
MASSA FAMILY FARM: MAKING ORGANIC WORK

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Weeds are clearly on Greg Massa's mind this morning. "It's been a bad year," he says moments after we arrive. Standing above a field abuzz with electric blue damselflies, Greg tells me that because of this year's unusually warm spring, he has had an explosion of weeds. Greg estimates that he will get half his usual yield of rice, which now appears lost in a sea of pale green arrowhead and sedges. "Organic," he shrugs, "is hard to do."

Massa Organics sits on the Sacramento River in Hamilton City, where the Massa family grows organic Calrose rice, a variety specially adapted for the northern California climate and soil. Greg's father bought the property in 1975, "back when rice farmers made some money," he remarks. The original farm, Greg's childhood home located just south in Princeton, has been farmed by Greg's family since his great-grandfather, Manuel Fonseca, an émigré from

Portugal, planted his first rice crop in 1916. I ask Greg if he ever thought he would end up following in his family's footsteps. "No way!" he says emphatically. "It was the last thing I wanted to do!"

Instead, Greg became a biologist (this is immediately clear as he excitedly points out a predaceous diving beetle, while rhapsodizing the virtues of dragonflies). It was at UC Santa Barbara, while getting his undergraduate degree, that he met his future wife, Raquel Krach, a southern California native. They went on to pursue advanced degrees at San Jose State University and at UC Santa Cruz, eventually landing in Costa Rica, where they spent five years working as tropical biologists.

However, they soon realized that academia and research alone were not for them, and that conservation was their true calling. "There are few opportunities to do real hands-



on conservation work,” Greg explains, “but we knew that if we returned here, we could have a direct impact on seven hundred acres.” In 1997, the couple returned, and with the help of Raquel’s education in organic and sustainable agriculture from UC Santa Cruz’s Agroecology Program, along with Greg’s lifelong experience, they have begun to convert this fourth generation family farm to an organic operation.

Mimicking the vast pre-Colombian wetlands of the Central Valley, the rice farms of Butte County provide excellent mammal and bird habitat and promote vast biodiversity. Greg easily rattles off a slew of species found on his farm, including coyotes, turkeys, deer, wood ducks, kestrels, barn owls, red legged stilts, great blue herons, egrets, blue winged teals, a whole host of waterfowl, and river otters, who litter their bright orange, crawdad-filled scat everywhere.

At Massa Organics, this richness is not just a happy accident: Greg and Raquel actively work to attract wildlife to their farm. A grant through the U.S. Department of Agriculture’s Environmental Quality Incentives Program helped them put up nesting boxes for owls and woods ducks in the scrub oaks bordering their fields and also establish a wildlife corridor along old railroad tracks to draw birds and animals up from the Sacramento River.

The Massas’ approach to farming is a mix of passion and pragmatism. “Rice does not grow well in cold water,” Greg says, outlining his plan to build additional waterfowl habitat in one of his fields. Where we stand next to the pump, the field is empty except for a few hardy weeds but grows increasingly lush as it is divided by levees into successive ponds.

“When the water is first pumped in, it is cold,” he explains, “but as it moves down the field, it warms to the perfect temperature for rice.” His plan is to divide the pond next to the pump in half with a cross levee, de-level the bottom and create some small islands: good habitat for birds and also warm water for rice. I ask what benefit he thinks all the additional wildlife gives to the farm. He looks at me like I am either a little crazy or a little daft and simply says, “Well, biodiversity is always good.”

However, this was not the popular attitude a generation ago. In his father’s time, “feeding the world” was top priority, and “better living through chemistry” was the motto. These attitudes created farms dictated by strict schedules for applying fertilizers, herbicides, and pesticides and articulated in orderly rows of crops, “clean” lines with little room for wild nature.

A generation later, Greg eschews the quick and potentially harmful fix of petrochemicals, instead striving to work with his farm’s natural systems and resident wildlife to help control pests and unwanted weeds. For example, to combat tadpole shrimp, his major pest, Greg germinates his seed before planting, giving it a head start before the clouds of shrimp bloom. If that is not enough and the shrimp completely overwhelm his rice, he uses copper sulfate, a USDA approved compound that kills crustaceans. He also talks about employing wildlife to help with weed control, such as using ducks to clean his fields or utilizing aphids to attack his aquatic weeds, this last a tactic he began to consider after noticing an infestation killing arrowhead, but leaving his rice alone.

But mostly Greg relies on the careful regulation of water. At the beginning of the season, Greg floods his organic fields eight to ten inches deep—three to five inches more than his conventional fields—in order to drown the first round of weeds. The second round, aquatic weeds, thrive in the warm shallow water. In a gamble, he stakes his rice against the weeds, draining his fields just long enough to kill the weeds, but not his rice. Once all appear dead, he re-floods the fields, and his rice, not the weeds, comes back to life.

For Greg and Raquel, farming is a delicate and nuanced balance of doing what’s good for your land and what’s good for your crops. But, as with all farming, the balance can unexpectedly tip, such as with this year’s weed explosion. “Growing a single crop is a huge gamble,” Greg avers. In 2005, he and Raquel decided to diversify, planting thirty acres in almonds. While they expect to begin harvesting next year, the orchard too has had



to battle weeds and pests. These, coupled with poor nitrogen, reduce his organic rice output to half the output of the land farmed conventionally.

Smallscale organic agriculture is a risky endeavor. Growers of fruits and vegetables can absorb some of these risks through diversity and crop rotation, as well as selling directly to consumers at farmers' markets. Rice, on the other hand, is traditionally farmed as a monoculture and sold by the truckload as a commodity. "We realized that if we were going to keep growing rice organically, we had to take on the marketing risk," Greg explains. So far, Greg and Raquel have converted one hundred of the farm's seven hundred acres to organic production. Marketing is key to converting more acreage.

Once they found a mill that agreed to process small, individual batches, Greg and Raquel began selling their rice wholesale to select restaurants and health food stores and to purveyors who manufacture food such as puffed rice and organic rice krispy treats. But fully a third is sold at farmers' markets around northern California and to CSAs (Community Supported Agriculture) across the country. While selling two-pound bags at a time can be taxing, requiring a greater time and money investment, the Massas net more per pound and enjoy the opportunity to meet the people who eat their rice. Opting out of the commodity system has helped this small farm make it and, for consumers, put a face on a staple rarely personalized.

In front of his earth toned-home made from his own baled rice straw, Greg's attention turns to his brood of five children, ages ranging from one to eight years old. Plump chickens run underfoot, while in the rice field only a couple hundred yards away, a dozen egrets hunt for food. It is a bucolic scene, born of Greg's and Raquel's hard work, love, and integrity. To the north spread several fields Greg has let lie fallow in order to start them in organic production next year. Despite the uncertainties, worries and pernicious weeds, the Massas continue to expand, representing the new generation of American farmers, turning a conventional farm organic, and, at the farmers' markets, meeting the folks who eat their rice. 🌾

Massa Organics rice is available in Chico at the Chico Farmers' Market, Chico Natural Foods, Maisie Jane's, and S & S Market.
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