

VIRGINIA 2018 COMMERCIAL GRAPE REPORT



This Year's Report Prepared By:

Van Wood, Ph.D.

Stephen Custer, Ph.D.

Kaitlyn Watson, M.B.A.

Daniel Alper, M.B.A.

(All from VCU)



2018 GROWING SEASON

Virginia's 2018 growing season was characterized by unusually high amounts of rain throughout the state. 2018 was the wettest year on record for dozens of towns and cities throughout Virginia. Almost all of the state had a precipitation surplus in 2018 and several areas along the Blue Ridge Mountains saw more than 80 inches of precipitation during the year!

Several hurricanes and tornadoes affected Virginia in 2018 bringing flooding and wind damage to an already-wet year. The year was one of the deadliest hurricane season for Virginia since 2003. Each storm brought significant flooding to inland areas and compounded an already wet year.

Overall yields decreased 35% over last year. 2017 was a very good year, but 2018's yields were down 20% from 2016, also a weak year. The significant crop loss was primarily due to weather. The actual decrease in yield may be larger than reported as some growers stated they did not report because they lost all or nearly all their crop due to adverse weather.

The unusually high amount of rainfall throughout the year caused the worst harvests on record for many growers across the state.

Growers self-reported 1,763 tons of grapes lost to weather in 2018 – again, the majority citing rain as the main culprit.



**SPECIAL THANKS TO ALL
GROWERS WHO TOOK THE
TIME TO PARTICIPATE IN THIS
YEAR'S SURVEY!**

ABOUT THE SURVEY



This year marks the third year that Virginia Commonwealth University School of Business managed the Annual Commercial Grape Report (CGR) data collection and reporting on behalf of the Virginia Wine Board. Prior to 2016, the CGR was managed and produced by the Virginia Wine Board. Prior to 2010, the CGR was produced by NASS (National Agricultural Statistics Service).

Working with the Virginia Wine Board, the team from VCU developed a series of multiple-choice and open-ended questions with the intent of giving growers more of a voice in the survey by allowing them to describe some of the challenges they face growing and selling grapes.

The 2018 survey, as well as the 2010 through 2017 surveys, drew upon exact data provided by Virginia grape producers. The information presented in this report was gathered through a survey of all known grape producers in Virginia. Data was collected during the months of October 2018 through February 2019 by direct mail, telephone, online survey, and email. Information obtained for this survey is kept completely confidential. Only aggregate data is presented in this report.

Working with the Virginia Wine Board, the Virginia Vineyard Association, and the Virginia Winery Association, the number of growers surveyed in 2018 increased from 421 to 434. Although the number of growers surveyed increased, the number of responses in 2018 was 21 less than 2017 (214 respondents versus 235 respondents for a 49% response rate). Not all respondents answered all questions, so the response rate for some questions may be lower.

2018 was the first year growers had the option to complete the survey online. Out of the 214 respondents, 100 respondents completed the survey online. Through various data collection methods, more accurate contact information was obtained by the VCU team allowing us to have the most up to date grower list to-date.

Direct comparison of year-over-year totals would be misleading since the years include different numbers of growers. However, there is an added analysis that looks at year-over-year comparisons using those responses that were common to 2017 and 2018.

Median values for the various survey questions as well as average values are provided. The median represents a value that divides the distribution of responses to any given survey question in half such that 50% of responses are lower than the median and 50% are higher. The average may be unduly influenced by extreme values, the median is not. If the average and median are nearly the same, the distribution is more or less symmetric with higher and lower values offsetting each other. If there is a large difference between the median and average, it means there is one or more extreme values or the distribution is skewed.

The totals reported in the following tables and charts may not exactly equal the sums of individual variety types due to rounding.

The grape growers' report represents an ongoing process in which we hope to have all Virginia grape growers participate in this important research in the future.

For further inquiries about the Virginia Wine Board, please contact Ms. Annette Boyd at 804.344.8200. For questions about this survey, please contact Dr. Van Wood, VCU Professor of Marketing, at 804.519.2022 or vrwood@vcu.edu.

