

Kent Rasmussen Winery

Late Harvest Riesling 1999

Napa Valley



Kent Rasmussen's Notes

There is nothing, except perhaps mildew or plagues of Glassy-winged Sharpshooter Leafhoppers, that strikes terror into the heart of a grapegrower the way Botrytis (Bo/try/tus) does. Like the witches of Oz, Botrytis has two faces—one the most fearful, and the other the most beautiful. Indeed, I doubt that there is any food on earth as rich, luscious, smooth and subtle as a wine made from grapes infected with the beautiful, noble Botrytis rot.

The full name of the organism which causes both such grief and such ecstasy is Botrytis cinerea. Most grape growers know it as evil, common bunch rot—an endemic problem in most of the world's viticultural regions. Botrytis cinerea is a mold that produces spores in the same way bread or cheese mold does. The organism grows on many hosts—rotting fruit, grapes left unpicked or on the ground from previous vintages, and so on. Spores are nearly always present, but don't much bother healthy fruit. It is only when some little damage is done to a berry that they take hold and start doing their work. During the grapes' growing season all sorts of things do these "little damages"—probably the worst are bees and birds. They make small holes in the fruit and then leave much of the flesh uneaten providing a fresh surface for mold spores to attach. Also, there are problems with the grapes themselves; for example, as the berries on a tight-clustered variety grow they get too big for their restricted space and start to pop. (This is a big problem on Zinfandel which has both tight clusters and thin skins.) In the late summer, vineyards which have gone unirrigated for several months will sometimes be damaged by an early rain—the roots, desperately seeking water will suddenly find it in abundance, and pump so much of it into the fruit that the berries simply swell and explode. Once a single berry on a cluster, or a single cluster on a vine, is infected, the infection tends to spread quite rapidly to those around it. If weather conditions are warm and moist the fungus goes like wildfire—an entire crop can be wiped out in no time at all. If a cluster is infected with this evil form of Botrytis cinerea, it generally becomes an unpleasant mass of grayish pulp—the cell structure of the grape breaks down, and with this come other bacterial and fungal infections (acetobacter, which produces vinegar, and penicillium—common bread mold—are two examples). Needless to say, grapes in this state are less than worthless and cannot be used in winemaking.

But, then there is also the kind face of the mold—usually referred to as Botrytis Noble Rot. Starting at about 17-18% sugar, the grapes become less susceptible to the bad manifestations of the Botrytis organism. Unlike earlier in the season when the grape needs to have a wound for the mold to take hold, come autumn, if weather conditions are perfect, Botrytis will take hold and start growing on the outside of the grapes. The key to this growth is perfect heat and humidity, and healthy, previously undamaged grapes. Cool, foggy mornings and warm summer afternoons are best. (However if the organism gets much above 85 degrees, it will die.) If these conditions occur, the mold forms on the outside of the already ripe fruit and sends microscopic roots through the grape's pores to get at the tartaric acid and sugar inside—the organism's favorite foods.

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This perforation of the grape's skin induces dehydration which concentrates the sugars and acids inside the grape at a much faster rate than the mold metabolizes them. As this happens, the grape at first becomes gray, and then a shriveled bluish-purple. The clusters are covered with the grayish fuzz of the mold. (It sounds repulsive, and it is!—Bringing oneself to eat a cluster of botrytized grapes in the vineyard is a soul-searching experience.) The more shriveled and fuzzy the grapes get, the better wine they will make. In addition to the dehydration that the mold perpetrates, it also adds a complexity of character which causes wine made from botrytized fruit to be such a wonderful treat.

As you can see, the critical factor in Noble Rot formation is the weather. The combination of humidity and dry-warmth needed is hard to come by, but not so rare as might be expected. If you ask a sweet-wine lover what the world's greatest whites are, he will say, without hesitation; Sauterne (France), Trockenbeerenauslese (Germany), and Tokay Essence (Hungary.) All three are produced, ideally from 100% botrytized grapes. For years most wine-experts thought that "Noble" Botrytis growth was particular to just these European areas. In the last three decades however, it has been found that Botrytis cinerea grows well in its noble form in many of the world's wine-growing regions.

The history of botrytized wine in California is short, perhaps only 25 years—and very episodic. Unlike Europe, where the mold forms nearly every year and the question is only to what extent, in California we seem to either get it good, or not at all. The last couple of decades have seen only a handful of strong years—1983, 1986, 1991, 1993 and 1999. Some winemakers have gone to extremes in trying to get Botrytis to grow—some have even spread spores on their vineyards by helicopter. The success of these attempts at induction has been mixed—it really comes down to just one thing—the right kind of weather.

A word about the type of grapes that are affected by the Noble Rot is in order. The great sweet wines of Europe are made from quite a variety of grapes: Sauternes are largely made from Sauvignon Blanc and Semillon. TBA's are Riesling and their like, and Tokay is mostly from a grape called Furmint. In California we have found that nearly all the white grapes will support the Noble Rot, but that the most interesting and consistent results come from Riesling, Sauvignon Blanc and Semillon, although I have had botrytized Muscats, Gewurztraminers and even a Chardonnay. Red grapes tend not to support the mold's growth in its noble form, although I have seen Pinot Noir made from Noble Rotted grapes.

A general note about these wines—keep your eyes open! As in many other things, just because the old was first, doesn't mean it is best; after all how many of you drive Japanese cars? Now that we know that the Noble Rot will grow outside of a few specialized areas of Europe, we will just have to wait and see if another region—California perhaps—doesn't produce a wine superior to the finest Sauterne or TBA. One of the best Late Harvest wines I have ever had was made from a "junk" grape called "Pedro" by a winery in a very hot area in Australia. It was out-of-this-world.

1999 was a great year for Botrytis growth. The cool month of September matured the grapes later in the season than is usual, and then the first three weeks of August were just the perfect sort of weather to promote Noble Rot growth. The grapes for this wine came from the Napa Valley. The grower had left the grapes on the vine in the hopes that 1999 would turn out to be a good year for Botrytis. Doing this is a very risky endeavor for a grower; three out of four years the rot doesn't develop well and the grapes spoil on the vine. When this happens the grower loses everything. Fortunately, there are some growers willing to take the risk in the hope of getting a bit of the "Nectar of the Gods."

Technical Data:

Brix at Harvest: 30.1grams/100ml
Brix at Bottling: 154 grams/liter
Alcohol: 10.96%
pH: 3.41
Total Acidity: 9.1grams/liter
Residual Sugar: 12.5 G/100ml