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ROOTED: A NEW GENERATION OF FARMERS AND RANCHERS IN MONTANA

By

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Bachelor of Science, Miami University, Oxford, Ohio, 2001

Professional Paper

presented in partial fulfillment of the requirements
for the degree of

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in Environmental Studies

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Rooted: A New Generation of Farmers and Ranchers in Montana

Chairperson: Neva Hassanein

Rooted tells the stories of a new generation of farmers and ranchers in Montana through still photography and written profiles; the project is the result of 13 site visits and interviews. I define “new farmer” as a person operating their own agricultural business for 10 years or fewer, though this definition gets blurred and complicated when referring to people who return to their family’s farm or ranch. Admittedly, this project features only a few of the beginning farmers and ranchers in Montana. My intention is not to provide an exhaustive study of the next generation of farmers and ranchers in Montana, but rather to show that there are people out there who desire to make a living from the land and are working to do so. I hope this project is able to share the stories of the next generation of agriculturalists in Montana, show the places they call home, and convey the essence of their work. At the same time I hope to shed some light on the unique challenges facing new farmers and ranchers, and challenge all of us to think about steps we might take to support and encourage them.

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About This Project

Rooted tells the stories of a new generation of farmers and ranchers in Montana through still photography and written profiles. I began this project in the spring of 2010 as an assignment for a photo-documentary journalism course at the University of Montana. At the end of that course, there was more that I wanted to do, so I extended *Rooted* to include other farmers, and it has become my professional paper, culminating my graduate work in the Environmental Studies Program. *Rooted* is the result of 13 site visits and interviews with new farmers and ranchers in Montana. This project was presented to the public as a website (see attached disk) and as a photography exhibit held on December 3, 2010 in Missoula.

I chose to document new farmers for both personal and academic reasons. My personal reasons grow out of my experience working in agriculture on and off over the past 9 years. During that time I worked on a number of small-scale vegetable farms with people who were considered “new farmers.” In addition, a few of my close friends have started their own farms. Such tangible experiences with agriculture gave me an intimate look at the challenges and rewards associated with making a living from the land. The knowledge of what it actually takes to begin a farm led me to be curious about the reasons people have for deciding to start farming.

Academically I chose to document new farmers because there were a few trends that gave me pause when I thought about the future of agriculture. First, the average age of farmers in Montana is 59.ⁱ Second, in May of 2007 an important demographic milestone was passed—for the first time in human history the majority of human population was urban rather than rural.

ⁱⁱ These statistics got some press, but the fact is in the United States this shift began early in the 20th century and over the last hundred years the structure of agriculture has changed dramatically. Now it seems that fewer people are moving to or remaining in rural areas in order to grow food. To me, all this begged the question, “Who will grow our food in the future?” I set out to shed some light on this question by talking with new farmers and ranchers in Montana. I wanted to

know why they chose agricultural careers and what challenges they face as new farmers. I define “new farmer” as a person operating their own agricultural business for 10 years or fewer, though this definition gets blurred and complicated when referring to people who return to their family’s farm or ranch.

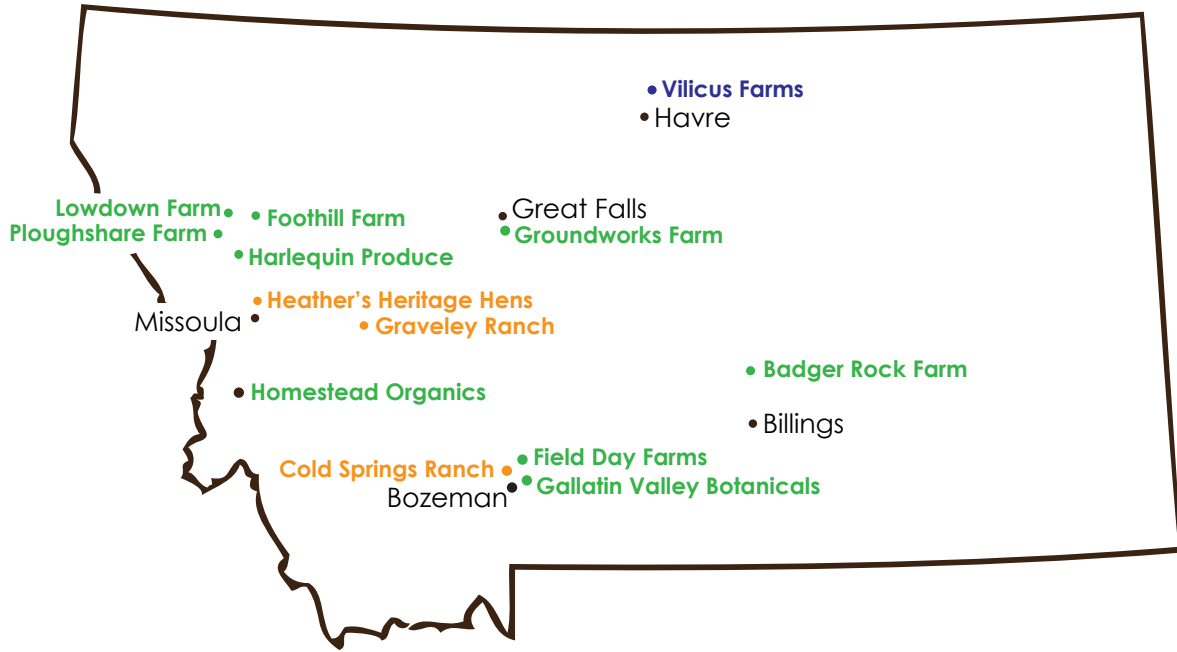
Admittedly, this project features only a few of the beginning farmers and ranchers in Montana. Many of those profiled here are small-scale vegetable farmers—a segment of the farming population markedly different from the grain farmers and ranchers that proliferate in the state. It leaves out many of the young people choosing to carry on their family’s agricultural businesses. My intention is not to provide an exhaustive study of the next generation of farmers and ranchers in Montana, but rather to show that there are people out there who desire to make a living from the land and are working to do so.

We too often forget in an era of relative abundance that food security—access to sufficient, safe, and nutritious food—is not always automatic. Governments have always had an interest in the farmers who grow the food that feeds its citizens; the farm bills, agricultural subsidies, and extension agents are also tools the government uses to support agriculture. All of us have an interest in seeing agriculture succeed—not just in terms of production, but also socially, culturally, economically, and environmentally. I hope, in some small way, this project is able to share the stories of the next generation of agriculturalists in Montana, show the places they call home, and convey the essence of their work. At the same time I hope to shed some light on the unique challenges facing new farmers and ranchers, and challenge all of us to think about steps we might take to support and encourage them.

Acknowledgements

This project would not have been possible without the farmers and ranchers who agreed to participate, and I thank them for their time, hospitality, and sincerity. In addition, funding for travel and other expenses was provided by the Environmental Studies Program at the University of Montana, the High Stakes Foundation, and the Dawson Memorial Fund. Camera equipment and an audio recording device were generously loaned to me through the School of Journalism at the University of Montana. In addition, I would like to thank my committee, Neva Hassanein, Phil Condon, and Keith Graham, as well as my graduate student colleagues in the Environmental Studies Program. Finally, I would like to thank my family for their support and encouragement.

Farm Locations



Vegetable Growers

- Badger Rock Farm
- Field Day Farms
- Foothill Farm
- Gallatin Valley Botanicals
- Groundworks Farm
- Harlequin Produce
- Homestead Organics
- Lowdown Farm
- Ploughshare Farm

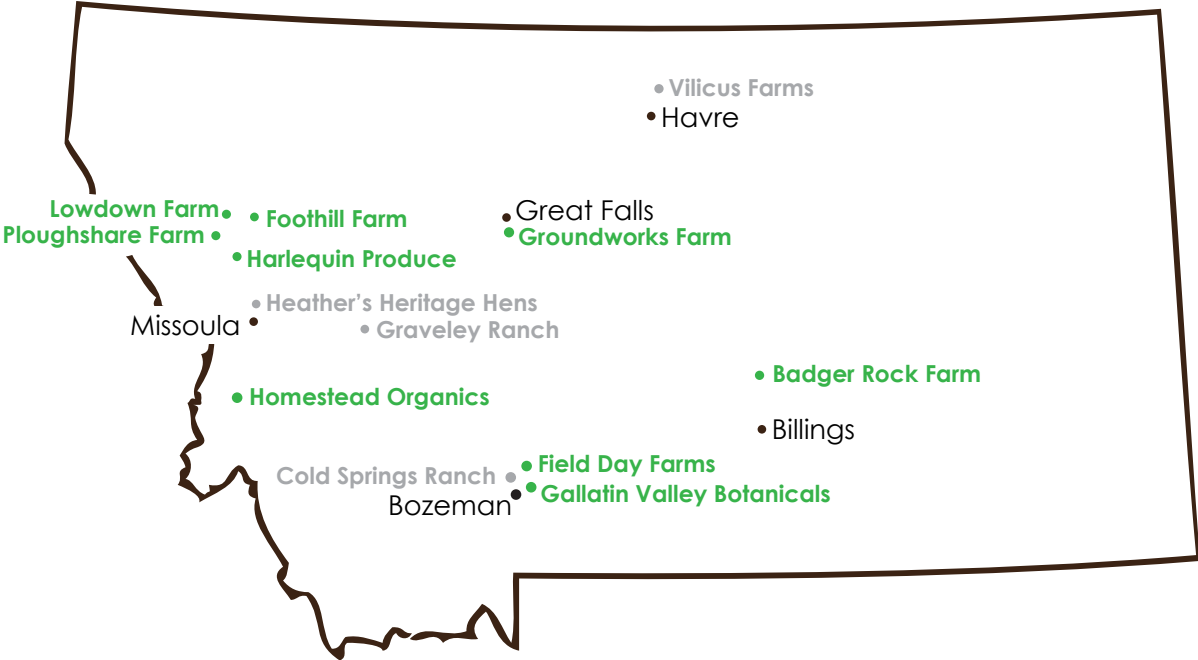
Grain/Legumes/Seeds

Vilicus Farms

Livestock

- Graveley Ranch
- Heather's Heritage Hens
- Nate Powell-Palm

Vegetable Growers



Badger Rock Farm

Erin Janoso
Roundup, Montana

Badger Rock Farm is set atop a hill outside Roundup, Montana. The farm looks out to open rolling land dotted with fir trees and the first indications of town. Erin Janoso and her husband, Jim, own a house in town, and a few years ago they purchased the 13.5-acre plot outside of town, of which under an acre is in small-scale vegetable production. In 2010 Erin began her second season at the new property, which came with a few surprises. The previous owner, who still lives on an adjoining lot, left many things behind including old trailers, cars, tools, machinery, and other unused objects; he is supposed to remove these pieces of old equipment but has procrastinated. Since they remain a part of her landscape Erin made the most of their presence by putting them to use: the baby chickens live in an old bread truck until they are old enough to be moved outside, old pieces of machinery have been put together to make a fence, and a truck cab serves as a dry place to store row cover. Sometimes it is important to make do with what you have, and this is Erin's situation, "You buy something that's not perfect and then you have to learn about it and deal with the problems that come with it. It's a trial-by-fire situation." The other



Erin Janoso is the owner and operator of Badger Rock Farm in Roundup, Montana.



Erin bunches red beets for the Billings Farmers' Market, where she sells much of her produce.

surprise—undisclosed when they bought the land—was much of the top soil had been stripped in order to sell the gravel underneath to a road building crew. To grow vegetables on the property, Erin has begun the long process of returning fertility to much damaged soil.

Erin grew up near Roanoke, Virginia. She studied biology in college because she was interested in living systems, an interest that eventually inspired her to start a farm. About eight years ago, she and Jim moved to Roundup, and Erin spent a few years gardening at their home until they bought the current property in order to expand. In 2008, in preparation for growing her gardening business, Erin spent a few summer months with Purple Frog Farm in Whitefish, Montana, where she learned about growing and harvesting salad greens, and while there she also had the chance to visit other nearby farms. “It was interesting,” she said of the experience, “because everyone has the same goals—healthier soils, watering crops, harvesting—so you got to see how different people accomplish the same things.” She has taken the knowledge she gained in Whitefish and applied it to her business; salad greens are one of the main crops she sells to restaurants and customers in Roundup and also at the Billings Farmers’ Market. Much of the local and sustainable food movement momentum develops around urban centers, and with a population of around 2,000, Roundup may not seem like a place that would take an interest in local vegetables.



This bread truck, left behind by the former land owner, has been put to good use by Erin.



Baby guinea hens (shown here) as well as baby chicks live in the bread truck until they are old enough to move outside.

However, Erin has found support from many local people and businesses, and in the future she hopes to expand her Roundup market.

Erin mostly runs the farm business herself. She has help from Jim, especially with construction projects, but he is often busy with his own work. This season she had her first employee, a 15-year-old named Reed, who is the son of some friends in Bozeman. Reed is interested in the outdoors and gardening and decided to spend part of his summer in Roundup working for Erin. Reed has proved to be an invaluable help and assists Erin with tasks such as harvesting, weeding and planting. Taking care of the chickens though, is Reed's favorite job. Each day he feeds and waters them, and also brings them weedy treats pulled from the garden, which are a favorite of the chickens. They go crazy for the weeds, and pick through them looking for the bugs that are inevitably thrown in too.

In the long term Erin and Jim envision the farm as a community minded, educational resource center that would have space for science and gardening classes for kids and adults. But in the immediate future she has some more pressing issues to deal with like figuring out some soil and pest issues, developing infrastructure such as installing a water pump and building a deer fence, and growing her local customer base. In her second season at



Erin has one employee, a 15-year-old named Reed, who helps with most of the farm work. Here Reed cleans and bunches onions for market.



