

Introducing Aromella and Arandell - Newest Products of Cornell's Grape Breeding Program

Research Focus

By Amanda Garris and Tim Martinson



Figure 1 Arandell trained to top wire cordon (foreground) and vertical shoot positioning (background) in Justine Vanden Heuvel's (horticulture) training trial at Geneva.

Cornell Grape Breeder Bruce Reisch and enologist Anna Katharine Mansfield announced the release of two new wine grape varieties, [Aromella](#) and [Arandell](#), at the Viticulture 2013 conference held in Rochester, New York, on February 7.



Figure 2 Bruce Reisch and Anna Katharine Mansfield

These two new cultivars are the latest in a line that stretches back to Cornell's [first named variety in 1906](#), Goff, and joins recent wine grape introductions including [Traminette](#) (1996), [Geneva Red](#) (formerly GR7, 2003), and [Corot Noir](#), [Noiret](#), and [Valvin Muscat](#) (2006).

With thousands of existing wine grape varieties in existence – and over 40 grown in the Finger Lakes alone – why release these two new ones? The answer is that they offer new characteristics not previously available to growers and wineries, expanding the range of products available to the industry.

Since the 1980s the breeding program has focused on varieties that reduce the risk of winter damage in cool climate areas, combine winter hardiness with desired wine flavor attributes, and display high levels of disease resistance to fungal pathogens that affect production, especially in non-irrigated Eastern production areas with high rainfall.

So what do these new varieties offer?

'Aromella'
An aromatic white wine grape
H.S. Babek, W.S. Linn, and J.A.R. Mansfield

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

ORIGINS
'Aromella' was developed at Cornell University's New York State Agricultural Experiment Station in Geneva, N.Y. from a cross between 'Traminette' and Ravat 34. The cross was made in 1976, and seedling selection in 1978. Wine was first made in 1983, and the original seedling vine, known as NY76.0844.24, was propagated for further testing in 1998.



DESCRIPTION
General growth and yield. Own-rooted wine grape in plantings (block/planting) with the first 1000 vines have been large and productive. Vines have a semi-trailing growth habit. Young vines grown at Geneva (4 and 6 ft spacing) require disease control programs suitable for most hybrid grapes, pruning weights have averaged 4.1 lb/vine, while fruit yield per vine averaged 25.4 lb (1-25 spacing) between 1995 and 2011. In small-scale trials, clusters and berries average 8.17 oz and 1.53 grams, respectively, and ripen mid-season. Berry break occurs before 'Traminette' and after 'Concord'.

Winter hardiness. Vines of 'Aromella' are highly winter hardy and should be suitable for many sites, even those with colder relative temperatures, within viticultural growing regions similar to the New York Finger Lakes. Tests of soil winter primary and low frost indicate that 50% bud kill will occur at approximately -18 F, with a range of -13.5 to -17.7 F. Trunk damage has not been observed, and vines resumed production soon after winter lows of -15 to -16 F.

Disease and insect resistance. 'Aromella' has medium resistance to downy mildew (*Plasmopara viticola*) and powdery mildew (*Oomyces oenone*) infection, and should perform well with a disease control spray program suitable for use with most hybrid grapes. Leaf pathogens have been observed on the canopy of 'Aromella' in some years but no control measures have been initiated. The soft fruit makes it susceptible to mold rot, but Babek's black rot and sour rot can cause losses if harvest is delayed, especially after rain.

Photo from *Wines*, CITEE

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 bud swelling shortly after opening, especially in warmer regions, delaying harvest is not recommended.

Department of Horticulture and
Food Science, Cornell University, New York State
Agricultural Experiment Station, Geneva, N.Y.
Babek, H.S. et al. 1997. "Aromella" from *Traminette*
104-10-00



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Figure 3 Horticulture Experiment

Aromella

(NY76.0844.24) A progeny of Traminette and Ravat 34 that was crossed in 1976 and has been in testing since the first wines were produced from a single vine in 1983. Producing aromatic white wines that range from 'floral' to 'muscat,' Aromella is highly winter hardy and productive, with own-rooted vines producing 25.4 lb/vine of fruit (about 7.5 T/acre) and pruning weights around 4 lb/vine.

Valvin Muscat produces wines with a similar range of muscat flavors, but Aromella is both more productive and more winter hardy. Detailed information is available in the [Aromella release bulletin](#).

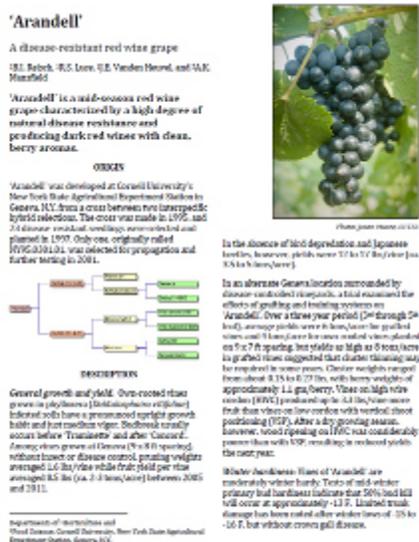


Figure 4 Arandell

Arandell

(NY95.0301.01) Resulted from a more recent cross made in 1995 and is the first named cultivar to come out of the 'no-spray' block that Reisch established in the late 1980s. It is highly resistant to powdery mildew, downy mildew, and *Botrytis*, and combines this disease resistance with good wine quality. It is still moderately susceptible to black rot and phomopsis, and while fungicides have never been applied in Cornell trials, growers should be able to produce clean, ripe fruit with a minimal spray program. It produces dark, red wines with clean berry aromas. Detailed information is available in the [Arandell release bulletin](#).

Pre-release testing of these two new varieties has involved not only several years of vineyard observations, but also winemaking, starting with lots made from single vines, and later with larger lots of fruit, using a wide variety of yeasts and fermentation techniques. Winemaking recommendations are included in the Aromella and Arandell release bulletins.

Where did the names come from?

In naming new varieties, the breeding program strives for names that are unique, marketable, not already trademarked, easy to pronounce and conjure positive connotations. This time the program took a new approach to naming: crowdsourcing ideas. An appeal for ideas went first to colleagues before spreading to the global wine community (See [Cornell's Name that Grape Contest Goes Viral](#) in Appellation Cornell [issue 10](#)). Arandell—a portmanteau of "arándano," the Spanish word for blueberry, and the "ell" from Cornell—was suggested by Michael Fleischhauer, a retired computer analyst and wine enthusiast from Juneau, Alaska. Michael Borboa, the export winemaker at Bear Creek Winery in Lodi, California, who is also a songwriter, came up the name Aromella.

[Arandell](#) and [Aromella](#) are the 55th and 56th grape varieties named by the New York State Agricultural Experiment Station and provide exciting new options for growers. Both varieties are available for purchase from nurseries licensed through the [Cornell Center for Technology Enterprise and Commercialization](#) (CCTEC) or as virus-tested cuttings from [Foundation Plant Services](#). Also available at the CCTEC site are a [Cornell grape variety comparison chart](#) and *posters for Arandell and Aromella [**Editor's note: No longer available as of 2017*].

A complete listing of [Cornell varieties released since 1906](#) and their parentage is available on Bruce Reisch's grape breeding web site.

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