





odd Cavallo pushes some snow off the top of a drab, moss-green tarp and lifts a section to reveal one of the 55-gallon plastic barrels sitting outside the wooden barn that houses his Wild Arc Farm winery in Pine Bush, New York. It's the kind of gray-light December day in the Hudson Valley where, as the sun wanes, color seems to slowly drain from everything. That is, until Cavallo plunges his wine thief into a barrel and draws the liquid from inside.

Bright, beautiful, cherry-red juice with darker bits of flotsam rushes into the cylinder, and Cavallo squirts some into a glass etched with the word "raw"—a souvenir from his recent turn at the popular natural-wine festival of the same name. It's from the skins of New York-grown Merlot, revived not with grape juice or with water, but with juice from local Northern Spy apples. It smells of fresh raspberries and cherries, and something a little less predictable—a hint of Froot Loops, maybe? It's fresh and juicy and lively, and even in this early state of its co-mingled, fermenting life. I want more.

This is the nature of liquid made from co-fermenting wine grapes—be they Vitis vinifera or hybrids—and other fruits, whether wild or cultivated: apples, pears, plums, quince. The finished result is low in alcohol (hovering typically between 7 to 10 percent ABV), brightly bubbly (via the traditional method or ancestral, aka pét-nat, technique), and dry on the palate, but with rich, fresh, fruity aromatics.

Cavallo's Wild Arc Farm and producers like ZAFA Wines, Fable Farm Fermentory, La Garagista, William Heritage, Art+Science, Casa Dumetz, and Small Talk Vineyards are among a growing number of producers whose efforts are seeping outside the traditional lines of grape-based winemaking. And while co-fermentation isn't remotely a new technique, it's making a splash among curious small-scale producers who-through some combination of creative urge, historical curiosity, and out and out necessity-skew toward working with what's available. But is this finished product wine? Is it cider? Is it both, or something else entirely? It is, say its creators, all of the above.



"I have my tasting room in Burlington [Vermont], and I purposely put the definition of wine on the wall there: Wine is made from grapes or apples, but also various other fruits and flowers," says Krista Scruggs of ZAFA Wines. Scruggs has been co-fermenting Vermont-sourced fruit since she launched her own label in 2017, as well as previously, when she worked as assistant winemaker for Deirdre Heekin and Caleb Barber's La Garagista in nearby Bethel. Almost the entire first vintage of ZAFA was co-fermented grapes and apples, Scruggs says, in part because she couldn't get her hands on enough grapes for a solo uva act, and in part because of the inspiration from her fellow Vermont producers. That experience helped her see a different direction to winemaking in the form of co-fermenting myriad types of fruit, a process that doesn't exactly have a strict methodical path.

Some, like Cavallo, use what's called a piquette-style method, taking the spent skins from wine fermentation, rehydrating them with the juice from crushed apples, and allowing the natural yeast in the mix to kick off a fermentation between the two. Others, like Art+Science, Cider & Wine Company in Sheridan, Oregon, combine the juices of crushed grapes and apples (or plums or pears) and let them co-ferment that way. Some, like Heekin, dabble in both. Whichever method is employed, what's most exciting is how the grapes and other fruits complement each other, teasing out aromas and flavors that might have gone unnoticed before. "It came from necessity," says Scruggs. "I saw, of course, Fable Farm [Fermentory] and La Garagista macerating grape skins on cider. I wanted to explore doing a must to get more extraction from the juice and then the skins. Before that, I had no impulse to work with apples and grapes. It was a necessity of vintage, and it's why it's so personal to me. It's

how I started working with those two products together—I had to."

That is, of course, the crux of the use-it-orlose-it methodology that likely brought the technique to fruition in the first place. It's interesting to try something new and experiment, surebut considering the historical role of wine as a source of calories and as, well, food, co-fermenting makes a lot of sense. It makes the most of what you've got and where you've got it, as well as limits waste.

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"In Vermont, we're uniquely situated to develop this as a long-term tradition because we have this history of apple orchards and cidermaking," says Heekin, who counts 29 wild and cultivated apple varieties on her farm, and the surrounding land, that go into her cider projects and co-ferments. "With [grape] hybrids, we're able to make cold-climate wines here, too, so it's a good marriage between the fruits we have."

That same practical notion fuels others, too. "It's about grabbing whatever you have from your property that will ferment, and throwing it all together. I'm sure that's what people did for fermentation originally," says Dan Rinke, winemaker at Art+Science, Cider & Wine Company. But for Rinke and his co-owner and wife, Kim Hamblin (who also serves as Art+Science's assistant winemaker), that utilitarian appeal is also a way of celebrating and expressing the land where they work. "I've always liked the idea, especially with our first co-ferment, Symbiosis, of having a terroir wine or cider—or whatever you want to call it!'

Rinke's day job is as the vineyard manager at Johan Vineyards, where he primarily sources grapes for his own wines with Art+Science. Their Symbiosis is a fifty-fifty co-ferment between the juice of Grüner Veltliner on the skins and foraged apples. They have three more co-ferments waiting for release: a skin-fermented Sauvignon Blanc and pear combo, a foraged plum-pear co-ferment, and a fermented mix of Mondeuse Noir, Pinot Noir, plums, apples, and pears named FruitNat.

