

Kentucky Winery Purchasing and Production Survey

By Chris Smigell, John Strang and Kaan Kurtural
University of Kentucky Horticulture Department

Introduction

The Kentucky Vineyard Society and the Kentucky Agricultural Development Board requested a survey of Kentucky wineries to obtain grape source and wine production data. The primary objective was to determine the percentage of Kentucky grown grapes used in 2003 wines, and projected for the 2004 vintage.

There are 21 Kentucky wineries selling wine as of October, 2004, which is up from 16 in October of 2003. Twenty of the wineries sell grape wine. Nineteen of the 20 wineries responded to the survey, although not all surveys were answered completely.

The units of measure used in the returned surveys varied. Reported juice gallonage was converted to tonnage using the conversion factor of 165 gallons of juice per ton of grapes. Some winery owners gave the projected 2004 vintage case production; others reported their current wine tank volumes. These were converted to case quantities using the conversion factor of 2.38 gallons of juice per case of wine. Volume losses that typically occur in producing wine were not considered.

Unless otherwise noted, all numbers reported in this survey are derived from the survey respondents' information.

Synopsis

Overall, the Kentucky wineries indicated that Kentucky winegrape production more than doubled from 2003 to 2004, and the 2004 vintage case production is expected to be almost twice that of 2003. The Kentucky wineries have increased the proportion of Kentucky-grown grapes used in their wines significantly, from 55% to 71%. Half of the Kentucky wineries are using 100% Kentucky-grown grapes for their wines. These wineries accounted for a third of all Kentucky winery production in 2003, and should account for almost half of all production in 2004.

Data Summary

Wine and Winegrape Production

Kentucky wine production increased from 2002 to 2003 and from 2003 to 2004. The estimated 2004 vintage production will be just over 40,000 cases, a 70% increase over 2003, when just over 23,800 cases were produced (Table 1). Figure 1 shows the percent change in case production in the counties where wineries are located. The map clearly shows that wine production is focused in the Central Kentucky area. The very large percent increases for some counties resulted from either large increases in case production by a winery or from a winery opening for business in 2004.

Kentucky winegrape production increased from 190 tons in 2003 to 423 tons in 2004, an increase of 123% (Table 1). This includes grapes purchased by wineries and the wineries' own grape production.

The Kentucky Revenue Department reported that 10,382 cases of wine were sold by Kentucky wineries in 2003, and 10,625 cases in 2004. These numbers include direct sales and wholesale figures.

Kentucky Content

In 2003 winegrapes purchased from Kentucky vineyards contributed only 20% to Kentucky wine production. That fraction increased to an estimated 45% in 2004 (Table 2). More importantly, from a grape grower standpoint, the wineries bought 68 tons of grapes from Kentucky vineyards in 2003, and 270 tons in 2004 (Table 1). This large increase occurred because many Kentucky vineyards are five years old or less, and reached their full production potential in 2004. (Several of them were planted as part of the 1999 Kentucky vineyard assistance cost-sharing program). Also, grapes are a new crop for most Kentucky grape growers, and as they have gained crop management experience, their crop yields have increased. Thirteen wineries purchased Kentucky-grown grapes in both years, with the average quantity increasing from 5.3 tons in 2003 to 20.5 tons in 2004.

The wineries' own winegrape production contributed 35% and 26% to total wine production in 2003 and 2004, respectively (Table 2). When these quantities are combined with the purchases from other Kentucky vineyards, Kentucky-grown content was 55% of the 2003 vintage and will be approximately 71% of the 2004 vintage.

The proportion of out-of-state grapes and juice used in Kentucky wines decreased from 45% in 2003 to 29% of the estimated 2004 production total (Table 2).

Just under half of the surveyed wineries used 100% Kentucky grapes for their wines in 2003, and just over half did so in 2004 (Table 3). Some wines made by the remaining wineries may have been produced solely with Kentucky grapes. Excluding these, 33% of the wine produced in 2003 was 100% Kentucky-grown product and in 2004 47% will be 100% Kentucky-grown (data not shown).

Seven of the nine wineries that did not use 100% Kentucky grapes for their wine in 2003 increased the proportion of Kentucky grown grapes in their wine in 2004, with three of them going to 100% Kentucky content. The remaining two wineries used the same proportion of Kentucky grown grapes both years. One winery that used 100% Kentucky grapes in 2003 decreased its Kentucky content in 2004, to 93%.

Figure 2 shows the change in Kentucky-grown grape use between 2003 and 2004.

The larger Kentucky wineries

The six largest Kentucky wineries (based on case production) produced about 75% of all Kentucky wine in both years (Table 4). They also purchased about 70% and 80% of the Kentucky-grown grapes in 2003 and 2004, respectively, and about 70% of the out-of-state grapes in both years.

