Every business faces risks, but the perils in agriculture can be especially daunting. No amount of planning can prevent a drought, heat wave or hailstorm. But as many California vintners and wine grape growers are learning, sustainable practices in the vineyard and winery can help manage risk—both the unforeseeable whims of nature and more controllable challenges like employee retention. Ryan Decker, wine grower for Rodney Strong Vineyards, believes a culture of sustainability has helped this 55-year-old Sonoma County winery mitigate many hazards.

Rising energy costs are a continual threat. What have you done to respond to that?

Our last big project was a new fermentation cellar, and we designed it for square tanks. You can fit 28 percent more volume in the same footprint compared to round tanks. The old-style tanks had a jacket that you pumped glycol through to heat or cool them. But with these new tanks, you can just warm or cool the lower part. Inevitably, during harvest, you have tanks that are only half full. Now, instead of having to run the whole chiller package on that tank, we can run just one or two levels. We’re seeing a 33 percent energy savings.

What vineyard practices are helping you minimize the risk of erosion and declining soil health?

We do no tilling on any of our hillside vineyards. To plant a cover crop, we would have to cultivate first, so instead we let the native vegetation grow between the vine rows. Yes, the grasses compete with vines for water, but only maybe in the top 12 inches; vine roots go much deeper. Plus, the grasses encourage beneficial insects and keep the dust down. And the grass is actually doing us a favor by removing water from the soil in late spring and early summer. We want to water-stress our vines between berry set and veraison, and the grass helps us get there.

What sustainable practices are helping you improve air quality?

For any new pumps or any existing pumps that need an upgrade we’re buying diesel or electric. Dust control is a big issue in farming. We treat the main vineyard avenues with a sustainable anti-dust material that aggregates soil particles and prevents them from floating. If we didn’t do it, we’d have a huge dust cloud behind us everywhere we drove.

You were the first carbon-neutral winery in Sonoma County. What does that mean and how do you do it?

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We total up all our carbon emissions according to The Climate Registry protocol. They go through our electric bills and our fuel use and calculate our carbon dioxide emissions, and we offset that through investment in renewable-energy projects, as local as we can get.

**What practices are helping you address California’s drought cycles?**

We’re using some new technology to measure evapo-transpiration more accurately. And we’re using a porometer, a tool that came out of the medical industry, to examine the stomates on the underside of the grape leaves. The plant controls air exchange through the stomates based on water stress.

The porometer measures that air exchange, and it’s a big improvement over the pressure chamber, the older tool. Even if soil probes indicate that the soil is dry, the plant may not need water yet.

We also use deficit irrigation, restricting the water to less than the vine needs. Over time, this trains the vine to need less water.

**Does Certified California Sustainable Winegrowing certification help you competitively in the marketplace?**

Absolutely it does. We were telling people we farmed sustainably, but what does that mean? The consumer wanted to hear the word “certified.” Our sales reps told us that. Especially with larger buyers, like Costco and Walmart. It may be less important in restaurants, but retailers putting that wine on their shelves care about it.

**What employee practices have helped you minimize turnover risk?**

We make sure we celebrate our successes here. We have a ton of employees who have been here longer than 20 years. We have birthday parties for everybody, an excellent benefit program and good communication between management and employees. Management reads the salary surveys and makes sure they’re paying market rates or better.

**What’s on your sustainability agenda? How will you be “more sustainable” in five years than you are today?**

What excites me is technology, like using drones to do more aerial imaging for pests and diseases. And irrigation technology that monitors moisture under every vine instead of sections of vineyards. Then you can pulse water to each vine individually. And we’re probably less than a decade away from being able to create 3-D maps of the soil so you can see where water is penetrating. That’s cool stuff.