

THE STARGAZER

A NEWSLETTER FOR MEMBERS OF THE ADASTRA WINE CLUB

SPRING 2023

In this issue we review Wine Club selections, the 2019 Adastra Chardonnay and the 2020 Boundless Optimism “America, America” Chardonnay, both made from grapes grown at our certified organic Adastra vineyard. On page 3, we detail a tasty, vegan Mushroom Risotto for you, and on the back page we show results of our pairing tests involving both red and white wines, and vegan and non-vegan cheeses. Starting on page 2, we preview an exciting experiment at the farm, potentially involving drones, seedballs, milkweed and Monarchs. **Thank you for your support. Cheers!**

Chris Edwin

WHAT'S IN THE BOX?

2019 Adastra Chardonnay *Carneros, Napa Valley*

The 2019 Adastra Chardonnay has an attractive gold color. Its aromas are of buttered toast, and toasted hazelnuts, with hints of citrus, pear, mango, and peach syrup, along with a leesy element. Fullish in body, the wine’s flavors include citrus, lemon curd, buttered toast, and custard, with hints of spice, and minerality. Although this wine should be enjoyable for several years, it is very pleasant right now. Made from certified organic grapes from Adastra's vineyard.

2019 was a somewhat unusual year, because the vines started the vintage with good soil moisture. The October 1, 2018, to September 30, 2019, rain-year saw over 27 inches of rain, about 50 percent above the 21st-century normal for our vineyard. Although most of the rain fell in winter, we also had over two inches of rain in May. That month, like April, was relatively cool. Budbreak was in late March.

The hottest day was June 10, with a temperature of 102.3° Fahrenheit, the peak of three-day hot spell. August and mid-September also had hot spells, with temperatures hitting the mid- and upper- 90s .



2019 Adastra Chardonnay — Just the Facts

Grapes: Adastra Vineyard Chardonnay: Old Wente, Dijon 96, Dijon 76

Yield (tons per acre): 2.28 tpa

Harvest Date: September 26, 2019

Bottling Date: June 3, 2021

pH: 3.38 **TA:** 5.8g/L

Alcohol: 14.7% by volume

Barrel Aging: 16.5 months in oak, 4 months in tank.

Barrels: 100% French oak (66% new oak)

Cooperage: François Frères, Remond, Tonnellerie Ô

Production: 139 cases

When Best to Drink: Now through 2026

NOTE: We chose not to put capsules on the 2019 Adastra Chardonnay. We suspect capsules may be a waste of our own resources and the world's.

The effect of the weather meant that vine canopies were a little more vigorous, requiring additional passes to remove the laterals that grow off the main shoots of the vines. These “sub-shoots” can impede circulation of air, which in turn increases the risk of rot. Laterals can also overly reduce light penetration—we don’t want all the clusters to be in full sunlight, but we do want at least dappled light to fall on them, because it helps with flavor development.

Harvest took place in the early hours of September 26. The grapes were gently pressed at the winery, then settled for two days in a tank to allow some of the heavier solids to precipitate out. Then the wine was transferred to French oak barrels to ferment and age. Initially, no commercial yeasts were used, the fermentation being started by naturally-occurring yeasts on the grapes and in the winery. After starting promisingly,

What's in the Box? *continued from page 1*

fermentation became slower and slower, eventually prompting Edwin to add commercial yeast to some barrels to ensure the wine reached dryness.

Other than that successful intervention, and an occasional stirring of the lees for the first five months, the wine was left to age gently. After 16.5 months, the wine was appropriately oaked, so the barrels were transferred to a tank for four months. Towards the end of this period, the wines were chilled in an effort to get any excess tartrates to fall out. This cold stabilization should help to minimize, though not eliminate, the chance of tartrate crystals showing up in your bottle. Because the wine did not complete malo-lactic fermentation (meaning that not all apple malic acid was converted to milky lactic acid by bacteria), we sterile filtered. This means passing the wine through 0.45 micron mesh on the bottling line to sift out malolactic bacteria, thus preventing them from completing the malolactic fermentation in the bottle.

Ideally, we seek to minimize interference with the wine. However, on this occasion, we found the filtration improved the wine, giving it clarity and focus. We hope you will enjoy it.



2020 Boundless Optimism “America, America” Chardonnay *Carneros, Napa Valley*

The 2020 Boundless Optimism “America, America” Chardonnay is made from organically-farmed, Adastral-grown grapes aged in American oak. The wine has aromas of golden delicious apple, vanilla, almond, custard and brown sugar, with hints of apricot, mango, and whiskey lactones. On the fullish, almost crunchy, palate, there are citrus, coconut, spice, mineral, and light whiskey flavors.

