

Davis Research And Development

To evaluate the benefits of Seasol when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Seasol Tomato
 Protocol ID: 23 Seasol Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Jun-21-2023	Jul-1-2023	Jul-8-2023	Jul-15-2023	Jul-22-2023	Jun-21-2023	Jul-1-2023	Jul-8-2023	Jul-15-2023	Jun-21-2023	Jul-1-2023	Jul-8-2023
SE Description	PHYTOTOXICITY	PHYTOTOXICITY	PHYTOTOXICITY	PHYTOTOXICITY	PHYTOTOXICITY	PHYTOTOXICITY	PHYTOTOXICITY	PHYTOTOXICITY	PHYTOTOXICITY	PHYTOTOXICITY	PHYTOTOXICITY	PHYTOTOXICITY
Part Rated	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C
Rating Type	PHYGEN	PHYGEN	PHYGEN	PHYGEN	PHYGEN	PHYGEN	PHYGEN	PHYGEN	PHYGEN	PHYGEN	PHYGEN	PHYGEN
Rating Unit/Min/Max	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	0-10, 0, 10	0-10, 0, 10	0-10, 0, 10
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
Number of Subsamples	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
Crop Type, Code	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>
BBCH Scale	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>
Crop Scientific Name	7, 7	17, 7	24, 14	31, 7	38, 14	7, 7	7, 7	7, 7	7, 7	7, 7	7, 7	7, 7
Crop Name	7 DA-A	7 DA-B	14 DA-B	21 DA-B	28 DA-B	7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-B	14 DA-B
Days After First/Last Applic.	8 DP-1	18 DP-1	25 DP-1	32 DP-1	39 DP-1	8 DP-1	8 DP-1	8 DP-1	8 DP-1	8 DP-1	18 DP-1	25 DP-1
Tri-Eval Interval	8 DE-1	18 DE-1	25 DE-1	32 DE-1	39 DE-1	8 DE-1	8 DE-1	8 DE-1	8 DE-1	8 DE-1	18 DE-1	25 DE-1
Plant-Eval Interval												
Days After Emergence												
Data Reliability												
ARM Action Codes												
Number of Decimals												
Data Entry Date	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023
Tri. Treatment	1	2	3	4	5	6	7	8				
Rate Appl												
Rate Unit												
Code												
1 Control - 100% H2O	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a
2 Control - 60% H2O	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a
3 Competitor 60% H2O	48 oz/la ABC	48 oz/la ABC	48 oz/la ABC	48 oz/la ABC	48 oz/la ABC	48 oz/la ABC	48 oz/la ABC	48 oz/la ABC	48 oz/la ABC	48 oz/la ABC	48 oz/la ABC	48 oz/la ABC
4 Seasol 60% H2O	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC
5 Seasol 75% H2O	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC
6 Nano 101 60% H2O	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC
7 Seasol 100% H2O	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC	64 oz/la ABC
8 Nano 101 100% H2O	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC	0.8 oz/la ABC
LSD P=.05												
Standard Deviation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Levene's Prob(F)	.	.	.	.	.	.	.	.	.	.	.	.
P(Shapiro-Wilk)^A	.	.	.	.	.	.	.	.	.	.	.	.
P(Skewness)^A	.	.	.	.	.	.	.	.	.	.	.	.
P(Kurtosis)^A	.	.	.	.	.	.	.	.	.	.	.	.
Replicate F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=12,13,14,15,17,23,24,26,27,28,29,32,33,34,35,36,37,39,40,41,42,43,44,46,47,48,49,54,55,56
 Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6,7,8,9,10,18,19,20,21,22,31 because error mean square = 0.
 ^Calculated from residual.

Davis Research And Development

To evaluate the benefits of Seacol when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Jul-15-2023	Jul-22-2023	Jul-21-2023	Jul-1-2023	Jul-8-2023	Jul-15-2023	Jul-22-2023	Jul-1-2023	Jul-8-2023	Jul-15-2023	Jul-22-2023	Jul-1-2023
SE Description	VIGOR	VIGOR	GreenSeeker FOLIAG, C	GreenSeeker FOLIAG, C	GreenSeeker FOLIAG, C	GreenSeeker FOLIAG, C	GreenSeeker FOLIAG, C	GreenSeeker FOLIAG, C	GreenSeeker FOLIAG, C	GreenSeeker FOLIAG, C	GreenSeeker FOLIAG, C	GreenSeeker FOLIAG, C
Part Rated	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C	FOLIAG, C
Rating Type	VIGOR	VIGOR	NDVI	NDVI	NDVI	NDVI	NDVI	NDVI	NDVI	NDVI	NDVI	NDVI
Rating Unit/Min/Max	0-10, 0, 10	0-10, 0, 10	-1-1, -1, 1	-1-1, -1, 1	-1-1, -1, 1	-1-1, -1, 1	-1-1, -1, 1	-1-1, -1, 1	-1-1, -1, 1	-1-1, -1, 1	-1-1, -1, 1	-1-1, -1, 1
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1	1	1	1	1	1	1	1	1	1	1	1
Number of Subsamples	1	1	1	1	1	1	1	1	1	1	1	1
Crop Type, Code	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
Crop Scientific Name	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>
Crop Name	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>
Days After First/Last Applic.	31, 7	7, 7	7, 7	17, 7	24, 14	24, 14	31, 7	38, 14	31, 7	38, 14	38, 14	17, 7
Tri-Eval Interval	21 DA-B	7 DA-A	7 DA-A	7 DA-B	14 DA-B	14 DA-B	21 DA-B	28 DA-B	14 DA-B	21 DA-B	28 DA-B	7 DA-B
Plant-Eval Interval	32 DP-1	8 DP-1	8 DP-1	18 DP-1	25 DP-1	25 DP-1	32 DP-1	39 DP-1	25 DP-1	32 DP-1	39 DP-1	18 DP-1
Days After Emergence	32 DE-1	8 DE-1	8 DE-1	18 DE-1	25 DE-1	25 DE-1	32 DE-1	39 DE-1	25 DE-1	32 DE-1	39 DE-1	18 DE-1
Data Reliability												
ARM Action Codes												
Number of Decimals												
Data Entry Date	Nov-11-2023	Nov-11-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023
Trt. Treatment	9	10	11	12	13	14	15	16	16	16	16	16
No. Name												
Rate Appl												
Rate Unit												
Code												
1 Control - 100% H2O	10.0 a	10.0 a	0.131 c	0.377 c	0.397 a	0.401 a	0.336 c	0.401 a	0.397 a	0.401 a	0.336 c	0.401 a
2 Control - 60% H2O	10.0 a	10.0 a	0.173 ab	0.420 abc	0.424 a	0.409 a	0.474 a	0.409 a	0.424 a	0.409 a	0.474 a	0.409 a
3 Competitor 60% H2O	10.0 a	10.0 a	0.169 b	0.429 abc	0.461 a	0.404 a	0.489 a	0.404 a	0.461 a	0.404 a	0.489 a	0.404 a
4 Seacol 60% H2O	10.0 a	10.0 a	0.161 bc	0.487 a	0.494 a	0.411 a	0.427 abc	0.411 a	0.494 a	0.411 a	0.427 abc	0.411 a
5 Seacol 75% H2O	10.0 a	10.0 a	0.167 b	0.474 ab	0.470 a	0.434 a	0.444 ab	0.434 a	0.470 a	0.434 a	0.444 ab	0.434 a
6 Nano 101 60% H2O	10.0 a	10.0 a	0.204 a	0.409 bc	0.464 a	0.433 a	0.466 ab	0.433 a	0.464 a	0.433 a	0.466 ab	0.433 a
7 Seacol 100% H2O	10.0 a	10.0 a	0.149 bc	0.465 ab	0.452 a	0.420 a	0.365 bc	0.420 a	0.452 a	0.420 a	0.365 bc	0.420 a
8 Nano 101 100% H2O	10.0 a	10.0 a	0.166 bc	0.466 ab	0.437 a	0.438 a	0.387 abc	0.438 a	0.437 a	0.438 a	0.387 abc	0.438 a
LSD P= .05			0.0355	0.0720	0.0737	0.1003	0.1027	0.1003	0.0737	0.1003	0.1027	0.1003
Standard Deviation	0.00	0.00	0.0329	0.0666	0.0682	0.0929	0.0951	0.0929	0.0682	0.0929	0.0951	0.0929
CV	0.0	0.0	19.96	15.11	15.15	22.17	22.44	22.17	15.15	22.17	22.44	22.17
Levene's Prob(F)	.	.	0.616	0.454	0.656	0.811	0.37	0.811	0.656	0.811	0.37	0.811
P(Shapiro-Wilk)^A	.	.	0.489	0.1898	0.3998	0.9023	0.6349	0.9023	0.3998	0.9023	0.6349	0.9023
P(Skewness)^A	.	.	0.511	0.1655	0.2023	0.6787	0.2599	0.6787	0.2023	0.6787	0.2599	0.6787
P(Kurtosis)^A	.	.	0.3566	0.8254	0.762	0.4906	0.7535	0.4906	0.762	0.4906	0.7535	0.4906
Replicate F	0.000	0.000	0.184	1.563	1.272	2.187	0.721	2.187	1.272	2.187	0.721	2.187
Replicate Prob(F)	1.0000	1.0000	0.9796	0.1833	0.2919	0.0644	0.6352	0.0644	0.2919	0.0644	0.6352	0.0644
Treatment F	0.000	0.000	2.795	2.289	1.360	1.173	2.374	1.173	2.289	1.173	2.374	1.173
Treatment Prob(F)	1.0000	1.0000	0.0176	0.0465	0.2487	0.9894	0.0397	0.9894	0.2487	0.9894	0.0397	0.9894

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=12,13,14,15,17,23,24,26,27,28,29,32,33,34,35,36,37,39,40,41,42,43,44,46,47,48,49,54,55,56
 Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6,7,8,9,10,18,19,20,21,22,31 because error mean square = 0.
 ^Calculated from residual.

Davis Research And Development

To evaluate the benefits of Seacol when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Jul-8-2023	Jun-21-2023	Jul-1-2023	Jul-8-2023	Jul-15-2023	Jul-21-2023	Jul-15-2023	Jul-15-2023	Jul-15-2023	Jul-15-2023
SE Description	CANOPY/FOLIAGE >	BBCH SCALE	BBCH SCALE	BBCH SCALE	BBCH SCALE	BBCH SCALE	BBCH SCALE	BBCH SCALE	BBCH SCALE	NUMBER OF RED T >
Part Rated	FOLIAGE >	PLOT, C	PLOT, C	PLOT, C	PLOT, C	PLOT, C	PLOT, C	PLOT, C	PLOT, C	FLOWER, C
Rating Type	DENSTY	DEVELO	DEVELO	DEVELO	DEVELO	DEVELO	DEVELO	DEVELO	DEVELO	COUNT
Rating Unit/Min/Max	% , 0, 100	BBCH, -, -	BBCH, -, -	BBCH, -, -	BBCH, -, -	BBCH, -, -	BBCH, -, -	BBCH, -, -	BBCH, -, -	
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	5 SQFT
Collection Basis	4	1	1	1	1	1	1	1	1	1
Number of Subsamples	4	1	1	1	1	1	1	1	1	1
Crop Type, Code	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
Crop Scientific Name	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>
Crop Name	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>
Days After First/Last Applic.	24, 14	7, 7	17, 7	24, 14	31, 7	37, 13	31, 7	31, 7	31, 7	31, 7
Tri-Eval Interval	14 DA-B	7 DA-A	7 DA-B	14 DA-B	21 DA-B	27 DA-B	21 DA-B	21 DA-B	27 DA-B	27 DA-B
Plant-Eval Interval	25 DP-1	8 DP-1	18 DP-1	25 DP-1	32 DP-1	38 DP-1	32 DP-1	32 DP-1	38 DP-1	32 DP-1
Days After Emergence	25 DE-1	8 DE-1	18 DE-1	25 DE-1	32 DE-1	38 DE-1	32 DE-1	32 DE-1	38 DE-1	32 DE-1
Data Reliability										
ARM Action Codes										
Number of Decimals										
Data Entry Date	Nov-15-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-16-2023
Tri. Treatment	17	18	19	20	21	22	21	22	22	23
No. Name										
Rate Appl										
Rate Unit										
Code										
1 Control - 100% H2O	22.459 b	12.0 a	15.0 a	59.0 a	71.0 a	73.0 a	71.0 a	73.0 a	73.0 a	22.6 bc
2 Control - 60% H2O	31.526 a	12.0 a	15.0 a	59.0 a	71.0 a	73.0 a	71.0 a	73.0 a	73.0 a	19.0 c
3 Competitor 60% H2O	32.728 a	12.0 a	15.0 a	59.0 a	71.0 a	73.0 a	71.0 a	73.0 a	73.0 a	18.3 c
4 Seacol 60% H2O	37.451 a	12.0 a	15.0 a	59.0 a	71.0 a	73.0 a	71.0 a	73.0 a	73.0 a	21.3 bc
5 Seacol 75% H2O	36.072 a	12.0 a	15.0 a	59.0 a	71.0 a	73.0 a	71.0 a	73.0 a	73.0 a	21.7 bc
6 Nano 101 60% H2O	34.108 a	12.0 a	15.0 a	59.0 a	71.0 a	73.0 a	71.0 a	73.0 a	73.0 a	22.0 bc
7 Seacol 100% H2O	33.126 a	12.0 a	15.0 a	59.0 a	71.0 a	73.0 a	71.0 a	73.0 a	73.0 a	28.6 ab
8 Nano 101 100% H2O	32.782 a	12.0 a	15.0 a	59.0 a	71.0 a	73.0 a	71.0 a	73.0 a	73.0 a	31.6 a
LSD P=.05	6.4726									8.56
Standard Deviation	5.9816	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92
CV	18.39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.24
Levene's Prob(F)	0.673	.	.	.	.	.	.	.	.	0.829
P(Shapiro-Wilk)^	0.9936	.	.	.	.	.	.	.	.	0.9977
P(Skewness)^	0.9853	.	.	.	.	.	.	.	.	0.8861
P(Kurtosis)^	0.9583	.	.	.	.	.	.	.	.	0.7019
Replicate F	0.726	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.868
Replicate Prob(F)	0.6314	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0206
Treatment F	3.973	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.373
Treatment Prob(F)	0.0024	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0403

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=12,13,14,15,17,23,24,26,27,28,29,32,33,34,35,36,37,39,40,41,42,43,44,46,47,48,49,54,55,56
 Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6,7,8,9,10,18,19,20,21,22,31 because error mean square = 0.
 ^Calculated from residual.