Grape Production, Acreage and Average Price by Variety

	Tons Produced	Bearing Acres	Non-Bearing Acres	Average Price ¹	Median Price ¹	25th Percentile Price ²	75th Percentile Price ³
Total	4709	2366	334	2200	2165	1769	2481
Vinifera	3685	1947	291	2380	2352	2120	2635
Albarino	27	25	7	2444	2433	1900	3000
Cabernet Franc	626	306	64	2463	2407	2278	2688
Cabernet Sauvignon	271	216	18	2344	2285	2025	2500
Chardonnay	803	377	34	2336	2297	2125	2500
Gewurztraminer	8	7	0	*	*	*	*
Malbec	26	18	3	2833	2500	2000	4000
Merlot	481	239	50	2460	2400	2250	2863
Petit Manseng	140	64	12	2418	2400	2300	2550
Petit Verdot	281	173	39	2575	2500	2250	2925
Pinot Gris/Grigio	105	55	1	2121	2100	2000	2500
Pinot Noir	38	19	9	*	*	*	*
Riesling	21	20	1	*	*	*	*
Sauvignon Blanc	123	48	15	2760	2800	2450	3050
Syrah	24	13	1	*	*	*	*
Tannat	41	35	5	*	*	*	*
Viognier	414	201	20	2515	2500	2300	2800
Other White Vinifera	99	69	5	2263	2150	1806	2900
Other Red Vinifera	157	66	8	2304	2000	1806	2788
Hybrid	823	324	37	1560	1465	1322	1763
Chambourcin	246	74	10	1566	1511	1300	1800
Seyval	60	14	4	1461	1406	1317	1661
Traminette	168	67	3	1517	1400	1300	1800
Vidal Blanc	276	120	10	1525	1500	1329	1684
Other White Hybrid	66	37	7	1613	1525	1400	1913
Other Red Hybrid	8	11	3	*	*	*	*
American	201	95	5	1656	1792	700	2475
Concord	5	6	0	*	*	*	*
Niagara	73	18	1	*	*	*	*
Norton	95	62	3	*	*	*	*
Other White American	19	5	2	*	*	*	*
Other Red American	9	4	0	*	*	*	*

*Less than 5 growers supplied price data

¹ price per ton

² 25% of contracts are less than the 25th percentile

³ 25% of contracts are more than the 75th percentile

Grape Production and Acreage by District and County

County		Tons Produced	Bearing Acres	Non-Bearing Acres
State Total		4709	2365	334
Northern District	Fauquier	222	156	52
	Loudoun	674	500	62
	Madison	139	81	4
	Rockingham	96	26	10
	Other Counties*	302	215	28
	District Total	1433	977	156
Western District	Rockbridge	66	25	2
	Stafford	2	4	0
	Other Counties*	128	65	39
	District Total	196	93	40
Central District	Albemarle	865	382	57
	Nelson	541	179	11
	Orange	785	251	12
	Other Counties*	154	170	13
	District Total	2345	982	92
Eastern District	Other Counties*	342	178	25
	District Total	342	178	25
Southern District	Pittsylvania	80	23	15
	Other Counties*	312	111	5
	District Total	393	134	20

Note: Any county that is home to less than 5 respondents is grouped into "Other" counties.

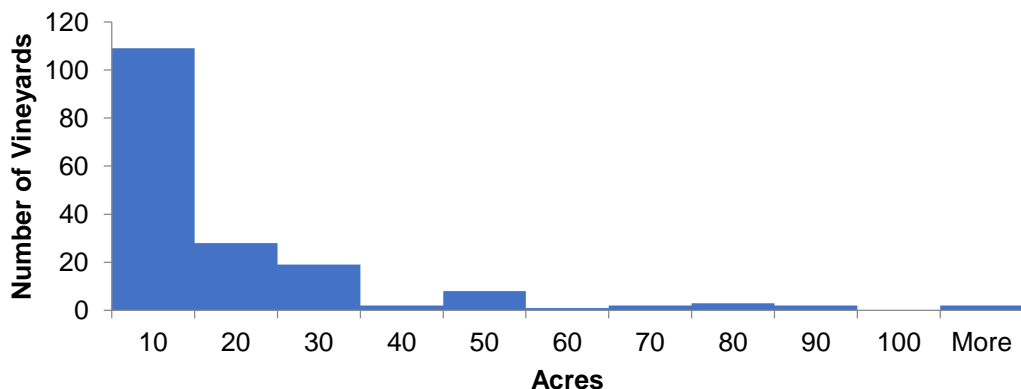
For growers who reported acreage in more than one county, the totals reported is in the county with the vineyard's main address.

