Total Acres of grapes in Kansas vineyards continues to grow. There were 342,1 acres of grapes in Kansas in 2010, up 14 percent from 290 acres in 2007. The number of farms with grape vines, at 73 farms, is down from 99 in 2007.

Chambourcin and Norton were the most commonly reported varieties of bearing and non-bearing acreage, claiming nearly identical percentages for both in 2010. Norton did edge out Chambourcin in harvested acres by 22 percent of the State total.

There were 1747 acres of grapes harvested in Kansas in 2010. Norton, Chambourcin, and Seyval Blanc were the top three varieties harvested. There were 24.5 acres of Norton harvested. Chambourcin trailed with 20.6 acres, while Seyval Blanc accounted for 13.1 acres.

Kansas growers produced 364.7 tons of grapes in 2010. Chambourcin accounted for 52.5 tons, 14.8 percent of the total production. Seyval Blanc was a distant second with 34.8 tons, and Norton (Cynthiana) followed with 29.0 tons. There were nearly 50 different varieties reported grown in Kansas in 2010.

We would like to thank all the grape and wine producers who took the time to participate in the Vineyard and Winery Surveys by responding by mail, telephone, or personal interview. More than 140 individuals were contacted for the Vineyard Survey with nearly 90 percent completing the questionnaire. Summary results are a tabulated summation of the reports received. No attempt was made to estimate for non-response. Statistics gathered by this survey will help grape growers and other market participants make sound management decisions by observing trends in variables, bearing and non-bearing acreage, prices, and usage. This report would not have been possible without the valuable input from respondents, and funding from a USDA specialty crop block grant. Results from the winery production survey can be viewed in the Kansas 2010 Wine Production report.
**Vineyard Economics**

- **Foch vineyard**
  - Moderately vigorous & productive vine
  - Spacing: 7 x 9 ft
  - Vines (690) @ $1.75
  - Line post @ 28 ft
  - Labor @ $8.00/hr
  - Production potential: 3.5 tons/acre
  - Sell to a winery @ $1.00 per ton

Vineyard Establishment Cost:

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-plant</td>
<td>169.00</td>
</tr>
<tr>
<td>Planting (spacing 7 x 9 ft)</td>
<td>1,209.00</td>
</tr>
<tr>
<td>Vines (690) @ $1.75</td>
<td>1,209.00</td>
</tr>
<tr>
<td>Planting expenses (per planter)</td>
<td>138.00</td>
</tr>
<tr>
<td>Trellising</td>
<td></td>
</tr>
<tr>
<td>Materials (11 rows, 440 ft long x 10 ft)</td>
<td>1,482.00</td>
</tr>
<tr>
<td>Posts @ 20 ft</td>
<td></td>
</tr>
<tr>
<td>Installation</td>
<td>520.00</td>
</tr>
<tr>
<td>Cultural expenses</td>
<td>1,022.00</td>
</tr>
<tr>
<td>Land charge</td>
<td>120.00</td>
</tr>
<tr>
<td>Operating overhead @ 6%</td>
<td>180.00</td>
</tr>
</tbody>
</table>

Total Establishment Cost: $4,868.00

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**Vineyard Budget Analysis**

- Revenue
- Cost
- Profit

---

**Trellis Materials Cost per Acre**

Rows: 9 ft apart w/ 1 wire

- Wire @ $4.50/roll
- Trellis post @ $3.00
- Trellis wire @ $7.00

- Total materials cost: $124.50/acre

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**Number of Post per Acre**

At a 9 ft Row Spacing

- 1 wire: 93 posts
- 2 wires: 186 posts
- 3 wires: 279 posts

---

**Summary**: The vineyard establishment cost is $4,868.00, which includes the cost of planting, vine materials, and labor. The trellis materials cost approximately $124.50 per acre. The number of posts required depends on the number of wires: 93 posts for 1 wire, 186 posts for 2 wires, and 279 posts for 3 wires. The vineyard is designed to produce a yield of 3.5 tons per acre.
**Soil Selection Factors:**
- Internal Drainage Characteristic
  - Most important
  - Roots need aeration to function
- Moisture-Holding Capacity
  - Texture
  - Depth
- pH
- Fertility

**Optimal pH: 5.0 to 6.5**
- American Varietals: 5.0 to 6.5
- French Hybrids: 5.5 to 6.5; will tolerate a pH up to 7.0

**Adjusting Soil pH:**
- Below 5.5: bring up to 6.0 or 6.5 with lime.
- Above 7.0: consider lowering to 6.5 or 6.0 with sulfur, or using acid-forming fertilizers (ammonium sulfate).

**Optimal Test Ranges***:
- Organic Matter (2-3%)
- Phosphorus (20-50ppm)
- Potassium (125-150ppm)
- Magnesium (100-125ppm)
- Boron (0.75-1.0ppm)
- Zinc (4-5ppm)
- Nitrogen (~0.18%)

* Midwest Small Fruit Pest Management Handbook

**Chances of success are limited under conditions of poor soil drainage**
Lemburger (50)
Fredonia (11)
Others

Hibernal (50)
Niagara

Concord
Catawba
Blackberries (10)
2,4-D belongs to a group of herbicides referred to as Plant Growth Regulators (PGR). PGR are the most common active ingredients in herbicides used to control broadleaf weeds. They affect the plant’s natural growth hormones by mimicking auxins, the plant hormones that regulate growth and development.
The Geography of Wine

Normalized Difference Vegetation Index (NDVI) data
Shown in ICropTrak software

Picture of a vineyard taken with through infrared lens

Site Selection  Site Characterization  Yield Mapping  Quality Monitoring
Soil Mapping  Wireless Weather Stations  Frost Prediction  Marketing
Database integration (mapping the numbers)  Cartographic Design (web, print, or display)