These six wineries have decreased the proportion of out-of-state grapes used in their combined wine production from 43% in 2003 to an estimated 28% in 2004 (data not shown). Furthermore, they have increased their proportion of grapes grown by Kentucky farmers from 18% of their combined case production in 2003 to 53% in 2004.

Table 1. Kentucky Winery Grape/Juice Sourcing and Production Figures, 2003-2004.

Grape/juice source	2003 Production (tons)	2004 Production (tons)	Percent change
Wineries' own grape production	121.3	152.7	+25.9
Kentucky commercial vineyards	68.3	270	+295.3
Total Kentucky production	(189.6)	(422.7)	(+122.9)
Out-of-state sources	156.5	171.1	+9.3
Totals	346.1	593.8	+71.6
Cases of wine*	23,789	40,322	+69.5

* assuming 69 cases /ton of grapes, 165 gal. wine/ton grapes

Table 2. Grape/juice sources and their percent contribution to total Kentucky wine production, 2003-2004.

Grape/juice source	Percent contribution to total Kentucky wine production		Percent change
	2003 vintage	2004 vintage	
Wineries' own grape production	35.1%	25.7%	-26.8
Kentucky commercial vineyards	19.7%	45.5%	+131.0
Total Kentucky contribution	(54.8%)	(71.2%)	(16.4%)
Out-of-state sources	45.2%	28.8%	-36.3

Table 3. Distribution of wineries based on Kentucky grape content, 2003-2004.

Proportion of Kentucky grapes used in wine (%)	No. of wineries	
	2003 vintage	2004 vintage
100	9	10
80-99	1	2
60-79	1	1
40-59	1	0
20-39	0	1
1-19	3	2
0	3	1
Information unavailable	1	2

Table 4. Grape purchasing by the six largest Kentucky wineries (based on case production), 2003-2004.

2003				2004		
Case production	Non-Kentucky grapes purchased (tons)	Kentucky grapes purchased (tons)	Case production	Non-Kentucky grapes purchased (tons)	Kentucky grapes purchased (tons)	
5,000	0	9	3,176	3.4	8.2	
4,200	53.6	0.3	6,735	82	8	
2,193	5.8	2	3,250	0	20.6	
2,080	15	12	3,025	6.5	27	
2,000	24	1	8,250	0	120	
2,500	13.3	22.7	4,396	23.3	35.5	
Total	17,973	111.7	47	28,832	115.2	219.3
% of State Total	75.6%	71.4%	68.8%	71.5%	67.3%	81.2%

Kentucky Winery Grape/Juice Sourcing and Production Figures.

Winery (ranked by '03 production)	2003 Production					2004 Production					
	Cases of Wine	Non-Ky Grapes/ Juice Purchased (tons)	Ky Grapes/ Juice Purchased (tons)	Winery's Own Grape Yield (tons)	% Ky Content	Projected Cases of Wine	Non-Ky Grapes/ Juice To Purchase (tons)	Ky Grapes/ Juice To Purchase (tons)	Winery's Own Grape Yield (tons)	% Ky Content	Eventual Production Capacity (tons)
1	5,000	0	9	63.4	100	3,176	3.4	8.2	34.4	93	?
2	4,200	53.6	0.3	7	12	6,735	82	8	8	16	145
3	2500	13.3	22.7	0	63	4396	23.3	35.5	5	63	
4	2,193	5.8	2	26.5	80	3,250	0	20.6	26.5	100	?
5	2,080	15	12	3.25	50.5	3,025	6.5	27	7.2	85	70
6	2000	24	1	0	4	8,250	0	120	0	100	175
7	1250	18	0	0	0	100			1.4	100	
8	925		6.2	2	100	465	0	6	2	100	58
9	760	10	0.5	0.9	5	1,660	18.8	2.2	3	10	?
10	750	15	0	0	0	1250	25	0	0	0	2000
11	500	0	3	1	100	800	0	7	0	100	
12	450	0	2	10	100	500	0	3.5	3	100	25
13	345	0	5	0	100	3,100	0	5	40	100	?

14	220	0	2.6	0	100	1,000	0	10	5.5	100	90
15	200	0	1	2	100	1250	0	13	13	100	?
16	166	0	0	2.4	100	NA	0	0	NA	NA	14.4
17	125	1.8	0	0	0	1145	12.1	4	0.5	27	30
18	125	0	0	1.8	100	220		0	3.2	100	?
19	NA	NA	1	1	NA	NA	NA	NA	NA	NA	?
TOTAL	23,789	156.5	68.3	121.3		40322	171.1	270	152.7		

* assuming 69 cases /ton of grapes, 165 gal. wine/ton grapes

Figure 1



