5	8738	59	1	1	1	16	2	1	1
4	4	1	Orange	4		3	19		1	3	4445	12	2	1	1	33	3	1	1
5	5	2	Yellow	5		2	21		1	10	7916	16	2	1	1	50	1	1	1
6	6	2	Yellow	6		3	22		1	2	5022	61	2	1	1	59	1	1	1
7	7	2	Yellow	7		3	27		1	6	7465	33	3	1	1	61	2	1	1
8	8	2	Yellow	8		3	37		1	8	1151	22	1	2	2	2	2	2	2
9	9	3	Green	9		3	38		1	9	5195	42	1	2	2	11	2	2	2
10	10	3	Green	10		2	39		1	9	571	58	1	2	2	22	1	2	2
11	11	3	Green	11		2	41		1	10	6868	2	2	2	2	29	3	2	2
12	12	3	Green	12		2	42		1	2	9876	11	2	2	2	42	1	2	2
13	13	4	Blue	13		1	43		1	7	1842	66	2	2	2	58	1	2	2
14	14	4	Blue	14		1	44		1	8	3570	29	3	2	2	66	2	2	2
15	15	4	Blue	15		2	45		1	4	3047	19	1	3	3	7	3	3	3
16	16	4	Blue	16		2	46		1	4	3507	51	1	3	3	19	1	3	3
17	17	5	Pink	17		2	49		1	7	3530	40	2	3	3	40	2	3	3
18	18	5	Pink	18		1	50		1	1	3089	55	2	3	3	51	1	3	3
19	19	5	Pink	19		1	51		1	3	7552	57	2	3	3	55	2	3	3
20	20	5	Pink	20		2	56		1	6	9550	63	2	3	3	57	2	3	3
21	21	6	Orange/Green	21		1					7738	7	3	3	3	63	2	3	3
22	22	6	Orange/Green	22		1	58		1	2	9942	45	1	4	4	9	3	4	4
23	23	6	Orange/Green	23		2	59		1	1	8571	46	1	4	4	26	2	4	4
24	24	6	Orange/Green	24		3	65		1	6	9895	26	2	4	4	45	1	4	4
25	25	7	Yellow/Blue	25		2	67		1	10	7232	53	2	4	4	46	1	4	4
26	26	7	Yellow/Blue	26		2			2	2	6256	62	2	4	4	53	2	4	4
27	27	7	Yellow/Blue	27		1			3	2	9952	68	2	4	4	62	2	4	4
28	28	7	Yellow/Blue	28		2			5	2	9919	9	3	4	4	68	2	4	4
29	29	7	Yellow/Blue	29		3	10		2	7	5673	14	1	5	5	3	2	5	5
30	30	8	Pink/Green	30		3	11		2	2	5424	18	1	5	5	14	1	5	5
31	31	8	Pink/Green	31		2	12		2	1	2411	3	2	5	5	15	2	5	5
32	32	8	Pink/Green	32		2	15		2	5	4134	15	2	5	5	17	2	5	5
33	33	8	Pink/Green	33		3	16		2	1	3602	17	2	5	5	18	1	5	5
34	34	8	Pink/Green	34		2	17		2	5	6778	54	2	5	5	24	3	5	5
35	35	9	Blue/Green	35		2	20		2	10	7522	24	3	5	5	54	2	5	5
36	36	9	Blue/Green	36		2	23		2	9	6993	27	1	6	6	6	3	6	6
37	37	9	Blue/Green	37		1	25		2	9	5023	56	1	6	6	27	1	6	6
38	38	9	Blue/Green	38		1	26		2	4	6225	65	1	6	6	31	2	6	6
39	39	9	Blue/Green	39		1	28		2	9	8752	31	2	6	6	34	2	6	6
40	40	10	Orange/Pink	40		2	31		2	6	3918	34	2	6	6	56	1	6	6
41	41	10	Orange/Pink	41		1	32		2	8	5677	70	2	6	6	65	1	6	6
42	42	10	Orange/Pink	42		1	34		2	6	5634	6	3	6	6	70	2	6	6
43	43	10	Orange/Pink	43		1	35		2	9	6364	43	1	7	7	10	2	7	7

