



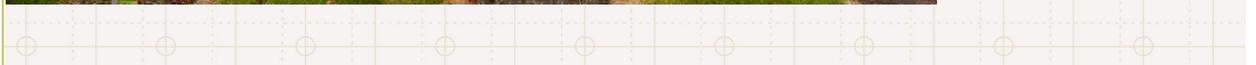
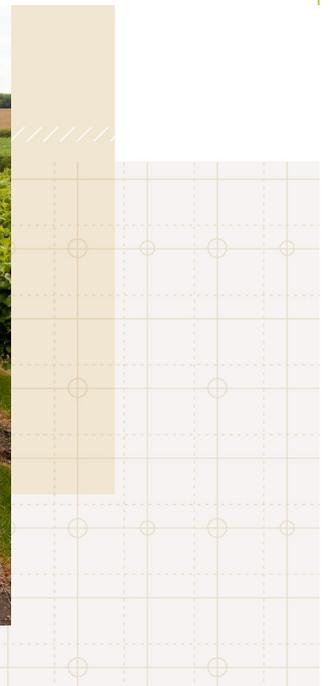
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Minnesota Grape Production Statistics: 2020

ESTIMATES FOR THE YIELD, PRODUCTION, AND PRICING DATA OF THE MINNESOTA GRAPE
INDUSTRY

Authored by Matthew Clark and Brigid Tuck



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ESTIMATES FOR YIELD, PRODUCTION, AND PRICING DATA OF THE MINNESOTA GRAPE INDUSTRY

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INTRODUCTION

Grape production in Minnesota is estimated from survey data collected during the spring following the previous year's harvest. Grape growers were invited to participate in a survey through email, and data were collected for all grape varieties growing in the state. The data presented here represent commercial grape production in 2020 and include sales figures by variety, including the range and average price per pound. While this survey underrepresents commercial and hobby grape production in the state, it provides a snapshot of production trends, including a five-year (2016-2020) summary of yield data. Despite the small sample size, the data provide a good representation across vineyard sizes and business types (with or without a winery).

DEMOGRAPHICS

Twenty-two respondents completed the survey and identified as commercial vineyard owners or operators in Minnesota. Individual vineyard operations were not identified, but zip codes were used to identify spatial trends across the state. Nineteen counties in Minnesota were represented in the report (Figure 1). This sample greatly underestimates the total acreage planted in Minnesota, as compared to previous reports by these authors, and known plantings throughout the state are not represented in the 2020 data. Unlike states with a check-off system to collect crush data, Minnesota relies on self-reporting through this annual survey.

The total number of reported acres planted in Minnesota was 142.5, with 98.3 acres in production in 2020. The average vineyard size was 6.48 acres with 4.47 acres in production. The largest reported vineyard was 26 acres and the smallest 0.5 acres. The median vineyard size was 4.1 acres. Figure 2 shows the distribution of vineyards by number of reported acres planted.

Vineyards Reporting in Minnesota by County

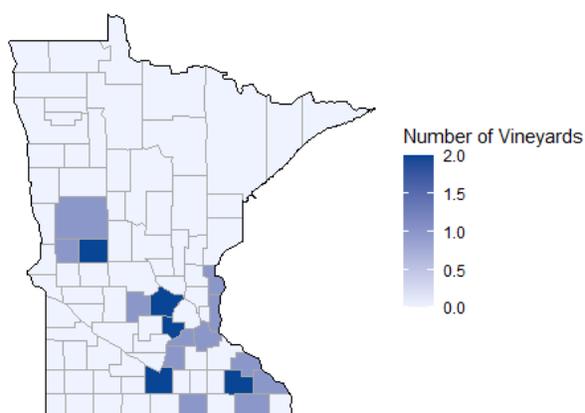


Figure 1. Map of Minnesota counties showing the reporting 22 vineyard operations and their location in the state