Reed's favorite job is helping take care of the chickens. This includes feeding and watering the birds, as well as giving them treats, like garden weeds.

this property, she has found tackling all these challenges trying at times. But Erin has found help and support from a number of organizations and groups in the area such as the extension service, the Natural Resource Conservation Service (NRCS), and most notably the Alternative Energy Resources Organization (AERO), an organization that works with small farmers and related issues in Montana. Erin is on the board of AERO and through her work there has been able to connect with other growers to share ideas and experiences around growing vegetables and raising animals in Montana. Most importantly, such networks of people have provided her with the encouragement and support she needs to tackle the challenges, and appreciate the rewards of starting a new farm business.



A row of walla-walla onions. Erin grows a variety of vegetables for customers in Roundup and Billings; she hopes to expand her Roundup market.



An eggplant grows on a wet morning. Erin has been rebuilding soil fertility in a field where the topsoil had been stripped.

Field Day Farms

Mariann Van Den Elzen
Bozeman, Montana

On a Wednesday afternoon in late summer, 2010, Mariann Van Den Elzen, owner of Field Day Farms, and her employees were busy preparing to distribute vegetables to customers. Washing carrots, weighing peas, bagging lettuce, bunching beets—the packing station was a flurry of activity. Each week members of the Field Day Farms CSA (Community Supported Agriculture) pick up a selection of the season’s bounty. That week the CSA customers got basil, peas, scallions, beets, carrots, peppers, lettuce, and other homegrown vegetables.

Like many small farmers Mariann does not rely solely on one outlet for the distribution of her goods. In addition to the CSA, she sells at a Bozeman Farmers’ Market, delivers to restaurants and caterers, and also has a website. On the Field Day Farms’ website, customers can see what’s available from the garden, order the quantities and combinations they desire, and then pick up the produce in town. But wait, there’s more. Mariann noticed something about the burgeoning local food movement in Bozeman, “I realized to help change the system a bit that we need it to be convenient. There were all these little spots in town where people can pick up their



Mariann Van Den Elzen (far right), owner and operator of Field Day Farms, and employees Rebecca Kurnick and Page Grogan prepare vegetables for customers in the packing station.



Mariann’s one acre field at North Hills Ranch. Borage, a medicinal plant, can be seen in the foreground.

meat or pick up their cheese and milk... we just need a spot for growers where it can be central and people know about it.” On the website, which was launched this year, a customer can order meat, eggs, fruit, or value added products (like salsa or tea) from local producers and pick them up at one location. The website also provides recipe suggestions, field updates, and photographs that help further connect people with the food they eat.

Three years ago Mariann was working for other small farmers near Bozeman when the opportunity to work for herself landed in her lap. She recalled the events leading to farming on her own: “I had a friend say, ‘Hey, someone wants someone to grow vegetables on their property.’ I wasn’t really planning on it right away, but I thought this is an opportunity to see if this is what I really want to do. It’s relatively risk free because the water was here, the farm was here...so I thought maybe this would work. Of course, you talk to a couple other growers around here and they’re just like, ‘Oh, go for it.’” So she did. She started her first season on a one-acre parcel in Bozeman that had formerly been a horse pasture. At that point she mostly sold through the farmer’s market and through an email list. When the email list became too much to manage, she decided to create the website and form a CSA.



Page Grogan and Mary Schaad, a CSA working member, pick peas at North Hills Ranch.



Peas and beans harvested, weighed, and ready for distribution.



Branding is important to successful marketing. The Field Day Farms logo can be found on Mariann’s marketing materials.

This summer Mariann expanded from her initial one acre plot in Bozeman by adding three acres at 13 Mile Lamb and Wool Company in Belgrade, which is owned by Becky Weed and Dave Tyler. Farming at two different locations has meant Mariann and her employees spend more time than they would like commuting between fields. Next year she plans to move all the production to 13 Mile. In preparation for the move, she put up a moveable hoop house and a storage and processing facility there. With 15 acres available at 13 Mile, the plan in the next few years is to scale up production to 10 acres and leave the remaining five to sheep grazing. But Mariann doesn't like to be too rigid about her plans or her business. "I don't feel like you can rely on one thing and mother nature teaches me that on a regular basis... I've shortened my vision a little bit because I've realized life changes, you change, people change, climate changes, stuff happens... Let's live in the moment but have a clear enough vision to know where we're going... If the local food movement keeps growing, what I envision now might not be big enough, it might not be what we need any more."

Mariann sees her role in the community and her job as a farmer as very multifaceted. At once she is a grower of vegetables, an educator, a marketer, and an advocate for food system change. The role she feels is most important is that of educator. "Anything I can do to help pro-



Mariann bunches oregano for customers. In addition to vegetables, Mariann sells a variety of culinary and medicinal herbs.



Part of preparation for next season is the construction of this moveable hoop house at 13 Mile. The hoophouse will protect vegetables from inclement weather.

mote our local food system is going to benefit not only myself but the other growers and the rest of the community... The actual growing part of it I actually feel is minor. I think we could all grow vegetables here if we really wanted; it might be hard but we could do it... The farming is really important of course and that's what I really enjoy doing, but I also feel like the education is so much a bigger part of it." In order to be an educator she talks with her customers about their food, she sends out recipes to help customers prepare seasonal produce, and she invites people to the farm to work or look around. "It changes their perspective," she said. "They see that this is really tough work and a lot goes into it, but they keep coming back and they want to be a part of it. That's pretty rewarding."



A winter squash grows in the summer sun at the 13 Mile Lamb and Wool property, where Mariann utilizes three acres for growing vegetables.



Mariann examines the contents of the CSA boxes. The boxes will be taken to a central location in Bozeman where customers will pick them up.

Foothill Farm

Julie Pavlock
St. Ignatius, Montana

In St. Ignatius it is impossible to ignore the Mission Mountains. Even on an overcast day they are there to the east, rising out of sight into the low hanging clouds. On a clear day they dominate the valley, indeed they dominate the entire surrounding landscape. At the base of the Missions sits Foothill Farm where Julie Pavlock, in 2010, was in her sixth season of farming.

As a teenager and young adult, agriculture was often a part of Julie's life. In high school she worked on farms whenever she could, and after completing a degree at the University of Montana in Missoula, she and her husband, Ben, moved to New York City where she helped start a CSA (Community Supported Agriculture) group and a community garden. Even though she found agriculture compelling and was drawn to it, having her own farm never seemed like a tangible dream. Eventually though she took a step that would change farming from a dream to something she felt confident about pursuing; she attended the Center for Agroecology and Sustainable Food Systems at the University of California, Santa Cruz, an educational experience aimed at teaching sustainable farming skills (or ecological horticulture) to people interested in



Julie with Dolly, the milk cow. Dolly's milk is for family use, but the vegetables Julie raises are sold to customers through the Western Montana Growers Coop.



Asparagus, an early season vegetable, grows in a late-spring snow shower.

starting an agricultural business. “My whole life changed after that,” she said. “It was like, of course, this is totally it! It just changed my whole perspective.” After completing the program at UC Santa Cruz, Julie and Ben began looking for a place to farm, and coming back to Montana felt like a natural choice. “My sister moved here and it just started to feel more like home.” Julie said. “I always wanted to come back here. We decided we loved Montana so much and we wanted to be sort of close to Missoula, and this area was a place we could still afford. That’s how we got here.”

At the base of the Missions amid ranches, hay fields, an Amish community and various other agriculturalists, Julie grows a variety of vegetables and raises a diverse array of livestock on 70 acres. Most of the acreage is dedicated to hay and pasture for the small herd of beef cattle. On about four acres Julie grows vegetables ranging from tomatoes to winter squash to garlic, her largest crop. Most of the vegetables are sold to customers through a CSA group operated by the Western Montana Growers Cooperative. The Growers Coop pools the produce of small growers in western Montana and sells it to retail outlets and the CSA. Julie is on the board of the coop and initiated creating the CSA.

Julie sells the beef from her cattle to local customers,



Julie raises a handful of beef steers for nearby customers and the Western Montana Growers Cooperative.



The chickens at Foothill Farm are raised for eggs, but they also rotate through the fallow fields and in the process eat bugs and plants and add their manure to the soil.

but the other animal products like pork, milk, eggs, and cheese are for family use. Though the livestock are not a primary economic focus, the animals are an important part of the farm ecosystem. The flock of chickens are moved over fields where they contribute important nutrients to the soil; the pigs turn the compost pile by doing what pigs love to do, digging; and cow and horse manure cycles nitrogen back into the system. Though they play the role of adding diversity and cycling nutrients, the animals also bring a lot of joy to farm work. Julie and her father, Tom (who also lives on the property along with Julie's mother), work together raising the animals, which include Cubby, her daughter's miniature horse; Dolly, a milk cow; a collection of beef cattle; laying hens; a rooster or two; two pigs; and a horse. For Julie working with the animals is probably her favorite aspect of farming, and for the first five years at the farm Julie used draft horses as her primary means of cultivating the fields. However, this year in order to spend more time with her family and create a more streamlined operation, she chose to sell the draft horses and use a tractor instead. This was a difficult decision and though she hopes to bring draft horses back one day, for now it makes sense. She explained, "It seemed right for me and it seemed right for them. They weren't getting what they wanted, they are born to work on a farm. They love it, they would be so disappointed if they couldn't work."



During the 2010 season, Julie raised two pigs. Pigs, notoriously good diggers, help turn compost that will later go on the fields.



Julie's parents also live at Foothill Farm. Here her father, Tom, pets the milk cow before going out to work. One of the best parts of farming for Tom is working with the animals.

Running a farm for the first time has had its share of learning moments. “I want to say the first three, but really the first five years, it was so hard to figure out exactly what to grow and how to market it, and... just what works for me and what is worth my time,” Julie said. This long learning curve makes farming unique. If a farmer thinks they can improve growing a crop of tomatoes, that innovation takes a whole season to shake out. If it doesn’t work, a farmer must wait until next season to try something new. It took Julie four years before her farm made money. But what successful small business owners do best is innovate, change, and find ways to make their businesses efficient and profitable. Farmers change things up each year, and Julie will keep on changing things until she finds the right balance for her farm, “I’m trying to make it a little more sane so I can last farming,” she said. “Because just the five years we’ve been here, it’s been so hard I don’t think I could keep that up for 30 years, but I want to.”



Julie, center, with former interns, Anna McHugh and Elsa Gruen, prepare to mulch the garlic rows in early spring.



For the first five years at the farm Julie used draft horses to work the fields. She has been reluctant to sell off all the drafting equipment because she hopes to one day bring the animals back to the farm.

Gallatin Valley Botanicals

Matt and Jacy Rothschiller
Bozeman, Montana

Gallatin Valley Botanicals is a seven-acre small-scale vegetable farm nestled at the base of a mountainside a few miles east of Bozeman. On any given day throughout the growing season a gaggle of interns and workers, as well as the farmers Matt and Jacy Rothschiller, can be found working in the fields where they might be seeding, pulling weeds, transplanting seedlings, or harvesting. Matt and Jacy sell their produce to their CSA (Community Supported Agriculture) members, to 12-15 restaurants in Bozeman and Big Sky, and at the Bozeman Farmers' Markets. This is their third year at this farm. Before they bought this land, they leased five acres west of Bozeman in Manhattan, Montana, where they learned the fundamentals of running a small business and developed a method and style of farming that fits the landscape, their market, and their lifestyle.

Matt had big family gardens while he was growing up and always dreamed of being a small-scale farmer. Matt and Jacy both studied biology at Montana State University; when they met after college they decided to start farming. Though they have been farming for eight years, their occupation provides new challenges from year to



Matt and Jacy Rothschiller are the owners and operators of Gallatin Valley Botanicals. They have two children, Ania, who was born in April 2010, and Zachary (not pictured), who is three.



Garlic cures on a table in the summer sun. At GVB Matt and Jacy grow seven different varieties of garlic.

year. “Every single year is different, even if you’re growing the same things. Every single year is different; there are new challenges in farming with every season. So it’s dynamic, it’s not a boring profession at all, there’s lots of fun things to do,” Matt said. “And providing healthy food for our community is rewarding in itself.”

In addition to growing food for their community and operating a financially sustainable business, another of Matt and Jacy’s goals is to encourage and grow new farmers in the area. This season they had three interns, one assistant grower, and a few part-time workers from town. These relationships not only give Matt and Jacy much needed help, but they also provide an educational experience to their workers. Part of growing new farmers is teaching people how to grow food, but another part is teaching new farmers how to run a successful business. “We did start with nothing and were able to get into a farm, so I think it is a good model for other people who want to get started and don’t have anything but a little bit of knowledge. Our role is in teaching and being a model and providing for our local community,” Jacy explained.

For the Rothschillers inspiring others to grow products for local markets creates a positive feedback loop. More small scale growers producing food for the local market can help grow the customer base by providing a consistent supply of local food. If a consistent supply is available,



Matt and Jacy use floating row cover, known as remay, to protect crops from pests and weather.



Jacy, with Ania, weeds beds of golden beets.

customers will develop stronger buying habits toward local products rather than seeing buying local as a novelty. There are many more people in the Gallatin Valley who might want to buy local produce than those Matt and Jacy currently reach. “We need a lot of us around,” Jacy explained, “because there is no way we would ever want to supply that many people.” In addition to supplying a growing market demand, having more small scale growers in the area builds community. Farmers can swap ideas and problem solve, share equipment, and help when weather destroys a crop or farmers face other challenges.