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	
Rating Date	Jul-22-2023	Jul-8-2023	Jun-22-2023	Jul-3-2023	Jul-10-2023	Jul-18-2023	Jul-22-2023	Jul-3-2023	Jul-10-2023	Jul-18-2023
SE Description	NUMBER OF RED T > FLOWER COUNT	FRESH FOLIAR BI> PLANT, C BIOMASS	HEIGHT OF Plant PLANT, C HEIGHT mm, "-"	SPAD meter read> PLANT, C Chlorophyll	SPAD meter read> PLANT, C	SPAD meter read> PLANT, C	SPAD meter read> PLANT, C	SPAD meter read> PLANT, C	SPAD meter read> PLANT, C	SPAD meter read> PLANT, C
Part Rated	FLOWER COUNT	PLANT, C BIOMASS	PLANT, C HEIGHT	PLANT, C Chlorophyll	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C
Rating Type	COUNT	BIOMASS	HEIGHT	Chlorophyll						
Rating Unit/Min/Max										
Sample Size	5 SQFT	3 PLOT	6 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT
Collection Basis										
Number of Subsamples	1	3	4	4	4	4	4	4	5	4
Crop Type, Code	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
Crop Scientific Name	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>
Crop Name	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>
Days After First/Last Applic.	38, 14	24, 14	24, 14	19, 9	26, 2	34, 10	19, 9	26, 2	26, 2	34, 10
Tri-Eval Interval		14 DA-B	14 DA-B	9 DP-1	20 DP-1	35 DP-1	9 DP-1	20 DP-1	27 DP-1	35 DP-1
Plant-Eval Interval	39 DP-1	25 DP-1	25 DP-1	9 DE-1	20 DE-1	35 DE-1	9 DE-1	20 DE-1	27 DE-1	35 DE-1
Days After Emergence	39 DE-1	25 DE-1	25 DE-1							
Data Reliability										
ARM Action Codes										
Number of Decimals										
Data Entry Date	Nov-16-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023
Tri. Treatment	24	25	26	27	28	29	28	29	29	30
No. Name	Rate Appl	Rate Unit	Code							
1 Control - 100% H2O	33.1 a	182.5 d	497.3 b	61.45 a	70.82 a	62.789 a	70.82 a	62.789 a	62.789 a	63.4 a
2 Control - 60% H2O	31.3 a	188.3 cd	514.3 b	65.13 a	70.63 a	58.860 a	70.63 a	58.860 a	58.860 a	65.8 a
3 Competitor 60% H2O	29.7 a	206.0 ab	556.3 a	66.42 a	71.75 a	61.274 a	71.75 a	61.274 a	61.274 a	68.9 a
4 Season 60% H2O	36.3 a	200.2 b	567.5 a	66.78 a	73.20 a	65.669 a	73.20 a	65.669 a	65.669 a	69.6 a
5 Season 75% H2O	30.4 a	200.9 b	553.6 a	66.32 a	73.68 a	64.831 a	73.68 a	64.831 a	64.831 a	66.4 a
6 Nano 101 60% H2O	28.9 a	211.0 a	560.0 a	66.65 a	72.38 a	64.991 a	72.38 a	64.991 a	64.991 a	67.1 a
7 Season 100% H2O	33.6 a	197.9 bc	567.1 a	66.28 a	70.99 a	64.417 a	70.99 a	64.417 a	64.417 a	69.9 a
8 Nano 101 100% H2O	30.6 a	215.5 a	564.9 a	66.40 a	70.26 a	61.956 a	70.26 a	61.956 a	61.956 a	68.8 a
LSD P= .05	11.55	9.54	29.62	3.455	3.325	4.9254	3.325	4.9254	4.9254	5.55
Standard Deviation	10.68	8.85	27.37	3.193	3.073	4.5627	3.073	4.5627	4.5627	5.15
CV	33.67	4.42	5.0	4.86	4.28	7.23	4.28	7.23	7.23	7.62
Levene's Prob(F)	0.939	0.656	0.977	0.198	0.865	0.42	0.865	0.42	0.42	0.789
P(Shapiro-Wilk)^	0.7103	0.8514	0.197	0.8848	0.2909	0.5702	0.2909	0.5702	0.5702	0.1652
P(Skewness)^	0.5686	0.9205	0.9759	0.9564	0.2484	0.8765	0.2484	0.8765	0.8765	0.1453
P(Kurtosis)^	0.5476	0.8864	0.5027	0.8708	0.7493	0.2577	0.7493	0.2577	0.2577	0.3656
Replicate F	1.036	5.077	0.113	0.216	2.590	0.619	2.590	0.619	0.619	0.619
Replicate Prob(F)	0.4170	0.0005	0.9944	0.9693	0.0334	0.0359	0.0334	0.0359	0.0359	0.7138
Treatment F	0.364	10.780	6.650	2.175	1.807	1.807	2.175	1.807	1.807	1.328
Treatment Prob(F)	0.9176	0.0001	0.0001	0.0587	0.3386	0.1119	0.3386	0.1119	0.1119	0.2615

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=12,13,14,15,17,23,24,26,27,28,29,32,33,34,35,36,37,39,40,41,42,43,44,46,47,48,49,54,55,56
 Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6,7,8,9,10,18,19,20,21,22,31 because error mean square = 0.
 ^Calculated from residual.

Davis Research And Development

To evaluate the benefits of Seacol when applied as a drench treatment on tomatoes in field under hydric stress

Assessed By		Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	SE Description	SPAD meter read> PLANT, C	Sep-13-2023 TOTAL YIELD (lb> FRUITOT, C	Sep-13-2023 TOTAL YIELD (lb> FRUITOT, C	Sep-13-2023 TOTAL YIELD (lb> FRUIT, C	Sep-13-2023 Number of Fruit> FRULAR, C	Sep-13-2023 GRADE 1 YIELD (> FRUIT, C	Sep-13-2023 FRUIT C	Sep-13-2023 MARKETABLE YIELD> FRUIT, C
Part Rated	Rating Type	15 PLOT	WEIGHT KG/plot, -- 1 PLOT	WEIGHT lb/plot, -- 1 PLOT	YIELD lb/ac, -- 1 PLOT	COUNT NUMBER, -- 1 PLOT	lb/ac, -- 1 PLOT	QUALIT lb/ac, -- 1 PLOT	YIELD lb/ac, -- 1 PLOT
Rating Unit/Min/Max	Sample Size								
Collection Basis	Number of Subsamples								
Crop Type, Code	BBCH Scale	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0
Crop Scientific Name	Crop Name	Solanum lycoper> Transplanted to>	Solanum lycoper> Transplanted to>	Solanum lycoper> Transplanted to>	Solanum lycoper> Transplanted to>	Solanum lycoper> Transplanted to>	Solanum lycoper> Transplanted to>	Solanum lycoper> Transplanted to>	Solanum lycoper> Transplanted to>
Days After First/Last Applic.	Tri-Eval Interval	41 DP-1	92 DP-1 92 DE-1	92 DP-1 92 DE-1	131 DP-1	92 DP-1 92 DE-1	92 DP-1 92 DE-1	92 DP-1 92 DE-1	92 DP-1 92 DE-1
Plant-Eval Interval	Days After Emergence	1, Exclude	T1	T1	T3	T0			
Data Reliability	ARM Action Codes								
Number of Decimals	Data Entry Date	2	Nov-16-2023	2	Nov-16-2023	1	Nov-16-2023	Nov-16-2023	Nov-16-2023
Tri Treatment	Rate Appl	31	32	33	34	35	36	37	37
No. Name	Rate Unit	Code							
1 Control - 100% H2O			7.32b	16.1b	7033b	62.3b	7.32b	7.32b	7.32b
2 Control - 60% H2O			9.26b	20.4b	8890b	83.4b	9.26b	9.26b	9.26b
3 Competitor 60% H2O	48 oz/la ABC		14.61 ab	32.2 ab	14035 ab	124.0 ab	14.61 ab	14.61 ab	14.61 ab
4 Seacol 60% H2O	64 oz/la ABC		19.54 a	43.1 a	18768 a	161.1 a	19.54 a	19.54 a	19.54 a
5 Seacol 75% H2O	64 oz/la ABC		14.10 ab	31.1 ab	13541 ab	121.3 ab	14.10 ab	14.10 ab	14.10 ab
6 Nano 101 60% H2O	0.8 oz/la ABC		14.53 ab	32.0 ab	13952 ab	117.3 ab	14.53 ab	14.53 ab	14.53 ab
7 Seacol 100% H2O	64 oz/la ABC		9.76 b	21.5 b	9369 b	76.9 b	9.76 b	9.76 b	9.76 b
8 Nano 101 100% H2O	0.8 oz/la ABC		8.42 b	18.6 b	8088 b	70.9 b	8.42 b	8.42 b	8.42 b
LSD P=.05			7.494	16.52	7196.8	62.19	7.494	7.494	7.494
Standard Deviation			6.931	15.28	6656.4	57.52	6.931	6.931	6.931
CV			56.85	56.85	56.85	56.31	56.85	56.85	56.85
Levene's Prob(F)			0.71	0.71	0.71	0.571	0.71	0.71	0.71
P(Shapiro-Wilk)^A			0.7598	0.7598	0.7598	0.4311	0.7598	0.7598	0.7598
P(Skewness)^A			0.2912	0.2912	0.2912	0.1338	0.2912	0.2912	0.2912
P(Kurtosis)^A			0.7893	0.7893	0.7893	0.1519	0.7893	0.7893	0.7893
Replicate F			0.705	0.705	0.705	0.600	0.705	0.705	0.705
Replicate Prob(F)			0.6474	0.6474	0.6474	0.7285	0.6474	0.6474	0.6474
Treatment F			2.528	2.528	2.528	2.449	2.528	2.528	2.528
Treatment Prob(F)			0.0303	0.0303	0.0303	0.0350	0.0303	0.0303	0.0303

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=12,13,14,15,17,23,24,26,27,28,29,32,33,34,35,36,37,39,40,41,42,43,44,46,47,48,49,54,55,56
 Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6,7,8,9,10,18,19,20,21,22,31 because error mean square = 0.
 ^Calculated from residual.