Vineyard Acreage in Minnesota

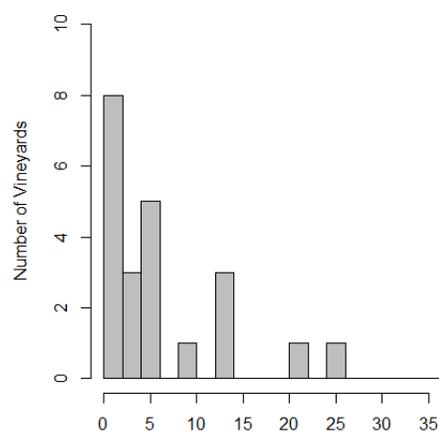


Figure 2. Distribution of reporting vineyards by acres planted

MARKETS

Grapes are typically sold through several market channels. Since the majority of Minnesota wineries operate under the Farm Winery License (Section 340A.315), direct sales of grapes to an operator’s own winery comprised the majority of sales reported (74 percent). Other market outlets included sales to another winery (25 percent), or other markets (1 percent), specifically home winemakers (Figure 3). No respondents indicated using a third-party broker to sell grapes in 2020.

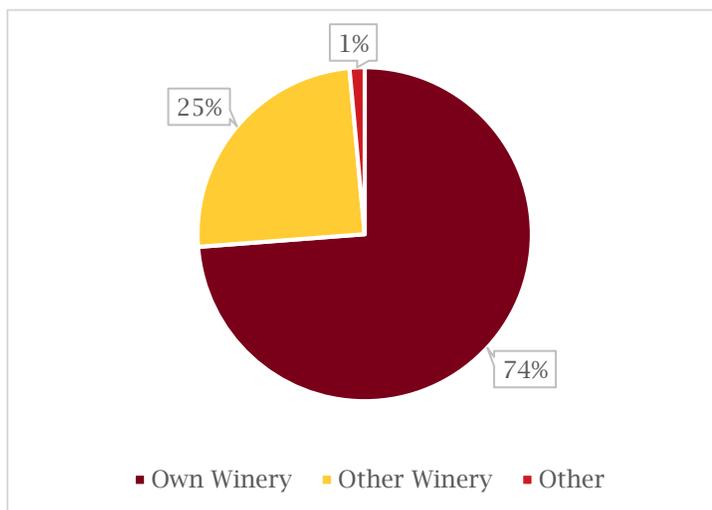


Figure 3. Percentage of grapes sold through various outlets

2020 SURVEY RESULTS

The 2020 grape production reported in Minnesota was approximately 44 percent lower than in 2019 and reflects the lower survey response rate. Production and sales data are summarized in Table 1. The total yield reported was 285,452 pounds, which equates roughly to 3,238 lb/ac or 1.6 ton/ac. The highest yielding vineyard reported 3.88 tons/ac. Crop loss was reported for many growers due to diseases, injury, and feeding by wild animals. The average price for grapes in 2020—calculated based on the averaged reported by each vineyard—was \$0.79/lb (\$1,580/ton) and ranged from \$0.75/lb to \$1.00/lb (Table 1). These averages represent a smaller range than reported by variety, as they are calculated from the average price for each respondent.

Table 1. Production and price data reported for the 2020 Minnesota grape harvest from 22 respondents

	Total Acres	Acres Producing	Pounds Produced	Price/lb	lb/Acre
Total	142.5	98.3	285,452	--	--
Average	6.48	4.47	13,593	\$0.79	3,238
Lower Range	0.5	0.5	900	\$0.75	750
Upper Range	26	18	54,000	\$1.00	7,750

*The average provided from each operation was used in calculating this average.

