

Catawba is an American *Vitis labruscana* type grape that was discovered by the Catawba River in North Carolina. The 180-day growing season in southern Missouri allows Catawba to ripen fully and avoid the high acid levels encountered in other eastern grape growing areas. The pinkish-blue berries are large and the clusters are medium in size. It has the characteristic "foxy" *labrusca* character. The vines are hardy and vigorous with susceptibility to several fungal diseases including black rot and downy mildew. Catawba ripens late, a couple of weeks after Concord. Catawba is a pinkish-blue grape that is processed as a white wine grape. It is not fermented on the skins so rice hulls are recommended for use in processing due to its "slip skin" characteristic. It makes a medium bodied, fruity, *labrusca* wine that is best made in a sweeter style. The wine is pink to orange in color.

Cayuga White is a hybrid wine grape released from the New York State Agricultural Experiment Station at Geneva in 1972. The clusters and berries are large and cluster thinning is recommended. The vines are vigorous and moderately winter hardy with susceptibility to several fungal diseases including black rot, downy mildew, and anthracnose. Cayuga White should be harvested at about 15 to 17 degrees Brix sugar level in Missouri for the best quality wine. It is usually picked about two weeks before Concord. It has nice, fruity (citrus) notes and could be described as "Germanic" (Riesling-like) in style. It is light bodied and light green in color.

Chambourcin is a French-American hybrid blue-black wine grape with beautiful large loose clusters of medium-sized berries. The vines must be cluster thinned. The vine is low to moderately vigorous and is not reliably hardy in northern Missouri. Chambourcin is susceptible to several fungal diseases including powdery mildew and, to a lesser extent, downy mildew. Chambourcin ripens about the same time as Concord. It is processed as a red wine grape and is fermented on the skins. Chambourcin makes a high quality, full-bodied, dry red wine that is moderately fruity, possibly with some subdued berry notes. The wine color is medium to dark red.

Chardone is a high quality white hybrid wine grape released from the New York State Agricultural Experiment Station at Geneva, New York in 1996. It is a cross of Chardonnay by Seyval Blanc and is very similar in flavor to its Chardonnay parent. It is a moderately vigorous and moderately cold hardy vine that is highly productive and requires cluster thinning to prevent over cropping and to achieve maximum quality. It has moderate- to large-sized clusters of medium-sized berries and is somewhat more rot resistant than its Chardonnay parent is. It has been found to be somewhat susceptible to the root form of Phylloxera and may benefit from grafting to a pest resistant rootstock.

Concord grapes were selected from the wild in the 1840s in Concord, Massachusetts. This American *Vitis labruscana* has the characteristic foxiness associated with *labrusca* grapes. Concord has medium-sized clusters of large berries. Uneven ripening of the berries can be a problem in warm climates. The vines are very winter hardy and vigorous. They are susceptible to powdery mildew and black rot. Concord ripens in early September in south-central Missouri. Concord is fermented on the skins, as recommended for red wine grapes. Since it is fermented on the skins, it does not need rice hulls in processing even though it is a "slip skin" *labrusca* type. Concord is best made into a sweeter style wine that is fruity and candy-like. To achieve this style, after fermentation on the skins, it should then be processed as a white wine. Concord is medium in body and is deep blue-purple in color.

Norton/Cynthiana is an American grape, *Vitis aestivalis*, which was found in 1835 near Richmond Virginia. Sometimes called Virginia seedling, it is the premium red wine grape in Missouri. There is some controversy as to the name. Some call the grape Norton and others Cynthiana, but most consider both one and the same. The clusters are small- to medium-sized with small blue-black berries. Norton is very hardy and extremely vigorous and often must be trained to a divided canopy training system. It is one of the most disease resistant grape varieties, with some resistance even to black rot. Norton is the latest ripening grape in Missouri, about two to three weeks after Concord. Norton is processed as a red wine and is fermented on the skins. Norton makes a dry red wine that is medium in body with some fruity overtones. It is very dark in color.