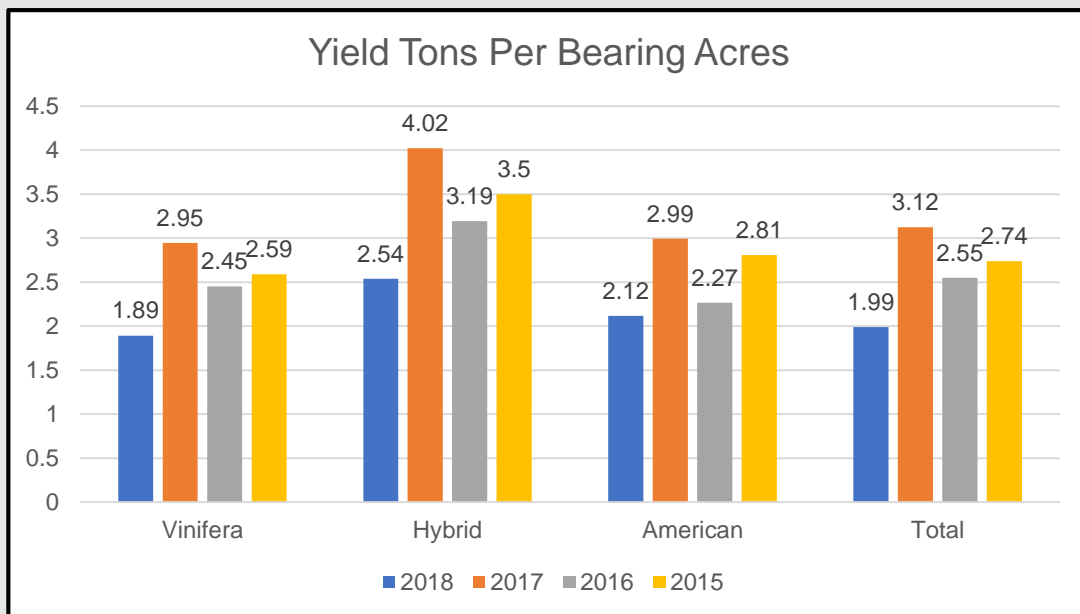
VINEYARD SIZES

The histogram below shows the distribution of respondents' vineyard sizes by total acreage. Virginia's wine grape growers are characterized as numerous small growers and a few very large ones. Sixty-two percent of respondents are less than 10 acres and 72% less than 15. The average and median vineyard size are essentially unchanged from last year's respondents.

Based on the data that those who only responded this year were somewhat smaller than those that responded both years it is fair to assume that those that did not respond at all were as small or smaller. Thus the actual survey of the Virginia Grape growing industry covered considerably more of the industry's production than the 49% response rate implies.

