



# A Year at Maggie's Farm: Harvest Season

by Kim Motylewski

Outside the tiny office space at Maggie's Farm, hay statistics are posted on a white board. In mid-August, the number of bales in the barn stands at 1,826, thanks to an excellent, first grass harvest in June and July.

How many bales will the farmers need to feed the animals throughout the winter? Olivier Flagollet, the farm's pasture manager, pauses to think for a moment. He's got to figure in feed for Ruby and April, the two draft horses new to the farm this spring, and subtract the consumption by cows that will be "beefed" before winter. "About 2,800," he answers.

The time has come for the second hay cutting of the season, if only the weather would cooperate. Flagollet opens the National Weather Service webpage for Orange, MA and sees showers predicted, again.

In the drier climate of mid-western France, where Flagollet was raised, alfalfa farmers can, as he puts it, "Listen to the grass and it tell you, 'I'm ready, come and get me.'" In central Massachusetts, "weather dictates more than anything" and this summer has been about 40 percent wetter than usual in the region. The old directive to "make hay while the sun shines" isn't just about the farmer's comfort; it's a practical necessity for making decent feed. Three consecutive days of sunny, dry weather is what Flagollet needs to cut, dry and collect the grass from the fields at Maggie's Farm. He says there have been few instances of such a run this summer. This day is out. But the next three days look pretty promising. Before long, the cloudy skies turn drippy.

For the ten student-farmers, living and learning here since last October, this summer has been a season of shouldering more responsibility, a time to harvest what they have learned and to make some decisions about their immediate futures.

Learning to raise beef cows, sheep and chickens on pasture grass, and in turn, raise grass on the animals' manure, is one of the skill sets that Flagollet and his fellow staff members have been conveying to the students.

## GRASS FARMING

Just down the road from Maggie's farmhouse, in a field behind a grand old barn, a dozen cows graze. The cows chew and swallow. They brush flies from their backs with their tails, then chew some more on a section of grass outlined by temporary, electric fencing. They've eaten at this particular salad bar two or three times this summer. It offers a tasty

mix of greens: orchard grass, timothy, white clover, and reed canary grass, to name a few. They'll stay in this paddock just 24 hours, each of them consuming about 100 pounds of grass.

Along the fence line, one can see the divide between sheared grass on the inside and the untouched blades outside. As the day goes on, that munch line, becomes increasingly distinct. Around 5:30 each evening the two student-farmers assigned to cow chores will set up a second paddock, adjacent to the first. They'll lower the line between the two sections and the ever-hungry cows will step right up to their next serving of grass

One of the challenges of this task is knowing how big to make the paddock, given the height and nutritional value of the grass at a given time of year. Cows are best able to seize and eat grass at about a foot tall. If you give them too little space, they'll chew through the components of the salad bar they prefer, for size or type, before the day is out and bellow for more. If you give them too much space, they won't have time to chomp down the entire area, in a sense, leaving food on their plates. That waste of good grass concerns a farmer like Flagollet whose aim is to make the most of this crop—fattening the animals on fresh servings all summer, and raising enough surplus, in uniform stands to be cut and stored as the hay that will feed the animals through the winter.

The student-farmers have mastered this crucial business of setting paddock size, says Flagollet. They've become so competent, in fact that he and the program's Director, Jennifer Core, were able to visit family in France for most of July. This isn't something they normally do in the summer, but their family circumstances called for it, and the students' abilities allowed for it.

During that month, pairs of students were given responsibility for the well-being of the farm's cows, chickens, sheep and draft horses. Although the two lead vegetable growers were still on the farm, animal care had been left entirely to the students, a responsibility that Patrick Farmer found incredibly rewarding. He and Fermin Hernandez were on the horses. They would take Ruby and April out to pasture each morning and back to the barn each afternoon. At first, Farmer found it was "an annoying addition to whatever other chore I was assigned to for the week," but eventually he looked forward to the task as a time to bond with the horses.

He wrote: “Last Friday, Fermin and I moved them to a pasture in a new part of the farm... I could feel Ruby tense up as she realized I was bringing her into unfamiliar territory, but I spoke to her softly and held confidently to her halter, and that seemed to put her at ease. After she was safe and happy in her new pasture, I couldn't stop smiling. I just couldn't believe it! The horses respond to my voice and follow where I lead, and sometimes that trust feels like an overwhelmingly generous gift.”

## ROTATIONAL GRAZING

Not far from the cow paddock, chickens peck their way through an area recently grazed by cows. In their zone, the birds have a water supply, some grain, and a mobile coop to which they retreat for safety, sleep, and egg laying.