St. Vincent supposedly came from Philip Wagner's Boordy Nursery in a shipment of vines to Lucian Dressel in Missouri. Lucian propagated it and sent it back to Wagner for further propagation and distribution. It is a red grape for wine with a large berry size and moderately sized, loose clusters. It has high vigor and moderate to high degree of winter hardiness. The fruit matures late season. It should be cluster thinned and yield is high. The vine trains well to a cordon system with spur training. A good spray program is needed to control diseases. Loose clusters make it less susceptible to bunch rot. Wine quality is good. It is typically made into a dry, red wine or used for blending.

Seyval Blanc is a French-American white hybrid grape with large greenish-yellow clusters and medium-sized berries. Cluster thinning is necessary to prevent over cropping. The vines are moderately vigorous and moderately hardy. It is susceptible to fungal diseases including powdery mildew and bunches are susceptible to rot. Seyval Blanc ripens about two weeks before Concord. It is processed as a white wine and is not fermented on the skins. Seyval Blanc makes a good all purpose neutral, crisp, white wine that is light to medium in body. It is light green to straw in color.

Traminette is a late mid-season, high-quality white wine grape released by the New York State Agricultural Experiment Station in Geneva, New York in 1996. It is a cross between Joannes Seyve 23.416 and Gewürztraminer and produces fruit and wine quality similar to its Gewürztraminer parent. Vines are vigorous, moderately cold hardy, and have a late bud burst, similar to that of Norton and Vignoles. It is moderately productive and does not require cluster thinning. It has a high percentage of *Vitis vinifera* in its background and grafting to pest-resistant rootstocks is recommended to overcome potential problems with the root form of Phylloxera. The wines have floral and fruity aromas with a fruity, somewhat spicy flavor and are currently growing in popularity in Missouri and the Midwest.

Vidal Blanc is a French-American hybrid grape. It has large clusters of medium to small size berries with small russet dots on them. Vines should be cluster thinned. The vines are moderately winter hardy and susceptible to several fungus diseases including powdery mildew and anthracnose. Vidal Blanc is harvested about a week or two after Concord. The clusters resist rot and can stay on the vine for a longer period of time compared to Seyval Blanc. Vidal Blanc is processed as a white wine grape and is not fermented on the skins. Vidal Blanc makes a very good white wine with fruity and floral notes. It can be described as "Germanic" in style and is light green to straw in color.

Vignoles is a white French-American hybrid winegrape cultivar that is widely grown in the East and Midwest. It produces a variety of high quality wine styles, including dry, off-dry, and sweet wines and is frequently used in white wine blends. Vignoles wines boast an aromatic, floral nose and excellent fruity flavors of stone fruit and citrus. It enjoys great popularity with Missouri's wine-buying public. The vines have good cold hardiness and a later bud opening period than most wine grape cultivars, thus making it less susceptible to late frost damage. The clusters are small and very tight and are highly susceptible to bunch rots. It is an earlier ripening cultivar and in Missouri is harvested in late August or early September.

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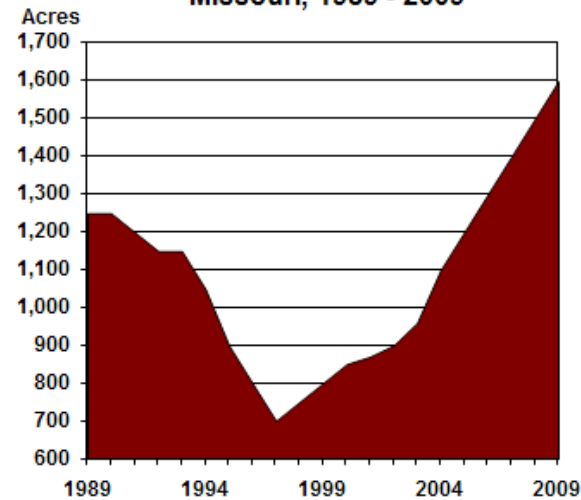
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**Bearing Acreage and Yield
by State, 2007 - 2009**