Matt and Jacy are able to support themselves and their two small children, Ania and Zachary, year round on their farm income, but for the first few years they also worked winter jobs to make ends meet. Like many beginning farmers, Matt and Jacy have learned that making a year round living from farming is something that only comes with time and hard work. In the beginning there are inevitable start up costs (land and infrastructure), and the challenges associated with figuring out how to market products and learning the practicalities of farming. The factors contributing to the financial success of their operation include things like not spending beyond their means, creating markets for their products (such as the Bozeman Winter Farmers’ Market), an incredible amount of hard work, and keeping in good communication with their customers,



A large part of Matt and Jacy’s mission is growing new farmers. Farm intern Logan Johns uses a roto-tiller to turn under a spent row of brassicas.

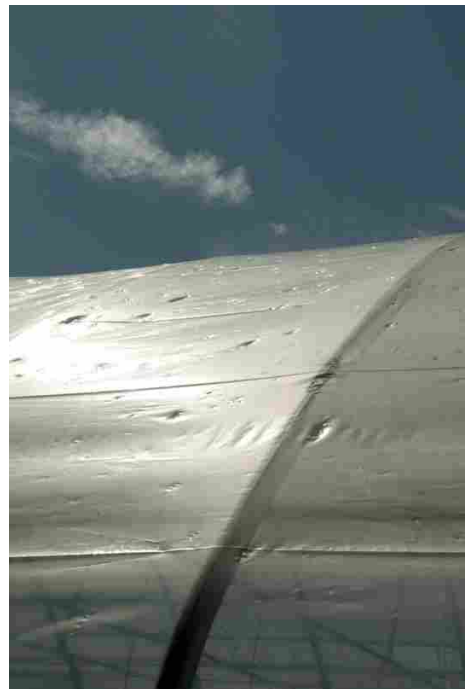


Interns and workers at GVB. From left, Rose Marks, assistant grower; Ameilia Musgjerd, Eniko Fergusson, and Logan Johns, interns; and Katie Henderson, a MSU student and part-time employee.

specifically chefs. In addition and perhaps most importantly, they have the support of their community. “We have had so much help from different people getting started, all along from people coming out and volunteering to people leasing us their land for nothing. It’s not really leasing,” Jacy said with a laugh. Later, as a final thought on the success of Gallatin Valley Botanicals, Matt added, “The other key to our success is finding the perfect person to do this with.”



Flowers add color to the fields but also provide habitat and food for pollinator species, like the honey bee.



The largest greenhouse at GVB. The dimples in the plastic are scars from an intense early season hail storm. The plastic will likely need to be replaced next season.

Groundworks Farm

Eric and Audra Bergman
Great Falls, Montana

In early spring Eric and Audra Bergman's living room was home to 25 baby Rhode Island Reds and Buff Orpingtons, breeds of chickens known for their dependable and productive egg laying abilities and cold hardiness. The chicks had arrived in the mail a few weeks earlier and were spending their young lives in the living room, a warm space full of sunlight, house plants, and books about growing vegetables and raising farm animals. But the time had come for the chicks to take the next step; they were moving to the greenhouse to live in the mobile chicken coop Eric and Audra had built for them. The coop could be moved up and down the rows of the greenhouse giving the chickens, as they grew, access to new ground, where they would eat bugs, dig in the soil, and add nutrients as they traveled. Eric and Audra gathered the chicks into one large plastic bin and carried them from the living room to the greenhouse. As Audra released the chicks into their new home they seemed excited, bounding around their new space, scratching in the dirt, and running back and forth under the red tinted light that provides them with extra warmth.



Eric and Audra Bergman began their first farming season in 2010. They grow a variety of vegetables outside of Great Falls.



Eric and Audra also acquired a pig over the summer. He eats beet greens and other vegetable scraps. His name is pig.

In 2010 Eric and Audra's began their first season of farming at Groundworks Farm outside of Great Falls, Montana, where they lease 20 acres of land and grow vegetables on about 4 of those acres. Here the land softly undulates in shallow lines leading toward the Rocky Mountain Front to the west. Both Audra and Eric are from Montana, but they do not come from farming families. Although, as Eric pointed out, "None of us by and large...are that far removed from it [agriculture], but it seems like a long time. My dad grew up on a farm and my grandparents had a farm, and we would visit, but I certainly didn't grow up on a farm. It doesn't seem like it's that close, but it's just one generation out." Yet, even given our cultural closeness to farming, friends and family members were still surprised when Eric and Audra told them they are starting a farm. "People ask what I'm doing and I say, 'Well, we're starting a farm.' They look at you a little cross eyed, 'Wow you're crazy, who starts a farm?'"

Indeed, who starts a farm and why? Eric and Audra both attended the University of Montana where they studied biology and forestry respectively, though they met later while working for the Forest Service in Choteau. Eric had always dreamed of farming, and part of what he finds compelling about the occupation is the dynamic aspect of the work. Part of his desire to farm, though, stems from something deeper; "I'm motivated to try to do what I think is good work in



Lettuce seedlings growing in the greenhouse. Lettuce is often one of the earliest crops of the season in Montana.



The greenhouse at the end of the season. A few hard frosts put an end to the tomatoes, though the chard and mustards were still hanging on.

the world,” he said. Audra found Eric’s passion for growing food contagious, and she takes joy in the work she now finds herself doing. “It’s just very simple,” she said. “You sort out your day, whether you’re picking rocks or weeding or fixing chicken feeders. I like that. I don’t like to wake up and do the same thing every day. I enjoy the animals and watching things grow, hovering over the pepper plants and watching their germination. Enjoying all the life we’re bringing here.”

For their first season Eric and Audra sold their vegetables at the Great Falls Farmers’ Market and through a CSA (community supported agriculture) group. For now selling vegetables is the primary focus of their business, but then there are also the chickens. The baby chicks that arrived in the spring began laying eggs midway through the summer. Eric and Audra also raised about 40 broiler chickens that they slaughtered themselves. Late in the summer they added to their laying flock by acquiring another group of chicks. In the future, chickens will hopefully play a bigger role in the farm business. Audra would like to experiment with crossbreeding heritage birds to develop a chicken that is well-suited to Montana’s climate. “The pursuit of the perfect chicken,” Eric said, half jokingly. “Yes, that will be a side note to Groundworks Farm,” Audra replied, “home of the perfect chicken,” she



In spring, Audra and Eric moved the chicks from their living room to a new mobile coop in the greenhouse.



The little spring chicks all grown up at the end of the season.

paused, perhaps thinking about the global ramifications of creating a perfect chicken, then added a local-food caveat, “for this climate.”



Audra picked rocks from the field in early spring. Removing large rocks is important because they can damage the tractor’s cultivating implements.



Pumpkins, a type of winter squash, keep well and are good for storing through the winter.

Harlequin Produce

Kaly Hess and Brian Wirak
Dixon and Arlee, Montana

In early August Brian Wirak and Kaly Hess's tomato plants were bushy, big, and growing strong. The tomatoes had just started to ripen and the bushes were threatening to take over the rows and move into the pathways. Kaly and Brian walked down the long rows together, implementing a method of tomato wrangling known as the Florida Weave. Tomato wrangling, or trellising as it is more commonly called, keeps tomato plants and fruits up off the ground, thereby reducing rot and conserving space. The Florida Weave employs weaving twine between tomato plants and large stakes set within the rows. It is an efficient, cheap, and effective way to trellis a large number of plants. Kaly and Brian are quite good at the Florida Weave and within an hour or so the tomatoes had been trellised, hopefully for the final time of the season.

Kaly and Brian are the owners and operators of Harlequin Produce. They are landless farmers so to speak; they lease rather than own property. In 2010 they leased about seven acres at properties in Arlee and Dixon, where they grew a variety of vegetables, which they sold through the Western Montana Growers Cooperative and at the Clark Fork River Market in Missoula.



Using a method known as the Florida Weave, Brian Wirak and Kaly Hess trellis tomatoes in Dixon. Trellising keeps the tomato plants up off the ground and thus reduces the likelihood of the fruits rotting.



A view of a field at the Dixon property. From left to right grow beans, a variety of green and red lettuces, chard, and green onions.

The land they lease was previously in vegetable production so in many ways they are capitalizing on the work and development the farmer landowners did in years past. Renting land has its advantages and disadvantages. Developing good soil long term, incorporating livestock into the system, or planting perennial crops might be fruitless on leased land. On the other hand, they are able to experiment with farming as an occupation without being tied to the financial pressures associated with having a mortgage. “We can’t emphasize enough the generosity of the people we lease from. It’s such a great way to incubate, to help new farmers begin,” Kaly said. “We’ve made all these mistakes, learned all this stuff, so if we ever do get our own land, we are so much ahead.”

Both Kaly and Brian grew up in Montana and studied agroecology and agronomy respectively at Montana State University (MSU) in Bozeman. While a student, Kaly started Townes Harvest, a three-acre, educational vegetable farm at MSU. Since then they both worked on a few different farms before starting their own operation. In 2010, they began their third season of farming on their own and they bring much of their educational background into the field with them. This education helps them better understand plant nutrient requirements and the ecological interactions happening on a farm. But much of their practical knowledge comes from experience,



A greenhouse on the Dixon property provides warmth and shelter to cherry tomatoes.



Cherry tomatoes ripen in the greenhouse.

keen observation, and lessons learned while working for other farmers.

August in Montana is high production time for the vegetables many people love to eat: peppers, tomatoes, and eggplant. In order to ripen, these plants need high temperatures to warm the soil. In Montana's short growing season, growing and ripening these vegetables can be a challenge. In order to help lengthen the growing season and capitalize on warm temperatures, Kaly and Brian use two strategies, floating row cover (often called remay) to cover the plants at the beginning and end of the season, and black plastic as a mulch to keep weeds down and more importantly to capture and retain warmth in the soil. Kaly and Brian are certified organic growers and concerned about sustainability, but as Brian pointed out, "So much value is put on environmental sustainability but really there's three main parts, you've got economic and social sustainable [too]." They use black plastic and row cover, petroleum products, which may seem environmentally unsustainable. "If we didn't use these tools we might not be able to even be farmers, we might be interested in doing so, but if we only make a couple hundred bucks in a summer ..." Brian began. "We can't do that," Kaly concluded. She continued, "So we do [other] things to try to offset as much as we can. We have what could become



Kaly uses a wheel hoe to weed rows of lettuce.



Eggplant (shown here) as well as tomatoes, cucumbers, tomatillos, and peppers are grown in soil covered with black plastic. The plastic serves to capture warmth in the soil, which encourages growth.

perennial clover strips, so we have huge chunks of this field that wouldn't need to be tilled again next year, which is a major carbon savings." Their work is about balance. They try to keep input costs low, work efficiently, and be good stewards of the land. But when it comes to sustainability, there is no clear path to making everything balance, to making the business sustainable on all three levels. "It's just not black and white," Brian said. "People really polarize to ideals and when you shut yourself down like that and you're not able to see the spectrum, it's problematic."

At some point they would like to purchase property, but as Brian points out, "It sounds like you're nuts when you're trying to buy land with vegetables in western Montana." For now they are taking farming one season at a time. Next year they will farm entirely at Common Ground Farm in Arlee. But beyond that, Kaly said, "I just don't even know, but at the same time we keep having opportunities come up that allow us to keep farming. We keep taking those opportunities to keep farming. We keep talking about farming. We just can't seem to be like yes, we want to be farmers for a long time...it's just this scary huge commitment to say it."



Kaly and Brain sell their produce at the Clark Fork River Market in Missoula and through the Western Montana Grower's Cooperative.



End of summer market offerings: cherry tomatoes, peppers and eggplant.

Homestead Organics

Laura Garber
Hamilton, Montana

In mid-March there were snow drifts mingling in the Bitterroot Valley and still more snow in the surrounding mountains; despite the snow it was time to start planting vegetables. Laura Garber, bundled in layers of clothing and a wool hat, was in one of her greenhouses sorting out seedlings for planting. Laura owns and operates Homestead Organics, a small farm in Hamilton, Montana. She raises a variety of vegetables; poultry including ducks, chickens, and turkeys; and four pigs. Laura sells most of her meat, eggs, and vegetables through a CSA (community supported agriculture) group and the Hamilton Farmers' Market. As morning passed and the sun moved across the sky, shining through high cirrus clouds and frozen air, Laura shed her layers and planted kale, chard and mustards along a drip hose. Accompanying her was the constant cluck and crow of hens and roosters from the neighboring greenhouse, where they were busy laying eggs, eating bugs, and fertilizing the soil.

Laura came to farming more or less accidentally. At the University of Montana she had a triple major: liberal studies, education, and German. While a student she worked at the PEAS (Program in Ecological Agricul-



Laura Garber, the owner of Homestead Organics, began her eighth season at the farm in 2010. Here she prepares the soil for planting onions.



Onion seedlings. Onions seeds are planted indoors in very early spring and then transplanted as spring gets warmer.

ture and Society) Farm, a campus-community farm, and this experience was her introduction to growing food. After the birth of her first child, she decided that she wanted an occupation where she could spend time with her family and farming seemed like a natural choice. She began with a small market garden and grew her business from there; 2002 was her first year running the farm with the intention of making her living from growing food. Though she originally began farming in order to stay home with her young children, the occupation has become a lifestyle she is not willing to give up. “It is such a joy,” she said. “I thoroughly enjoy working with the earth and the plants and the seasons. I can’t imagine a better job. It’s in my blood I guess, and I’m addicted to it now. The thought of not being able to grow food, I don’t know what I would do with myself, and I don’t know how I could feel okay about all the food I was eating... It’s definitely become a life passion for me.”