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Sep-13-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023
SE Description	BRIX - HARVEST 1 FRUIT, C	TOTAL YIELD (lb> FRUIT, C	TOTAL YIELD (lb> FRUIT, C	TOTAL YIELD (lb> FRUIT, C	YIELD (lb/ac, "-" 1 PLOT	YIELD (lb/ac, "-" 1 PLOT	FRUIT, C	FRUIT, C	FRUIT, C	MARKETABLE YIELD> FRUIT, C
Part Rated	SCALE, 1, 100 1 PLOT	WEIGHT kg, "-" 1 PLOT	WEIGHT lb/plot, "-" 1 PLOT	YIELD (lb/ac, "-" 1 PLOT	YIELD (lb/ac, "-" 1 PLOT	YIELD (lb/ac, "-" 1 PLOT	FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Rating Type	BRIX	kg, "-" 1 PLOT	lb/plot, "-" 1 PLOT	lb/ac, "-" 1 PLOT	lb/ac, "-" 1 PLOT	lb/ac, "-" 1 PLOT	FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Rating Unit/Min/Max	1, 100	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Collection Basis							FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Number of Subsamples	3	1	1	1	1	1	FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Crop Type, Code	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
BBCS Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Crop Scientific Name	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Crop Name	Transplanted to> 91, 67	Transplanted to> 130, 106	Transplanted to> 130, 106	Transplanted to> 130, 106	Transplanted to> 130, 106	Transplanted to> 130, 106	FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Days After First/Last Applic.							FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Tri-Eval Interval							FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Plant-Eval Interval	92 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Days After Emergence	92 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Data Reliability							FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
ARM Action Codes							FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Number of Decimals		2	1	1	0	0	FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Data Entry Date	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	FRUIT, C	FRUIT, C	FRUIT, C	YIELD (lb/ac, "-" 1 PLOT
Tri Treatment	38	39	40	41	42	43	44	44	44	44
No. Name										
Rate Appl										
Rate Unit										
Code										
1 Control - 100% H2O	4.10 b	6.90 a	15.2 a	6625 a	57.1 c	15 a	15.2 a	15.2 a	15.2 a	15.2 a
2 Control - 60% H2O	4.05 b	8.54 a	18.8 a	8204 a	70.4 bc	19 a	18.8 a	18.8 a	18.8 a	18.8 a
3 Competitor 60% H2O	4.33 ab	14.59 a	32.2 a	14007 a	119.4 abc	32 a	32.2 a	32.2 a	32.2 a	32.2 a
4 Season 60% H2O	4.10 b	16.83 a	37.1 a	16161 a	135.0 ab	37 a	37.1 a	37.1 a	37.1 a	37.1 a
5 Season 75% H2O	4.14 b	20.70 a	45.6 a	19879 a	159.9 a	46 a	45.6 a	45.6 a	45.6 a	45.6 a
6 Nano 101 60% H2O	4.50 a	21.46 a	47.3 a	20606 a	166.1 a	47 a	47.3 a	47.3 a	47.3 a	47.3 a
7 Season 100% H2O	4.14 b	17.10 a	37.7 a	16421 a	129.3 abc	38 a	37.7 a	37.7 a	37.7 a	37.7 a
8 Nano 101 100% H2O	4.50 a	14.45 a	31.9 a	13876 a	100.6 abc	32 a	31.9 a	31.9 a	31.9 a	31.9 a
LSD P=.05	0.309	9.930	21.89	9536.3	74.52	21.9	21.89	21.89	21.89	21.89
Standard Deviation	0.286	9.185	20.25	8820.3	68.93	20.2	20.25	20.25	20.25	20.25
CV	6.77	60.95	60.95	60.95	58.79	60.95	60.95	60.95	60.95	60.95
Levene's Prob(F)	0.312	0.25	0.25	0.25	0.505	0.25	0.25	0.25	0.25	0.25
P(Shapiro-Wilk)^	0.0113*	0.1883	0.1883	0.1883	0.3621	0.1883	0.1883	0.1883	0.1883	0.1883
P(Skewness)^	0.035*	0.1686	0.1686	0.1686	0.3746	0.1686	0.1686	0.1686	0.1686	0.1686
P(Kurtosis)^	0.8179	0.9992	0.9992	0.9992	0.7758	0.9992	0.9992	0.9992	0.9992	0.9992
Replicate F	1.390	0.304	0.304	0.304	0.320	0.304	0.304	0.304	0.304	0.304
Replicate Prob(F)	0.2413	0.9309	0.9309	0.9309	0.9225	0.9309	0.9309	0.9309	0.9309	0.9309
Treatment F	2.942	2.249	2.249	2.249	2.263	2.249	2.249	2.249	2.249	2.249
Treatment Prob(F)	0.0134	0.0506	0.0506	0.0506	0.0493	0.0506	0.0506	0.0506	0.0506	0.0506

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=12,13,14,15,17,23,24,26,27,28,29,32,33,34,35,36,37,39,40,41,42,43,44,46,47,48,49,54,55,56
 Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6,7,8,9,10,18,19,20,21,22,31 because error mean square = 0.
 ^Calculated from residual.

Davis Research And Development

To evaluate the benefits of Seacol when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023
SE Description	BRIX - HARVEST 2	Total Yield LB>	Pounds per Acre>	Tons per Acre B>	\$\$\$ Dollars per>	Stem Caliper Wt>	Largest Root Ca>	Largest Root Ca>	Largest Root Le>	Largest Root Le>	Largest Root Le>	Largest Root Le>
Part Rated	FRUIT, C	FRUIT, C	FRUIT, C	FRUIT, C	FRUIT, C	STEMMA, C	ROOTAP, C	ROOTAP, C	ROOTAP, C	ROOTAP, C	ROOTAP, C	ROOTAP, C
Rating Type	BRIX	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT
Rating Unit/Min/Max	SCALE, 1, 100	lb/plot, -	lb/acre, -	lb/acre, -	lb/acre, -	lb/acre, -	mm, -	mm, -	mm, -	mm, -	mm, -	mm, -
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis												
Number of Subsamples	3	1	1	1	1	3	3	3	3	3	3	3
Crop Type, Code	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
Crop Scientific Name	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>
Crop Name	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>
Days After First/Last Applic.	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106
Tri-Eval Interval												
Plant-Eval Interval	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1
Days After Emergence	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1
Data Reliability												
ARM Action Codes		T5	T6	T7	T8							
Number of Decimals		1	0	1	0							
Data Entry Date	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-18-2023	Nov-18-2023	Nov-18-2023	Nov-18-2023	Nov-18-2023	Nov-18-2023	Nov-18-2023
Tri Treatment		46	47	48	49	50	51	52				
No. Name		45	46	47	48	49	50	51	52			
Rate Appl												
Rate Unit												
Code												
1 Control - 100% H2O	4.43 c	31.4 c	13658 c	6.8 c	2732 c	14.06 c	7.8 a	202 a				
2 Control - 60% H2O	4.33 c	39.2 bc	17094 bc	8.5 bc	3419 bc	16.86 ab	8.4 a	280 a				
3 Competitor 60% H2O	4.86 a	64.4 ab	28042 ab	14.0 ab	5608 ab	17.44 ab	7.4 a	257 a				
4 Seacol 60% H2O	4.48 bc	80.2 a	34929 a	17.5 a	6986 a	17.09 ab	8.6 a	257 a				
5 Seacol 75% H2O	4.33 c	76.7 a	33420 a	16.7 a	6684 a	18.03 a	9.2 a	285 a				
6 Nano 101 60% H2O	4.79 a	79.3 a	34558 a	17.3 a	6912 a	16.32 ab	6.7 a	296 a				
7 Seacol 100% H2O	4.60 abc	59.2 abc	25790 abc	12.9 abc	5158 abc	16.14 abc	7.0 a	256 a				
8 Nano 101 100% H2O	4.74 ab	50.4 abc	21964 abc	11.0 abc	4393 abc	15.87 bc	9.0 a	244 a				
LSD P= .05	0.303	31.81	13858.4	6.93	2771.7	2.157	1.90	60.0				
Standard Deviation	0.281	29.43	12817.9	6.41	2563.6	2.000	1.76	55.6				
CV	6.14	48.96	48.96	48.96	48.96	12.14	22.02	21.42				
Levene's Prob(F)	0.127	0.428	0.428	0.428	0.428	0.907	0.905	0.792				
P(Shapiro-Wilk)^	0.2869	0.3992	0.3992	0.3992	0.3992	0.7083	0.4273	0.5368				
P(Skewness)^	0.4339	0.2949	0.2949	0.2949	0.2949	0.4898	0.9853	0.2665				
P(Kurtosis)^	0.2934	0.2889	0.2889	0.2889	0.2889	0.8404	0.2825	0.6166				
Replicate F	2.185	0.328	0.328	0.328	0.328	1.001	1.117	2.378				
Replicate Prob(F)	0.0635	0.9183	0.9183	0.9183	0.9183	0.4377	0.3690	0.0455				
Treatment F	3.792	2.799	2.799	2.799	2.799	2.557	1.995	1.946				
Treatment Prob(F)	0.0028	0.0185	0.0185	0.0185	0.0185	0.0275	0.0786	0.0860				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=12,13,14,15,17,23,24,26,27,28,29,32,33,34,35,36,37,39,40,41,42,43,44,46,47,48,49,54,55,56
 Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6,7,8,9,10,18,19,20,21,22,31 because error mean square = 0.
 ^Calculated from residual.

Davis Research And Development

To evaluate the benefits of Seasol when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Seasol Tomato
 Protocol ID: 23 Seasol Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023
SE Description	Root Density Ra>	Number of fruit>	Number of fruit>	Average OZ per >	FRUMAT, C
Part Rated	ROOT, C	FRUMAT, C	FRUMAT, C	FRUMAT, C	FRUMAT, C
Rating Type	NUMBER, 1, 10	NUMBER, 1, 10	NUMBER, 1, 10	WEIGHT	oz, 1, 1
Rating Unit/Min/Max	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Sample Size	3	1	1	1	1
Collection Basis	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
Number of Subsamples	BVSO	BVSO	BVSO	BVSO	BVSO
Crop Type, Code	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>
BBCH Scale	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>
Crop Scientific Name	130, 106	130, 106	130, 106	130, 106	130, 106
Crop Name	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1
Days After First/Last Applic.	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1
Tri-Eval Interval	0	T9	T10	T11	T11
Plant-Eval Interval		0			
Days After Emergence					
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	Nov-18-2023				
Tri. Treatment					
No. Name	53	54	55	56	
Rate Appl					
Rate Unit					
Code					
1 Control - 100% H2O	4 a	119 c	59.70 c	4.2 a	
2 Control - 60% H2O	5 a	154 bc	76.93 bc	4.0 a	
3 Competitor 60% H2O	6 a	243 ab	121.71 ab	4.3 a	
4 Seasol 60% H2O	4 a	296 a	148.07 a	4.3 a	
5 Seasol 75% H2O	5 a	281 a	140.57 a	4.4 a	
6 Nano 101 60% H2O	5 a	283 a	141.71 a	4.4 a	
7 Seasol 100% H2O	5 a	206 abc	103.12 abc	4.6 a	
8 Nano 101 100% H2O	4 a	172 bc	85.78 bc	4.7 a	
LSD P=.05	1.5	109.1	54.527	0.48	
Standard Deviation	1.4	100.9	50.433	0.44	
CV	28.08	45.97	45.97	10.15	
Levene's Prob(F)	0.291	0.206	0.206	0.743	
P(Shapiro-Wilk) [^]	0.1955	0.747	0.747	0.7131	
P(Skewness) [^]	0.9347	0.6398	0.6398	0.3624	
P(Kurtosis) [^]	0.2083	0.8956	0.8956	0.6971	
Replicate F	0.724	0.391	0.391	0.830	
Replicate Prob(F)	0.6328	0.8805	0.8805	0.5542	
Treatment F	1.977	3.060	3.060	1.501	
Treatment Prob(F)	0.0813	0.0115	0.0115	0.1958	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=12,13,14,15,17,23,24,26,27,28,29,32,33,34,35,36,37,39,40,41,42,43,44,46,47,48,49,54,55,56
 Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6,7,8,9,10,18,19,20,21,22,31 because error mean square = 0.
[^]Calculated from residual.

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By

Bill Davis = Spray Tech

Part Rated

FOLIAG = foliage

PLOT = plot

FLOWER = flower

PLANT = plant

FRUITOT = fruit - total

FRUIT = fruit

FRULAR = fruit - large

STEMMA = stem - main

ROOTAP = root - tap

ROOT = root

FRUMAT = fruit - mature

C = Crop is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

VIGOR = vigor

NDVI = normalized difference vegetation index

DENSITY = density

DEVELO = development

COUNT = count

HEIGHT = height

WEIGHT = weight

YIELD = yield

QUALIT = quality

BRX = brix content

Rating Unit/Min/Max

% 0, 100 = percent

0-10, 0, 10 = 0-10 index/scale

-1-1, -1, 1 = -1 to 1 index/scale

BBCH, , = 0-99 BBCH scale

g, , = gram

mm, , = millimeter

KG/plot, , = kilograms per plot

lb/plot, , = pounds per plot

lb/ac, , = pounds per acre

NUMBER, , = number

SCALE, 1, 100 = scale/index, min/max enabled, decimal interpolation possible

kg, , = kilogram

T-US, , = ton (short=2000 lb)

DOLLAR, , = dollar

NUMBER, 1, 10 = number

oz, , = ounces

PLOT = total plot

PLOT = total plot

PLOT = total plot

Crop Type Code

C = EPPO species (Bayer) codes

LYPXP, BVSO, Solanum lycopersicum, Transplanted tomato = US

Plant-Eval Interval

8 DP-1 = 1 LYPXP Jun-13-2023

18 DP-1 = 1 LYPXP Jun-13-2023

25 DP-1 = 1 LYPXP Jun-13-2023

32 DP-1 = 1 LYPXP Jun-13-2023

39 DP-1 = 1 LYPXP Jun-13-2023

38 DP-1 = 1 LYPXP Jun-13-2023

9 DP-1 = 1 LYPXP Jun-13-2023

20 DP-1 = 1 LYPXP Jun-13-2023

Davis Research And Development

To evaluate the benefits of Seasol when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Seasol Tomato
Protocol ID: 23 Seasol Tomato Location: LODI, CA Trial Year: 2023
Project ID: 23APH Tomato Project ID 2: Project ID 3:
Study Director: Nanette Simonian Sponsor Contact: Juan Morales
Investigator: Bill Davis

27 DP-1 = 1 LYPXP Jun-13-2023
35 DP-1 = 1 LYPXP Jun-13-2023
92 DP-1 = 1 LYPXP Jun-13-2023
131 DP-1 = 1 LYPXP Jun-13-2023

Data Reliability

1. Exclude = Conclusions should not be made from this assessment column

ARM Action Codes

T1 = ((C32)*2.20462262)
T3 = ((C33)*43560)/100
T2 = ((C39)*2.20462262)
T4 = ((C40)*43560)/100
T5 = ((C33)+(C40))
T6 = ((C46)*43560)/100
T7 = ((C47)/2000)
T8 = ((C48)*400)
T9 = ((C35)+(C42))
T10 = ((C35)+(C42))/2
T11 = ((C46)/(C54))^-16