Unlike its generous predecessor, the 2020 rain year yielded a paltry nine inches of precipitation, less than half this century’s rain-year average. Although April and early May weren’t especially warm, late May saw a run of high temperatures, and

in August four days got hotter than 100 degrees Fahrenheit. September saw more heat spikes, including a year high of 109.9° Fahrenheit on September 6. The combination of low soil moisture and heat certainly made the vines work. Smoke in the air from August 17 onwards added to their toil.

Our entire harvest for 2020 took place on October 2. The Chardonnay was whole cluster pressed, settled for two days in a tank, then racked to previously used American oak barrels. To minimize complications, given the stress the grapes had gone through, we inoculated the wine using commercial yeasts, which eventually proved successful. After 16 months, the wine was transferred to tank to complete its pre-bottling maturation. As with the 2019 Adastral Chardonnay, this wine did not complete malolactic fermentation and so was sterile filtered on the bottling line.

2020 Boundless Optimism “America, America” Chardonnay, Carneros, Napa Valley— Just the Facts

Grapes: Adastral Vineyard Chardonnay: Old Wente, Dijon 96, Dijon 76

Yield (tons per acre): 0.79 tpa

Harvest Date: October 2, 2020

Bottling Date: August 9, 2022

pH: 3.33 **TA:** 6.4 g/L

Alcohol: 14.8% by volume

Barrel Aging: 16 months in American Oak, 6 months in tank.

Barrels: Used American Oak

Cooperage: Tonnellerie Ô

Production: 33 cases

When Best to Drink: Now through 2026

Long Live the Monarch! Game of Drones? Seedy Tale of Potential Help for Butterfly

Earlier this year, Chris, Naomi, and Catherine met with Alaric Balibrera, founder of the non-profit *Rainforest Rising*, and agreed to offer an acre of Adastral farm property for a milkweed droneseeding experiment. While details have yet to be finalized, it is an intriguing venture.

Rainforest Rising is conducting experiments using seedballs and drones in an effort to rapidly

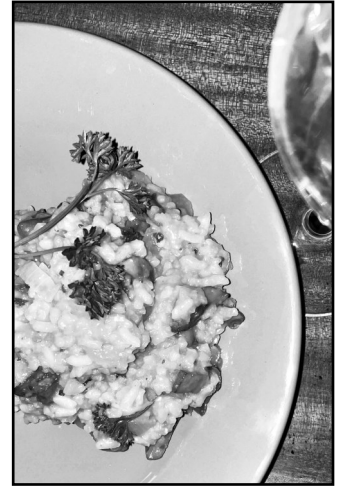
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PAIRING RECIPE: VEGAN MUSHROOM RISOTTO

- A delicious, straightforward recipe that can be tweaked by serving with cheese (vegan or non-vegan –see page 4).
- The recipe uses Shiro Miso, also known as White Miso. Despite some trepidation, the requisite miso was found after a mere five minutes of repeatedly scanning the same shelves at the local Whole Foods (see picture, bottom right).
- Arborio rice is the traditional variety used in risotto; it is rich in amylopectin, a starch, which provides the satisfying fullness of the meal.
- We used Baby Bella and portobello mushrooms, though other varieties, for example cremini, would do just as well.

Recipe adapted from **The Complete Plant-Based Cookbook**

Serves 6



Ingredients

4 cups	Vegetable broth	1/2 teaspoon	Salt
3 cups	Water	1	Onion, finely chopped
1/3 cup	Shiro miso <i>aka</i> white miso	4	Garlic cloves, minced
5 Tablespoons	Extra-virgin olive oil	2 cups	Arborio rice
1 pound	Baby Bella mushrooms	1/2 cup	2019 Adastr Chardonnay
1	Portobello mushroom (approx. 1/4 pound)	1/4 cup	Parsley (we used curly)

Cooking Time: Risotto takes 30-35 minutes Engaged Time: 50 minutes Time to Table: About 66 minutes