As Laura continued to transplant greens and onions to the tune of chicken chatter, she talked about some of the challenges that face new famers, “I think financially it is a lot to ask of someone. The financial cost of starting up is pretty high, and having a realistic understanding of what the commitment means is a challenge.” But she also spoke philosophically about the value of agricultural work and the deeper joy and satisfaction it can bring. “If you’re interested in doing it and you’re motivated, there is no reason you can’t be successful, because success doesn’t neces-



Laura plants chard, kale and mustard in a greenhouse. She her vegetables through a CSA and the Hamilton Farmers’ Market.



In early March, when snow is still part of everyday life in Montana, the greenhouse offers protection to plants and animals.

sarily have to be that you made a lot of money or grew a lot of food. That you found pleasure in your work I think is success also, and learned something for the next year. I don't like our societal [attitude that] success is only if you are making money, because that's important and it's a part of farming, but it's not my focus. I wish that for other people, too, that they could farm for the pleasure of it more than for the monetary gain they get from it."

Finding and acquiring good agricultural land near population centers can be a challenge, and the Bitterroot Valley is no exception. Given the area's proximity to recreational opportunities and larger towns, agricultural land here faces pressure from development as it is increasingly bought and subdivided for home sites and other projects. Highway 93 runs to the west of the farm and the signs of suburban sprawl spread against this black ribbon. But in this area facing development pressure, Laura acquired her property in a noteworthy way. "I bought this farm from a rancher who sold it to me on a handshake deal," she said. "It took me over a year to figure out how to buy it financially, but he wanted to see it used for farming, not by any of the ten developers who were knocking on his door. He could have gotten a lot more money, but that wasn't his intent, which is incredible."



Spinach grows in a greenhouse. Greenhouses give farmers the ability to extend the growing season, an important advantage in Montana's cold climate.



While the greenhouses are fallow, Laura keeps chickens in them. The chickens eat insects and fertilize the soil.

Lowdown Farm

Kristi Johnson and Jay Perret
Moiese, Montana

While they weeded their acre of onions, Jay Perret and Kristi Johnson, along with their volunteer Molly, passed the time by telling stories and making jokes. Jay's quick wit and sarcasm made everyone laugh as they worked, and Kristi entertained with stories about her days in the Environmental Studies Graduate Program at the University of Montana. Lowdown Farm sits in the broad Flathead River Valley of Lake County, a county where over half of all land is in agricultural production. The farm is a 39-acre property, most of that acreage is in alfalfa and a few acres are dedicated to growing a variety of certified organic vegetables for customers in western Montana. Kristi and Jay sell onions to the Good Food Store in Missoula, a variety of herbs and vegetables at the Polson Farmers' Market, and a few items through the Western Montana Growers Cooperative.

Farming had been Kristi's dream for many years, and though she worked for other farmers before acquiring Lowdown Farm in 2008, transitioning to running her own business with Jay has been a process full of hard lessons and more unanswered questions. Kristi and Jay talked candidly about some hard truths that are often easy to



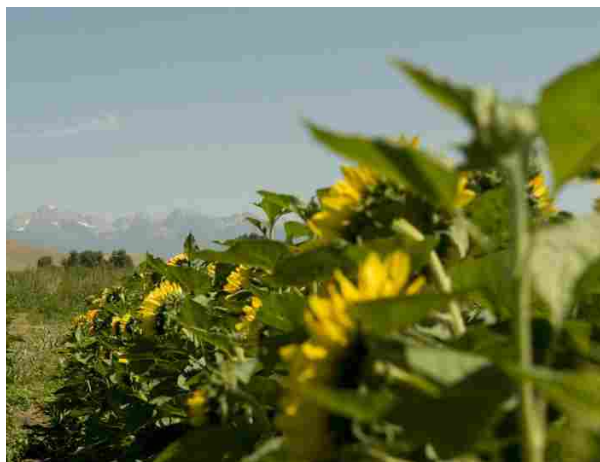
Kristi Johnson and Jay Perret own Lowdown Farm in Moiese.



Heirloom tomatoes, called green zebra, ripen in the greenhouse.

overlook, most notably that it is often difficult for new farmers to make their business economically sustainable. “We’ve got a lot of figuring out to do as far as what we’re going to be able to grow and what amounts in order to make enough money, but also have some semblance of sanity without having to work other jobs,” Kristi said. “It’s been a huge learning curve, that’s for sure. We’re still on it, probably always will be.”

In addition to talking about their experience farming, Kristi and Jay also pointed to some of the larger issues that affect farming. “It’s a hard business. People bemoan the fact that there are not a lot of young farmers, but the economic reality is harsh,” Kristi said. Starting a small farm, like starting many small businesses, is hard work and making enough money in the beginning to pay bills and buy necessary infrastructure is difficult. Part of the difficulty in making a living from farming stems from the fact that consumers expect food to be inexpensive. Add to that the fact that farmers only receive about 19% of the price consumers pay for food, and most of what farmers do earn goes back into farm expenses. “I think these times are tough though,” Jay said. “You talk to our neighbors too and you’ll get the same story. They’re all running on operating loans from the banks... most farmers haven’t broke even from last year. It’s a tough way to make a living.”



Rows of sunflowers face the Mission Mountains to the east. Lowdown Farm is located in Lake County, a county where over half of all land is in agricultural production.



Jay and Kristi grow a variety a vegetables, including corn shown here, for customers in western Montana.

At Lowdown Farm in late August the grasshoppers exploded from the dry grass, two ducks waddled and ran to catch as many grasshoppers as they could possibly eat, guinea hens gobbled and squawked in the large sunflower patch, and the irrigation spun long lines of water through the air and onto the alfalfa field. The farm was lovely: vegetables rows flowing into colorful patches of cut flowers, followed by a field of onions, and then an expanse of alfalfa stretching to where the valley floor meets the hills. Though owning and operating a farm has been challenging on many levels, Kristi and Jay are doing something fundamentally important; they grow food to feed their neighbors—onions to Missoula, tomatoes to Polson, basil to the Western Montana Grower’s Cooperative. Kristi talked about some of the things that keep them coming back to farming, such as the relationships she has developed with her customers, the pride and satisfaction of growing good food, how physically strong they have become from this type of work, and the joy of a mid-day swim under the blanket of August heat. “Farming is very hard,” Kristi said, “but it’s also beautiful.”

The future is in some ways uncertain for Kristi and Jay. At this point they either need to grow their business and make it work or try something else. Currently they’re between market gardening and a mid-scale operation, which makes it hard to figure out a balance and make a liv-



Snapdragons bloom in the foreground, and onions and alfalfa grow beyond. Though they put the much effort into their vegetables, alfalfa grows on much of their land.



Kristi and Jay have one steer; they hope to one day have a small beef herd.

ing. Despite the challenges, Kristi is optimistic about the future of farming and proud of the type of farm they have built, “Our generation and younger will make changes and slowly things will be different,” she said. “And I guess that’s part of wanting to do this style of farming. Even though it’s so labor intensive, it does feel like the right thing to do, the right kind of food to be producing.”



Kristi loves to grow cut flowers. Here zinnias grow in the greenhouse.



Jay weeds onions, Lowdown Farm’s largest vegetable crop. The onions are certified organic and are sold directly to the Good Food Store in Missoula, Montana.

Ploughshare Farm

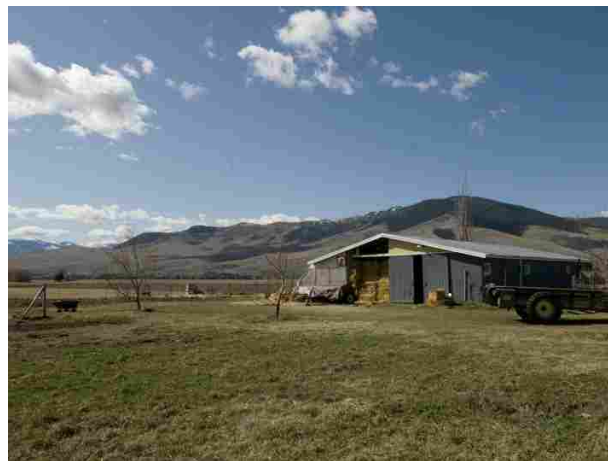
Nicole Jarvis and Cale Nittinger
Moiese, Montana

There is a goat named Newman on a farm in Moiese, Montana. His horns curve back toward his shoulder blades, like twin crescent moons used for challenging other male goats or sometimes the border collie that taunts him from the other side of his fence. His long hair gives the impression that he is accustomed to the often cold, always variable climate of Montana. His two wide set, yellow eyes have a glint that is knowing and curious yet surprisingly nonchalant. Newman is Connor's favorite goat at Ploughshare Farm. Connor, who is four, and his younger sister Clara, along with their parents, Nicole Jarvis and Cale Nittinger, call Ploughshare Farm home.

Nicole and Cale began farming at Ploughshare Farm in Moiese in 2007. Their interest in agriculture began while they were in college where they both spent time working on the PEAS (Program in Ecological Agriculture and Society) Farm, a small educational farm in Missoula run by Garden City Harvest and the University of Montana. There they learned the basics of cultivating plants from seed to harvest. This is also where they met each other. She said, "He was in love



Nicole, with her children, Connor and Clara, waters seedlings in the greenhouse at Ploughshare Farm. One of the best parts of farming for Nicole is having ample time to spend with her family.



Ploughshare Farm is located on the Flathead Indian Reservation in Moiese, near the Flathead River and the Bison Range.

with farming, and I was in love with farming, and we fell in love with each other.” After interning and working on several farms Nicole and Cale decided to begin farming on their own. They initially wanted to be near Bozeman where Cale grew up and where his parents still live, but good farmland near Bozeman is often prohibitively expensive due to development pressure. Instead they began looking in western Montana.

The piece of property they ended up buying—with help from Cale’s parents who will eventually build a house on the land—sits in the Flathead River Valley just west of the Bison Range on the Flathead Indian Reservation. The land here is open, expansive and somewhat flat until it rises into foothills and then into the mountains shrinking to the horizon. This area is home to many farms—commodity grain producers, ranchers, and a handful of small vegetable farmers. Ploughshare Farm consists of 18 acres, three of which are in vegetable production, while much of the rest is in alfalfa. Nicole and Cale market their vegetables at the Polson Farmers’ Market and through the Western Montana Growers Cooperative.

Though they have farming experience on other properties and are in their fourth year on this land, there is still a lot to learn. Making a living from growing vegetables can be stressful. Farming can have a long learning curve,



Nicole milks a goat in the milking parlor. Much of the infrastructure at the farm was already in place when Nicole and Cale bought the property, though they built the milking station themselves.



Fresh goat milk, which will be fed to baby goats and also consumed by Nicole’s family.

as Nicole put it, “You see older farmers who after 20 years kind of have their system down and the stress level can go down a bit. But when you’re just starting out, you’re so inefficient and there’s so much to figure out. Where to go, what to do, how to do it, where to market everything, how to market, what to grow. There are so many variables to figure out those first few years.” Nicole has found keeping notes to be essential; a small farm is a small business, and it is necessary to remember the lessons learned from year to year.

Ploughshare Farm practices sustainable growing methods. Among other things this means no petrochemical insecticides, herbicides, fungicides, or any other –cide. It also involves working to build soil fertility by adding nutrients from compost, manure, cover cropping and crop rotation, and managing the farm in a holistic manner. In their neighborhood not everyone agrees on these methods; across the street is a fertilizer company and their neighbors spray chemicals at times. But the diversity is what makes their community unique and enjoyable. Nicole said, “There are a lot of old school farmers, a lot of rednecks, and then you have the hippies, but we all get together and we all hang out. We all float the river together. It’s just a form of community... we get into our discussions and have our disagreements but... We have a lot of fun together.”

In addition to vegetables, Nicole and Cale have chickens for eggs and goats for milk, which



Nicole and Clara feed the baby goats fresh milk.



Seedlings strain toward the sun in the greenhouse. Nicole and Cale grow a variety of vegetables for local customers at Ploughshare Farm.

they mostly use to feed their family, which brings us back to Newman. For Cale and Nicole farming isn't about the bottom line. They make a profit according to their tax forms, but it isn't much. "We just knew, if we were going to have kids, we didn't want to do anything else. We wanted to be able to be home with them and have them grow up in a country setting, not in the city," Nicole said. Connor's daily chores include helping feed and water Newman, milking the other goats, and watering seedlings. Spending time together as a family rises to the top of Nicole's list of what makes farming most rewarding, that and the connections she has developed with her customers. "This, I love this," she said, as Connor banged his toys together and sang while Clara cried. "I don't know what day it is today. All I know is I'm home with my kids, and as much as they're driving me crazy right now, I'd rather be here than anywhere."