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Jul-8-2023	Jul-15-2023	Jul-22-2023	Jun-21-2023	Jul-1-2023	Jul-8-2023	Jul-15-2023	Nov-15-2023	Nov-15-2023
SE Description	VIGOR	VIGOR	VIGOR	GreenSeeker	GreenSeeker	GreenSeeker	GreenSeeker	GreenSeeker	GreenSeeker
Part Rated	FOLIAG C	FOLIAG C	FOLIAG C	FOLIAG C	FOLIAG C	FOLIAG C	FOLIAG C	FOLIAG C	FOLIAG C
Rating Type	VIGOR	VIGOR	VIGOR	NDVI	NDVI	NDVI	NDVI	NDVI	NDVI
Rating Unit/Min/Max	0-10, 0, 10	0-10, 0, 10	0-10, 0, 10	-1-1, -1, 1	-1-1, -1, 1	-1-1, -1, 1	-1-1, -1, 1	-1-1, -1, 1	-1-1, -1, 1
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1	1	1	1	1	1	1	1	1
Number of Subsamples	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
Crop Type, Code	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
BBCH Scale	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>
Crop Scientific Name	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>
Crop Name	24, 14	31, 7	38, 14	7, 7	17, 7	24, 14	24, 14	24, 14	31, 7
Days After First/Last Applic.	14 DA-B	21 DA-B	28 DA-B	7 DA-A	7 DA-B	14 DA-B	14 DA-B	14 DA-B	21 DA-B
Tri-Eval Interval	25 DP-1	32 DP-1	39 DP-1	8 DP-1	18 DP-1	25 DP-1	25 DP-1	25 DP-1	32 DP-1
Plant-Eval Interval	25 DE-1	32 DE-1	39 DE-1	8 DE-1	18 DE-1	25 DE-1	25 DE-1	25 DE-1	32 DE-1
Days After Emergence									
Data Reliability									
ARM Action Codes									
Number of Decimals									
Data Entry Date	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023
Trt Treatment									
No. Name	8	9	10	11	12	13	14		
Rate Unit									
Rate Appl									
Code Plot									
1	Control - 100% H2O	114 201 3-12 4-16 507 6-10 701 Mean =	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	0.170 0.180 0.120 0.120 0.130 0.100 0.100 0.131	0.400 0.400 0.500 0.410 0.410 0.260 0.260 0.377	0.420 0.400 0.450 0.390 0.500 0.360 0.260 0.397	0.310 0.320 0.570 0.590 0.340 0.370 0.310 0.401
2	Control - 60% H2O	110 214 303 401 513 608 702 Mean =	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	0.120 0.200 0.170 0.200 0.150 0.200 0.170 0.173	0.400 0.430 0.500 0.410 0.480 0.410 0.360 0.420	0.350 0.500 0.450 0.390 0.500 0.360 0.424	0.400 0.330 0.490 0.470 0.400 0.450 0.320 0.409
3	Competitor 60% H2O	48 oz/la ABC 113 215 313 410 502 607 707 Mean =	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	0.140 0.130 0.150 0.140 0.220 0.180 0.220 0.169	0.460 0.440 0.350 0.520 0.340 0.530 0.350 0.429	0.560 0.410 0.350 0.490 0.490 0.540 0.400 0.461	0.560 0.400 0.260 0.470 0.430 0.290 0.404

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	
Rating Date	Jul-22-2023	Jul-1-2023	Jul-8-2023	Jun-21-2023	Jul-1-2023	Jul-8-2023	Jul-8-2023	Jul-15-2023	Jul-15-2023	
SE Description	GreenSeeker FOLIAG C NDVI -1-1, -1, 1	CANOPY/FOLIAGE > FOLIAG C DENSTY % , 0, 100	CANOPY/FOLIAGE > FOLIAG C DENSTY % , 0, 100	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	
Part Rated	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Rating Type	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	
Rating Unit/Min/Max	1	6	4	1	1	1	1	1	1	
Sample Size	1	6	4	1	1	1	1	1	1	
Collection Basis	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	
Number of Subsamples	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	
Crop Type, Code	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	
BBCH Scale	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	
Crop Scientific Name	38, 14	17, 7	24, 14	7, 7	17, 7	7, 7	24, 14	31, 7	31, 7	
Crop Name	28 DA-B	7 DA-B	14 DA-B	7 DA-A	7 DA-B	7 DA-A	14 DA-B	21 DA-B	21 DA-B	
Days After First/Last Applic.	39 DP-1	18 DP-1	25 DP-1	8 DP-1	18 DP-1	8 DP-1	25 DP-1	32 DP-1	32 DP-1	
Tri-Eval Interval	39 DE-1	18 DE-1	25 DE-1	8 DE-1	18 DE-1	8 DE-1	25 DE-1	32 DE-1	32 DE-1	
Plant-Eval Interval										
Days After Emergence										
Data Reliability										
ARM Action Codes										
Number of Decimals										
Data Entry Date	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	
Trt Treatment										
No. Name	Rate Appl	Rate Unit	Code	Plot						
1	Control - 100% H2O	114	0.320	5.330	19.080	12.0	12.0	15.0	59.0	71.0
		201	0.210	7.600	25.118	12.0	12.0	15.0	59.0	71.0
		3-12	0.490	7.350	31.228	12.0	12.0	15.0	59.0	71.0
		4-16	0.460	6.600	24.493	12.0	12.0	15.0	59.0	71.0
		5-07	0.450	6.357	19.753	12.0	12.0	15.0	59.0	71.0
		6-10	0.210	2.997	17.168	12.0	12.0	15.0	59.0	71.0
		7-01	0.210	2.997	20.375*	12.0	12.0	15.0	59.0	71.0
		Mean =	0.336	5.604	22.459	12.0	12.0	15.0	59.0	71.0
2	Control - 60% H2O	110	0.440	5.550	30.250	12.0	12.0	15.0	59.0	71.0
		2-14	0.460	6.210	40.508	12.0	12.0	15.0	59.0	71.0
		3-03	0.460	7.297	36.445	12.0	12.0	15.0	59.0	71.0
		4-01	0.420	6.192	27.745	12.0	12.0	15.0	59.0	71.0
		5-13	0.510	6.015	30.730	12.0	12.0	15.0	59.0	71.0
		6-08	0.630	5.208	29.413	12.0	12.0	15.0	59.0	71.0
		7-02	0.400	4.607	25.590	12.0	12.0	15.0	59.0	71.0
		Mean =	0.474	5.868	31.526	12.0	12.0	15.0	59.0	71.0
3	Competitor 60% H2O	48 oz/a ABC	0.500	8.013	38.258	12.0	12.0	15.0	59.0	71.0
		1-15	0.440	8.153	33.750	12.0	12.0	15.0	59.0	71.0
		3-13	0.280	4.632	20.650	12.0	12.0	15.0	59.0	71.0
		4-10	0.560	6.615	39.828	12.0	12.0	15.0	59.0	71.0
		5-02	0.550	7.857	33.833	12.0	12.0	15.0	59.0	71.0
		6-07	0.600	6.603	33.785	12.0	12.0	15.0	59.0	71.0
		7-07	0.490	7.492	28.995	12.0	12.0	15.0	59.0	71.0
		Mean =	0.489	7.052	32.728	12.0	12.0	15.0	59.0	71.0

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APHTomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Jul-21-2023	Jul-15-2023	Jul-22-2023	Jul-8-2023	Jul-8-2023	Jul-8-2023	Jun-22-2023	Jul-3-2023	Bill Davis
SE Description	BBCH SCALE	NUMBER OF RED T FLOWER COUNT	NUMBER OF RED T FLOWER COUNT	FRESH FOLIAR BIOMASS	HEIGHT PLANT C	HEIGHT PLANT C	SPAD meter read PLANT C	SPAD meter read PLANT, C	Bill Davis
Part Rated	PLOT C	5 SQFT	5 SQFT	3 PLOT	9, -	6 PLOT	15 PLOT	15 PLOT	15 PLOT
Rating Type	BBCH, -	1 PLOT	1 PLOT	3 PLOT	1 PLOT	1 PLOT	15 PLOT	15 PLOT	15 PLOT
Rating Unit/Min/Max	1 PLOT	5 SQFT	5 SQFT	3 PLOT	1 PLOT	6 PLOT	15 PLOT	15 PLOT	15 PLOT
Sample Size	1 PLOT	5 SQFT	5 SQFT	3 PLOT	1 PLOT	6 PLOT	15 PLOT	15 PLOT	15 PLOT
Collection Basis	1 PLOT	5 SQFT	5 SQFT	3 PLOT	1 PLOT	6 PLOT	15 PLOT	15 PLOT	15 PLOT
Number of Subsamples	1	1	1	3	1	4	12	4	4
Crop Type, Code	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
Crop Scientific Name	Solanum lycopers	Solanum lycopers	Solanum lycopers	Solanum lycopers	Solanum lycopers	Solanum lycopers	Solanum lycopers	Solanum lycopers	Solanum lycopers
Crop Name	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>
Days After First/Last Applic.	37, 13	31, 7	38, 14	24, 14	24, 14	24, 14	8, 8	19, 9	19, 9
Tri-Eval Interval	27 DA-B	32 DP-1	39 DP-1	14 DA-B	14 DA-B	14 DA-B	9 DP-1	20 DP-1	20 DP-1
Plant-Eval Interval	38 DP-1	32 DE-1	39 DE-1	25 DP-1	25 DP-1	25 DP-1	9 DE-1	20 DE-1	20 DE-1
Days After Emergence	38 DE-1	32 DE-1	39 DE-1	25 DE-1	25 DE-1	25 DE-1	9 DE-1	20 DE-1	20 DE-1
Data Reliability									
ARM Action Codes									
Number of Decimals									
Data Entry Date	Nov-11-2023	Nov-16-2023	Nov-16-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023
Trt Treatment									
No. Name									
Rate Unit									
Code									
Plot									
Rate Appl									
1	Control - 100% H2O	114	73.0	28.0	39.0	181.0	467.5	62.49	70.05
		201	73.0	27.0	20.0	181.7	470.0	68.02	73.98
		312	73.0	39.0	42.0	196.0	502.5	55.09	71.93
		416	73.0	27.0	36.0	186.3	510.0	61.47	67.95
		507	73.0	17.0	55.0	183.3	512.5	65.91	69.38
		610	73.0	1.0	13.0	169.0	527.5	56.42	73.83
		701	73.0	19.1*	26.6*	180.0	491.2*	60.75*	68.64*
	Mean =		73.0	22.6	33.1	182.5	497.3	61.45	70.82
2	Control - 60% H2O	110	73.0	14.0	33.0	194.7	502.5	60.40	69.00
		214	73.0	32.0	44.0	207.0	535.0	63.34	70.18
		303	73.0	19.0	39.0	199.3	525.0	66.92	71.28
		401	73.0	8.0	28.0	182.3	495.0	64.10	68.55
		513	73.0	24.0	36.0	166.7	532.5	65.53	73.63
		608	73.0	23.0	25.0	168.7	530.0	68.64	70.95
		702	73.0	13.0	14.0	199.7	480.0	66.99	70.83
	Mean =		73.0	19.0	31.3	188.3	514.3	65.13	70.63
3	Competitor 60% H2O	113	73.0	27.0	40.0	203.0	592.5	67.48	72.38
	48 oz/la ABC	215	73.0	29.0	25.0	217.0	551.3	63.90	73.15
		313	73.0	8.0	25.0	203.3	510.0	65.21	68.05
		410	73.0	18.0	27.0	200.3	560.0	65.98	69.85
		502	73.0	13.0	29.0	190.0	572.5	65.70	72.28
		607	73.0	10.0	31.0	209.7	552.5	67.16	74.20
		707	73.0	23.0	31.0	218.3	555.0	69.53	72.33
	Mean =		73.0	18.3	29.7	206.0	556.3	66.42	71.75

