

2020 Addendum

***Again, Treatment Success: Brix of 24.1° and No Dropped Fruit!
Grapevine Red Blotch Virus Remediation (“GRBaV”)
REF Wine—Paicines, Block 13 (“B-13”)***

Problem: Will Treatments sustain success? Will grapes achieve sugars?

- In 2019, Treated B-13 achieved contract brix required for harvest
- GRBaV prevented achievement of contract Brix; no harvestable crop in 2018
- In 2017, B-13 achieved sugar too late for harvest; confirmed GRBaV in Jan. 2018

Treatment: ‘Remediation’ focused protocol

- Soil & foliar treatments to boost photosynthesis, and
- GSR Calcium applied to improve soil structure and boost availability of key nutrient

Results: Block 13 again achieved harvestable brix; with no dropped fruit!

- B-13 yield increased from 3.5 tons/acre to 4.3 tons/acre;
 - Unlike prior years, no dropped fruit
 - Historically B-13 drops 25%; in 2019, REF dropped 40%
 - Ying & Yang from Fall heat:
 - Dehydration helped boost brix
 - Yield adversely impacted accordingly
- Remaining Cab blocks
 - All blocks achieved harvestable brix
 - Yield consistent with historical averages
 - 10+% fruit dropped
 - Pruning approach generally: drop one bunch/shoot (3’s to 2’s; <24” shoot, 2’s to 1)

Urth Ag Treatment Overview: ‘Remediation’ rather than Urth’s standard treatment protocol

- ‘Remediation’ uses more product than standard protocol at higher cost/acre/season
- Annotated Application Calendar—see **Appendix A-2020**

Urth Recommendations:

- Continue Urth remediation focused protocol, as amended
 - Replicate 2020 protocol
 - Apply GSR Dormant Calcium post-harvest, pre-dormancy
 - Continue with GSR Growing Calcium for nutrition
- Reinstitute Sap Analyses
 - Consider soil amendments pursuant results

Appendix A: Annotated Application Calendar-2020



IN HOUSE APPLICATION CALENDAR - Paid

Company		Urth Representative Scott Rowe					
Vineyard Location		Project Coordinator					
Crop		Approximate Start Date 1/1/2020					
Wine Grapes, Conventional		Variety Cabernet Sauvignon					
Treated Block		Treated Acres 18.5					
Block 13 - Red Blotch Treatment							
Application	Method	Date Done	Receiving Tickets	App #	Urth Product	Volume (Gal)	Oz/ac
Dormancy (Winter) Done 2/3/20	Drip	#####	3469	S1	Nano-Ag	0.578	4
					Bio-N-Liven	0.578	4
					Frozen Flame	1.156	8
							C1
					GSR Dormant Calcium	9.25	226.8
Application	Method			App #	Urth Product	Volume (Lbs)	Grams/ac
3/30/20: Block 13 C2/S2 will be applied together with humic being applied at a later date. Block 13 water main down after solution mixed. Solution used for Block 9 and Block 12 instead. Block 13 C2/S2 rescheduled for Friday 4/3/20.							
Pre Bud Break (Early to Mid March Approx. 7 days prior to S2) 4/3/20	Drip	#####	3591	C2	GSR Growing Calcium	3.67	90
Application	Method			App #	Urth Product	Volume (Gal)	Oz/ac
Pre Bud Break (Mid March) 4/3/20	Drip	#####	3599	S2	Nano-Ag	1.734	12
					Bio-N-Liven	1.734	12
					Frozen Flame	2.891	20
April 14, 2020		#####		S2 - H	Pro Humic	18.50	128
Application	Method			App #	Urth Product	Volume (Gal)	Oz/ac
4 Weeks Post Bud Break (April)	Foliar	#####	3659	F1	Pro Tech	2.023	14
Application	Method			App #	Urth Product	Volume (Gal)	Oz/ac
Pre Bloom (Early to Mid May)	Drip	#####	3703	S3	Nano-Ag	1.156	8
					Bio-N-Liven	1.156	8
					Frozen Flame	2.313	16
					Pro Humic	18.50	128
Application	Method			App #	Urth Product	Volume (Gal)	Oz/ac
Bloom/Post Bloom (Mid May)	Foliar		3736	F2	Pro Tech	2.023	14
Application	Method			App #	Urth Product	Volume (Gal)	Oz/ac
Set/Bunch Close (Mid June)	Foliar		3862	F3	Pro Tech	2.023	14
Application	Method			App #	Urth Product	Volume (Gal)	Oz/ac
Set (June)	Drip	#####	3862	S4	Nano-Ag	0.578	4
					Bio-N-Liven	0.578	4
					Frozen Flame	1.156	8
					Pro Humic	18.50	128
Application	Method			App #	Urth Product	Volume (Gal)	Oz/ac
Veraison (July)	Foliar	Del. 8/3	3926	F4	Pro Tech	2.023	14

Treatment is Subject to Change: Due to site review, challenging conditions, potential pest pressure or conditions different than those anticipated at the time the Product Recommendation was proposed, recommendations may be changed at any time during the protocol. Urth's Change Order(s) will reflect any such changes. Urth will provide a copy of any change order to customer. All change orders will automatically be incorporated into this agreement.