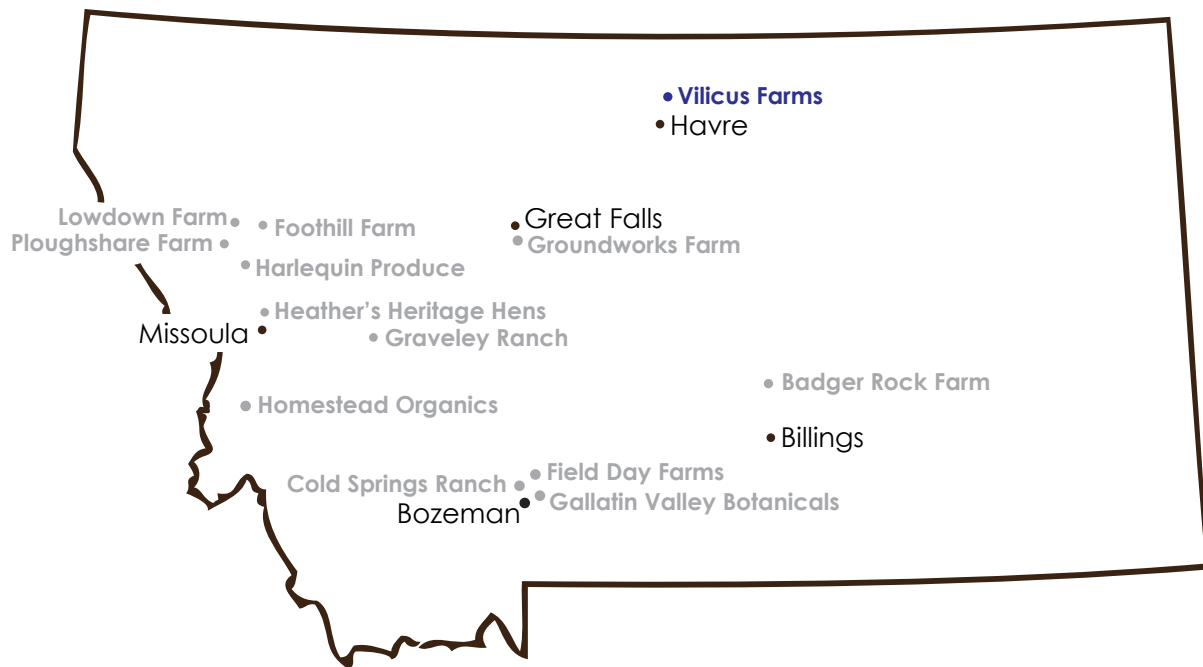


Connor helps with many of the farm chores. Here he helps Nicole give Newman water.



Newman, an impressive goat.

Grains/Legumes/Seeds



Vilicus Farms

Doug and Anna Crabtree
Havre, Montana

Twenty-five miles north of Havre, Montana and just south of the border with Saskatchewan, Anna and Doug Crabtree own 1,280 acres, or two sections. They bought the property in 2008, and on it they grow a variety of grains, pulses (legumes), and oil seeds. Here the land is wide and low, flat in all directions with only tiny, isolated mountains creating any variance on the horizon. During the work week Anna and Doug live four hours south in Helena, where they both have full-time jobs. On weekends though Anna and Doug are at their property near Havre, and on a sunny October weekend, they were busy getting ready for the end of the growing season by disk-ing fields, planting cover crop, and harvesting safflower.

Doug grew up on a farm in Ohio and as a teenager he helped with much of the farm work. He had always wanted a farm of his own. Now he finally has one and it is clear he loves his work; he seemed to glow with a quiet enthusiasm as he went about his day behind the wheel of the large, green John Deere combine, affectionately called Ernie Jr., with one of his Jack Russell Terriers by his side. Anna comes from the west— she grew up in Colorado and Oregon—and is



Anna and Doug Crabtree own two sections (1,280 acres) north of Havre, where they dryland farm on the weekends. During the week they live and work in Helena.



Anna and Doug usually work separately in order to accomplish the most during their short weekends on the farm. Here they work together to remove some damaged seed from the combine.

currently the sustainability coordinator for Region One of the Forest Service. Though she did not grow up farming, she has found Doug’s passion for farming contagious.

Even at the end of the season, The Crabtree’s property was a collage of different textures and varying shades of brown and beige. The Crabtrees grow 15 different crops, which is a contrast from the other growers in their area; for the most part, uniform wheat fields dominate the landscape for miles in each direction. This year the Crabtrees grew flax, safflower, wheat, black beluga lentils, and two kinds of peas. The fields are separated by long strips of wheat that are not ploughed. These buffer strips are meant to serve as a hiding place for small animals such as badgers, porcupines, and birds, as well as beneficial insect species.

Anna and Doug named their farm Vilicus Farm; *vilicus* is the Latin word for steward. To steward means to manage, and specifically the Crabtrees want to be *good* managers of the land. “There are millions of acres of land that somebody is going to farm, and I want to be one of the ones that does that in a respectful way,” Doug explained. To them this means taking care of the different animals that make the property their home, nourishing the soil, and respecting the water that passes through their place. To do this they use farming methods different from those of their conventional neighbors, for instance part of the reason for the crop variety is to create a five-year



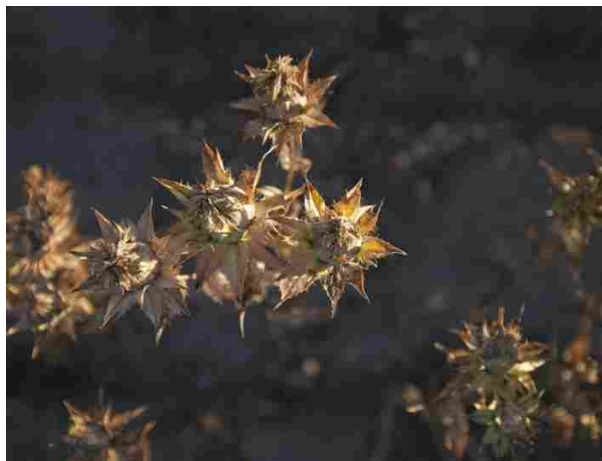
Though Doug has many thoughtful and serious reasons for starting a farm, part of the attraction is getting to drive big machines like the ones he grew up with on his family’s farm in Ohio.



Anna has in a field of safflowers. Anna did not grow up in a farming family, but she has found Doug’s passion for farming contagious.

crop rotation to help suppress weeds, discourage pests, and build soil fertility. Their management philosophy—finding alternatives to chemical use, managing the farm holistically, taking into account and working with prairie ecosystem processes—closely parallels the organic standards by the USDA, and thus they have chosen to be certified organic.

Anna and Doug are mid-scale, organic growers, an anomaly for the most part in Montana, and they voiced concerns about the future of mid-scale of production. They see a trend in agriculture: farm land in rural areas is being consolidated into fewer and fewer hands, often by agribusiness corporations, leaving fewer people on the land. A key ramification of this consolidation is huge farms run by people who necessarily have less contact with their land, and the plants, animals, and soils of their properties. Chemicals (synthetic, petroleum based pesticides and fertilizers) are usually employed to manage properties of this size. The Crabtrees want to see the land managed in a different way. For Anna and Doug, more producers operating smaller farms is part of the solution to the problems posed by consolidation and chemical use. “I think we’d be a lot better off if we had a lot more farmers, a lot more people in contact with the soil and crops and where food comes from,” Doug said. But for many the thought of trying to start such a farming business from scratch is daunting.



Safflower is a relative of the sunflower and thistle. It is pictured here at the end of the growing season, but in summer, when it is in bloom, its flower is a vibrant yellow.



Flax seed. The Crabtrees have grown 12 different crops during their 2 years on the property. This diversity allows them to manage their fields without chemicals and synthetic fertilizers.

Though the barriers to beginning a farm of this size are extremely high, a large part of Anna and Doug’s motivation for becoming farmers at this scale is to prove to other young farmers that it can be done; it is difficult, but it is possible. They hope to one day offer a two-year apprenticeship program for aspiring farmers. In the first year the students would learn the practical side of growing commodity crops, and the second year they would write a business plan and prepare to spin off their own farm. They have a vision for growing diverse farmers in eastern Montana, and this apprenticeship would be their targeted effort at accomplishing such a goal.

The Crabtrees are in a unique position. They both have full-time professional jobs in Helena and are dry-land farming in Havre, which allows them to come up on weekends to farm. This off-farm income also means that they have some capital to invest in their property and machinery, capital they could not have had earlier in their lives. Even as adults with professional jobs they have had a hard time finding financing; one of the lenders they talked to denied their loan application because farming was deemed a “prohibited business” by the lender’s particular rules. This is telling. Start-up costs are high, return is slow and low, and it makes financing a farm risky for some lenders. The Crabtrees eventually found financing



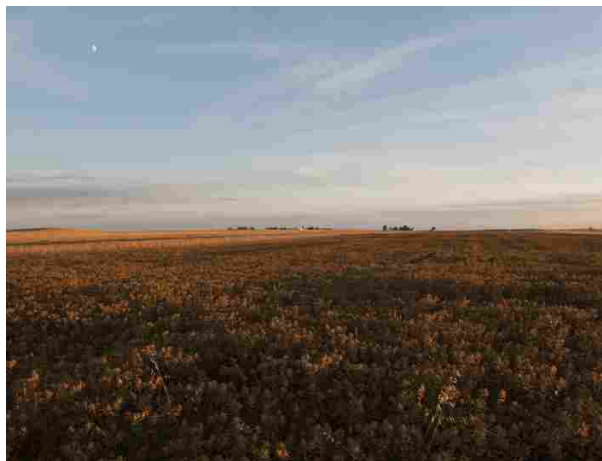
The combine comes to the end of the safflower field, where it meets a wheat buffer strip. The buffer strip provides shelter to animals and insects.



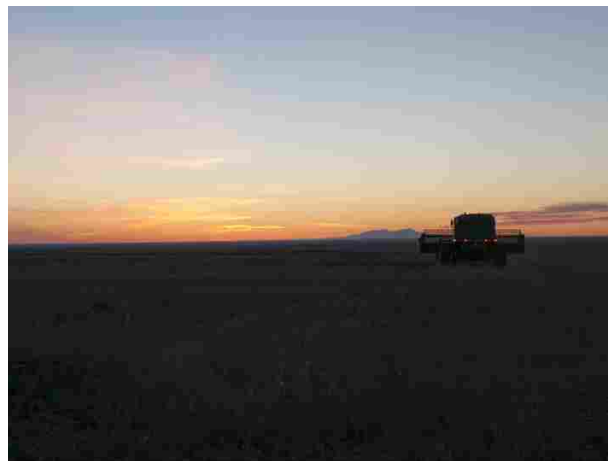
Winter wheat ready to be seeded. The wheat will be planted during the fall, will lie dormant during the winter, and continue growing in the spring.

through the Farm Service Agency (FSA). Out of concern about a decline in the number of new farmers and ranchers, the 2002 Farm Bill created a program through the FSA to help new farmers with financing. This program is one of the major reasons the Crabtrees are able to afford to farm. Programs like this, that support new farmers, seem to be essential to the future of mid-scale family farming.

Sunday morning the Crabtrees were up at sunrise. There were only a few more weekends left in the season before the weather would demand an end to their activities, and they were eager to get on with their work. Owning and growing their own farming business at this scale is their dream and they hope someday to do it full-time, but until they can figure out how to fit everything together, it remains only a part-time occupation. They loaded up their truck with their dogs and some snacks for later and drove off to finish harvesting safflower and planting cover crop; a final day of weekend farm work before they return to their other lives in Helena.

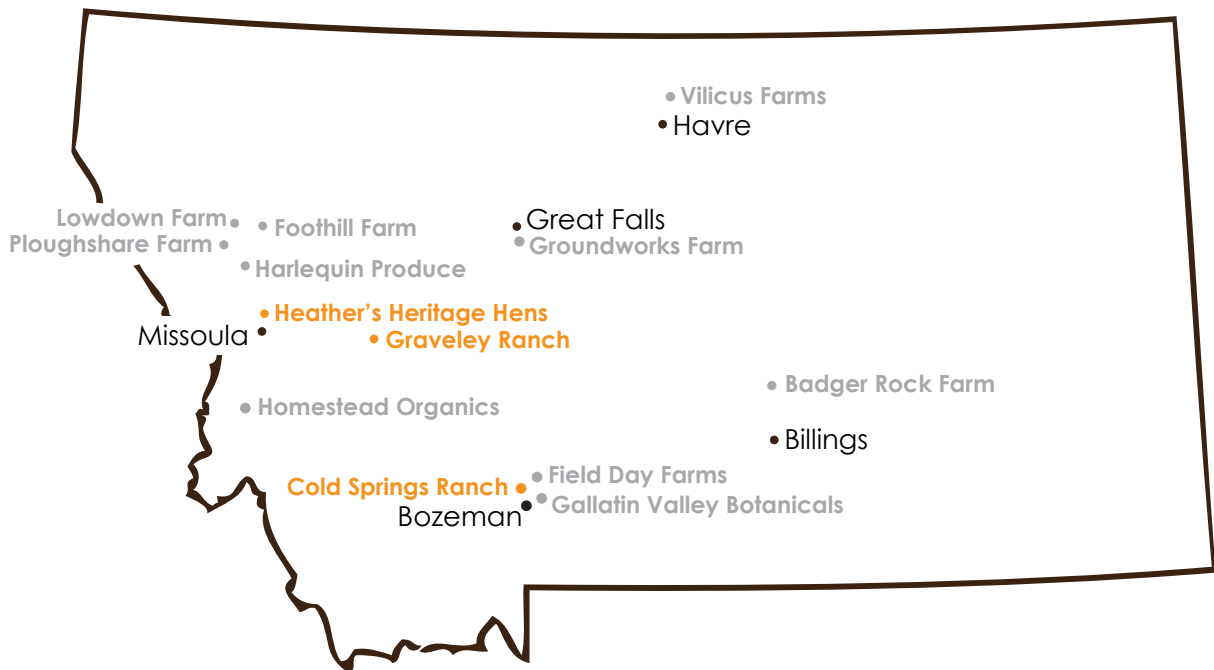


A safflower field in the waning October daylight. The safflower seeds will be pressed into oil.



The Crabtrees work very full days when they come to the property. The combine has headlights, enabling Doug to work well past sunset. The Sweetgrass Mountains are visible to the west.