44	44	10 Orange/Pink	44	1	36	2	8	6691	49	1	7	30	3	7
45	45	1 Orange	45	1	40	2	3	5981	10	2	7	43	1	7
46	36	1 Orange	46	1	47	2	7	1755	47	2	7	47	2	7
47	37	1 Orange	47	2	48	2	7	8272	48	2	7	48	2	7
48	38	2 Yellow	48	2	52	2	7	7243	52	2	7	49	1	7
49	39	2 Yellow	49	1	53	2	4	5379	30	3	7	52	2	7
50	40	2 Yellow	50	1	54	2	5	7060	37	1	8	4	3	8
51	41	3 Green	51	1	55	2	3	8331	44	1	8	5	2	8
52	42	3 Green	52	2	57	2	3	8932	5	2	8	32	2	8
53	43	3 Green	53	2	60	2	8	2452	32	2	8	36	2	8
54	44	4 Blue	54	2	61	2	1	1878	36	2	8	37	1	8
55	45	4 Blue	55	2	62	2	4	6115	60	2	8	44	1	8
56	46	4 Blue	56	1	63	2	3	9274	4	3	8	60	2	8
57	47	5 Pink	57	2	64	2	10	8623	38	1	9	1	3	9
58	48	5 Pink	58	1	66	2	2	5081	39	1	9	23	2	9
59	49	5 Pink	59	1	68	2	4	9866	23	2	9	25	2	9
60	50	6 Orange/Green	60	2	69	2	10	9825	25	2	9	28	2	9
61	51	6 Orange/Green	61	2	70	2	6	917	28	2	9	35	2	9
62	52	6 Orange/Green	62	2				1839	35	2	9	38	1	9
63	55	7 Yellow/Blue	63	2	1	3	9	230	1	3	9	39	1	9
64	56	7 Yellow/Blue	64	2	4	3	8	8913	21	1	10	8	3	10
65	59	8 Pink/Green	65	1	6	3	6	1929	41	1	10	20	2	10
66	61	8 Pink/Green	66	2	7	3	3	130	67	1	10	21	1	10
67	63	9 Blue/Green	67	1	8	3	10	8839	20	2	10	41	1	10
68	65	9 Blue/Green	68	2	9	3	4	419	64	2	10	64	2	10
69	67	10 Orange/Pink	69	2	24	3	5	2945	69	2	10	67	1	10
70	69	10 Orange/Pink	70	2	29	3	2	6314	8	3	10	69	2	10
					30	3	7	5788						
					33	3	1	7105						

	A	B	C	D	E	F	G	H
1	TAB NAME: Day 0							
2	Trial # 20-019 IR4 Thrips, Marigold							
3	Date: 12/9 ( Day 0)							
4	Plant #	Treatment #	Immature	Adult	Phytotoxicity	Damage	Height(cm)	Width(cm)
5	12	1	18	14		2	17	17
6	13	1	15	4		1	19	28
7	16	1	17	6		2	19.5	23
8	33	1	24	6		3	13	28
9	50	1	12	6		1	16	37
10	59	1	12	14		1	13.5	23
11	61	1	16	5		2	21	44
12	2	2	13	9		2	21	24
13	11	2	16	11		2	26	50
14	22	2	15	14		1	21.5	32
15	29	2	13	8		3	14.5	31
16	42	2	11	4		1	23	26
17	58	2	14	15		1	23.5	28
18	66	2	11	4		2	19	18
19	7	3	19	4		3	23.5	29
20	19	3	16	3		1	19.5	24
21	40	3	15	12		2	17	32
22	51	3	8	3		1	15	18
23	55	3	20	3		2	19	23
24	57	3	10	3		2	20	20
25	63	3	6	12		2	16.5	36
26	9	4	16	12		3	16	24
27	26	4	11	3		2	20	24
28	45	4	16	4		1	23.5	26
29	46	4	20	7		1	19.5	27
30	53	4	18	6		2	21.5	35.5
31	62	4	7	12		2	19	36
32	68	4	10	14		2	22	30.5
33	3	5	14	11		2	27	36
34	14	5	11	8		1	17	27
35	15	5	12	15		2	19	22.5
36	17	5	11	4		2	21	24
37	18	5	20	3		1	21	23
38	24	5	19	14		3	21	22