Fewer varieties were reported in 2020 than in previous years. ‘Marquette’ was the highest produced with 53,325 lb (Table 2). This variety was followed by ‘Frontenac

blanc’ (43,227 lb), ‘Frontenac’ (27,829 lb), and ‘La Crescent’ (22,264 lb). ‘Petite Pearl’, ‘Brianna’, and ‘Frontenac Gris’ trailed comparatively. ‘Marquette’ comprised the largest proportion of total reported yield at 20.3 percent (Table 3). The “other” category included varieties for which less than four growers reported production of sales, including Crimson Pearl, Edelweiss, Kay Gray, King of the North, La Crosse, Leon Millot, Marechal Foch, Prairie Star, Sabrevois, Somerset Seedless, St Croix, St. Pepin, and Verona. The total reported yield for the “other” category was 66,678lb, or roughly 25.5 percent of the total volume of grapes produced.

Pricing data was collected based on grower-reported survey results, with the average price for each variety calculated in two ways. First, the average was established following the commonly recognized mean value by variety. The second calculation was the weighted average price comprised as the total weight of grapes sold at each price by variety by grower. These results were then averaged. The weighted average provides a comprehensive and accurate assessment, as it accounts for the volume of grapes sold at a certain price point. This reduces the influence of small volumes of grapes sold at extremely high or low prices.

The average prices ranged from \$0.81 to \$0.94 for wine grapes (Table 2). The weighted average prices were slightly different as shown in the below table. The lowest reported price for wine grapes was \$0.70 and the highest was for ‘Marquette’ at \$1.33 per pound.

In addition to being grape growers, five survey respondents reported growing other fruit crops, including apple, pear, rhubarb, raspberry, high bush cranberry (*Viburnum*), and pumpkins.

Table 2. Production and price data by variety for Minnesota 2020 grape harvest

Variety	Total Yield (lb)	Sold Yield (lb)	Average Price/lb (\$)	Weighted Price/lb (\$)	Lower (\$)	Upper (\$)
Brianna	13554	13554	0.81	0.84	0.70	1.00
Frontenac	27829	16402	0.86	0.88	0.70	1.00
Frontenac blanc	43227	30427	0.86	0.85	0.70	1.00
Frontenac gris	10532	7974	0.82	0.79	0.70	1.00
Itasca	7758	7338	0.89	0.87	0.80	1.00
La Crescent	22264	19774	0.88	0.94	0.70	1.00
Marquette	53325	51605	0.94	0.99	0.70	1.33
Petite Pearl	16797	16747	0.85	0.85	0.70	1.00
Other*	66785	20229	0.89	0.85	0.70	1.10

* Due to low sample size, the “other” category also includes Bluebell, Crimson Pearl, Edelweiss, Kay Gray, King of the North, La Crosse, Leon Millot, Marechal Foch, Prairie Star, Sabrevois, Somerset Seedless, St. Croix, St. Pepin, and Valiant.

Five years of data were compiled to show general production trends from 2016 through 2020. Figure 4 shows the top produced varieties and their average production over five years. Year-to-year variation may reflect inconsistencies in under sampling the grower population (i.e., low survey response), relative to the number of growers in the state.

Table 3. Grape yields reported for Minnesota 2020 harvest by percentage

Variety	Number of Growers	% of All Grapes Sold
Brianna	7	5.2%
Frontenac	10	10.6%
Frontenac blanc	11	16.5%
Frontenac gris	9	4.0%
Itasca	8	3.0%
La Crescent	11	8.5%
Marquette	13	20.3%
Petite Pearl	7	6.4%
Other	--	25.5%

CROP LOSS

Cold and frost damage contributed to crop loss, as reported by survey respondents. This included losses from previous years when vines were being retrained. Some growers reported as much as much of a 95 percent crop loss due to winter injury in northern counties. Pests and diseases also contributed to crop loss. A recommendation is to manage winter injury and trunk disorders using industry best practices. This includes retraining suckers to establish multiple trunks of different ages, planning for and replacing trunks, and rejuvenating cordons and spurs. Reports were also made of crop loss due to suspected spray drift. The reemergence of broadleaf herbicide use on agricultural lands (e.g. Dicamba, 2,4-D, etc.) that are highly volatile will continue to be an issue for grape growers. Registering specialty crops, such as grapes, with Fieldwatch (fieldwatch.com) is voluntary but a good first step in protecting crops from spray drift.