Livestock



Cold Springs Ranch

Nate Powell-Palm
Belgrade, Montana

Nate Powell-Palm is currently a first-year student at Grinnell College in Iowa. When he went to Iowa for school, he left behind his mother, father, and younger brother in Belgrade, a small town near Bozeman. He also left behind 22 cows and calves, two bulls, and 20 chickens. At 17 Nate was the youngest certified organic farmer in the country, and as an organic farmer he operates a small grass-finished beef business that supplies a small contingent of customers in the Gallatin Valley.

Nate is a thoughtful and articulate young man who knows his way around raising cattle, food and agricultural issues, and local markets. He began raising cattle as part of a 4H project when he was 9 and since then his interest has grown into a business. He utilizes some property his family owns, but also leases land to graze his cattle. Nate does not come from a ranching family, so in order to successfully raise cattle he has had some help from a broad spectrum of ranchers in Montana. The organic community has helped answer any questions he has, particularly when it comes to organic issues, marketing ideas or ranching in general. “The organic



In 2009, at 17 years old, Nate Powell-Palm was the youngest certified organic grower in the country.



Most of Nate's cows are Gelbvieh's, a breed best suited for feedlot conditions. He hopes to experiment with breeds like Galloways that are better suited to grass finishing in cold climates.

community, they've been my complete foundation for my success this far," he said. "Whenever I have a question on farming, which none of my family's really done any of...they always were able to sit down for hours and hours and explain how you plough a field and things like that." But the traditional ranching community, too, has been supportive. A neighbor, who Nate refers to as his "second mom," taught him the important fundamentals of raising cattle such as breeding, sourcing bulls, and animal care. While Nate is in school in Iowa, the support of family and friends in Bozeman are indispensable; they care for the animals and some of the other aspects of the business while he is away. Nate, though, is still responsible for some of the marketing aspects of the business, which he can manage from afar.

Though Nate is raising cattle, a fairly common practice in Montana, he is doing it in a rather uncommon way; he uses organic methods to raise grass-finished beef. "I got started in the organic business through my family's philosophy of how agriculture should be done, with no confinement operations and really no pesticide or herbicide use whatsoever on the land." Choosing to create a grass-finished, local beef operation fits with his sustainability ideals and organic farming methods because it means his animals will not go into a feedlot system that is antithetical to his beliefs about animal husbandry. Producing grass fed beef for a local market also makes the most



With 22 cows and calves, Nate is able to know the specific characteristics of each cow, such as mothering instincts and personality traits.



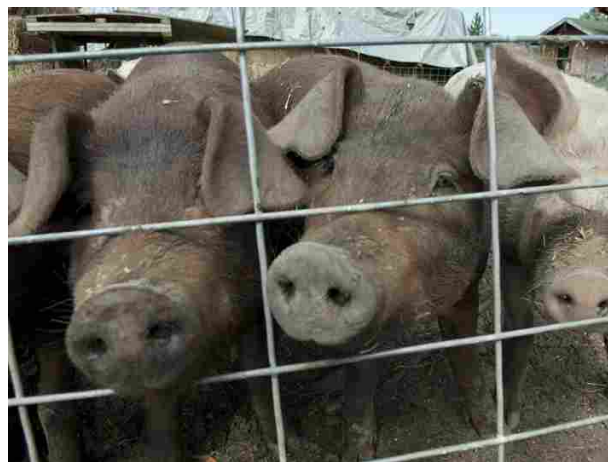
Nate's family recently acquired a small flock of chickens. They hope to be the first certified organic laying operation in the Gallatin Valley.

economic sense for the scale of his operation. “I was trying to sell calves and could only sell eight of them and barely cover hay costs. I needed to have some marketing niche where I could actually make money at this,” he explained. “Because I can’t compete with people who have 18,000 acres and 600 [cow/calf] pairs, I have to put a little bit more skin in the game and really go for it. That’s how I picked organic and the grass finished business.” Raising cattle near an urban area means there is a strong local market for his products, but this also means finding land to grow his operation is a challenge. He hopes to convince some of his neighbors to transition their property to organic management so he can lease their land for his operation.

Currently Nate’s beef herd consists of Gelbvieh cows and an Angus and Galloway bull. Gelbviehs and Anguses have been bred over the years to finish best on grain and in feedlots. Nate is looking at ways to use breeding to improve the performance of his cattle on pasture in Montana. He recently acquired a Galloway bull. Galloways are known for their thick curly hair that protects them from harsh winter weather. In addition, they are a better breed for Nate’s objectives because they eat a more diverse array of grasses than other cattle, have a moderately sized frame and therefore finish more quickly than other breeds, and finish well on grass rather than grain. Nate enjoys the breeding portion of running the business and sees it as essential to his success.



During the school year, Nate is a college student at Grinnell College in Iowa. His family helps with much of the business while he is away, though he still does much of the marketing from afar.

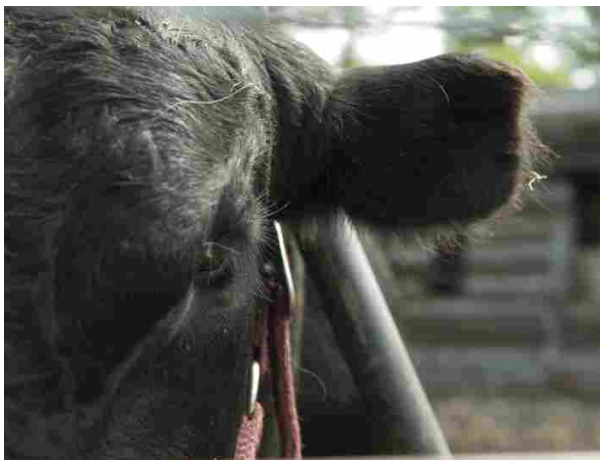


Pigs also joined Nate’s family as part of a 4H project.

He explained, “Right now the breeding is one of my greatest works in progress. Because I really need to figure out something that can finish in a competitive amount of time... There’s marketing and then there’s breeding, and they have to go hand in hand if you’re going to be successful.”

Nate has a clear affinity for his cattle. Nate has had his Angus bull, Bubba, for three years, and has trained him to pull a small plow to dig up the pasture. Nate demonstrated Bubba’s gentle nature by putting a lead on the two-ton animal and then taking him around the pasture for a short jaunt. At spring hill, the summer pasture where Nate keeps his cows and calves as well as the Galloway bull, Nate called each cow by name: Magpie, Willow, Mayday, and Honey, among others. He explained their personality characteristics as well as each cow’s strengths and weaknesses as mothers. To illustrate his bond with the animals he explained his method of moving them to new pasture. “I’ve got a pretty good system. I’m well known throughout the county,” he told me. “I walk in with a bag of grain and shake it and they all follow me in. Everyone always thinks that must be really stressful for the cows, but they know they’re going to really good pastures as soon as they step on there, so they’re pretty cooperative.”

Nate’s mind always seems to be thinking about the business. Where are new markets and customers? Which breeds of cattle will work best being raised solely on grass in this climate?

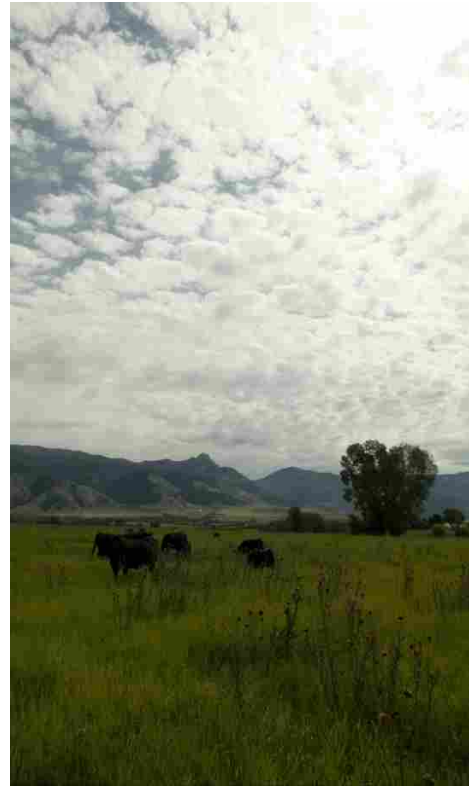


Nate has had Bubba, his Angus bull, for two years. He acquired Bubba as part of a 4H project.



Nate has trained Bubba to use the small plow pictured behind them.

Who are future partners in hay growing? Though he may be leaving the state to go to school, it seems like his mind, at least part of the time, will be in Montana with his business. “Actually every couple nights I’ll sit down and pencil out how I can cut costs and increase profits... It’s unlikely that it will ever be my sole source of income unless I’m able to land major breaks with land deals. But I would definitely like to see myself being able to have a big enough demand that I’m able to sell my entire calf crop before they are actually born...And make a little money at it too.”



Some of Nate’s herd in the spring hill pasture where they spend most of their summer.



Hay the animals will eat through the winter.

Graveley Ranch

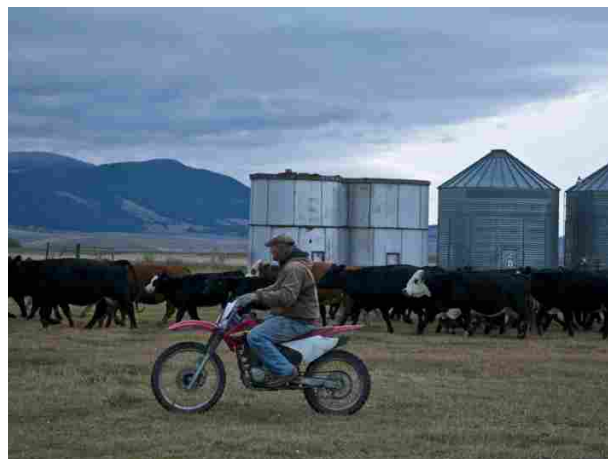
Kyle Graveley
Helmville, Montana

This is a project about the next generation of farmers and ranchers in Montana. Though the definition of new farmer is fairly straightforward—someone operating their own farm business for fewer than 10 years—when referring to those returning to their family places, that definition often blurs. Kyle Graveley’s family has been ranching in Montana for five generations. He grew up on his parent’s ranch in Helmville, Montana, where he now lives with his wife, Tressa and their two small children, Cayden and Natalie. As a high school freshman, Kyle knew he wanted to come back to his family’s property, and after leaving the ranch for two years to go to technical school in Helena, he returned in 2002 to help with the family business. At the ranch, Kyle has his own cows, as does his sister, Brooks, who is also raising a family on the property. Kyle works closely with his father, Steve, to make business decisions, yet he has a lot of freedom to make his own choices with certain aspects of the business. Though Kyle plays a significant role in the management of the business, this is very much still Steve’s business and Steve’s ranch.

Kyle and Steve work together to run the ranch from day to day, but on “shipping day”—a



Family, friends, and neighbors herd cows and calves toward the corral at the Graveley’s Ranch on calf shipping day.



Kyle Graveley helps move a group of cows and calves. Kyle returned to the ranch in 2002 to help with the family business. He has known since high school that he wanted to ranch.

labor-intensive day in the fall when the calves are sorted, weighed, and shipped to a buyer—family, friends, and neighbors come to help out. Every ranch has its own method and organizational structure for how it manages its cows. This is how it happens at the Graveleys’ Helmville place. The Graveleys have about 500 calves and cows and they have been in pastures together since the calves were born in spring. On shipping day they are brought into the corral from a nearby pasture. From the corral, groups of cow/calf pairs are let into a straight chute, called the “alley,” where four men working together separate the mothers from their young. The cows are put into a corral where they bay and moo, calling for their calves, while the calves are moved onto trailers and taken to a neighbor’s scales down the road. At the scales the calves are weighed, counted, and eventually put on semi-trucks to take them to the buyer often in the Midwest. After the calves have been weighed and shipped off, the cows are given vaccinations, checked to see if they are pregnant (a process called preg-testing), and then put into a new corral. They will soon be turned out to pasture after all the cows have been examined and treated. All this happens in a day, a very full day.

This process sounds straightforward, and it is because the Graveleys, as experienced ranchers, have created an efficient system. On shipping day, Steve called the shots but Kyle was inti-



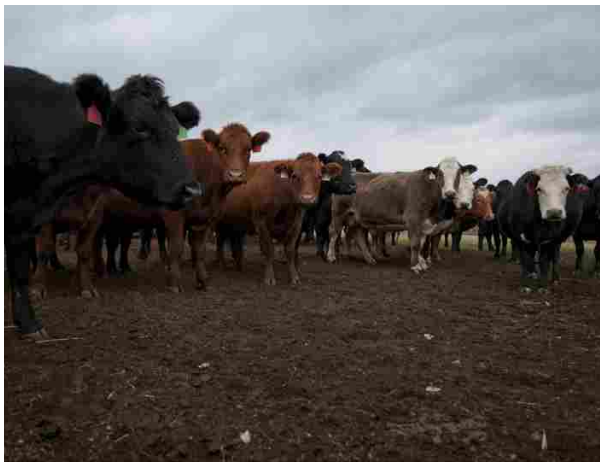
Steve Graveley, Kyle’s father, owns the ranch and makes many of the major business decisions.



Shipping day is payday for ranchers, and it happens once a year in the fall. On shipping day the calves and cow are brought in from the pasture. Once in the corral, the cows and calves are separated.

mately involved, and together they coordinated all the people who turned out to help. Shipping cows is a community event. When there are that many cows and calves everyone comes out to work. Brothers, sisters, neighbors, nieces, nephews, friends, in-laws, they were all there carrying their white cow poking sticks, bundled in vests and carhart jackets, and working in the flecks of snow without complaint. On another ranch's shipping day everyone goes out to work with them because this is how ranching is done, by a community. With mechanization it is possible to do much of ranch work with fewer people—a tractor and a man can work a hay field, a few guys on ATVs can herd cattle—but as Kyle's mother-in-law said, "Working cows, it doesn't matter what machinery you have." People are the lifeblood of ranching.

