

'Aromella'

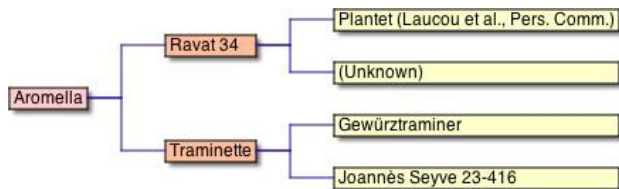
An aromatic white wine grape

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'Aromella' is a winter-hardy white wine grape with high potential productivity and excellent aromatic muscat wine characteristics.

ORIGIN

'Aromella' was developed at Cornell University's New York State Agricultural Experiment Station in Geneva, N.Y. from a cross between 'Traminette'³ and Ravat 34. The cross was made in 1976, and seedlings were planted in 1978. Wine was first made in 1983, and the original seedling vine, known as NY76.0844.24, was propagated for further testing in 1990.



DESCRIPTION

General growth and yield: Own-rooted vines grown in phylloxera (*Daktulosphaira vitifoliae* Fitch) infested soils have been large and productive. Vines have a semi-trailing growth habit. Among vines grown at Geneva (9 x 8 ft spacing), using a disease control program suitable for most hybrid grapes, pruning weights have averaged 4.1 lbs/vine, while fruit yield per vine averaged 25.4 lbs (~7.5 tons/acre) between 1995 and 2011 in small-scale trials. Clusters and berries average 0.27 lbs and 1.53 grams, respectively, and ripen mid-season. Budbreak occurs before 'Traminette' and after 'Concord'.

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³ Reisch, B.I., et al. 1997. 'Traminette' grape. HortScience 32:152-153

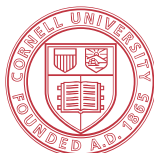


Photo: Jason Moore, CTEC

Vines are extremely sensitive to damage when green tissues are exposed to drift from 2,4-D herbicide use. Because there is some tendency for fruit shelling shortly after ripening, especially in warmer regions, delaying harvest is not recommended.

Winter hardiness: Vines of 'Aromella' are highly winter hardy and should be suitable for most sites, even those with colder winter temperatures, within viticultural growing regions similar to the New York Finger Lakes. Tests of mid-winter primary bud hardiness indicate that 50% bud kill will occur at approximately -16 F, with a range of -13.5 to -17.7 F. Trunk damage has not been observed, and vines remained productive even after winter lows of -15 to -16 F.

Disease and insect resistance: 'Aromella' has medium resistance to downy (*Plasmopora viticola*) and powdery (*Erysiphe necator*) mildews, and should perform well with a disease control spray program suitable for use with most hybrid grapes. Leaf phylloxera have been observed on the canopy of 'Aromella' in some years but no control measures have been warranted. The soft fruit remain in good condition until ripe, but Botrytis bunch rot and sour rots can cause losses if harvest is delayed, especially after rains.



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Since clusters are long and loose, rot does not spread quickly.

Canopy management considerations: Own rooted vines are large with a semi-trailing growth habit. Suitability of training systems is still under study, but systems that take advantage of large vine size with high productivity potential (e.g. high wire cordon or Geneva Double Curtain) should be considered. With its high level of winter hardiness, maintaining trunks and cordons should not be a problem.

Wine characteristics: 'Aromella' has been used for research fermentations since 1995, consistently producing aromatic wines characterized by notes of pineapple, honeysuckle, citrus peel, and floral muscat character. Juice chemistry in Finger Lakes fruit is similar to 'Riesling,' averaging 19.5°Brix, 3.0 pH, and TA at 12 g/L TAE (Table 1).

Slight deacidification may be necessary for optimal palate balance in cooler years or drier wine styles, and malolactic fermentation is generally not desirable. Yeast assimilable nitrogen (YAN) concentration averaged 177 mg/L over three years of data collection (2010-2012; n=6), but varied widely among sites and years, ranging from 131-241 mg/L. Given these low and variable levels, YAN measurement and appropriate nitrogen supplementation is recommended to ensure full aromatic expression. Production parameter trials suggest that 'Aromella' benefits from up to 24-hour cold soak to extract positive volatiles without enhancing bitterness.

As with other aromatic whites, cool fermentation (55 F) and cultivated yeast strains known to enhance floral and fruity volatiles are recommended. Yeast trials have included evaluations of EC1118, V1116, QA23, W15, and R2, all of which were judged to promote varietal expression without sparking a strong favorite among tasters.

Table 1: Average juice and wine chemistry for 'Aromella' research lots

	pH	TA (g/L TAE)	°Brix	% Ethanol
Juice	3.0 ¹	12.0 ¹	19.5 ¹	--
Wine (post cold stabilization)	3.1 ²	11.3 ²	--	11.4

¹n=33 juice lots, produced from 1995-2012 with fruit sourced from up to three sites in the Finger Lakes and the Willsboro Variety Trial.

²n=54 wine lots, produced at Cornell's Vinification and Brewing lab from 1995-2011 using standard protocols.

OVERALL RECOMMENDATION

'Aromella' is recommended for commercial production of aromatic/muscat white wines. It should be suitable for use as a varietal or for blending purposes.

AVAILABILITY

Vines of 'Aromella' may be purchased from licensed nurseries. For a list of licensees, or to become a licensee, contact:

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Virus-tested cuttings may be obtained from
Foundation Plant Services
University of California: <http://fps.ucdavis.edu>

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