The cows have left behind heaps of nutrient rich manure, and with those a job for the chickens. Flagollet describes their role this way: “The chickens explode the cow patties.” In other words, they break them up, distributing the fertilizer over a wider area. They also dispense with fly maggots or other parasites contained in those patties. If the chickens didn't spread the manure, that wealth of nutrients would produce a noticeably large tuft of grass on the spot, and what Flagollet calls “a repugnancy zone” around it. The cows would avoid the hyper-fertilized area. The chickens minimize that problem, keeping more of the field palatable. Besides, the pastured birds make beautiful eggs and eat less in costly grain.

“This is the factory,” Flagollet notes proudly, as he opens a back door on the mobile coop, revealing a set of nest boxes. He reaches into each of the square compartments and pulls out egg after egg. Soon a dozen, in shades of brown and light blue, rest on a shelf below the boxes.

Eventually the sheep will have their turn in this pasture. They'll eat the shorter grass, and the particular varieties they prefer, including prickly Milk Thistle. The other animals loath thistle and it can become a pasture nuisance. Flagollet plots the path that each herd or flock follows, tracks the number of days they spent in each field, and observes how long it takes each area to rebound to grazable condition. “That period of rest is the most critical element in the whole thing,” he says. Overgrazing will deplete the grass roots, diminishing the pasture. If all is going well, the animals rotate through the pastures, and grow in symbiotic harmony with the grass.

Rotational grazing is employed at Maggie's Farm and modeled to its students as an ecologically sound system of healthy pastures, healthy animals and healthy food. The animals thrive on the grasses. The grasses thrive on the animal manure and carefully orchestrated grazing. The farmers sell the grass-fed product at premium prices and are better able to support themselves. The people consuming grass-fed meat eat a nutritionally superior product, one lower in total fat and saturated fat than feedlot meat and richer in the fatty acids now thought to promote health and prevent cancer,

including conjugated linoleic acid (CLA) and alpha linolenic acid (ALA). The way Flagollet sees it, “raising meat on grain makes no sense,” compared to this grass-based model.

## GROWING COMPETENCE

On many summer afternoons the student-farmers worked on the shared mission of raising vegetables for market. They spent hours pounding tomato stakes into the ground, weeding an eggplant field, or transplanting seedlings.

To an observer, the routine work seemed tedious at times, but the cumulative results have been impressive: fields transformed from apparent chaos to orderliness; the weekly boxes for CSA shareholders filled with beautiful produce, and student-farmers increasingly competent in a wide range of skills.

With varying degrees of comfort, they all operate the tractor. They turn giant compost piles, scooping and dumping with the bucket attachment. They canvas open fields, disk-ing in young weeds. Straddling a row of broccoli, they cultivate the edge of the bed without running over plants or big rocks.

When something breaks, they fix it. The Farm School's Director, Patrick Connors recalls a student-farmer's quick and skillful repair of the grain elevator, moments before the first load of hay was loaded into the barn. As a group of students set up the machine, “they noticed a few cracks in the frame of the unit, which caused the thing to sag and not run at its best. Bonnie Cherner made a few spot welds and in under half an hour the structure was shored up and the machine ran perfectly.”

“We all know what we're doing,” says student-farmer, Karen Johnston—with machines, plants and animals. “I've learned everything I thought I would learn, and more,” she reports. “I've learned to trust myself around the animals and provide really great care. We got to see so many things: castration, tagging, hoof maintenance.” They helped birth lambs in the spring, and witnessed the arrival of six calves in August. Their animal sense has been tested too.

One stormy night, a student discovered ten cows outside the fencing in a distant field. Lightning spooked the herd and the animals charged down the road toward Maggie's barn. Three others stayed put, including a newborn calf now separated from its mother. The stranded three bellowed in distress, unwilling to move with the group, but unhappy to be left behind.

Nine months ago a situation like this would have caused panic, Karen Johnston confides, but not this time. The students responded as a team, eventually corralling the cows in a paddock beside the barn. To do it, one of them was forced to wade into a slimy pond to retrieve the calf. The animal had to be carried back to the barn. At another point, one of the big cows hid itself in a stand of corn. “It took a while” to corral them all, recounts Stephen Corrigan, another student-farmer. “But we never felt like we couldn't manage

it.” Johnston recalls that the group laughed about the incident afterward, and dubbed it “their final exam.”

Tuesday afternoons have been devoted to individual interests. In May, each student launched an independent project. In most cases, these were linked to an interest that he or she might pursue after graduation. On an August afternoon, the group gathered to hear, see and taste the results of these projects.

Stephen Corrigan uncorked a bottle of his own wine: pinot grigio. This was his first foray into winemaking, and he'd had to cut some corners. Wine grapes aren't locally available in the spring, so he'd purchased vacuum-packed concentrate from a home-brew store. Still it wasn't a bad glass.