1. Prepare the vegetables. Finely chop the onion, trim and slice all the mushrooms into roughly 1/4-inch chunks.
2. In a large saucepan, bring broth, water, and miso to boil over high heat. Reduce heat to a simmer, whisking occasionally, until the miso is dissolved. Allow about 5 minutes. Taste for “saltiness.” Cover and keep warm over low heat.
3. Using a Dutch oven (or a pan that you can both fry in and later cover), heat 2 Tablespoons olive oil. Add the mushrooms, 1/4 teaspoon salt, cover, and cook until the mushrooms have released their moisture, about five minutes. Uncover and carry on cooking until mushrooms are nicely browned, about 10 minutes. Transfer to bowl.
4. In the now-empty Dutch oven/ pan, heat 2 Tablespoons oil over medium heat. Stir in the onion. If you determined your broth-water-miso mix was not too salty, add 1/4 teaspoon salt to the onion and cook until softened, about six minutes. Mince the garlic and add it to the pan. Stir in the mushrooms. Cook for about 30 seconds, then add the rice. Stir until grains of rice are translucent at the edges (about three minutes). Add the wine and cook, stirring constantly until fully absorbed (about two minutes). Stir in 5 cups of broth-water-miso mixture. Reduce heat to medium-low, cover, and simmer until almost all the liquid has been absorbed and the rice is just al dente, 15 to 20 minutes. Stir twice (once around 10 minutes, once around 14 minutes).
5. Add 3/4 cup broth-water-miso mix and stir constantly until the risotto becomes creamy, about 3 minutes. Remove pot from heat, cover, and let sit for 5 minutes.
6. Chop the parsley and stir in, along with 1 Tablespoon olive oil.
7. Season with salt and pepper. Adjust consistency with additional broth-water-miso mix as desired.
8. Serve with 2019 Adastr Chardonnay and perhaps a green salad.



Edwin relives the triumph of finding shiro miso.

MUSHROOM RISOTTO PAIRED WITH CERTAIN CHEESES AND WINES

Wine	Risotto Only	Daiya Cheddar-Style Shreds	Violife <i>just like</i> Parmesan	Petaluma White Cheddar	Petaluma Yellow Cheddar	Trader Joe's Parmesan
19 Adastra Chardonnay	✓✓	✓✓	✓✓	✓✓	✓	OK
2020 Boundless Optimism "America, America" Chardonnay	✓✓	OK	✓✓	✓	✓✓	✓✓
2019 Adastra Pinot Noir	✓	✓✓	✓✓	✓	OK	✓✓
2019 Adastra Syrah	✓✓	✓✓	✓	✓✓	✓✓	✓✓
2018 Boundless Optimism Cabernet Sauvignon	✓✓	n.a.	n.a.	OK	✓✓	n.a.
Boundless Optimism "Sweet"	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓

Notes: Daiya and Violife referenced above are both vegan cheeses with apparently wide distribution. Petaluma Creamery makes very good, strongly flavored non-vegan cheeses. Trader Joe's Parmesan is a good quality non-vegan cheese at a reasonable price; Edwin describes its intensity as "mild plus."

Ratings: ✓✓ A very good combo ✓ A good combo OK—doesn't really work, but not a disaster.

Continued from page 2 regenerate landscapes where plant species have diminished or disappeared. This year, for example, they are conducting a 6,000-acre trial in Mississippi to reseed longleaf pine trees; other work is taking place in Sumatra and New Mexico.

Seedballs are typically amalgams of soil, compost, water and seeds, between a marble and a golf ball in size. Successfully dispersing seedballs by drone would make it possible to plant all kinds of terrain, more rapidly and efficiently than by hand or terrestrial machine. Also, the nutritive seedball environment increases the seeds' chances of successful germination after landing.

Why experiment with milkweed? Milkweed (*Asplecias* spp.) is a favored egg-laying site of the western monarch butterfly (*Danaus plexippus*), an iconic species that seems to be on the decline. Seeding more milkweed in appropriate areas could bolster the numbers of these valuable pollinators.

While accurately counting insects is difficult, estimates in the 1980s put the western monarch population in the 3.5 to 5 million range. An annual survey conducted since 1997 by the Xerces Society found over 1.2 million overwintering western monarchs in the survey's initial year, but only 335,479 in 2022. So it seems quite probable that monarch populations have significantly declined, with factors such as pesticide use, habitat loss, and changes in climate all potentially responsible.

We'll keep you posted on the milkweed experiment. While caution and good judgement need to be exercised with such ventures, it does seem worth a trial.

On the topic of pesticides, a joint study involving the University of Nevada-Reno, the Xerces Society, and others, sampled 227 milkweed leaf samples from 19 sites representing different land types in California's Central Valley to assess pesticide contamination, including areas where land owners indicated pesticides had not been applied. Sixty-four pesticide compounds were found. No sample was pesticide-free, the average sample containing nine pesticides with the range being one to 25. While the goal of the survey was to assess the possible impact of pesticides on milkweed vis à vis monarch butterflies, the mind boggles at the pervasiveness of pesticides in "California's breadbasket." We hope your Adastra wine made from certified organic grapes tastes even better after reading this.