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APHTomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Sep-13-2023	Sep-13-2023	Sep-13-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023
SE Description	GRADE 1 YIELD (> FRUIT C	MARKETABLE YIELD FRUIT C	BRIX - HARVEST 1 FRUIT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	Number of Fruit> FRULAR C
Part Rated	FRUIT C	YIELD lb/ac, "- 1 PLOT	SCALE, 1, 100 1 PLOT	WEIGHT kg, "- 1 PLOT	WEIGHT lb/plot, "- 1 PLOT	WEIGHT lb/plot, "- 1 PLOT	WEIGHT lb/ac, "- 1 PLOT	YIELD lb/ac, "- 1 PLOT	NUMBER, "- 1 PLOT	
Rating Type	QUALIT	YIELD lb/ac, "- 1 PLOT	SCALE, 1, 100 1 PLOT	WEIGHT kg, "- 1 PLOT	WEIGHT lb/plot, "- 1 PLOT	WEIGHT lb/plot, "- 1 PLOT	YIELD lb/ac, "- 1 PLOT	YIELD lb/ac, "- 1 PLOT	COUNT	
Rating Unit/Min/Max	lb/ac, "- 1 PLOT	lb/ac, "- 1 PLOT	SCALE, 1, 100 1 PLOT	kg, "- 1 PLOT	lb/plot, "- 1 PLOT	lb/plot, "- 1 PLOT	lb/ac, "- 1 PLOT	lb/ac, "- 1 PLOT	NUMBER, "- 1 PLOT	
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Collection Basis	1	1	3	1	1	1	1	1	1	
Crop of Subsamples	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	
Crop Type, Code	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	
BBCH Scale	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	
Crop Scientific Name	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	
Crop Name	91, 67	91, 67	91, 67	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	
Days After First/Last Applic.	92 DP-1	92 DP-1	92 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	
Plant-Eval Interval	92 DE-1	92 DE-1	92 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	
Days After Emergence	92 DE-1	92 DE-1	92 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	
Data Reliability	92 DE-1	92 DE-1	92 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	
ARM Action Codes	92 DE-1	92 DE-1	92 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	
Number of Decimals	92 DE-1	92 DE-1	92 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	
Data Entry Date	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	
Trt Treatment	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	
No. Name	Rate Appl	Rate Unit	Code Plot	36	37	38	39	40	41	42
1 Control - 100% H2O	114	5.10	5.10	4.33	6.30	13.9	40	41	42	46.0
	201	5.40	5.40	4.00	3.90	8.6				47.0
	312	6.20	6.20	4.17	10.30	22.7				103.0
	416	11.00	11.00	4.17	7.60	16.8				46.0
	507	13.10	13.10	4.00	5.70	12.6				43.0
	610	6.10	6.10	4.00	6.80	15.0				57.0
	701	4.36*	4.36*	4.00	7.69*	17.0*				57.9*
	Mean =	7.32	7.32	4.10	6.90	15.2				57.1
2 Control - 60% H2O	110	7.70	7.70	4.00	14.00	30.9				115.0
	214	16.60	16.60	4.17	11.10	24.5				93.0
	303	5.60	5.60	4.00	2.60	5.7				17.0
	401	5.10	5.10	4.17	3.00	6.6				32.0
	513	10.60	10.60	4.00	21.30	47.0				154.0
	608	12.80	12.80	4.00	1.90	4.2				10.0
	702	6.40	6.40	4.00	5.90	13.0				72.0
	Mean =	9.26	9.26	4.05	8.54	18.8				70.4
3 Competitor 60% H2O	113	24.50	24.50	4.00	16.70	36.8				195.0
	215	7.30	7.30	4.00	15.70	34.6				142.0
	313	6.40	6.40	5.00	7.70	17.0				63.0
	410	23.90	23.90	4.83	15.00	33.1				111.0
	502	15.10	15.10	4.50	21.70	47.8				158.0
	607	11.10	11.10	4.00	14.00	30.9				100.0
	707	14.00	14.00	4.00	11.30	24.9				67.0
	Mean =	14.61	14.61	4.33	14.59	32.2				119.4

Davis Research And Development

To evaluate the benefits of Seasoil when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APHTomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023
SE Description	MARKETABLE YIELD (> FRUIT C	BRIX - HARVEST 2 FRUIT C	BRIX SCALE, 1, 100 1 PLOT	YIELD lb/ac, -- 1 PLOT	YIELD lb/ac, -- 1 PLOT	YIELD lb/ac, -- 1 PLOT	YIELD lb/ac, -- 1 PLOT	YIELD lb/ac, -- 1 PLOT	YIELD lb/ac, -- 1 PLOT	YIELD lb/ac, -- 1 PLOT
Part Rated	FRUIT C	FRUIT C	FRUIT C	FRUIT C	FRUIT C	FRUIT C	FRUIT C	FRUIT C	FRUIT C	FRUIT C
Rating Type	QUALIT	YIELD	SCALE, 1, 100	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD
Rating Unit/Min/Max	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	SCALE, 1, 100 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1	1	3	1	1	1	1	1	1	1
Number of Subsamples	1	1	3	1	1	1	1	1	1	1
Crop Type, Code	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
Crop Scientific Name	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>
Crop Name	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>
Days After First/Last Applic.	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106
Plant-Eval Interval	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1
Days After Emergence	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1
Data Reliability										
ARM Action Codes										
Number of Decimals	0	1								
Data Entry Date	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023
Trt Treatment	Rate Appl	Rate Unit	Code	Plot						
1 Control - 100% H2O	114	43	44	45	46	47	48	49		
	14	14	14	14	14	14	14	14	14	14
	201	9	8.6	4.50	25.1	10948	5.5	2190	5.5	1786
	312	23	22.7	4.17	20.5	8931	4.5	1786	4.5	1786
	416	17	16.8	4.17	36.4	15846	7.9	3169	7.9	3169
	507	13	12.6	4.33	41.0	17862	8.9	3572	8.9	3572
	610	15	15.0	4.33	41.4	18054	9.0	3611	9.0	3611
	701	17*	17.0*	4.67	28.4	12388	6.2	2478	6.2	2478
	Mean =	15	15.2	4.83	26.6*	11574*	5.8*	2315*	5.8*	2315*
				4.43	31.4	13658	6.8	2732	6.8	2732
2 Control - 60% H2O	110	31	30.9	4.33	47.8	20839	10.4	4168	10.4	4168
	214	24	24.5	5.00	61.1	26601	13.3	5320	13.3	5320
	303	6	5.7	4.50	18.1	7875	3.9	1575	3.9	1575
	401	7	6.6	4.33	17.9	7779	3.9	1556	3.9	1556
	513	47	47.0	4.00	70.3	30635	15.3	6127	15.3	6127
	608	4	4.2	4.17	32.4	14117	7.1	2823	7.1	2823
	702	13	13.0	4.00	27.1	11812	5.9	2362	5.9	2362
	Mean =	19	18.8	4.33	39.2	17094	8.5	3419	8.5	3419
				4.67	90.8	39566	19.8	7913	19.8	7913
3 Competitor 60% H2O	113	37	36.8	4.67	90.8	39566	19.8	7913	19.8	7913
	215	35	34.6	5.00	50.7	22088	11.0	4418	11.0	4418
	313	17	17.0	5.00	31.1	13541	6.8	2708	6.8	2708
	410	33	33.1	4.83	85.8	37357	18.7	7471	18.7	7471
	502	48	47.8	4.83	81.1	35340	17.7	7068	17.7	7068
	607	31	30.9	4.67	24.9	24104	12.1	4821	12.1	4821
	707	25	24.9	5.00	55.8	24296	12.1	4859	12.1	4859
	Mean =	32	32.2	4.86	64.4	28042	14.0	5608	14.0	5608

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: Lodi, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis		
Rating Date	Jul-22-2023	Jul-1-2023	Jul-8-2023	Jun-21-2023	Jul-1-2023	Jul-8-2023	Jul-8-2023	Jul-15-2023	Jul-15-2023		
SE Description	GreenSeeker FOLIAG C NDVI -1-1, -1, 1	CANOPY/FOLIAGE > FOLIAG C DENSTY % , 0, 100	CANOPY/FOLIAGE > FOLIAG C DENSTY % , 0, 100	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -		
Part Rated	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Rating Type	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP		
Rating Unit/Min/Max	1	6	4	1	1	1	1	1	1		
Sample Size	1	6	4	1	1	1	1	1	1		
Collection Basis	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP		
Number of Subsamples	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO		
Crop Type, Code	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>		
BBCH Scale	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>		
Crop Scientific Name	38, 14	17, 7	24, 14	7, 7	17, 7	24, 14	24, 14	31, 7	31, 7		
Crop Name	28 DA-B	7 DA-B	14 DA-B	7 DA-A	7 DA-B	14 DA-B	14 DA-B	21 DA-B	21 DA-B		
Days After First/Last Applic.	39 DP-1	18 DP-1	25 DP-1	8 DP-1	18 DP-1	25 DP-1	25 DP-1	32 DP-1	32 DP-1		
Tri-Eval Interval	39 DE-1	18 DE-1	25 DE-1	8 DE-1	18 DE-1	25 DE-1	25 DE-1	32 DE-1	32 DE-1		
Plant-Eval Interval											
Days After Emergence											
Data Reliability											
ARM Action Codes											
Number of Decimals											
Data Entry Date	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-11-2023	Nov-11-2023	Nov-15-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023		
Trt Treatment											
No. Name	Rate Appl	Rate Unit	Code Plot								
4	Season 60% H2O	64 oz/la	ABC	104	0.390	8.612	52.230	12.0	15.0	59.0	71.0
				208	0.570	8.580	41.853	12.0	15.0	59.0	71.0
				317	0.500	8.732	31.613	12.0	15.0	59.0	71.0
				415	0.500	6.780	34.123	12.0	15.0	59.0	71.0
				510	0.260	5.485	28.460	12.0	15.0	59.0	71.0
				615	0.310	5.948	28.803	12.0	15.0	59.0	71.0
				708	0.460	9.485	45.078	12.0	15.0	59.0	71.0
				Mean =	0.427	7.660	37.451	12.0	15.0	59.0	71.0
5	Season 75% H2O	64 oz/la	ABC	111	0.460	10.390	39.855	12.0	15.0	59.0	71.0
				210	0.460	8.370	40.220	12.0	15.0	59.0	71.0
				314	0.470	9.007	32.900	12.0	15.0	59.0	71.0
				413	0.430	9.157	33.053	12.0	15.0	59.0	71.0
				504	0.380	6.498	37.108	12.0	15.0	59.0	71.0
				602	0.470	8.693	37.885	12.0	15.0	59.0	71.0
				709	0.440	7.363	31.483	12.0	15.0	59.0	71.0
				Mean =	0.444	8.497	36.072	12.0	15.0	59.0	71.0
6	Nano 101 60% H2O	0.8 oz/la	ABC	108	0.490	7.602	45.420	12.0	15.0	59.0	71.0
				212	0.390	6.403	27.825	12.0	15.0	59.0	71.0
				307	0.420	10.742	36.410	12.0	15.0	59.0	71.0
				414	0.370	8.453	33.200	12.0	15.0	59.0	71.0
				517	0.510	7.328	35.360	12.0	15.0	59.0	71.0
				616	0.550	6.237	30.163	12.0	15.0	59.0	71.0
				710	0.530	6.495	30.378	12.0	15.0	59.0	71.0
				Mean =	0.466	7.609	34.108	12.0	15.0	59.0	71.0

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APHTomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis		
Rating Date	Jul-21-2023	Jul-15-2023	Jul-22-2023	Jul-8-2023	Jul-8-2023	Jun-22-2023	Jul-3-2023	Jul-3-2023	Nov-15-2023		
SE Description	BBCH SCALE	NUMBER OF RED T > FLOWER COUNT	NUMBER OF RED T > FLOWER COUNT	FRESH FOLIAR BIOMASS	HEIGHT PLANT C	SPAD meter read> PLANT C Chlorophyll	SPAD meter read> PLANT, C	SPAD meter read> PLANT, C	Nov-15-2023		
Part Rated	PLOT C	FLOWER COUNT	FLOWER COUNT	BIOMASS	PLANT C	PLANT C	PLANT, C	PLANT, C	Nov-15-2023		
Rating Type	DEVELO	FLOWER COUNT	FLOWER COUNT	BIOMASS	HEIGHT	Chlorophyll	Chlorophyll	Chlorophyll	Nov-15-2023		
Rating Unit/Min/Max	BBCH, -, -	FLOWER COUNT	FLOWER COUNT	BIOMASS	HEIGHT	Chlorophyll	Chlorophyll	Chlorophyll	Nov-15-2023		
Sample Size	1 PLOT	5 SQFT	5 SQFT	3 PLOT	6 PLOT	15 PLOT	15 PLOT	15 PLOT	Nov-15-2023		
Collection Basis	1 PLOT	5 SQFT	5 SQFT	3 PLOT	6 PLOT	15 PLOT	15 PLOT	15 PLOT	Nov-15-2023		
Number of Subsamples	1	1	1	3	4	12	4	4	Nov-15-2023		
Crop Type, Code	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	Nov-15-2023		
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	Nov-15-2023		
Crop Scientific Name	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Nov-15-2023		
Crop Name	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Nov-15-2023		
Days After First/Last Applic.	37, 13	31, 7	38, 14	24, 14	24, 14	24, 14	24, 14	24, 14	Nov-15-2023		
Tri-Eval Interval	27 DA-B	32 DP-1	39 DP-1	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-B	Nov-15-2023		
Plant-Eval Interval	38 DP-1	32 DE-1	39 DE-1	25 DP-1	25 DP-1	25 DP-1	25 DP-1	25 DP-1	Nov-15-2023		
Days After Emergence	38 DE-1	32 DE-1	39 DE-1	25 DE-1	25 DE-1	25 DE-1	25 DE-1	25 DE-1	Nov-15-2023		
Data Reliability									Nov-15-2023		
ARM Action Codes									Nov-15-2023		
Number of Decimals									Nov-15-2023		
Data Entry Date									Nov-15-2023		
Trt Treatment									Nov-15-2023		
No. Name									Nov-15-2023		
Rate Unit									Nov-15-2023		
Rate Appl									Nov-15-2023		
Code Plot									Nov-15-2023		
4	Season 60% H2O	64 oz/la	ABC	104	73.0	28.0	44.0	198.7	632.5	64.41	74.03
				208	73.0	24.0	29.0	210.3	575.0	69.20	75.93
				317	73.0	22.0	51.0	208.0	567.5	67.94	77.15
				415	73.0	32.0	49.0	185.3	570.0	67.20	76.03
				510	73.0	9.0	25.0	180.0	520.0	68.04	67.73
				615	73.0	20.0	23.0	209.7	537.5	67.79	74.95
				708	73.0	14.0	33.0	209.7	570.0	62.84	66.58
				Mean =	73.0	21.3	36.3	200.2	567.5	66.78	73.20
5	Season 75% H2O	64 oz/la	ABC	111	73.0	17.0	28.0	200.7	557.5	70.73	73.95
				210	73.0	35.0	50.0	203.7	605.0	67.43	80.98
				314	73.0	12.0	29.0	207.7	550.0	60.67	76.40
				413	73.0	23.0	21.0	193.3	532.5	65.98	69.50
				504	73.0	21.0	30.0	190.0	522.5	63.65	75.70
				602	73.0	28.0	33.0	196.0	555.0	71.08	68.78
				709	73.0	16.0	22.0	215.0	552.5	64.72	70.45
				Mean =	73.0	21.7	30.4	200.9	553.6	66.32	73.68
6	Nano 101 60% H2O	0.8 oz/la	ABC	108	73.0	31.0	45.0	212.7	580.0	65.80	72.88
				212	73.0	21.0	22.0	218.3	537.5	63.99	69.80
				307	73.0	18.0	22.0	208.3	565.0	63.99	74.75
				414	73.0	24.0	15.0	203.0	540.0	65.63	69.35
				517	73.0	23.0	37.0	199.0	565.0	69.03	73.90
				616	73.0	18.0	37.0	209.7	567.5	67.21	75.23
				710	73.0	19.0	24.0	225.7	565.0	63.87	70.73
				Mean =	73.0	22.0	28.9	211.0	560.0	66.65	72.38