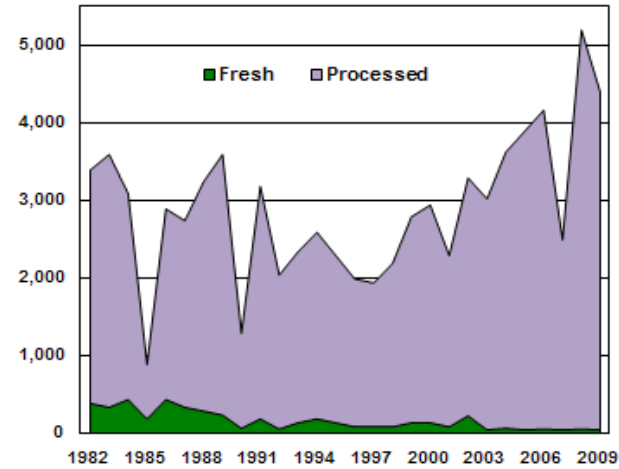
State	Bearing Acreage			Yield per Acre		
	2007	2008	2009	2007	2008	2009
	<i>acres</i>			<i>tons</i>		
AZ	250	250	1/	3.60	3.20	1/
AR	750	700	600	0.67	2.43	3.17
CA	789,000	786,000	786,000	7.90	8.33	8.03
GA	1,200	1,200	1,400	2.42	2.92	3.21
MI	14,100	14,200	14,200	7.10	5.19	6.80
MO	1,400	1,500	1,600	1.79	3.47	2.75
NY	37,000	37,000	37,000	4.86	4.65	3.59
NC	1,700	1,700	1,800	2.15	3.29	2.67
OH	1,900	1,900	1,900	4.00	2.98	3.02
OR	13,800	14,900	16,500	2.80	2.33	2.24
PA	13,600	13,600	13,600	6.18	7.88	4.71
TX	2,900	2,500	3,300	1.69	1.68	1.88
VA	2,400	2,500	2,800	2.33	2.80	3.07
WA	56,500	58,000	60,000	7.01	6.03	6.50
US	936,500	935,950	940,700	7.54	7.82	7.51

1/Estimates discontinued in 2009.

**Grape Bearing Acres
Missouri, 1989 - 2009**



**Grape Production By Utilization
Missouri, 1982 - 2009**



**Total Utilized Production
By State, 2007 - 2009**

State	2007	2008	2009
	<i>tons</i>		
AZ	900	800	1/
AR	500	1,700	1,790
CA	6,230,000	6,548,000	6,311,000
GA	2,900	3,500	4,500
MI	100,100	73,700	78,400
MO	2,500	5,200	4,400
NY	180,000	172,000	130,000
NC	3,650	5,600	4,800
OH	7,600	5,350	5,180
OR	38,600	34,700	37,000
PA	84,000	94,200	62,000
TX	4,100	4,000	3,050
VA	5,400	6,800	7,980
WA	396,000	350,000	390,000
US	7,056,250	7,305,550	7,040,100

1/Estimates discontinued in 2009.