2018 Wine Grape Growers Survey Total Acres



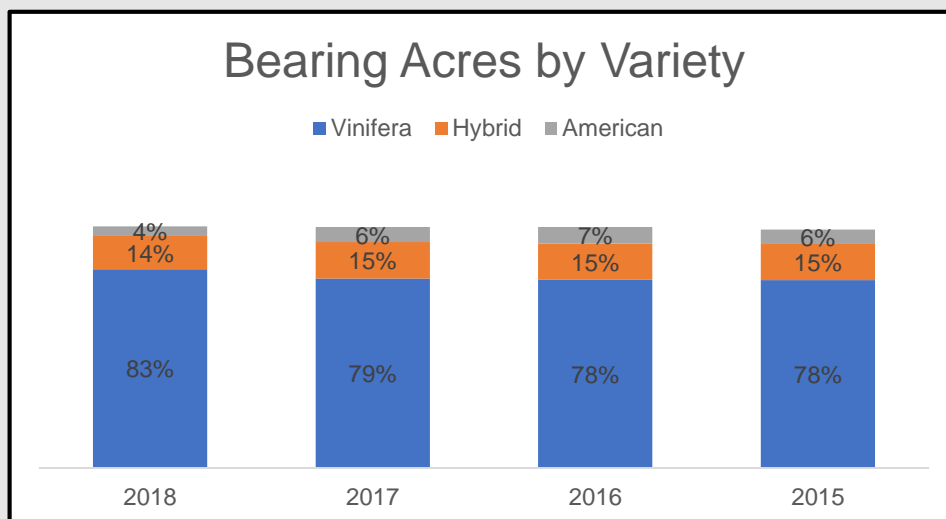


YIELDS AND VARIETAL MIX

Yields were down across the board. Overall yields decreased 35% over last year. True 2017 was a very good year, but this year's yields were down 20% from 2016, also a weak year. This was due to significant crop loss primarily due to weather. The actual decrease in yield may be larger than reported. Some growers stated they didn't report because they lost all or nearly all their crop. The loss in yield was essentially the same across types. It was slightly less for American, but this is on a small sample size.

The yield for Vinifera was less than Hybrid, but this is offset by higher per ton prices. The net is Vinifera yields more dollars per acre. This is the same as last year. Due to small sample size, it's difficult to say how American compares in dollars per acre.

This year there was a small increase in bearing acres of Vinifera compared to other varieties.

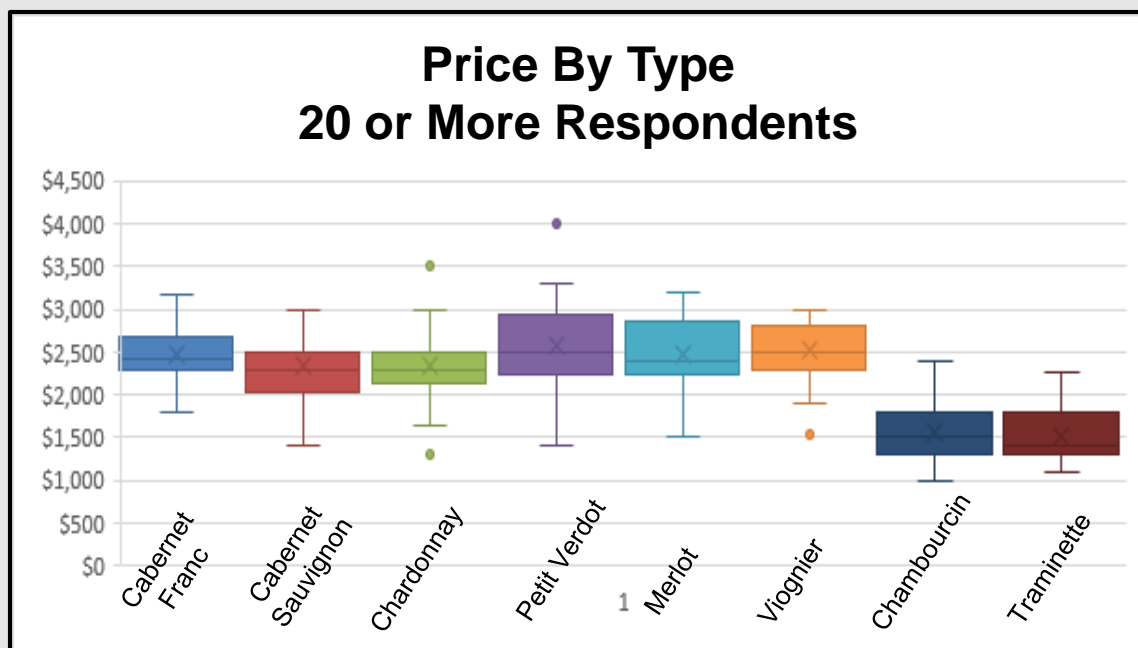
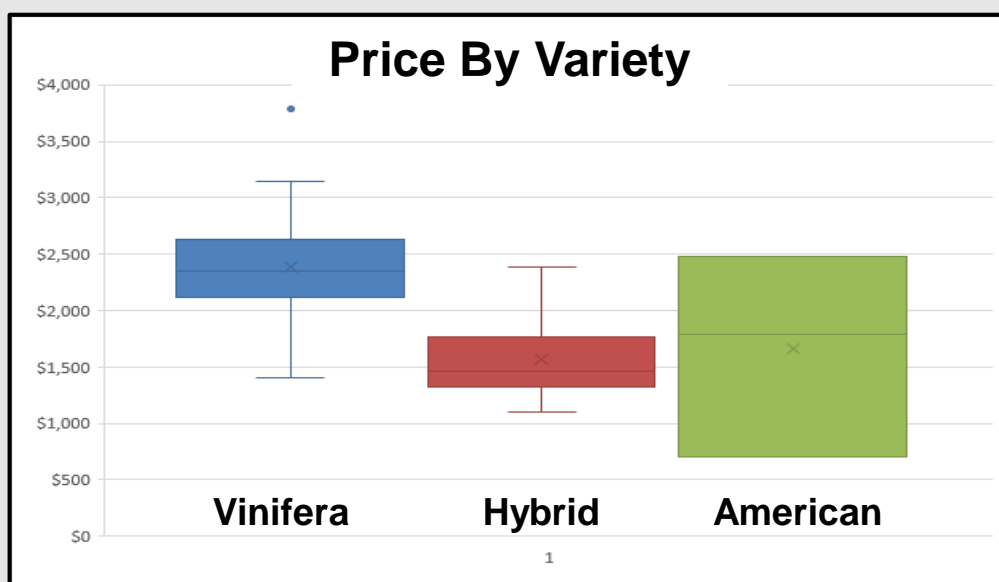


