



Photo: Chuck O'Rear

## ON RIPENING

**T**HE SINGLE most important winemaking decision is when to pick. It is easy to see that such a momentous decision requires care and attention, and yet, nature is telling us everything we need to know if we just observe. With our eyes, our nose, and our fingers, we have everything we need to make a decision. To get an idea of what we are looking for, this is how ripening proceeds.

Once the berries have metamorphosed from hard green vegetables into blue-purple, soft, succulent, perfumed fruit, true ripening begins. It is a process that is observed carefully by everyone in the vineyard: the bees, the birds, the raccoons, the coyotes, the turkeys and all of us. We can see the clusters change color, but we have to touch the fruit and taste it, in order to perceive the changes taking place within.

The ripening of any fruit follows the same path. Sweetness grows, the sourness falls away and the fruit softens. The perfume evolves through a spectrum of aromas from green and piquant, towards fruity and floral, and then begins to fade into the “jammy” notes of cooked preserves and dried fruit, ending in delicate balsamic notes of dried wood and leaves.

We can also see the effect of ripening

*Left: A few autumnal leaves, the dull blue-black berries, and the white bloom of yeast on the skin, all tell us that the time to pick is near.*

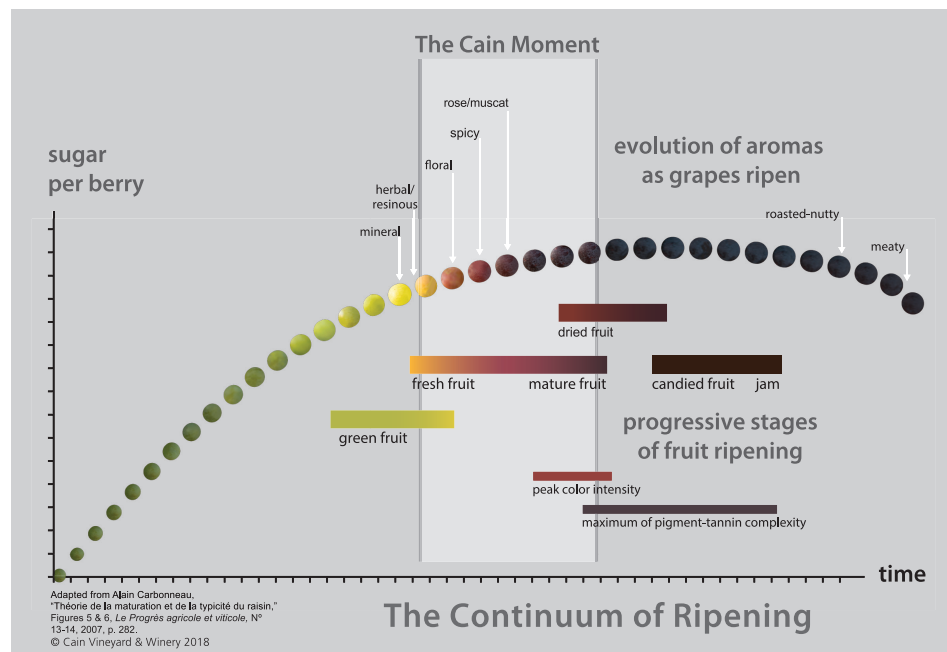
*Right: The grapes in each vineyard will ripen along their uniquely individual path, subject to the climate of the region, the variety, the site and the weather of the vintage. In general the fruit will evolve through several stages, beginning with green fruit, fresh fruit, mature fruit, dried fruit, and so on... In a cool year, we must be patient and wait to get beyond green fruit, whereas in a hot year, we must pay attention and move quickly to avoid jammy fruit and boiled fruit characteristics. But, in any particular vineyard, each of these factors will align differently, creating a unique fingerprint—the signature of that specific vineyard. Depending upon vineyard, the year, and our intention for the wine, the “Cain Moment” will be found somewhere in the range of maximum aromatic potential, floral-spicy, fresh fruit-mature fruit (but before dried fruit), peak of color, and in the early range of maximum of tannin-pigment complexity.*

in the resulting wines. The color and the textural elements of wines made at different stages as the fruit ripens seem to develop and evolve. The color becomes more intense and shifts subtly from red to purple to blue. The textural elements change too, as the tannins grow in intensity, they also shift from thin, bitter and green-astringent, toward more chalky, grippy tannins, and then deeper, richer, smoother more fat and silky sensation, and finally, fading away toward a chocolaty balance of bitterness and astringency.

### FOLLOWING THE VINES

In order to get a good feeling for how the ripening is progressing, it is essential to have followed the vines closely through the course of the year and to have memory of how the vines behaved in prior years. Especially, we need to remember the weather up to this point—the rainfall, its quantity and timing, how the flowering occurred—and then the critical transformation at veraison.

From the time the fruit becomes purple, we know that it will usually be ripe in four to eight weeks. This tells us when to visit the vineyard. One of the first signs we look for is the transformation of the vine shoots that support and nourish the grape clusters. Up through mid-summer, these green shoots are actively growing. Then, we look for growth to slow down, and for the green tissue to turn



brown. The tender green shoot will become the hard woody cane that prepares for next year. It is a physiological signal. This is when the fruit can truly begin to ripen. Eventually, the stem within the grape cluster will begin to lignify, beginning at the base, where it attaches to the cane. Finally, a few leaves near the cluster will begin to turn yellow, presaging the onset of autumn.

As these stages in the lifecycle of the grapevine evolve, we look for signs that the berries are beginning to soften. We take note as the skin of the berry becomes more tender, and the berry detaches easily from its stem, leaving a delicate “paintbrush” of the conductive fibers that nourished the berry as it developed. As the hard green pulp becomes translucent and begins to dissolve, this “paintbrush” takes on the pigment from the skin. In time, the pulp separates easily from the seeds, and the seeds, at first green and tender, progressively harden and turn brown, eventually taking on the color of a roasted coffee bean.

### THE DECISION TO PICK

Before making the decision to pick, we walk the vineyard many times, usually more than one of us. And, as the fruit becomes

nearly ripe, we collect samples—berries from many different clusters on many different vines—that we bring back to the winery, where we squeeze out the juice for testing. Knowing the basic chemistry (sugar and acid) certainly helps to keep us on track. But the most revealing thing is to see the color of the juice in the glass, the way it settles, and to smell the perfume. At first, the juice is green and muddy, but as the fruit ripens, depending upon the vineyard and the variety, the juice clarifies and begins to take on a pink hue. The aromas, at first frankly herbaceous, begin to evolve through fruit-floral notes, such as raspberry, cherry and plum.

It is the winegrowers’ job and pleasure to observe and note these differences, and to adapt their harvest timing and vinification methods to correspond to their aesthetic values.

Most importantly, just as it is possible to harvest too early and to pick the fruit when it is under-ripe, so too, it is possible to wait too long, and bring in fruit that is over-ripe and has faded. The key is to find that moment, but the interesting thing is that we will not all agree....

—Chris Howell