There was a tangible feeling of familiarity and camaraderie among the group, and it was easy to see the value of working with family. But the reality of a new generation returning to a farm or ranch is sometimes difficult. There are a few factors that can make the process complicated: family, land, and money. As Kyle said, "People in the community have come back, but only a few. It gets hard with family dynamics, and there's not enough space. You can't expand. Maybe you could get a small piece and do vegetables, but not a piece large enough for cows." Kyle's mom, Sue, is happy to have her kids back at the ranch, but she lamented the economics



The cows remain in a corral while their calves are taken to be weighed. The calves will eventually be loaded on to trucks and shipped to the mid-west.



Everyone comes to help on calf shipping day. From left: Chris, Kyle's father-in-law; Kyle Graveley; Steve Graveley; Shane Graveley, Steve's brother; and Pat Bignell, a neighbor.

of ranching. “It’s a hard sort of life,” Sue said. She went on to say that all the money they make from the sale of the cattle goes back into the ranch for equipment and paying other bills. For ranchers she said, “There are no great Caribbean vacations.”

Kyle and his family are in the slow, incremental process of succession, the transitioning of a ranch or farm from one generation to the next. This transition includes passing down the management of the business along with the assets. It’s an important issue in contemporary agriculture. Farming is one of the few professions in our culture that is largely an inherited occupation. As farmers and ranchers age, more and more agricultural businesses will be in this kind of transition. Agriculture is a fundamental piece of the identity of Montana. But the economic and social pressures that squeeze this industry make its future—and the future of the next generation hoping to carry on the businesses—uncertain.

Succession is a process that seemingly begins the day a son or daughter is born with a hope that that child will want to ranch. It ends when the ranch owner passes full control to the next generation. As the child grows, intangible assets—the fundamentals of ranch work—are imparted. As the child becomes an adult and then decides to stay on as part of the family business, this next generation will ascend what academics call a succession ladder. It starts with being respon-



The calves are taken down the road in trailers to a neighbor’s place where they will be weighed.



Calves exit a trailer and run down a chute toward the scales.

sible for technical decisions (the types and amounts of inputs), next comes strategic planning decisions (such as hiring employees), financial decisions, and finally successors are responsible for deciding when to pay bills. The end of succession is the transfer of tangible assets: the business, the equipment, the land.ⁱⁱⁱ

The concept of a succession ladder makes a sometimes messy and complicated process seem more like a checklist. From afar most farm and ranch successions fit a few kinds of patterns and trends. Viewed up close, though, it is not a rigid process; there are trends but no rules. Succession is not science; it is behavior and decision making in a set of circumstances unique to the individual family, and there are often strong emotions involved as one generation relinquishes control to the next.

In 1992 Kyle's parents bought additional acreage near their home to facilitate Kyle and Brooks' return to the property. This purchase allows the business to support more than one family. "My dad is still the final decision maker," Kyle said. "But more and more that responsibility is becoming mine." One day the business will pass to Kyle; one day the business will pass to his son. The succession process will cycle on.

As shipping day wore on light snow drifted among the cows and ranchers. Two generations of fathers, sons,



Tressa, Kyle's wife, and Martha, the brand inspector, record animal statistics at the scales.



Sydney, Kyle's niece, also lives on the ranch property with her family. Sydney's family also owns some cattle at the ranch.

cousins, uncles, and nephews wrangled cows, preg tested cows, and vaccinated cows. Steve came out after the others had been working for awhile and joined his two brothers, Shane and Sandy, and his nephews Sloan and Ross in a small corral where they were preg-testing cows. There was little discussion between the men; “Hey cow, hey cow,” was the most that was heard. Otherwise in the corral the men moved as a unit, as did the cows. They would finish preg testing the cows, yell out a cow’s tag number to Kyle if it was not pregnant, and then send them down a long chute where Kyle, Tressa, and Tressa’s father, Chris would work together to vaccinate the cows. It moved with the kind of effort that has been practiced over generations, the effort of a choreographed endurance event.



Brothers Shane, Sandy, and Steve check the cows to see if they are pregnant. The Graveleys run about 500 cows and calves, which means on shipping day about 250 cows will be preg tested and vaccinated.



Tressa, Kyle, and Chris vaccinate the cows, the final step in the long process of calf shipping day.

Heather's Heritage Hens

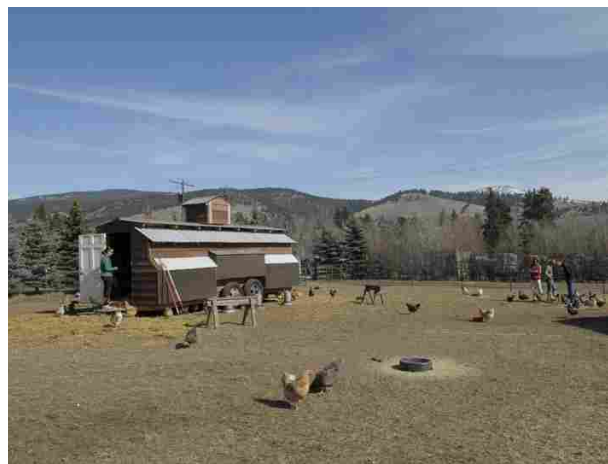
Heather McKee
Missoula, Montana

Dominiques, Brahmans, Buff Orpingtons, Wyandottes, Araucanas, and Barnevelders—these are Heather's Heritage Hens. On a warm, clear day in early March the hens were chasing each other around the pasture, pecking everywhere, and basking in spring sunshine while the roosters crowed. The chickens Heather McKee raises are heritage breeds, which means they belong to chicken breeds that were recognized before the 20th century. Over the past 100 years, chickens (as well as other livestock and plants) have been crossbred to create animals that are productive, efficient, reliable, and uniform. The downside of this breeding means that distinct genetic variation is often lost. Heritage breeds retain some of that variation, which can express itself in traits that make a particular breed better suited to specific climates or purposes. Heather has specifically chosen to raise chicken breeds that will do well in Montana; most importantly this means they are cold hardy, but also they will lay eggs for 3-5 years rather than the standard 2 years.

Heather grew up in suburban Illinois. She credits her interest in animal husbandry with the Montessori school she attended as a child, where her class was responsible for taking care of



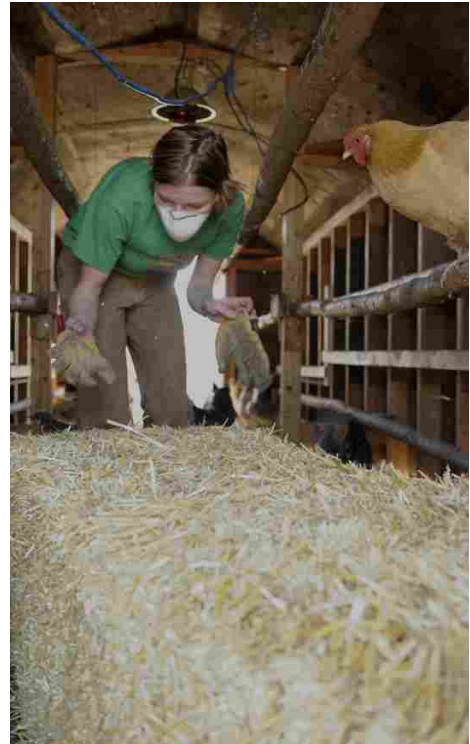
Heather McKee is the owner of Heather's Heritage Hens. Heather's customers pick up their eggs at the chicken pasture where they have the opportunity to learn about the chickens.



The egg-mobile, a moveable chicken house. The egg-mobile can be moved from pasture to pasture, allowing the chickens to add their manure to different parcels of land.

a menagerie of animals including goats, chickens, and ducks. This early tactile experience with animals was influential, but she told me that maybe farming is also in her blood; her grandmother had a large egg laying operation as well as a dairy. Heather's early interest in plants and animals, translated to a college degree in biology. After graduating she found she was also passionate about environmental education—teaching people about the world around them and their impact on it. Her chicken business was a natural outgrowth of her interests in environmental education and biology. She started the operation as part of her master's portfolio project at the University of Montana. With the help of the Environmental Studies Program and Garden City Harvest she acquired the heritage birds and built the egg-mobile (a chicken house that can be moved to new pasture periodically), and since finishing her master's degree, Heather has taken over full ownership of the laying operation.

Heather has about 200 hens and she sells her eggs through an egg-share in which customers pay in advance for a certain number of eggs each week (half a dozen, one dozen, or two dozen) and pick up their eggs at the chicken pasture. When customers arrive, they are invited to do more than just pick up a carton of eggs and drive off. On that bright, warm March Sunday many visiting customers



Heather prepares to put fresh straw in the hens' nesting boxes. Keeping the chickens healthy and treating them humanely are some of Heather's top priorities.

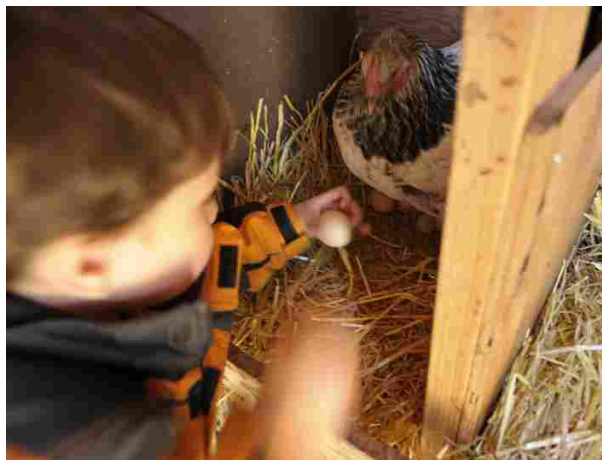


Two young visitors examine their eggs.

took the opportunity to learn more about the chickens. Some people toured the mobile chicken house, where kids collected eggs with their parents, while other people just liked to sit and watch the hens go about their mysterious business. A highlight for most people, kids and adults alike, was feeding the chickens bits of day old bagels that Heather gets from a shop in town. A visitor tore off a piece of bagel and threw it over the fence. The chickens, in a noisy, wild mob, ran to find the bagel. As one hen picked it up in her beak and ran off, the others followed in close pursuit. Then another piece of bagel sailed over the fence, and mayhem again ensued as the chickens flocked toward the bagel, forgetting the hen that had snared the first piece. Everyone watched and laughed.

Part of Heather’s goal in raising chickens in Missoula is getting quality food into local people’s hands; the other part of her goal is teaching people about where their food comes from. “I feel like I am doing environmental education with the people that get their eggs from me because I’m telling them about the relationship between the environment and their food, and how I work with that to best enhance the health and happiness of the animals,” Heather said. At the chicken pasture visitors can have an up-close, tangible experience with their food.

Heather thinks about food a lot and her thoughts often go beyond her chicken business. “I



A visitor finds an egg. He has to be quick though; hens can be moody and freely offer pecks to human hands.



A blue wheaten ameraucana. Ameraucanas are fairly rare chicken breeds; they have blueish legs and lay blue eggs.

think it's rough being a laying hen in 99% of the world," she explained. She went on to talk about the way many chickens are raised, in confined spaces where they are treated more like egg producing machines than chickens, which enables their eggs to be inexpensive. For Heather, though, treating animals poorly and selling cheap food doesn't add up. "If we want to have healthy food for our bodies and we want it to be raised in a moral way, food costs more than most people are willing to pay for it." And this is part of Heather's dilemma; her work is labor intensive and good chicken feed, as well as other inputs, can be costly, which makes her eggs expensive. She is still figuring out how to make her business financially sustainable, but Heather is determined to keep pursuing her dream of raising and breeding chickens. Though there are struggles, she finds much about what she does gratifying, whether it be educating people, developing relationships with her customers, or working with the animals. "The old folks getting into throwing bagels," she said at the end of the egg-share pick-up, "that's why I do what I do. This was a great day."



Customers tour the egg-mobile in search of chickens and eggs.



For Heather, some of the best parts of running the chicken business are working with the animals and interacting with her customers.

Recommendations

I began this project by visiting Heather McKee and her heritage hens in Missoula on a bright, unseasonably warm day in March, and ended the project with a visit to Helmville and the Graveley Ranch in late October of 2010. As I drove home from Helmville toward Missoula the snow turned to grapple, to sleet, and finally to rain. The agricultural season was over. Montana's summer, this year a wet one on both ends, passed, a flash in the pan. These new farmers and ranchers will slow down during the short days of winter and during that brief pause they will surely think and plan for next season. Some may choose to leave farming behind, some may reinvent an aspect of their business to make it more profitable, perhaps some will purchase land or equipment. Whatever they do, I very much doubt they will maintain the status quo.

I set out to do this project in order to highlight some members of the next generation of people growing food and raising animals in Montana. In addition to learning about their businesses, I also wanted to know *why* they chose this line of work. In every interview I asked, "Why do you do this, given the difficulties and the stress?" The farmers answered with lists of the rewards of farm life: spending time with their families, working for themselves, and working with animals and plants. But I sensed under those reasons another, more fundamental reason. Agriculture seemed to pull at them at a deep level, and several of them described this inclination this way: "It's in my blood."