Networking in New England's winemaking community, he'd discovered its tremendous vibrancy and efforts to expand the number of cold-hardy varieties that thrive in the region. He'd helped plant vines and build a trellis system at a new vineyard in the Pioneer Valley. Corrigan has landed himself a position at Maine's Savage Oakes Vineyard for next spring. This fall, he'll work the grape harvest on a vineyard in Germany.

Jennifer Sands, presented several rounds of cheese to her classmates: a Romano, two Coulommiers of different ages, and a cheddar. “This is nerve racking because this might all be inedible,” she began, “And that's what I learned: making cheese is hard!” Especially so with the lack of temperature and humidity controls available for cheese making at Maggie's Farm. “Everyone I visited said the same thing; they

threw out lots of cheese.”

Given her meticulous nature Sands might be well suited to the careful attention the process requires. The Romano she made was particularly tasty. But having considered the economics of embarking on a cheese-making path—either as an entry-level worker, or by investing her savings in a start-up—she's decided she isn't yet ready to take the plunge. Her career change, from a life as a lawyer in California's central valley, to a new agricultural identity, or some combination of the two, will take some time to unfold, as it will for several of her classmates. Sands knows she likes animal care and milking and making hard cheeses. She wants to relocate to Seattle. So, she may work as lawyer there for the winter, and in the spring, look for a dairy job outside the city. She's heard of a place raising water buffalo and yak that intrigues her.

Fermin Hernandez described his Tuesday lessons in mechanics with a knowledgeable neighbor. He spoke modestly of his accomplishment. But others chimed in that the number of working trucks on the farm has shot up since he began. After Maggie's, Hernandez will work on his father-in-law's farm in Rochester, New Hampshire. Knowing how to fix things is sure to come in handy.

Patrick Farmer paraded a pair of year-old steers, harnessed in double yoke, before his classmates. “Step-up, boys. Come up!” he commanded the animals. They immediately moved forward. Farmer's project has been to train these two youngsters, Sal and Dean, as working oxen that can move heavy loads at the Farm School's Sentinel Elm property, just up the

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road from Maggie's. Hundreds of elementary and middle school students visit Sentinel Elm every year to learn about agriculture and ethics.

On Tuesdays, Farmer would engage young visitors in grooming the animals and leading them. "The term 'oxen' is like a college degree," he tells our group, earned after five years of training. "After one year, we call them 'handy steers.'" He smacks a stick on the ground in front of the pair. "Woh!" he tells them, and they stop.

Farmer's teaching instincts have landed him a job at The Farm School itself. Come September, he will be the Assistant Forest Manager. The steers will help him run a sustainable logging operation. He'll also share trail maintenance and maple sugaring with the young people who visit.

Karen Johnston led her fellow students to a field not far from the house. Running alongside a vegetable patch stood a 100 foot row of gorgeously blooming flowers: willowy cosmos, mint-like stalks of anise hyssop, scabiosa, bronze fennel, yarrow, bishops weed, dill and angelica among them. The flowers were stunning to behold, but Johnston's aim in planting them was practical. She chose a set of plants thought to attract beneficial insects including ladybugs, predatory wasps, honeybees and others. Those insects service the nearby crops as pollinators, and provide some protection against pests, including aphids and destructive caterpillars.

Johnston regularly observed the so-called insectary, identified and logged the creatures that visited, and shared the scientific literature on such refuges with her classmates and teachers. With this experience, she's thinking she might pursue a degree in entomology and opportunities to teach. But this is one of many ideas.

Earlier in the year, she had imagined a cattle and vegetable operation in Maine. "I started out thinking big, but you have to edit," she noted. Now in her late forties, Johnston has realized, "I'm not going to become a huge grower of vegetables anytime soon. I've got to be realistic about energy levels." Another idea she's excited about is starting a community farm on a piece of protected land in a certain Boston suburb.

One thing is for sure; the many perennial and self-seeding plants she established in the field-side insectary will flower again next year. Maggie's farmers intend to keep the border growing.

## HAY HARVEST

Just as the weather service had predicted, Wednesday, August 20th is the first of three beautiful days for making hay. Olivier Flagollet, has taught the students to recognize the "boot stage" of growth. Seed heads have formed on the grasses, but haven't yet blossomed, and protein content has peaked. Cutting at this stage makes hay with the highest, possible nutritional value for winter feed. Local weather has made it tough to optimize every field, but Flagollet has chosen three for this harvest.

While the student-farmers pick and wash vegetables for the next day's market and a CSA delivery, Flagollet drives the tractor back and forth across the sward, mowing a few feet of growth down to a few inches. The cut grass lies on the ground for the rest of the morning.