**Price and Value
by State, 2007 - 2009**

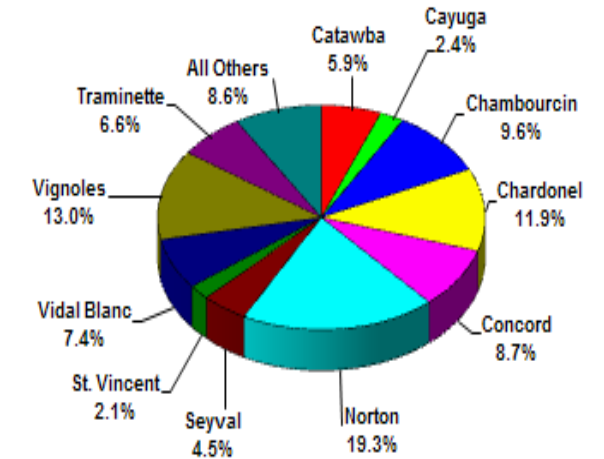
State	Price			Value of Production		
	2007	2008	2009	2007	2008	2009
	<i>dollars per ton</i>			<i>thousand dollars</i>		
AZ	1/	775	2/	1/	620	2/
AR	1/	1,080	753	1/	1,844	1,347
CA ^{3/}	494	449	435	3,075	2,937	2,743
GA	1,200	1,130	1,480	3,477	3,950	6,645
MI	280	369	352	28,044	27,197	27,586
MO	932	962	902	2,331	5,001	3,968
NY	296	342	372	53,303	58,846	48,336
NC	1,270	1,170	1,250	4,630	6,563	5,981
OH	390	356	973	2,962	1,902	5,040
OR	1,880	2,050	2,050	72,568	71,135	75,850
PA	266	296	299	22,362	27,874	18,563
TX	1,160	1,200	1,170	4,751	4,804	3,554
VA	1,400	1,530	1,600	7,560	10,404	12,768
WA	440	573	561	174,420	200,600	218,820
Oth Sts	787			1,102		
US ^{3/}	489	460	451	3,453	3,359	3,172

1/Missing estimates included in Other States to avoid disclosure of individual operations.

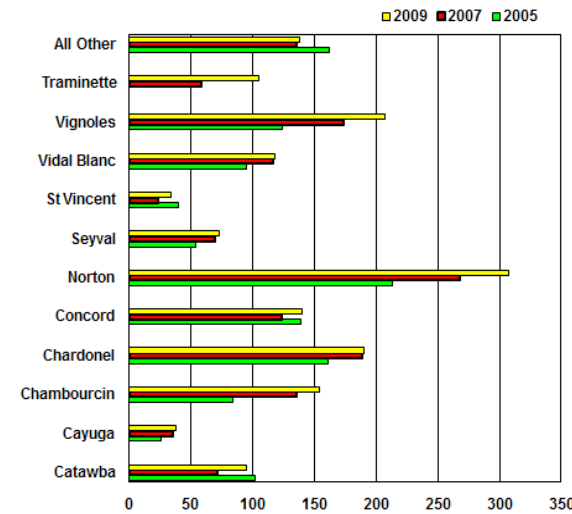
2/Estimates discontinued in 2009.

3/California and US Value of Production shown in millions.

**Variety as a Percent of Total Bearing Acres
Missouri, 2009**



**Bearing Acres by Variety
Missouri, Selected Years**



**Bearing Acres by Variety
Missouri, Selected Years**

Variety	2005		2007		2009	
	Bearing Acres	% of Total	Bearing Acres	% of Total	Bearing Acres	% of Total
	<i>acres</i>	<i>%</i>	<i>acres</i>	<i>%</i>	<i>acres</i>	<i>%</i>
Catawba	101.6	8.5	71.1	5.1	94.6	5.9
Cayuga	25.8	2.1	35.6	2.5	38.1	2.4
Chambourcin	83.9	7.0	135.6	9.7	154.2	9.6
Chardonnay	160.8	13.4	188.9	13.5	190.4	11.9
Concord	139.1	11.6	123.2	8.8	139.9	8.7
Norton	213.5	17.8	268.2	19.1	307.9	19.3
Seyval	53.8	4.5	69.9	5.0	72.6	4.5
St. Vincent	40	3.3	23.2	1.7	33.6	2.1
Vidal Blanc	95.3	7.9	116.3	8.3	117.9	7.4
Vignoles	124.4	10.4	173.7	12.4	207.6	13.0
Traminette			58.8	4.2	105.0	6.6
All Other	161.8	13.5	135.5	9.7	138.2	8.6
TOTAL	1,200	100.0	1,400	100.0	1,600	100.0