PRICE

Price per ton were slightly higher for all varieties except American this year (+1.8%). The Interquartile Range (difference between the 75 percentile and 25 percentile) and the standard deviation were both higher than last year indicating a greater range in prices. The higher average may have been driven by a few higher priced sales.

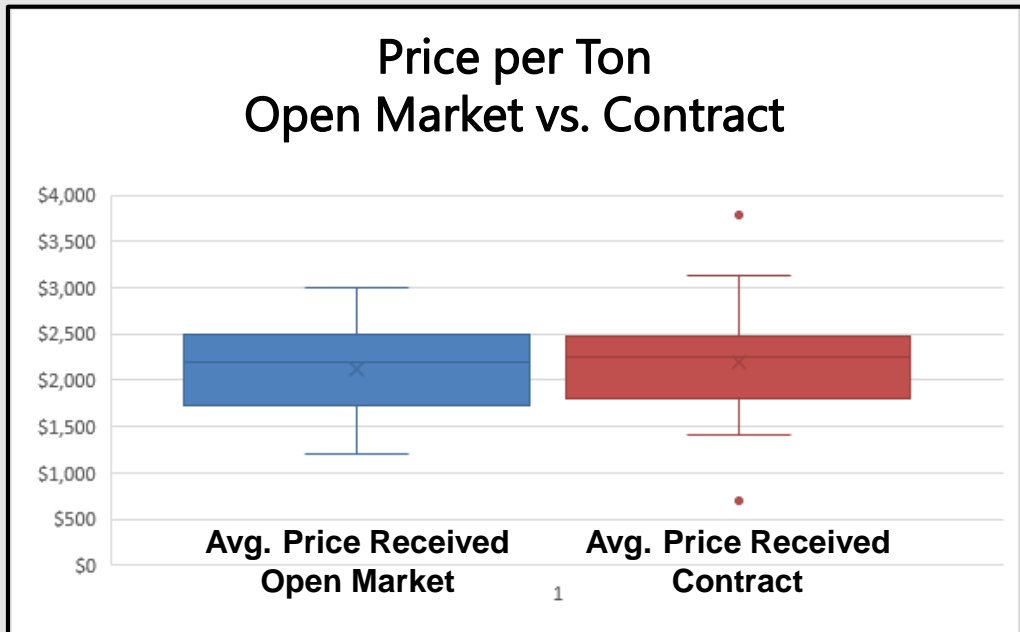
Again this year Vinifera yielded significantly higher prices than the other varieties. (See comments with yield charts). The charts below show the median (center line), 25 and 75 percentiles (box), and maximum and minimum excluding any outliers (horizon lines). The dots beyond the maximum and minimum are any outliers.