	A	B	C	D	E	F	G	H
39	54	5	8	12		2	16	29
40	6	6	11	13		3	17	22
41	27	6	11	4		1	19	24.5
42	31	6	16	2		2	18	28.5
43	34	6	18	3		2	14	29
44	56	6	8	4		1	20	28
45	65	6	12	3		1	17	26
46	70	6	19	3		2	17.5	33
47	10	7	14	6		2	18	24
48	30	7	13	9		3	17.5	31
49	43	7	11	3		1	20	23
50	47	7	18	14		2	16	21
51	48	7	19	6		2	18	23
52	49	7	10	4		1	19	31.5
53	52	7	17	3		2	14	35
54	4	8	14	15		3	22.5	21
55	5	8	19	3		2	21	25
56	32	8	18	5		2	16	43
57	36	8	8	4		2	33	24
58	37	8	16	3		1	33	24
59	44	8	3	5		1	18	25
60	60	8	18	3		2	15.5	23
61	1	9	13	9		3	25	39
62	23	9	15	4		2	15	25
63	25	9	14	9		2	17	29
64	28	9	18	15		2	19.5	22.5
65	35	9	13	2		2	17	29
66	38	9	10	5		1	16	37
67	39	9	12	6		1	20.5	27.5
68	8	10	11	6		3	18	23
69	20	10	18	14		2	20	26.5
70	21	10	19	8		1	16	22
71	41	10	8	2		1	19.5	28
72	64	10	13	4		2	18	16
73	67	10	23	5		1	20	20
74	69	10	12	4		2	16	22

## TAB NAME: Day 3

Trial # 20-019 IR4 Thrips, Marigold					
Plant #	Treatment #	Immature	Adult	Phytotoxicity	Damage
13	1	7	2	2	1
12	1	10	2	0	2
16	1	12	6	0	2
33	1	18	1	4	3
50	1	14	3	5	1
59	1	8	2	3	1
61	1	5	0	5	2
2	2	8	3	5	2
11	2	9	1	5	2
22	2	5	0	6	1
29	2	9	2	5	3
42	2	6	6	5	1
58	2	4	3	8	1
66	2	4	0	4	2
7	3	8	2	0	3
19	3	6	2	0	1
40	3	12	1	0	2
51	3	7	2	0	1
55	3	5	0	0	2
57	3	8	3	0	2
63	3	5	3	0	2
9	4	10	4	0	3
26	4	19	3	0	2
45	4	12	4	1	1
46	4	11	1	1	1
53	4	9	0	0	2
62	4	8	0	0	2
68	4	15	2	0	2
3	5	9	4	0	1
14	5	8	3	0	1
15	5	11	2	0	2
17	5	14	5	0	2
18	5	28	2	0	2
24	5	13	0	0	2
54	5	13	3	0	3
6	6	13	4	1	3
27	6	25	6	0	1
31	6	8	5	0	2
34	6	10	2	1	2

56	6	11	1	0	1
65	6	22	2	0	1
70	6	9	2	0	2
10	7	6	2	0	2
30	7	13	2	0	3
43	7	3	0	0	1
47	7	6	2	0	2
48	7	6	5	0	2
49	7	8	2	0	1
52	7	6	1	0	2
4	8	16	2	0	3
5	8	15	2	2	2
32	8	9	5	0	2
36	8	8	1	0	2
37	8	10	2	0	1
44	8	5	0	2	1
60	8	12	5	0	2
1	9	15	4	5	3
23	9	8	6	0	2
25	9	11	3	0	2
28	9	18	7	0	2
35	9	11	2	0	2
38	9	13	5	0	1
39	9	11	5	0	1
8	10	13	4	0	3
20	10	28	1	0	2
21	10	7	3	0	1
41	10	10	5	0	1
64	10	14	4	0	2
67	10	8	4	0	1
69	10	12	3	0	2

