

Grape Dehydration

“Passito Wines”

A New World Approach

Objective

- To concentrate sugars and flavors through dehydration
- Reduce dilution in order to make a more concentrated varietal wine
- Produce a dessert wine
- To create a sweet reserve for blending

Traditional Old World Method

- Typically grapes are dried on mats, racks or suspended in air
- Slow processes 120 days usually without supplemental air
- Primarily used to produce sweet wines or for blending with drier style wines



The Virginia Method

- Tobacco Barns - Self contained units on a concrete pad with heating, constant forced air and ventilation
- Grapes can be dried in standard picking lugs, special racks are not necessary
- Regulating heat and airflow to determine rate of drying



TOBACCO BARNS

HOW THEY WORK

Floors are vented to allow air to flow vertically through the drying lugs

Walls have side vents flaps to allow internal air to be released

Most come with heating unit either LP gas or oil burners, which reduce moisture

Access through rear swing doors









Protocol

- Lugs are filled no more than two thirds full to allow sufficient air flow
- According to barn size, lugs should be stacked in equal layers to prevent unequal air distribution
- Barn is loaded based on designated time of drying per varietal

Fruit Parameters

- Clean and sanitary fruit, no rot
- Skins must be in good condition, durable
- Grapes must have achieved reasonable maturity

Potential Risks

- Botrytis
- Volatile Acidity
- Oxidation
- High Alcohol

Wine Characteristics

- High tannin to juice ratio
- Elevated V.A.
- Elevated Alcohol
- Dried Fruit notes, raisin flavors

Central Virginia

- Rain, rot and dilution
- Decision to bring in diluted or underripe fruit versus waiting to dry/ripen on the vine and potentially suffer further damage
- Early season varieties and whites fared better

Mt. Juliet Vineyards

Non Dried Fruit

Harvest - 9/29/11

Specific Gravity 1.074

pH -Pre 3.39/Post 3.85

TA Pre 6.45/Post 5.23g/l

Alc- 12.0%

Dried Fruit

Time - 6 days

Specific Gravity-1.097

pH-3.61/ 3.98

TA- 7.8/6.48g/l

Alc% - 13.5%

2011 Cabernet Sauvignon Carter's Mountain

- | Non Dried Fruit | Dried Fruit |
|--------------------------|------------------------|
| • Harvest - 10/13/11 | Time - 8 days |
| • Specific Gravity 1.091 | Specific Gravity-1.134 |
| • pH -3.34/3.68 | pH-3.92/4.20 |
| • TA 7.40/6.34g/l | TA- 7.95/7.96g/l |
| • Alc- 11.5% | Alc% - 14.2% |

2011 Fruit Analysis

Mt. Juliet Vineyard

Non Dried Fruit	Dried Fruit
● Harvest - 10/01/11	Time - 7days
● Specific Gravity 1.096	Specific Gravity-1.148
● pH -3.30/3.30	pH-3.66/4.08
● TA 6.80/6.60g/l	TA- 6.80/8.15g/l
● Alc% 14.1	Alc% - 15.8%

Pollak Vineyards

- **Non Dried Fruit**

- Harvest - 9/20/11

- Specific Gravity-1.096

- pH -3.96/3.37

- TA 4.80/5.86g/l

- Alc% 12.9

- **Dried Fruit**

- Time - 15days

- Specific Gravity-1.158

- pH- 4.15/4.21

- TA- 5.20/7.35g/l

- Alc% -14.8

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- Virginia Wineworks Staff