In the afternoon, he crisscrosses the fields again, this time towing an ingenious machine, called a tedder. It looks like a four-headed eggbeater that's fitted with tines. As the beaters turn, the tines pick up and toss the cut grass, ensuring that all layers dry in the sun. Moldy hay is lousy hay. Cutting and tedding continue through Thursday.

By Friday, it's time to rake and bale. This time, instead of using the tractor, Ruby and April, pull the rake. The horses have worked hay fields on another farm for ten years, but they are new to Maggie's Farm. This is their first haying job here.

For student-farmer Mike Tebaldi, the raking is a fine conclusion to his independent project of acclimating the horses to their new home. Most days Tebaldi would hitch the animals to a two-seated forecart, then exercise them in the roads and fields, or walk them through gates and passageways between fields. The idea was to develop mutual trust and comfort before hitching them to any equipment. This time, he fastens the rake behind the cart at a 45-degree angle, and takes up the reins, with Flagollet beside him. As the horses walk forward, the rake churns and pulls a six-foot section of cut grass off to one side, rearranging the field of cuttings into neat windrows of hay.

"I'm intrigued by the idea of having horses on my own farm," Tebaldi had remarked earlier. "But I'm not sure how good I am at driving them." His teachers say he did very well, and that his earlier work has been very important for the farm. Tebaldi may look for a position on a horse-powered farm next spring.

If this first raking is any indication, the horses will be a big help with haying at Maggie's in the future. "The horses responded very well," Flagollet reported. "It was a nice way to take care of our hay. Pretty quiet, and we saved on diesel. A gallon costs about the same as a bale of hay." On a summer day, with access to fresh grass, the two horses probably ate less than one bale between them.

While the animals succeeded beautifully, the same cannot be said for the baler—a tractor attachment, designed to scoop up hay from the windrows, tie it in tidy bundles and deposit them back on the ground. It broke down. Like all good farmers, Flagollet and his team tried to fix it, but they couldn't. Precious time was wasting. The hay had to come in that evening. So they decided to ask for help.

The staff frequently speaks to the students about the importance of community to farmers. They intentionally cultivate relationships with neighboring growers and trade favors. Warren Rice is one such friend of the program. He too was making hay that day, and came with his own baler to finish the job. In exchange, a student-farmer drove Maggie's tractor over to one of Rice's fields to ted his cut grass. Hay harvest became an object lesson in mutual support.

About 100 bales of hay were handed up into the barn that night. Other fields were expected to be ready for harvest later in the month, and perhaps still more by the end of September.

Whether or not the towering mound of hay inside Maggie's barn will be enough to feed the animals through the winter will depend on the weather, as so much of farming does. "One extra month of grazing outdoors makes a huge difference," Flagollet remarked. Feeding all the animals indoors for that same month would require over 400 bales of hay.

## THE FINAL WEEKS

With the mid-September close of the training year within sight, program director Jennifer Core spoke of balancing several realities. "We're still at the height of bringing in all that we've planned for and grown." Picking, packing and delivering food to CSA members and markets is a twice-a-week ritual that involves all the student-farmers and staff.

"The last weeks also tend to be celebratory," Core continued. "But it's hard too, because there is a huge transition ahead. We try to offer support for that transition, but also keep students grounded where they are."

The late August calendar included two weddings. Lisa Parsell and Fermin Hernandez, two student-farmers who arrived as a couple, will depart as husband and wife. Likewise, the lead growers Nate Frigard and Jen Smith, tied the knot.

The authentically agricultural, Franklin County Fair was another concluding event. The fair featured a draft horse draw, an oxen pull, pig races, and as one of the student-farmers described it, "juried exhibitions of everything from handicrafts to hay bales."

On a more serious note, staff and students anticipated a week of final evaluations. Each trainee would meet for an hour or more with four teachers to discuss their particular skills. The focus, said Core, would be on the areas in which each person really excelled, and how he or she might continue to pursue those strengths going forward. Each student-farmer would emerge with a letter of recommendation highlighting those strengths.

"Every single one of these ten students has been very committed from day one," Core professed. She said that each has done a great job of figuring out what interests them most. "In other years people have left with less clarity about what they want to pursue... I feel celebratory letting go of these people."

A graduation ceremony, planned for Sept 13th, will honor each student. They'll feast on the food they have grown and savor all that they have learned, in the company of their families and the entire Farm School community. ♦

A new group of twelve trainees will arrive at Maggie's Farm October 1st.

Parts 1-3 of this series can be found in our Winter, Spring and Summer 2008 editions at [www.edibleboston.net](http://www.edibleboston.net)

*Kim Motylewski is a print and radio journalist based in Cambridge. She reports on the intersections of food, health and environment. Kim can be reached at [kmotyl@yahoo.com](mailto:kmotyl@yahoo.com).*



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