Foliar Phytotoxicity: 4

Dryness or phytotoxicity

## TAB NAME: Day 7

Trial # 20-019 IR4 Thrips, Marigold				
Date: Day7, 12/15				
Plant	Treat	Immature	Adult	Phytotoxicity
13	1	8	0	1
12	1	6	1	0
16	1	12	0	0
33	1	8	0	1
50	1	4	0	2
59	1	0	0	2
61	1	14	0	3
2	2	14	4	7
11	2	11	1	6
22	2	3	1	6
29	2	4	0	5
42	2	0	0	5
58	2	1	0	8
66	2	6	5	7
7	3	5	1	0
19	3	5	4	0
40	3	0	0	0
51	3	1	0	0
55	3	0	2	0
57	3	0	0	0
63	3	0	0	0
9	4	5	0	7
26	4	3	2	1
45	4	3	2	1
46	4	9	0	0
53	4	8	0	0
62	4	2	0	0
68	4	0	1	0
3	5	24	2	0
14	5	8	0	0
15	5	3	0	0
17	5	14	0	0
18	5	15	1	0
24	5	8	0	0
54	5	0	2	0

## Trial # 20-019 IR4 Thrips, Marigold

Date:

Plant	Treat	Immature	Adult	Phytotoxicity
6	6	13	3	1
27	6	25	3	0
31	6	2	6	0
34	6	7	0	0
56	6	2	0	1
65	6	2	1	0
70	6	3	1	0
10	7	2	0	0
30	7	9	2	0
43	7	3	0	0
47	7	0	1	0
48	7	1	1	0
49	7	2	0	0
52	7	4	1	0
4	8	20	3	2
5	8	14	5	2
32	8	20	2	0
36	8	5	0	0
37	8	0	1	0
44	8	0	3	0
60	8	1	0	0
1	9	13	3	6
23	9	9	1	0
25	9	28	4	0
28	9	25	0	1
35	9	7	0	0
38	9	4	1	0
39	9	9	2	0
8	10	15	2	0
20	10	13	3	0
21	10	8	1	0
41	10	5	1	0
64	10	3	0	0
67	10	3	0	0
69	10	8	1	0

Foliar

## TAB NAME: Day 14

Trial # 20-019 IR4 Thrips, Marigold				
Date:	Day 14, 12/23			
Plant #	Treatment #	Immature	Adult	Phytotoxicity
13	1	9	1	1
12	1	8	4	0
16	1	4	1	0
33	1	4	0	1
50	1	10	1	2
59	1	2	3	2
61	1	16	2	3
2	2	4	0	7
11	2	10	0	6
22	2	0	0	6
29	2	11	2	5
42	2	5	2	5
58	2	0	2	8
66	2	7	1	7
7	3	0	0	0
19	3	0	0	0
40	3	0	2	0
51	3	0	0	0
55	3	0	4	0
57	3	0	0	0
63	3	2	3	0
9	4	1	2	7
26	4	5	0	1
45	4	3	1	1
46	4	7	0	0
53	4	8	0	0
62	4	4	2	0
68	4	4	1	0
3	5	3	2	0
14	5	3	2	0
15	5	6	0	0
17	5	3	1	0
18	5	5	2	0
24	5	3	1	0
54	5	4	2	0
6	6	0	0	1
27	6	0	2	0
31	6	7	1	0
34	6	0	0	0

56	6	4	2	1
65	6	6	2	0
70	6	5	0	0
10	7	0	0	0
30	7	7	2	0
43	7	4	0	0
47	7	2	3	0
48	7	3	1	0
49	7	4	1	0
52	7	3	0	0
4	8	4	3	2
5	8	6	3	2
32	8	3	0	0
36	8	4	1	0
37	8	3	0	0
44	8	2	0	0
60	8	0	2	0
1	9	18	5	6
23	9	6	0	0
25	9	8	3	0
28	9	11	1	1
35	9	5	2	0
38	9	9	4	0
39	9	7	0	0
8	10	6	2	0
20	10	3	1	0
21	10	17	5	0
41	10	6	0	0
64	10	6	3	0
67	10	4	1	0
69	10	7	2	0