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APHTomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Jul-10-2023	Jul-18-2023	Sep-13-2023	Sep-13-2023	Sep-13-2023	Sep-13-2023	Sep-13-2023	Sep-13-2023	Sep-13-2023
SE Description	SPAD meter read> PLANT, C	SPAD meter read> PLANT, C	FRUITOT, C	FRUITOT, C	FRUITOT, C	FRUITOT, C	FRUITOT, C	FRUITOT, C	FRUITOT, C
Part Rated	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT
Rating Type	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
Rating Unit/Min/Max	5	4	1	1	1	1	1	1	1
Sample Size	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT
Collection Basis	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
Number of Subsamples	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
Crop Type, Code	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>
BBCH Scale	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>
Crop Scientific Name	26, 2	34, 10	91, 67	91, 67	91, 67	91, 67	91, 67	91, 67	91, 67
Crop Name	27 DP-1	35 DP-1	92 DP-1	92 DP-1	92 DP-1	92 DP-1	92 DP-1	92 DP-1	92 DP-1
Days After First/Last Applic.	27 DE-1	35 DE-1	92 DE-1	92 DE-1	92 DE-1	92 DE-1	92 DE-1	92 DE-1	92 DE-1
Tri-Eval Interval									
Plant-Eval Interval									
Days After Emergence									
Data Reliability									
ARM Action Codes									
Number of Decimals									
Data Entry Date	Nov-15-2023	Nov-15-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023
Trt Treatment									
No. Name									
Rate Unit	Rate Appl	Rate Appl	Rate Appl	Rate Appl	Rate Appl	Rate Appl	Rate Appl	Rate Appl	Rate Appl
Code	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC
4 Season 60% H2O	64 oz/la	64 oz/la	64 oz/la	64 oz/la	64 oz/la	64 oz/la	64 oz/la	64 oz/la	64 oz/la
104	71.200	72.5	31.80	31.80	70.1	70.1	30539	30539	256.0
208	66.060	72.8	24.90	24.90	54.9	54.9	23912	23912	213.0
317	69.800	77.0	26.50	26.50	58.4	58.4	25449	25449	228.0
415	60.500	70.8	17.70	17.70	39.0	39.0	16998	16998	152.0
510	62.780	65.0	9.60	9.60	21.2	21.2	9219	9219	83.0
615	63.640	60.8	9.70	9.70	21.4	21.4	9315	9315	84.0
708	65.700	68.5	16.60	16.60	36.6	36.6	15942	15942	112.0
Mean =	65.669	69.6	19.54	19.54	43.1	43.1	18768	18768	161.1
5 Season 75% H2O	64 oz/la	64 oz/la	64 oz/la	64 oz/la	64 oz/la	64 oz/la	64 oz/la	64 oz/la	64 oz/la
111	61.480	63.0	8.90	8.90	19.6	19.6	8547	8547	89.0
210	69.000	76.3	32.20	32.20	71.0	71.0	30923	30923	300.0
314	63.620	68.5	16.80	16.80	37.0	37.0	16134	16134	142.0
413	68.640	61.5	9.00	9.00	19.8	19.8	8643	8643	66.0
504	61.360	61.0	6.40	6.40	14.1	14.1	6146	6146	52.0
602	64.060	71.0	15.70	15.70	34.6	34.6	15077	15077	126.0
709	65.660	63.5	9.70	9.70	21.4	21.4	9315	9315	74.0
Mean =	64.831	66.4	14.10	14.10	31.1	31.1	13541	13541	121.3
6 Nano 101 60% H2O	0.8 oz/la	0.8 oz/la	0.8 oz/la	0.8 oz/la	0.8 oz/la	0.8 oz/la	0.8 oz/la	0.8 oz/la	0.8 oz/la
108	71.140	73.0	31.30	31.30	69.0	69.0	30058	30058	220.0
212	63.340	66.0	3.50	3.50	7.7	7.7	3361	3361	30.0
307	58.820	67.8	14.10	14.10	31.1	31.1	13541	13541	113.0
414	67.920	68.5	7.80	7.80	17.2	17.2	7491	7491	53.0
517	66.340	65.5	16.20	16.20	35.7	35.7	15557	15557	138.0
616	62.620	62.3	18.30	18.30	40.3	40.3	17574	17574	170.0
710	64.760	67.0	10.50	10.50	23.1	23.1	10084	10084	97.0
Mean =	64.991	67.1	14.53	14.53	32.0	32.0	13952	13952	117.3

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Sep-13-2023	Sep-13-2023	Sep-13-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023
SE Description	GRADE 1 YIELD (> FRUIT C	MARKETABLE YIELD (> FRUIT C	BRIX - HARVEST 1 BRIX FRUIT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	Number of Fruit> FRULAR C
Part Rated	FRUIT C	FRUIT C	SCALE, 1, 100	kg, --	lb/plot, --	lb/plot, --	lb/plot, --	lb/plot, --	lb/plot, --	NUMBER, --
Rating Type	YIELD	YIELD	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Rating Unit/Min/Max	lb/ac, --	lb/ac, --	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Sample Size	1	1	3	1	1	1	1	1	1	1
Collection Basis	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
Number of Subsamples	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
Crop Type, Code	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>	Solanum lycoper>
BBCH Scale	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>
Crop Scientific Name	91, 67	91, 67	91, 67	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106
Crop Name	92 DP-1	92 DP-1	92 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1
Days After First/Last Applic.	92 DE-1	92 DE-1	92 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1
Tri-Eval Interval										
Plant-Eval Interval										
Days After Emergence										
Data Reliability										
ARM Action Codes										
Number of Decimals										
Data Entry Date	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023
Trt Treatment										
No. Name	Rate Appl	Rate Unit	Code Plot							
4 Season 60% H2O	64 oz/la	ABC	104							
			208	31.80	31.80	4.00	38	39	40	41
			317	24.90	24.90	4.00				
			415	26.50	26.50	4.00				
			510	17.70	17.70	4.00				
			615	9.60	9.60	4.00				
			708	9.70	9.70	4.00				
			Mean =	16.60	16.60	4.67				
				19.54	19.54	4.10				
5 Season 75% H2O	64 oz/la	ABC	111	8.90	8.90	4.00				
			210	32.20	32.20	4.00				
			314	16.80	16.80	4.00				
			413	9.00	9.00	4.00				
			504	6.40	6.40	4.00				
			602	15.70	15.70	4.67				
			709	9.70	9.70	4.33				
			Mean =	14.10	14.10	4.14				
6 Nano 101 60% H2O	0.8 oz/la	ABC	108	31.30	31.30	4.00				
			212	3.50	3.50	5.00				
			307	14.10	14.10	5.00				
			414	7.80	7.80	4.33				
			517	16.20	16.20	4.83				
			616	18.30	18.30	4.00				
			710	10.50	10.50	4.33				
			Mean =	14.53	14.53	4.50				
				21.46	21.46	4.50				
				47.3	47.3	4.50				
				20606	20606	20606				
				26313	26313	26313				
				87.0	87.0	87.0				
				17670	17670	17670				
				23240	23240	23240				
				193.0	193.0	193.0				
				13541	13541	13541				
				11428	11428	11428				
				26.2	26.2	26.2				
				96.8	96.8	96.8				
				42159	42159	42159				
				19879	19879	19879				
				33708	33708	33708				
				21511	21511	21511				
				49.4	49.4	49.4				
				22952	22952	22952				
				249.0	249.0	249.0				
				14021	14021	14021				
				13733	13733	13733				
				9315	9315	9315				
				16161	16161	16161				
				50.0	50.0	50.0				
				5954	5954	5954				
				6914	6914	6914				
				11620	11620	11620				
				18342	18342	18342				
				33804	33804	33804				
				30347	30347	30347				
				42	42	42				

Davis Research And Development

To evaluate the benefits of Seacol when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APHTomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023
SE Description	MARKETABLE YIELD (> FRUIT C	BRIX - HARVEST 2 FRUIT C	BRIX YIELD lb/ac, -- 1 PLOT	SCALE, 1, 100 1 PLOT	YIELD lb/ac, -- 1 PLOT	YIELD lb/ac, -- 1 PLOT	YIELD lb/ac, -- 1 PLOT	YIELD lb/ac, -- 1 PLOT	YIELD lb/ac, -- 1 PLOT	YIELD lb/ac, -- 1 PLOT
Part Rated	FRUIT C	FRUIT C	FRUIT C	FRUIT C	FRUIT C	FRUIT C	FRUIT C	FRUIT C	FRUIT C	FRUIT C
Rating Type	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD
Rating Unit/Min/Max	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT	lb/ac, -- 1 PLOT
Sample Size	1	1	1	1	1	1	1	1	1	1
Collection Basis	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
Number of Subsamples	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
Crop Type, Code	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>
BBCH Scale	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>
Crop Scientific Name	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106
Crop Name	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1
Days After First/Last Applic.	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1
Tri-Eval Interval	0	1	1	1	1	1	1	1	1	1
Plant-Eval Interval	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023
Days After Emergence	43	44	44	45	46	47	48	49	49	49
Data Reliability	Rate Appl	Rate Appl	Rate Appl	Rate Appl	Rate Appl	Rate Appl	Rate Appl	Rate Appl	Rate Appl	Rate Appl
ARM Action Codes	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit
Number of Decimals	Code Plot	Code Plot	Code Plot	Code Plot	Code Plot	Code Plot	Code Plot	Code Plot	Code Plot	Code Plot
Data Entry Date	Plot	Plot	Plot	Plot	Plot	Plot	Plot	Plot	Plot	Plot
4 Season 60% H2O	64 oz/la ABC	104	70	5.00	139.8	60885	30.4	48	49	12177
		208	78	5.33	132.5	57716	28.9			11543
		317	42	4.00	100.5	43791	21.9			8758
		415	27	4.00	65.7	28618	14.3			5724
		510	16	4.17	37.0	16134	8.1			3227
		615	14	4.17	35.1	15269	7.6			3054
		708	14	4.67	50.7	22088	11.0			4418
		Mean =	37	4.48	80.2	34929	17.5			6986
5 Season 75% H2O	64 oz/la ABC	111	21	4.17	41.0	17862	8.9			3572
		210	32	4.17	102.5	44656	22.3			8931
		314	32	5.00	69.2	30154	15.1			6031
		413	55	4.00	74.7	32555	16.3			6511
		504	53	4.17	66.8	29098	14.5			5820
		602	49	4.50	84.0	36589	18.3			7318
		709	77	4.33	98.8	43023	21.5			8605
		Mean =	46	4.33	76.7	33420	16.7			6684
6 Nano 101 60% H2O	0.8 oz/la ABC	108	97	4.67	165.8	72217	36.1			14443
		212	26	5.00	34.0	14789	7.4			2958
		307	31	5.00	62.2	27081	13.5			5416
		414	53	4.50	70.5	30731	15.4			6146
		517	41	4.83	76.3	33228	16.6			6646
		616	23	4.50	63.1	27466	13.7			5493
		710	60	5.00	83.6	36397	18.2			7279
		Mean =	47	4.79	79.3	34558	17.3			6912