SUMMARY

Approximately 80 farm wineries are active in Minnesota, and this survey reports on only 22 grape producers—10 of which are not wineries themselves. While this survey provides some insight on grape production and sales in the state, it represents a subset of commercial grape growers in Minnesota. The intent was to provide a snapshot of the 2020 harvest season and give both growers and wine producers estimates of pricing and trends to assist in budgeting, establishing fair prices, and fiscal planning. Crop loss continues to affect growers in the state throughout the year.

Winter injury and associated trunk disorders, bud injury, and frost were some of the top reasons for crop loss.

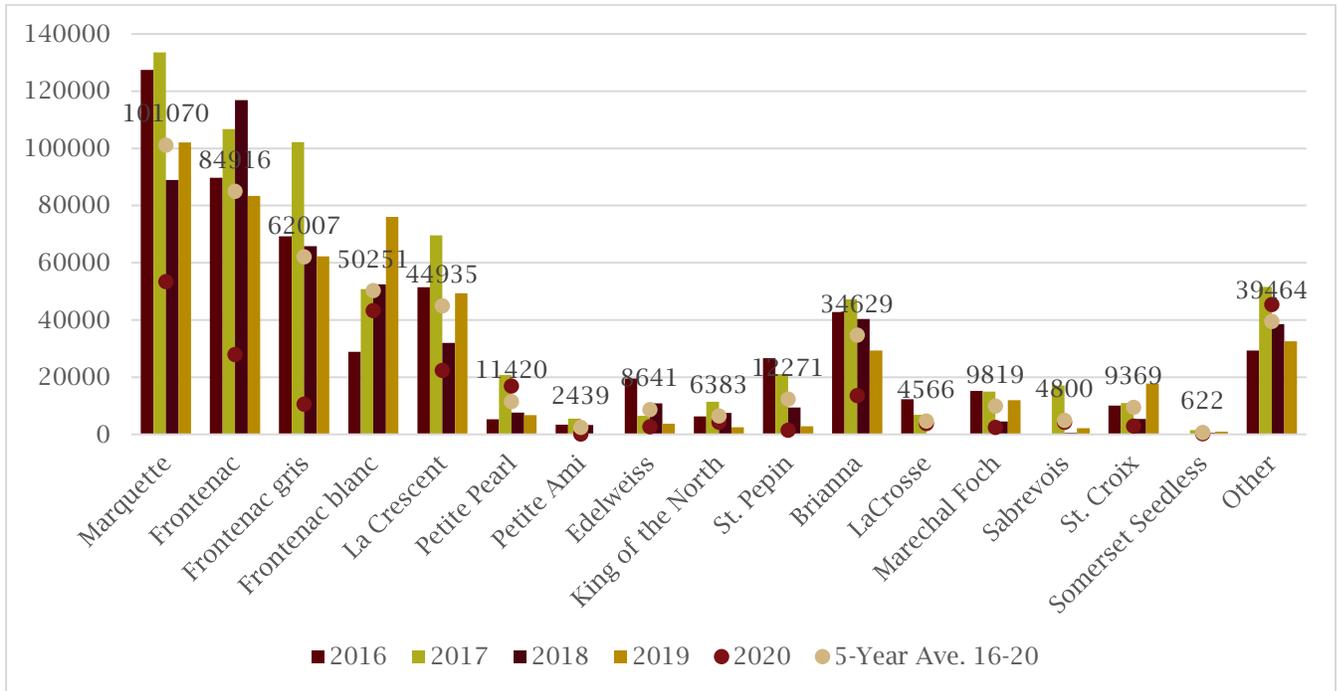


Figure 4. Yield data for five years (2016-2020) of top producing cold-hardy grapevines in Minnesota, based on 22 survey respondents. Five-year average is shown as the value and tan dot