## TAB NAME: Day 21

Trial # 20-019 IR4 Thrips, Marigold				
Date:	Treatment #	Immature	Adult	Phytotoxicity
	13	18	0	4
	12	3	0	0
	16	2	0	0
	33	3	0	1
	50	3	0	3
	59	0	1	3
	61	7	0	3
	2	3	0	0
	11	9	0	4
	22	2	0	5
	29	4	1	5
	42	2	0	5
	58	3	0	1
	66	15	0	4
	7	3	0	0
	19	0	0	0
	40	0	0	0
	51	0	0	0
	55	2	0	0
	57	0	0	0
	63	0	1	0
	9	6	0	0
	26	3	2	0
	45	0	0	0
	46	3	0	0
	53	2	0	0
	62	3	0	0
	68	2	1	0
	3	3	0	0
	14	8	1	0
	15	11	0	0
	17	3	1	0
	18	1	2	0
	24	0	1	0
	54	0	0	0
	6	5	0	0
	27	3	1	0
	31	4	0	0
	34	3	0	0

Foliar: 2

Foliar: 2

Foliar: 3

56	6	3	0	0
65	6	9	0	0
70	6	4	0	0
10	7	0	0	0
30	7	3	0	0
43	7	0	0	0
47	7	0	0	0
48	7	13	0	0
49	7	1	0	0
52	7	2	0	0
4	8	5	0	0
5	8	9	2	0
32	8	7	0	0
36	8	0	0	0
37	8	4	0	0
44	8	3	0	0
60	8	5	0	0
1	9	8	1	0
23	9	0	0	0
25	9	4	0	0
28	9	3	2	0
35	9	4	0	0
38	9	8	2	1
39	9	4	0	0
8	10	5	0	0
20	10	4	0	0
21	10	6	2	0
41	10	7	0	0
64	10	3	2	0
67	10	6	0	0
69	10	4	2	0

Foliar: 3

## TAB NAME: Day 28

Trial # 20-019 IR4 Thrips, Marigold						
Date:	Day 28, 1/5					
Plant #	Treatment #	Immature	Adult	Phytotoxicity	Height	Width
13	1	5	0	3	20	32
12	1	13	2	0	16	19
16	1	1	0	0	20	27
33	1	2	1	0	16	30
50	1	0	0	3	23	35
59	1	3	0	3	21.5	31.5
61	1	9	0	1	25	41
2	2	4	2	2	21.5	31
11	2	4	1	7	28	37
22	2	8	0	4	23	29
29	2	3	2	3	21.5	31
42	2	7	1	4	22	34
58	2	0	0	0	23	31.5
66	2	2	0	0	22	28
7	3	0	1	0	22.5	36
19	3	3	0	0	21	30
40	3	2	0	0	24	36
51	3	0	0	0	15	19.5
55	3	0	1	0	19	24
57	3	0	0	0	22	41
63	3	2	0	0	17	18
9	4	0	0	0	16	22
26	4	0	0	0	19	26
45	4	0	0	0	23.5	34
46	4	0	0	0	19.5	30.5
53	4	0	0	0	22	39
62	4	0	0	0	19.5	36.5
68	4	2	0	0	21.5	36
3	5	8	2	0	21	36
14	5	10	0	0	19	36
15	5	0	0	0	19	32
17	5	1	0	0	19	24
18	5	2	3	0	22	29
24	5	22	1	0	20	24
54	5	6	1	0	25	30
6	6	5	1	0	19	25
27	6	1	2	0	19.5	32
31	6	0	0	0	21	35
34	6	0	0	0	18.5	27

56	6	0	1	0	21.5	36
65	6	0	1	0	21	25
70	6	1	0	0	23	30
10	7	6	0	0	20	29
30	7	1	0	0	24	34
43	7	0	0	0	20	29
47	7	1	0	0	18.5	27.5
48	7	0	0	0	21.5	33.5
49	7	0	0	0	25	35
52	7	0	0	0	25	41
4	8	12	2	0	24	29
5	8	9	0	0	18	24
32	8	2	2	0	27	39
36	8	0	0	0	19	28
37	8	5	1	0	20	28
44	8	0	0	0	19.5	34.5
60	8	0	0	0	16.5	24
1	9	7	0	0	23.5	38
23	9	8	3	0	15	22
25	9	5	0	0	19	37
28	9	6	1	0	21	24
35	9	0	1	0	17	29
38	9	7	0	0	18	35
39	9	3	1	0	21.5	31.5
8	10	14	0	0	17	19.5
20	10	6	0	0	22	35
21	10	8	1	0	18	25
41	10	0	0	0	22	35
64	10	15	2	0	25	25.5
67	10	5	3	0	21.5	37
69	10	13	2	0	14	19