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023
SE Description	Stem Caliper Wi> STEMMA, C	Largest Root Ca> ROOTAP, C	Largest Root Le> ROOTAP, C	Root Density Ra> ROOT, C	Number of fruit> FRUMAT, C	Number of fruit> FRUMAT, C	Number of fruit> FRUMAT, C	Average OZ per > FRUMAT, C	Oct-22-2023
Part Rated	mm, "- 1 PLOT	mm, "- 1 PLOT	mm, "- 1 PLOT	NUMBER, 1, 10 1 PLOT	NUMBER, "- 1 PLOT	NUMBER, "- 1 PLOT	NUMBER, "- 1 PLOT	WEIGHT oz, "- 1 PLOT	
Rating Type	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	
Rating Unit/Min/Max	mm, "- 1 PLOT	mm, "- 1 PLOT	mm, "- 1 PLOT	NUMBER, 1, 10 1 PLOT	NUMBER, "- 1 PLOT	NUMBER, "- 1 PLOT	NUMBER, "- 1 PLOT	WEIGHT oz, "- 1 PLOT	
Sample Size	3	3	3	3	1	1	1	1	
Collection Basis	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	
Number of Subsamples	3	3	3	3	1	1	1	1	
Crop Type, Code	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	
BBCH Scale	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	
Crop Scientific Name	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	
Crop Name	131 DP-1 131 DE-1	131 DP-1 131 DE-1	131 DP-1 131 DE-1	131 DP-1 131 DE-1	131 DP-1 131 DE-1	131 DP-1 131 DE-1	131 DP-1 131 DE-1	131 DP-1 131 DE-1	
Days After First/Last Applic.	2	1	1	0	0	0	0	T11 1	
Tri-Eval Interval	Nov-18-2023	Nov-18-2023	Nov-18-2023	Nov-18-2023	Nov-18-2023	Nov-18-2023	Nov-18-2023	T10 1	
Plant-Eval Interval									
Days After Emergence									
Data Reliability									
ARM Action Codes									
Number of Decimals									
Data Entry Date									
Trt Treatment									
No. Name	Rate Appl	Rate Unit	Code Plot						
4 Season 60% H2O	50	51	52	53	54	55	56		
	16.26	11.3	263	263	482	241.00	4.6		
	18.09	7.5	253	253	501	250.50	4.2		
	15.85	7.3	187	187	380	190.00	4.2		
	16.88	7.5	240	240	273	136.50	3.9		
	510	11.0	300	300	136	68.00	4.4		
	16.96	9.6	277	277	139	69.50	4.0		
	16.13	5.9	277	277	162	81.00	5.0		
	17.09	8.6	257	257	296	148.07	4.3		
Mean =									
5 Season 75% H2O	111	10.4	327	327	166	83.00	4.0		
	18.69	11.0	373	373	417	208.50	3.9		
	16.24	7.5	290	290	260	130.00	4.3		
	19.59	7.7	287	287	266	133.00	4.5		
	504	9.1	283	283	231	115.50	4.6		
	18.00	10.8	252	252	295	147.50	4.6		
	14.67	7.9	183	183	333	166.50	4.7		
	18.03	9.2	285	285	281	140.57	4.4		
Mean =									
6 Nano 101 60% H2O	108	10.0	450	450	549	274.50	4.8		
	212	5.5	287	287	141	70.50	3.9		
	307	7.4	277	277	216	108.00	4.6		
	414	6.7	285	285	246	123.00	4.6		
	517	5.0	247	247	271	135.50	4.5		
	616	4.8	320	320	257	128.50	3.9		
	710	7.3	207	207	304	152.00	4.4		
Mean =									
	16.32	6.7	296	296	283	141.71	4.4		

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Jul-22-2023	Jul-1-2023	Jul-8-2023	Jun-21-2023	Jul-1-2023	Jul-8-2023	Jul-1-2023	Jul-8-2023	Jul-15-2023	Jul-15-2023
SE Description	GreenSeeker FOLIAG C NDVI -1-1, -1, 1	CANOPY/FOLIAGE > FOLIAG C DENSTY % 0, 100	CANOPY/FOLIAGE > FOLIAG C DENSTY % 0, 100	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -	BBCH SCALE PLOT C DEVELO BBCH, -, -
Part Rated	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Rating Type	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
Rating Unit/Min/Max	1	6	4	1	1	1	1	1	1	1
Sample Size	1	6	4	1	1	1	1	1	1	1
Collection Basis	1	6	4	1	1	1	1	1	1	1
Number of Subsamples	1	6	4	1	1	1	1	1	1	1
Crop Type, Code	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO
Crop Scientific Name	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>
Crop Name	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>
Days After First/Last Applic.	38, 14	17, 7	24, 14	7, 7	7, 7	7, 7	7, 7	24, 14	24, 14	31, 7
Tri-Eval Interval	28 DA-B	7 DA-B	14 DA-B	7 DA-A	7 DA-A	7 DA-A	7 DA-A	14 DA-B	14 DA-B	21 DA-B
Plant-Eval Interval	39 DP-1	18 DP-1	25 DP-1	8 DP-1	8 DP-1	8 DP-1	8 DP-1	25 DP-1	25 DP-1	32 DP-1
Days After Emergence	39 DE-1	18 DE-1	25 DE-1	8 DE-1	8 DE-1	8 DE-1	8 DE-1	25 DE-1	25 DE-1	32 DE-1
Data Reliability										
ARM Action Codes										
Number of Decimals										
Data Entry Date	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-11-2023	Nov-11-2023	Nov-15-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023	Nov-11-2023
Trt Treatment										
No. Name	Rate Appl	Rate Unit	Code Plot	15	16	17	18	19	20	21
7	Season 100% H2O	64 oz/la	ABC	0.260	7.728	26.575	12.0	15.0	59.0	71.0
				0.230	9.058	30.728	12.0	15.0	59.0	71.0
				0.450	7.947	38.568	12.0	15.0	59.0	71.0
				0.530	6.968	35.463	12.0	15.0	59.0	71.0
				0.330	7.807	31.793	12.0	15.0	59.0	71.0
				0.410	6.408	37.710	12.0	15.0	59.0	71.0
				0.348*	7.600	31.048*	12.0	15.0	59.0	71.0
				0.365	7.645	33.126	12.0	15.0	59.0	71.0
				Mean =						
8	Nano 101 100% H2O	0.8 oz/la	ABC	0.400	6.965	27.640	12.0	15.0	59.0	71.0
				0.290	9.622	35.495	12.0	15.0	59.0	71.0
				0.440	9.495	39.138	12.0	15.0	59.0	71.0
				0.460	7.550	33.433	12.0	15.0	59.0	71.0
				0.370	6.320	32.080	12.0	15.0	59.0	71.0
				0.380	8.083	30.985*	12.0	15.0	59.0	71.0
				0.369*	7.867	30.708*	12.0	15.0	59.0	71.0
				0.387	7.986	32.782	12.0	15.0	59.0	71.0
				Mean =						

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To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	
Rating Date	Jul-21-2023	Jul-15-2023	Jul-22-2023	Jul-8-2023	Jul-8-2023	Jul-8-2023	Jul-8-2023	Jun-22-2023	Jul-3-2023	
SE Description	BBCH SCALE	NUMBER OF RED T > FLOWER C COUNT	NUMBER OF RED T > FLOWER C COUNT	FRESH FOLIAR BIOMASS	HEIGHT PLANT C	HEIGHT PLANT C	SPAD meter read> PLANT C	SPAD meter read> PLANT C	SPAD meter read> PLANT, C	
Part Rated	PLOT C	FLOWER C	FLOWER C	BIOMASS	PLANT C	PLANT C	PLANT C	PLANT C	PLANT, C	
Rating Type	DEVELO	COUNT	COUNT		HEIGHT	HEIGHT	Chlorophyll	Chlorophyll		
Rating Unit/Min/Max	BBCH, -, -				mm, -, -	mm, -, -				
Sample Size	1 PLOT	5 SQFT	5 SQFT	3 PLOT	6 PLOT	6 PLOT	15 PLOT	15 PLOT	15 PLOT	
Collection Basis										
Number of Subsamples	1	1	1	3	4	4	12	4	4	
Crop Type, Code	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	
Crop Scientific Name	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	
Crop Name	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	
Days After First/Last Applic.	37, 13	31, 7	38, 14	24, 14	24, 14	24, 14	8, 8	19, 9	19, 9	
Tri-Eval Interval	27 DA-B	32 DP-1	39 DP-1	14 DA-B	14 DA-B	14 DA-B	9 DP-1	20 DP-1	20 DP-1	
Plant-Eval Interval	38 DP-1	32 DE-1	39 DE-1	25 DP-1	25 DP-1	25 DP-1	9 DE-1	20 DE-1	20 DE-1	
Days After Emergence	38 DE-1	32 DE-1	39 DE-1	25 DE-1	25 DE-1	25 DE-1	9 DE-1	20 DE-1	20 DE-1	
Data Reliability										
ARM Action Codes										
Number of Decimals										
Data Entry Date	Nov-11-2023	Nov-16-2023	Nov-16-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	Nov-15-2023	
Trt Treatment										
No. Name	Rate Appl	Rate Unit	Code Plot							
7	Season 100% H2O	64 oz/la	ABC	22	23	24	25	26	27	28
				73.0	41.0	18.0	198.7	518.8	64.11	64.90
				73.0	31.0	29.0	217.0	557.5	66.25	71.80
				73.0	43.0	51.0	207.7	595.0	66.95	77.25
				73.0	25.0	39.0	193.3	585.0	69.40	71.78
				73.0	19.0	38.0	190.0	575.0	64.13	69.03
				73.0	16.0	33.0	191.0	577.5	67.51	73.33
				73.0	25.1*	27.1*	187.3	561.2*	65.59*	68.83*
				73.0	28.6	33.6	197.9	567.1	66.28	70.99
				Mean =						
8	Nano 101 100% H2O	0.8 oz/la	ABC	103	103	103	103	103	103	103
				73.0	33.0	30.0	202.0	527.5	69.66	70.78
				73.0	45.0	27.0	218.7	565.0	63.77	69.75
				73.0	34.0	29.0	215.3	557.5	67.73	77.35
				73.0	32.0	49.0	203.7	581.3	66.32	67.15
				73.0	19.0	23.0	227.3	595.0	64.23	67.33
				73.0	30.0	32.0	223.7	569.3*	67.35*	71.36*
				73.0	28.1*	24.1*	217.7	559.1*	65.72*	68.11*
				73.0	31.6	30.6	215.5	564.9	66.40	70.26
				Mean =						

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To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis											
Rating Date	Jul-10-2023	Jul-18-2023	Sep-13-2023	Sep-13-2023	Sep-13-2023	Sep-13-2023	Sep-13-2023	Sep-13-2023	Sep-13-2023											
SE Description	SPAD meter read> PLANT, C	SPAD meter read> PLANT, C	FRUITOT, C	FRUITOT, C	FRUITOT, C	FRUITOT, C	FRUITOT, C	FRUITOT, C	FRUITOT, C											
Part Rated	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT	15 PLOT											
Rating Type	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP											
Rating Unit/Min/Max	5	4	1	1	1	1	1	1	1											
Sample Size	26, 2	34, 10	91, 67	91, 67	91, 67	91, 67	91, 67	91, 67	91, 67											
Collection Basis	Solanum lycopers> Transplanted to>	Solanum lycopers> Transplanted to>	Solanum lycopers> Transplanted to>	Solanum lycopers> Transplanted to>	Solanum lycopers> Transplanted to>	Solanum lycopers> Transplanted to>	Solanum lycopers> Transplanted to>	Solanum lycopers> Transplanted to>	Solanum lycopers> Transplanted to>											
Number of Subsamples	27 DP-1	35 DP-1	92 DP-1	92 DP-1	92 DP-1	92 DP-1	92 DP-1	92 DP-1	92 DP-1											
Crop Type, Code	27 DE-1	35 DE-1	92 DE-1	92 DE-1	92 DE-1	92 DE-1	92 DE-1	92 DE-1	92 DE-1											
BBCH Scale																				
Crop Scientific Name																				
Crop Name																				
Days After First/Last Applic.																				
Tri-Eval Interval																				
Plant-Eval Interval																				
Days After Emergence																				
Data Reliability																				
ARM Action Codes																				
Number of Decimals																				
Data Entry Date	Nov-15-2023	Nov-15-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023											
Trt Treatment																				
No. Name	Rate Appl	Rate Unit	Code Plot																	
7	Season 100% H2O	64 oz/la	ABC	116	29	30	31	32	33	34	35									
				205	67.460	70.0		6.90	15.2	6626			15.2	6626	57.0					
				301	74.220	74.0		12.20	26.9	11716			26.9	11716	90.0					
				417	64.100	70.0		16.50	36.4	15846			36.4	15846	111.0					
				512	60.140	68.5		12.60	27.8	12100			27.8	12100	93.0					
				605	58.600	66.5		7.40	16.3	7106			16.3	7106	87.0					
				714	61.060	72.5		5.90	13.0	5666			13.0	5666	53.0					
				Mean =	65.340	67.8		6.79*	15.0*	6522*			15.0*	6522*	47.5*					
				Mean =	64.417	69.9		9.76	21.5	9369			21.5	9369	76.9					
8	Nano 101 100% H2O	0.8 oz/la	ABC	103	69.860	74.3		4.70	10.4	4514			10.4	4514	40.0					
				216	67.060	65.3		7.00	15.4	6722			15.4	6722	54.0					
				302	61.100	64.3		14.90	32.8	14309			32.8	14309	111.0					
				404	57.460	67.3		13.50	29.8	12965			29.8	12965	116.0					
				511	61.260	63.8		5.90	13.0	5666			13.0	5666	57.0					
				601	55.860	72.5		7.50	16.5	7203			16.5	7203	77.0					
				715	61.095*	74.3		5.46*	12.0*	5239*			12.0*	5239*	41.5*					
				Mean =	61.956	68.8		8.42	18.6	8088			18.6	8088	70.9					