The second chart shows the same things for all grape types for which there were at least 20 respondents. There is very little difference between variety within type.



PRICE

There was no appreciable difference in average prices or variation in prices for open market vs contract. There are a few outliers, both high and low, for Contract prices. This is the same result as last year.

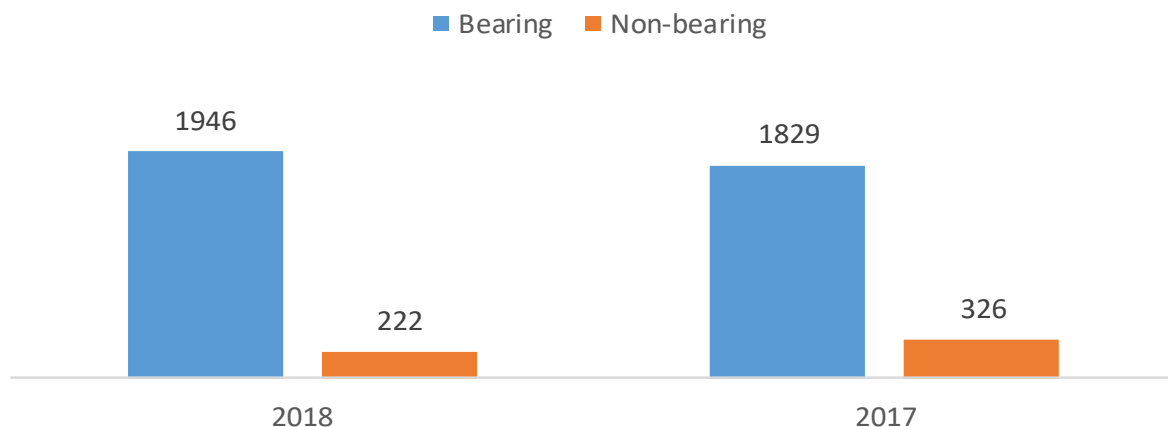


YEAR OVER YEAR CHANGE IN ACREAGE

In order to assess growth or decline in the amount of land devoted to wine grape production independent of differences in respondent mix, we looked at only those vineyards that responded in both 2018 and 2017. This allows us to examine the same exact set of vineyards over the last two years. Although this gives an unbiased picture for these vineyards it does not reveal any growth or decline due to new vineyards entering or existing the industry.

For this set of vineyards there was essentially no change in total acreage. About 100 acres went from non-bearing to bearing but no new areas were placed under vines. This is a change in trend from the last two years when there was an approximate 4% increase for like vineyards.

Total acres for those who responded in both 2018 and 2017



QUALITATIVE QUESTIONS

In the next five years I plan to: (103 Respondents – wineries only)

57 respondents (55%) plan to produce more wine.

38 respondents (37%) plan to produce about the same amount of wine.

5 respondents (5%) plan to produce less wine.

3 respondents (3%) plan to stop producing wine.

In the next five years I plan to: (176 Respondents)

66 respondents (38%) plan to grow more tons of grapes.

101 respondents (57%) plan to grow about the same tonnage of grapes.

4 respondents (2%) plan to grow fewer tons of grapes.

5 respondents (3%) plan to stop growing grapes.

I am satisfied with the availability of Virginia grapes for purchase: (91 Respondents – wineries only)

Strongly Agree - 5 respondents (5%)

Agree - 33 respondents (36%)

Neither Agree Nor Disagree - 24 respondents (26%)

Disagree - 20 respondents (22%)

Strongly Disagree - 9 respondents (10%)