TAB NAME: Day35

Trial # 20-019 IR4 Thrips, Marigold					
Date: 1/12 , Day 35					
Plant #	Treatment #	Immature	Adult	Phytotoxicity	Damage
13	1	0	0		
12	1	16	1		
16	1	4	0		
33	1	9	2		
50	1	0	6		
59	1	5	0		
61	1	8	1		
2	2	14	0		
11	2	12	1		
22	2	2	1		
29	2	0	0		
42	2	2	1		
58	2	3	0		
66	2	1	3		
7	3	2	0		
19	3	0	0		
40	3	3	0		
51	3	0	0		
55	3	4	0		
57	3	0	0		
63	3	0	0		
9	4	7	0		
26	4	4	3		
45	4	0	0		
46	4	2	0		
53	4	4	1		
62	4	8	1		
68	4	0	1		
3	5	5	0		
14	5	17	1		
15	5	0	0		
17	5	0	0		
18	5	14	0		
24	5	11	1		
54	5	3	1		
6	6	3	0		
27	6	6	0		
31	6	7	1		
34	6	22	1		

56	6	0	3		
65	6	0	0		
70	6	0	0		
10	7	9	0		
30	7	10	0		
43	7	2	1		
47	7	14	0		
48	7	0	2		
49	7	4	2		
52	7	0	0		
4	8	3	0		
5	8	2	0		
32	8	7	0		
36	8	25	0		
37	8	3	0		
44	8	0	4		
60	8	0	0		
1	9	15	2		
23	9	16	2		
25	9	2	1		
28	9	13	0		
35	9	0	0		
38	9	14	0		
39	9	8	0		
8	10	28	2		
20	10	12	0		
21	10	14	0		
41	10	11	0		
64	10	8	0		
67	10	7	0		
69	10	13	2		

## TAB NAME: Day 42

Trial # 20-019 IR4 Thrips, Marigold					
Plant #	Treatment #	Immature	Adult	Phytotoxicity	Damage
13	1	0	0		
12	1	4	2		
16	1	0	0		
33	1	3	3		
50	1	1	0		
59	1	0	0		
61	1	2	0		
2	2	2	0		
11	2	14	2		
22	2	2	0		
29	2	2	2		
42	2	5	2		
58	2	16	3		
66	2	11	2		
7	3	0	0		
19	3	0	0		
40	3	0	0		
51	3	0	0		
55	3	0	0		
57	3	0	0		
63	3	0	0		
9	4	0	2		
26	4	0	2		
45	4	0	0		
46	4	1	0		
53	4	0	0		
62	4	1	2		
68	4	6	1		
3	5	8	4		
14	5	2	1		
15	5	0	0		
17	5	0	0		
18	5	0	1		
24	5	0	1		
54	5	0	0		
6	6	0	2		
27	6	0	0		
31	6	2	1		
34	6	2	0		

56	6	0	0		
65	6	0	1		
70	6	4	0		
10	7	2	0		
30	7	0	1		
43	7	0	1		
47	7	0	1		
48	7	3	0		
49	7	0	1		
52	7	0	0		
4	8	4	0		
5	8	0	0		
32	8	0	2		
36	8	0	3		
37	8	1	1		
44	8	10	0		
60	8	0	0		
1	9	0	0		
23	9	0	0		
25	9	3	0		
28	9	6	0		
35	9	2	3		
38	9	0	1		
39	9	7	1		
8	10	0	1		
20	10	6	1		
21	10	8	1		
41	10	5	3		
64	10	7	1		
67	10	6	1		
69	10	17			