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To evaluate the benefits of Seasoil when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APHTomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	
Rating Date	Sep-13-2023	Sep-13-2023	Sep-13-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	
SE Description	GRADE 1 YIELD (> FRUIT C	MARKETABLE YIELD (> FRUIT C	BRUX - HARVEST 1 BRUX FRUIT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	TOTAL YIELD (lb> FRUITOT C	Number of Fruit> FRULAR C	
Part Rated	FRUIT C	FRUIT C	SCALE, 1, 100 1 PLOT	FRUITOT C	FRUITOT C	FRUITOT C	FRUITOT C	FRUITOT C	NUMBER, "- 1 PLOT	
Rating Type	QUALIT	YIELD	SCALE, 1, 100 1 PLOT	WEIGHT kg. "- 1 PLOT	WEIGHT lb/plot, "- 1 PLOT	WEIGHT lb/plot, "- 1 PLOT	WEIGHT lb/plot, "- 1 PLOT	WEIGHT lb/plot, "- 1 PLOT	COUNT	
Rating Unit/Min/Max	lb/ac, "- 1 PLOT	lb/ac, "- 1 PLOT	SCALE, 1, 100 1 PLOT	kg. "- 1 PLOT	lb/plot, "- 1 PLOT	lb/plot, "- 1 PLOT	lb/plot, "- 1 PLOT	lb/ac, "- 1 PLOT	NUMBER, "- 1 PLOT	
Sample Size	1	1	1	1	1	1	1	1	1	
Collection Basis	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	
Number of Subsamples	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	
Crop Type, Code	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	
BBCH Scale	Transplanted to> 91, 67	Transplanted to> 91, 67	Transplanted to> 91, 67	Transplanted to> 130, 106	Transplanted to> 130, 106	Transplanted to> 130, 106	Transplanted to> 130, 106	Transplanted to> 130, 106	Transplanted to> 130, 106	
Crop Scientific Name	92 DP-1	92 DP-1	92 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	
Crop Name	92 DE-1	92 DE-1	92 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	
Days After First/Last Applic.										
Tri-Eval Interval										
Plant-Eval Interval										
Days After Emergence										
Data Reliability										
ARM Action Codes										
Number of Decimals										
Data Entry Date	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	Nov-16-2023	
Trt Treatment										
No. Name	Rate Appl	Rate Unit	Code Plot							
7 Season 100% H2O	64 oz/la	ABC	116	36	37	38	39	40	41	
			205	6.90	6.90	4.00	4.90	10.8	4706	42.0
			301	12.20	12.20	4.00	5.60	12.3	5378	35.0
			417	16.50	16.50	4.17	29.30	64.6	28138	202.0
			512	12.60	12.60	4.50	22.50	49.6	21608	176.0
			605	7.40	7.40	4.00	20.70	45.6	19879	171.0
			714	5.90	5.90	4.33	18.80	41.4	18054	149.0
			Mean =	6.79*	6.79*	4.00	17.89*	39.4*	17184*	130.1*
				9.76	9.76	4.14	17.10	37.7	16421	129.3
8 Nano 101 100% H2O	0.8 oz/la	ABC	103	4.70	4.70	4.00	5.50	12.1	5282	40.0
			216	7.00	7.00	4.67	24.80	54.7	23816	162.0
			302	14.90	14.90	5.00	9.60	21.2	9219	70.0
			404	13.50	13.50	4.67	5.80	12.8	5570	41.0
			511	5.90	5.90	4.50	21.30	47.0	20455	150.0
			601	7.50	7.50	4.33	18.90	41.7	18150	140.0
			715	5.46*	5.46*	4.33	15.25*	33.6*	14640*	101.5*
			Mean =	8.42	8.42	4.50	14.45	31.9	13876	100.6

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To evaluate the benefits of Seasoal when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023
SE Description	GRADE 1 YIELD (> FRUIT, C)	MARKETABLE YIELD (> FRUIT, C)	BRIX - HARVEST 2 FRUIT, C	Total Yield LB> FRUIT, C	WEIGHT FRUIT, C	Pounds per Acre B> FRUIT, C	Tons per Acre B> FRUIT, C	\$\$\$ Dollars per> FRUIT, C		
Part Rated	FRUIT, C	FRUIT, C	FRUIT, C	FRUIT, C	FRUIT, C	FRUIT, C	FRUIT, C	FRUIT, C		
Rating Type	QUALIT	YIELD	BRIX	WEIGHT	WEIGHT	WEIGHT	T-JS, -	DOLLAR, -		
Rating Unit/Min/Max	lb/ac, -	lb/ac, -	SCALE, 1, 100	lb/plot, -	lb/ac, -	lb/ac, -	1 PLOT	1 PLOT		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis										
Number of Subsamples	1	1	3	1	1	1	1	1		
Crop Type, Code	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP	C, LYPXP		
BBCH Scale	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO	BVSO		
Crop Scientific Name	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>	Solanum lycopers>		
Crop Name	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>	Transplanted to>		
Days After First/Last Applic.	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106	130, 106		
Tri-Eval Interval										
Plant-Eval Interval	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1	131 DP-1		
Days After Emergence	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1	131 DE-1		
Data Reliability										
ARM Action Codes										
Number of Decimals	0	1		T5	T6	T7	T8			
Data Entry Date	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023	Nov-17-2023				
Trt Treatment										
No. Name	Rate Appl	Rate Unit	Code	Plot						
7 Season 100% H2O	64 oz/la	ABC	116							
			205	11	10.8	4.67	46	47	48	49
			301	12	12.3	4.67		11332		2266
			417	65	64.6	4.67		17094		3419
			512	50	49.6	4.50		43983		8797
			605	46	45.6	4.50		33708		6742
			714	41	41.4	4.50		26985		5397
			Mean =	39*	39.4*	4.60		23720		4744
				38	37.7	4.60		23705*		4741*
								25790		5158
8 Nano 101 100% H2O	0.8 oz/la	ABC	103	12	12.1	4.50		9795		1959
			216	55	54.7	5.00		30539		6108
			302	21	21.2	5.17		23528		4706
			404	13	12.8	4.67		18534		3707
			511	47	47.0	4.67		26121		5224
			601	42	41.7	4.50		25353		5071
			715	34*	33.6*	4.67		19879*		3976*
			Mean =	32	31.9	4.74		21964		4393

Davis Research And Development

To evaluate the benefits of Seasoil when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis	Bill Davis
Rating Date	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023	Oct-22-2023
SE Description	Stem Caliper Wi> STEMMA, C	Largest Root Ca> ROOTAP, C	Largest Root Le> ROOTAP, C	Root Density Ra> ROOT, C	Number of fruit> FRUMAT, C	Number of fruit> FRUMAT, C	Number of fruit> FRUMAT, C	Average OZ per > FRUMAT, C	Oct-22-2023
Part Rated	mm, -,- 1 PLOT	mm, -,- 1 PLOT	mm, -,- 1 PLOT	NUMBER, 1, 10 1 PLOT	NUMBER, -,- 1 PLOT	NUMBER, -,- 1 PLOT	NUMBER, -,- 1 PLOT	WEIGHT oz, -,- 1 PLOT	
Rating Type	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0	C, LYPXP BVS0		
Rating Unit/Min/Max	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106	Solanum lycoper> Transplanted to> 130, 106		
Sample Size	131 DP-1 131 DE-1	131 DP-1 131 DE-1	131 DP-1 131 DE-1	131 DP-1 131 DE-1	131 DP-1 131 DE-1	131 DP-1 131 DE-1	131 DP-1 131 DE-1		
Collection Basis	Nov-18-2023	Nov-18-2023	Nov-18-2023	Nov-18-2023	Nov-18-2023	Nov-18-2023	T10		
Number of Subsamples	2	1	1	0	0	0	0	T11	1
Crop Type, Code									
BBCH Scale									
Crop Scientific Name									
Crop Name									
Days After First/Last Applic.									
Tri-Eval Interval									
Plant-Eval Interval									
Days After Emergence									
Data Reliability									
ARM Action Codes									
Number of Decimals									
Data Entry Date									
Trt Treatment									
No. Name									
Rate Appl									
Rate Unit	50	51	52	53	54	55	56		
Code Plot	16.83	17.86	16.45	17.86	16.14	16.14	16.14		
7 Season 100% H2O	14.52	8.8	15.97	8.8	15.85	15.85	15.85		
64 oz/la ABC	16.14	8.6	16.16	8.6	15.75	15.75	15.75		
116	15.85	9.0	14.19	9.0	14.97	14.97	14.97		
205	15.85	8.5	12.11	8.5	18.96	18.96	18.96		
301	14.97	10.5	12.11	10.5	16.14	16.14	16.14		
417	18.96	7.5	18.33	7.5	16.14	16.14	16.14		
512	17.86	9.0	15.87	9.0	17.86	17.86	17.86		
605	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
714	17.86	8.6	15.87	8.6	17.86	17.86	17.86		
Mean =	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
103	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
216	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
302	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
404	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
511	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
601	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
715	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
Mean =	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
0.8 oz/la ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
103	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
216	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
302	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
404	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
511	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
601	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
715	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
Mean =	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
0.8 oz/la ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
103	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
216	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
302	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
404	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
511	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
601	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
715	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
Mean =	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
0.8 oz/la ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
103	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
216	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
302	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
404	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
511	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
601	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
715	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
Mean =	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
0.8 oz/la ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
103	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
216	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
302	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
404	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
511	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
601	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
715	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
Mean =	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
0.8 oz/la ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
103	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
216	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
302	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
404	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
511	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
601	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
715	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
Mean =	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
0.8 oz/la ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
103	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
216	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
302	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
404	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
511	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
601	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
715	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
Mean =	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
0.8 oz/la ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
103	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
216	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
302	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
404	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
511	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
601	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
715	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
Mean =	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
0.8 oz/la ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
103	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
ABC	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
216	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
302	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
404	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
511	17.86	8.8	15.87	8.8	17.86	17.86	17.86		
601	17.86	8.8	15.87	8.8	17.86	17.86	17.86	</	

Davis Research And Development

To evaluate the benefits of Season when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Season Tomato
 Protocol ID: 23 Season Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

Assessed By

Bill Davis = Spray Tech

Part Rated

FOLIAG = foliage

PLOT = plot

FLOWER = flower

PLANT = plant

FRUITOT = fruit - total

FRUIT = fruit

FRULAR = fruit - large

STEMMA = stem - main

ROOTAP = root - tap

ROOT = root

FRUMAT = fruit - mature

C = Crop is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

VIGOR = vigor

NDVI = normalized difference vegetation index

DENSITY = density

DEVELO = development

COUNT = count

HEIGHT = height

WEIGHT = weight

YIELD = yield

QUALIT = quality

BRX = brix content

Rating Unit/Min/Max

% 0, 100 = percent

0-10, 0, 10 = 0-10 index/scale

-1-1, -1, 1 = -1 to 1 index/scale

BBCH, , = 0-99 BBCH scale

g, , = gram

mm, , = millimeter

KG/plot, , = kilograms per plot

lb/plot, , = pounds per plot

lb/ac, , = pounds per acre

NUMBER, , = number

SCALE, 1, 100 = scale/index, min/max enabled, decimal interpolation possible

kg, , = kilogram

T-US, , = ton (short=2000 lb)

DOLLAR, , = dollar

NUMBER, 1, 10 = number

oz, , = ounces

PLOT = total plot

PLOT = total plot

Crop Type Code

C = EPPO species (Bayer) codes

LYPXP, BVSO, Solanum lycopersicum, Transplanted tomato = US

Plant-Eval Interval

8 DP-1 = 1 LYPXP Jun-13-2023

18 DP-1 = 1 LYPXP Jun-13-2023

25 DP-1 = 1 LYPXP Jun-13-2023

32 DP-1 = 1 LYPXP Jun-13-2023

39 DP-1 = 1 LYPXP Jun-13-2023

38 DP-1 = 1 LYPXP Jun-13-2023

9 DP-1 = 1 LYPXP Jun-13-2023

20 DP-1 = 1 LYPXP Jun-13-2023

Davis Research And Development

To evaluate the benefits of Seasol when applied as a drench treatment on tomatoes in field under hydric stress

Trial ID: 23 Seasol Tomato
 Protocol ID: 23 Seasol Tomato Location: LODI, CA Trial Year: 2023
 Project ID: 23APH Tomato Project ID 2: Project ID 3:
 Study Director: Nanette Simonian Sponsor Contact: Juan Morales
 Investigator: Bill Davis

27 DP-1 = 1 LYPXP Jun-13-2023
 35 DP-1 = 1 LYPXP Jun-13-2023
 92 DP-1 = 1 LYPXP Jun-13-2023
 131 DP-1 = 1 LYPXP Jun-13-2023

Data Reliability

1. Exclude = Conclusions should not be made from this assessment column

ARM Action Codes

T1 = {(C32)*2,20462262}
 T3 = {(C33)*43560/100}
 T2 = {(C39)*2,20462262}
 T4 = {(C40)*43560/100}
 T5 = {(C33)+(C40)}
 T6 = {(C46)*43560/100}
 T7 = {(C47)/2000}
 T8 = {(C48)*400}
 T9 = {(C35)+(C42)}
 T10 = {(C35)+(C42)}/2
 T11 = {(C46)/(C54)}*16

General Trial Information

Study Director: Nanette Simonian Title: Marketing Development Manager
 Investigator: Bill Davis Title: Head of Research

Status: E established

ARM Trial Created On: Nov-28-2023 Meets All Objectives: Y Reliability: HIGH high quality
 Initiation Date: Jun-13-2023 Planned Completion Date: Nov-30-2023 Interim Data Due: Nov-13-2023
 Completion Date: Nov-21-2023 Last Possible Tour Visit: Oct-22-2023

Trial Location

Country: USA United States
 City: Lodi
 State/Prov.: California
 Postal Code: 95240
 Climate Zone: USMED US Mediterranean

Regulations

Conducted Under GLP: No Official Trial ID: Tomato Seasol 23
 Conducted Under GEP: No Official Protocol ID: Tomato Seasol 23 Protocol