"There's a lot of history. Most cultures have a utilitarian product like this," says Sean Comninos, winemaker for William Heritage Winery, a generations-old fruit farm in Mullica Hill, New Jersey, part of the Outer Coastal Plain AVA. In addition to traditional reds and whites, Comninos is making a duo of co-ferments, including a piquette-style product made with apple juice, from the estate's farm-sourced fruit. Of piquette's origins, rehydrating leftover grapeskins from wine fermentation with water, Comninos says, "It's something fieldworkers and commoners in the ancient world used—the skins were a product given to people who were the poorest."



The piquette style was something Cavallo was turned onto by a friend who'd read about France's version of the technique in an old wine book. My own grandfather from Calabria used the same technique to stretch the homemade wine he and my dad made in their basement, rehydrating and refermenting the spent skins of his red wine to make something they referred to as acquata. A version also existed in Tuscany called *l'acqua pazza*—crazy water.

During the initial trials, Cavallo learned that in addition to color, tannin, and a bit of initial flavor, hydrating the skins changed the existing pH and gave life to the same kind of lactic acid bacteria that makes sour beers and kombucha so delicious. The first one he bottled sold out immediately: a co-ferment called Sweetheart, a subtle, bone-dry, charmingly copper-pink sparkler with a heady tropical Life Savers-like nose, that gets its color from the skins of Teroldego grapes that were rehydrated with the juice of Northern Spy apples. "Those bacteria are there and active on the pomace, and that's the pomace we use for our co-ferments," says Cavallo. "So we're using it both as a way to extract color and tannin from the skins for a thing like a cider with red grape skins, and to inoculate it with interesting yeast and bacteria to do the fermentation."















Heekin made her first co-ferment in 2010, a small batch as an experiment. "I can't remember how I ended up on this website and down the rabbit hole, but somehow I came across a reference to a style of wine called *vin ëd pom*—cider fermented on red wine skins—and I was like, 'Oh, my god! That's really fascinating, and why didn't I think of that?' "

She took the pressed-off skins from some red grapes in her winery and combined them to ferment with cider; she liked the results so much, she's been doing it ever since in her annual release, Stolen Roses, a ferment of cider on the skins of Marquette or Frontenac Noir red grapes.

Heekin also makes The Flesh and The Bone: a fifty-fifty ferment between Brianna, an aromatic white hybrid grape variety, and both wild and cultivated apples growing on Heekin and Barber's biodynamic farm. It clocks in at a little over 10 percent ABV and is labeled as a sparkling cider. She's currently working on a cider fermented on Frontenac Gris skins. "For me, it started as inspiration from historical references from areas like Italy's Val d'Aosta, Trentino, Alto Adige, and France's Savoy," she says of the Alpine regions where orchards sit in the valleys, and vines grow up the sides of mountainous foothills. "Obviously, it was a way of fermenting and storing things, but it's a tradition that fell out of favor after World War I, when the DOC felt it was too competitive with the patrimony of the wines."



As co-fermenting fruit once again gains in popularity, that same leeriness of competition, and of the unwanted side effects of making the next cool thing, lingers. When you consider the way trends like orange wine and pétillant natural-style wines went from being interesting indie darlings to fashionable wines, producers like Regan Meador of Southold Farm + Cellar in Fredericksburg, Texas, and Scruggs see a caveat. "I wrestled with the same deal. We did a piquette and it certainly had the momentum to turn into a monster," Meador says. "I had this moment where I could see us being only known for projects that aren't as important as the hard work we are putting into growing grapes and making wine here in the Texas Hill Country."

Meador launched his career making lowintervention wines on the North Fork of Long Island, and he understands the challenges of small wine regions. His concern isn't that the product is poor, but that the potential trendiness of co-ferments will attract industry giants and overshadow the important and irreplaceable work small producers are doing. "I think being known for an easily replicated product rather than the unique wines that only you and your region grow, you are in risky territory."

Scruggs had a taste of early wine-darling fame, too, making headlines in pretty much every major beverage publication. Instead of seeing stars, it gave her pause-concerned about what could come from making highdemand wines that can eclipse everything else and crush her creativity. What she found was that the beauty of co-fermentations was indeed the exhilaration, terror, and enlightenment of seasonality, and how two things can go together. "Unless you look at the tech sheet, nowhere on the label would you know that I used different fruits for 95 percent of my last vintage. I never use the word 'co-fermentation,' mostly because of that same deep concern," says Scruggs. "It would take away from my intentions. I'm doing this out of genuine curiosity. As a small producer, I can't afford to do something just as a trend."

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But the fact that no one (including the federal office of the Alcohol and Tobacco Tax and Trade Bureau, who has the last say on legal label language) really knows what box to put these products in could, perhaps, be the savior of co-fermentation's sanctity. They are, in effect, a blank slate—not only is there no agreed-upon product definition, but no one's around to tell you what you should smell or taste or even think about them. "Honestly, I believe no one thing can be any less better than two parts together," Scruggs says. "What happens when you fall in love? It's magic! That person brings something out in you that you didn't know existed. That's the inspiration behind this-a natural path to bring two things together."