Like many of us, people who choose an agricultural career are sometimes chasing an occupational dream. But for farmers the path to economic and social sustainability is often an uphill one influenced by forces largely beyond their control. When growing food ceases to be practical economically or socially, it is *deeply* problematic. We ask, who will grow our food? But really, who would want to? It is a low paying job full of hard work, and many farmers, new and experienced alike, often seem a hailstorm or dry season away from financial disaster. Most beginning farmers don't make a living off the land the first few years they farm, and they often work

off-farm jobs to make ends meet.^{iv} After working so hard for little money, it is easy for farmers to feel burnt out and overwhelmed. Such aspects of farming—being overworked and underpaid—call into question the social and economic sustainability of agricultural occupations. All of us have a vested interest in seeing agriculture succeed, not only in terms of production, but also socially, culturally, and economically. So what will it take to see that new farmers and ranchers are successful?

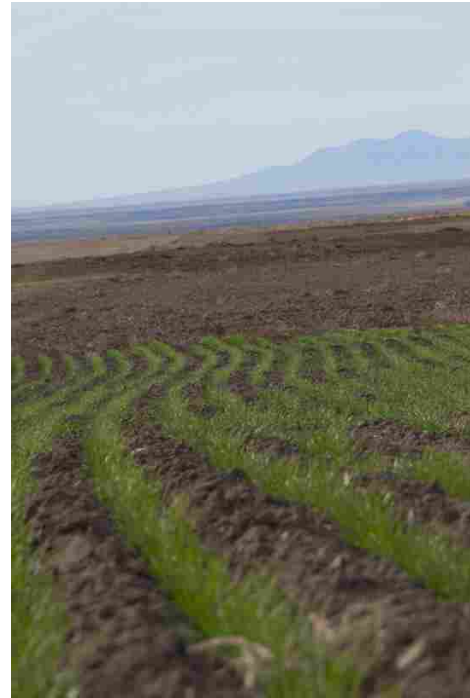
The answer is neither simple nor singular. The people I interviewed for this project often pointed to common themes—such as start up costs, mastering the practical skills associated with farming, and learning to run a business—when they talked about their businesses and the struggles they face as they attempt to make their operations successful. New farmers in Montana face challenges similar to those in the rest of the country, but Montana is also unique: Montana is a large state with a widely dispersed population and thus many of the products grown here are necessarily exported to populations based in other places; the climate here is dry, particularly in the east; and the soils and terrain greatly vary, some appropriate for grazing, others appropriate for growing grains and other products. Nonetheless, for over a century Montanans have been working to make agriculture viable; in fact, in 2002 the market value of Montana’s agricultural products was 1.8 billion dollars.^v But even given agriculture’s significant role in Montana, its future seems uncertain. “For Montana on the whole, more than 5,000 people over the age of 65 are farming as their primary occupation, compared to roughly 650 people under the age of 35 also farming as their main job (a ratio of almost 8:1). This suggests few aspiring farmers and ranchers are able to get started, while those in their later years continue to work the land.”^{vi}

Addressing both the economic and social sustainability of farming begins with developing tools and programs aimed at helping new farmers run successful agricultural businesses. In my interviews for this project, the themes the farmers brought up concerning the challenges they face as new farmers, mirrored themes in the academic literature on the subject. Some specific

areas that need attention and resources are financing and business training, land access, succession planning, and education and community building.

Financing

Without a doubt the biggest hurdles for new farmers and ranchers are the high start up costs associated with acquiring property and infrastructure.^{vii} Programs like the one administered by the Farm Services Agency (FSA) that are committed to financing the needs of new farmers are of utmost importance. Montana also has a beginning farmer loan program to help farmers in this state buy property. Some states offer tax credits to new and beginning farmers and this may be another strategy that Montana could adopt to help small farmers. In addition, though not specifically targeted at new farmers, there are other grants available through governmental and private organizations, such as Sustainable Agriculture Research and Education (SARE) program grants and funding for conservation projects through the Natural Resource Conservation Service (NRCS). A study from 2009 found that having a written business plan was essential for farm financial success, enabling farmers to more successfully apply for loans from banks and state and regional agencies.^{viii} Thus, though providing financial resources is necessary, equally important are programs that teach farmers



Wheat grows in long lines at Vilicus Farm north of Havre. The land here is appropriate for dryland farming methods. The Crabtrees acquired the property with financing from FSA.



Beets awaiting bunching at Badger Rock Farm in Roundup, Montana. As many small farmers discover, growing vegetables as an occupation requires business skills and planning that may be beyond their level of experience.

strategies for running an agricultural business and inform them of the financial tools available to them and how to use them.

Land Access

Financing is only half the battle when it comes to acquiring land; farmers must also have access to *good* agricultural land, land suitable for growing crops and raising animals. One way to help new farmers access land is to connect landless farmers with retiring landowners and others with agricultural land they want to see farmed. Land Link Montana is an organization that helps bridge the gap between these two populations by matching beginning farmers and ranchers with landowners. When a successful match is found, the land is eventually transferred from one party to the next. The goal of Land Link Montana is the continued agricultural use of land, land that would otherwise most likely end up being utilized for development. Similar programs exist in other states, and such programs are linked together through the National Farm Transition Network.

As agricultural land is increasingly threatened by development, it is important to safeguard our remaining farm and ranch lands, particularly arable land near urban centers. Elsewhere in the country, urban centers have set aside land specifically for agricultural use rather than develop-



Neighbors, friends, and family members on calf shipping day at the Gravely Ranch. Children of ranchers often find it difficult to return to family properties because land is not available in order to expand the business.



Jay Perret, of Lowdown Farm, in an onion field. Because land in Lake County is near population centers in Montana, prices are inflated, thus making it difficult for farmers to acquire land and pay down their mortgages without income from an off-farm job.

ment; other localities have ordinances that demand that for every piece of land taken for development, other land must be set aside for agricultural purposes, thus helping to ensure the future food security of the community. Though Montana is a mostly rural state, agricultural lands near population centers face development pressure. A few recent statistics from Missoula County are indicative of this trend: roughly 80% of the lands in Missoula County with the best agricultural soils have been subdivided to parcels smaller than 40 acres; and since 1986, almost 29,000 acres of land have been converted from agricultural use to non-agricultural use, which works out to an average of 1,443 acres of land per year no longer in agricultural use.^{ix} As the arable land near urban centers in Montana continues to be threatened, communities must critically consider land use planning strategies for agricultural purposes.

Land in rural areas faces threats as well, but these are the result of land consolidation rather than development. Farms have gotten bigger over the last few decades, partly because creating a bigger operation, or scaling up, is one of the ways to make an agricultural business profitable. As farmers retire or move away, other farmers, or sometimes agricultural companies, buy up property until one farm stands where many once stood. The number of American farms with sales of



Laura Garber with her fiance, Henry, at Homestead Organics in Hamilton. The agricultural lands of the Bitterroot Valley face high development pressure, but Laura bought her property on a handshake deal from a rancher who wanted to see the land kept in agricultural production .



A calf at the Graveley Ranch in Helmville. Kyle Graveley has returned to his father's ranch to join the family business. His parents purchased additional land in 1992 to ensure Kyle could return and their business could support an additional family.

\$500,000 or great (some of the country's largest farms) grew by over 600% between 1974 and 1997. During this time the total number of farms declined from 2.3 to 1.9 million.^x This consolidation, particularly when done by corporations, can make land scarce and present barriers to entry and growth for both landless farmers and those returning to family farms.

Succession Planning

Land access is an especially important factor for farmers who do not come from farming families, but those who are returning to family farms face other challenges. Farming is one of the few professions in our culture that is largely an inherited occupation. As farmers and ranchers age, more and more agricultural businesses will be in the process of succession, the transitioning of a ranch or farm from one generation to the next. Though I only travelled to one site where the process of ranch succession was under way—the Graveley Ranch in Helmville—that family is probably not an anomaly in Montana. Many farms and ranches in Montana have been family operations for generations. In order to encourage the children of these farmers and ranchers to return to their home places and help them carry on economically successful businesses, it is essential to provide resources that will help these families negotiate the tricky process of succession. Successfully managing these transitions is crucial not only for the families involved, but also for the social fabric of Montana's rural communities, communities which are often built upon agriculture and the bonds formed between the families who work the land.

Education and Community Building

New farmers need assistance in business planning, land and infrastructure acquisition, and succession management. In addition, farmer education and training, community support, and mentoring opportunities are vital to new farmer success. Montana's Universities provide educational opportunities for students interested in agriculture, as well as resources for the state's farmers. Montana State University's (MSU) College of Agriculture is an obvious educational resource to college students with an interest in agriculture. MSU offers a wide variety of majors

focused on agriculture, from Agricultural Economics to the newly created Sustainable Food and Bioenergy Systems program. MSU also provides resources and expertise to the farmers of this state through the extension program and agricultural research. The University of Montana (UM) also offers coursework focused on sustainable food and farming through the Environmental Studies Program. At UM students from all majors have the opportunity to learn about small-scale vegetable production at the PEAS (Program in Ecological Agriculture and Society) Farm, a campus-community farm operated through a partnership between UM and Garden City Harvest. In fact, a number of the farmers I spoke with for *Rooted* had their first experience with agriculture at the PEAS Farm. It is unclear how many of the students who study agriculture at MSU and UM return to family farms or begin farming after they complete their degree, but continued funding of MSU's and UM's agricultural programs encourages students to study agriculture and culturally creates support for agricultural careers. People interested in starting a farm career can also find educational opportunities by apprenticing with working farmers, and these kinds of on-farm training opportunities are invaluable to new farmers. There are various online networks where beginning farmers can find such hands on opportunities; one of these is the National



Nicole Jarvis and Cale Nittinger (not pictured) both attended the University of Montana and began learning about agriculture at the PEAS Farm.



Kaly Hess walks between long rows of peppers at Harlequin Produce in Dixon. Kaly and her partner, Brian Wirak, both attended MSU's College of Agriculture.

Sustainable Agriculture Information Service, which lists farm internship opportunities nationwide.

Currently in Montana a number of farmer resources and advocacy groups exist including Alternative Energy Resources Organization (AERO), Grow Montana, and the Montana Department of Agriculture. In addition, there are a variety of other organizations founded around specific farming interests, from organic production to raising cattle on short grass prairie. These organizations can provide important community support for new farmers and also present opportunities for mentorship relationships between experienced farmers and beginning farmers. Agricultural groups should work to facilitate the formation of these important mentor-mentee relationships.

Concerns about growing new farmers are relatively new and programs that offer various forms of assistance to new farmers are only slowly being developed and implemented. In the fall of 2009 the U.S. Department of Agriculture dispersed \$19 million in grant money through the Beginning Farmer and Rancher Development Program. This money is available to groups initiating programs aimed at new farmers. From Vermont to Washington, Iowa to North Carolina, new farmer education and outreach programs are growing. Often these site-specific programs offer multiple resources to new farmers such



Hands on educational training can be found by interning on farms. Anna McHugh worked at Foothill Farm for a season before heading to the Center for Agroecology and Sustainable Food Systems at the University of California, Santa Cruz, where she continued her agricultural education.



Nate Powell-Palm does not come from a ranching family. He has found support and mentorship from the sustainable farming group AERO and from a neighbor who has ranched most of her life.

as business planning and management courses, hands-on training in cultivation, and community building and networking.^{xi} Montana lacks an umbrella organization dedicated to new farmers. Such a group could network new farmers, advocacy, policy and community building organizations, and mentors together to share information about the kinds of resources and education available to new farmers. Such initiatives exist in others states already: Next Generation and Beginning Farmer Program, both in Iowa; Center for Rural Affairs' Beginning Farmer and Rancher Opportunities in Nebraska; and Beginning Farmer Land Access Program in Vermont.^{xii} Montana could look to these organizations as it begins developing a new farmer organization.

Other Factors

To better understand new farmers it is necessary for more research to be done. Much of the existing work focusing on new farmers often groups all farmers together, regardless of farm size, the product being raised, and regional differences. Research that is more targeted at sub-groups of new farmers could help identify the specific needs of each group. For instance understanding the challenges as well as strategies for the success of small, direct market farmers and organic growers will help guide the creation of educational and financing programs aimed at this expanding portion of the agricultural community. In addition, further research could make distinctions between the different challenges and factors for success relative to the livestock and crop growers that make up the majority of the growers in Montana.

Finally, many of the farmers I talked with also pointed out their role in educating customers about the value of food. New farmers may have difficulties accessing land, poor return for their products, and few business training opportunities, but the challenges associated with starting a farm will only truly be addressed through a sea change in the way consumers view food, farming, and agricultural economics. Our dependence on and acceptance of cheap food is surely at the heart of the issue. Only 9.8% of an Americans' income goes to food purchases, and in general farmers receive only 19% of the market price of their goods, a downward trend. In 1982 farmers

received 33% of market price.^{xiii} Though the aforementioned resources and programs can help new farmers, until we begin to value agriculture and the role it plays not only in feeding us but also in the social fabric of rural and urban life, the barriers to successfully starting a new farm enterprise will not diminish.

Conclusion

Montana has a burgeoning group of new farmers, both those starting from scratch as well as those returning to family operations. To make growing food an economically and socially sustainable occupation—one that can generate enough income to support families and one that doesn't exhaust farmers—and to assist farmers with the start-up costs associated with farming, it is essential that government and other organizations address the special needs of this group. In order to support these farmers Montana will need to further develop financing programs, educational curriculum, and outreach methods. Now Montanans have the opportunity to evaluate what other states and organizations are doing to support their new farmers and build on those ideas to form programs that will work in our unique climate, terrain, and communities.



Cultural demand for cheap food lies at the heart of many agricultural issues. Small-scale farmers have to be creative and smart about what they grow and how they get it to their customers in order to make money.



Mariann Van Den Elzen of Field Day Farms sees educating her customers as one of her greatest responsibilities. She encourages customers to come to the farm to learn about the work that goes into growing food.

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