

Establishing a
Signature Grape
Variety
The Case for Traminette



- Signature variety must be adapted to entire state
 - Top 3 in acreage: Chambourcin, Chardonel, Traminette
 - Chambourcin is the top red for the south, but too cold tender and late ripening for north
 - Chardonel is a bit cold tender for the north, small vine size, Phomopsis susceptible...
 - Foch ripens too early for south, 2,4-D sensitive
 - Vignoles ripens too early for south and has major fruit rot issues some years
 - Seyval? Vidal? Noiret?
- Traminette is well adapted to the entire state
 - Vigorous, productive, cold hardy
 - Outstanding wine quality
 - Easily recognizable flavor and aroma
 - We know best management practices in vineyard and winery.

History of Traminette

- Joannes Seyve 23.416 x Gewürztraminer
- Cross made in 1965 in Illinois by Herb C. Barrett
 - USDA ARS breeder at UI-Champagne-Urbana focused on black rot resistance
 - Made many crosses for Cornell during 1960s
- Seedlings planted in Geneva, NY in 1968
- Original vine selected in 1974 (NY 65.533.13)
- Made available for limited commercial testing through NYFTA
- Released as a variety in 1996

History of Traminette in Indiana

- Planted at 3 locations in 1992 (NY 65.533.13)
 - 12 vines per location (4 reps of 3 vines)
 - First fruit observed in 1994, first wine in 1995
 - Propagated ~600 cuttings from 1995 wood
 - Plowed up ~600 plants after off-types discovered in 1996
 - Off-type plants continue to be a problem with Traminette until recently (both commercial and research plantings)
 - Recognized shading and fruit quality issues in 1997-98.
 - Planted training system trial in 1999
 - Published results of training systems study and fruit monoterpenes study in 2008
 - Bordelon, Skinkis and Howard. 2008 Am. J. Enol. Vitic. 59:39-46
 - Skinkis, Bordelon and Wood. 2008. Am J. Enol. Vitic. 59:440-445

Results of our studies

- Vines are vigorous and moderately productive
 - Vine size 2-3 lb, Yield: 15-20 lb/vine (~5 T/a)
 - Fruit chemistry is excellent: 22 Brix, 3.2 pH, 6.7 g/l TA
 - Diseases: Downy mildew, Phomopsis
 - Cold hardy to (-15°F) Occasional trunk issues
- Fruit MTs are increased up to 2x by sunlight exposure
- VSP training leads to 2x more exposed fruit than HC, ½ the number of leaf layers
- VSP may lead to excessively vegetative vines and poor fruitfulness (Ravaz index below 6)
- HC or GDC training with good canopy management a viable option

Results of our studies

- Traminette and Gewürztraminer are very similar in MT constituents (17 in common)
- Traminette has nearly 2x MT content of Gewürztraminer
- *cis*-rose oxide comprised 35% of total MTs in Traminette (3x higher than Gewürztraminer)
- Traminette odor profile highly correlated with *cis*-rose oxide and other fruity, floral and spicy MTs (linalool oxide, perillyl alcohol, sabinene hydrate, hotrienol, lavandulol, camphene, 3-carene)
- Limited skin contact will increase extraction

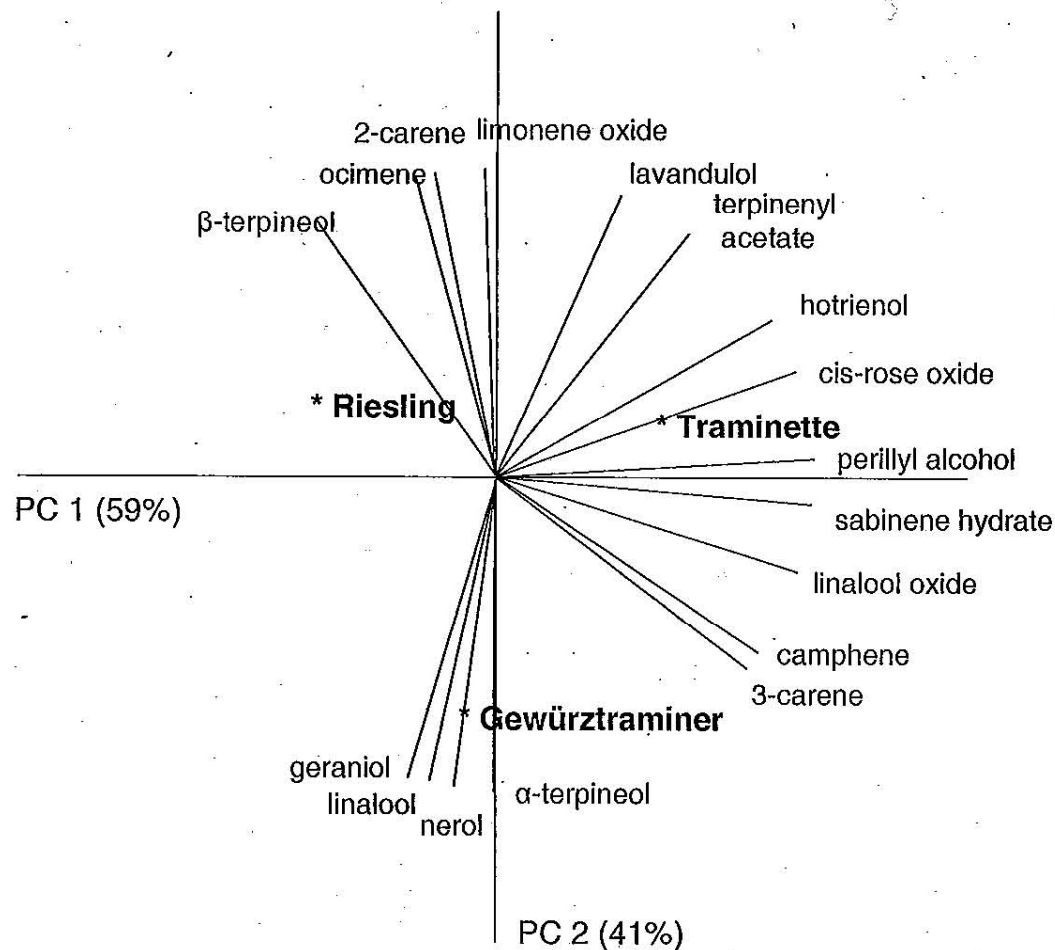


Figure 2 Principal components analysis (PCA) components loading plot of the concentrations of monoterpene compounds found in three winegrape cultivars based on inter-correlations. The compounds are plotted against PCA dimensions 1 and 2 which indicate the majority of the variation in the data set.

From: Skinkis, Bordelon, Wood. 2008.

Traminette as Indiana's Signature Grape?

- Well adapted to all regions
 - Cold hardy, ripens mid-season
- Vigorous and moderately productive
- Consistently good fruit chemistry and wine quality
- Not excessively susceptible to diseases, etc
 - Phomopsis must be controlled
 - Downy mildew can be an occasional problem
 - Not too sensitive to 2,4-D, dicamba