



BIODYNAMIC FARMLAND CONSERVATION TRUST, INC.

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NEWSLETTER

FEBRUARY 2015

APPRENTICE PROGRAM

We Train Them To Leave

Someone asked me this year, "How do you deal with losing quality people all the time?" Obviously if we were just in the business of vegetable production, our goal would be to retain all of our employees. But what we do is the business of training. And in that business, it's integral to encourage our participants to move on to where they can use what they have learned in pursuit of their own projects. So I don't like it, but I rationalize that it's part of the plan. And besides, once these quality people leave, new quality people come, who we will train, who will then hopefully leave to use the skills they have gained. And so on. So, we knew this past season would be a "leaving year" since we only welcomed one new member to our staff, as Jake and Will returned as apprentices (and Zoe returned to become our 8th Assistant Manager).

When apprentices return to the farm for a second season they are encouraged to take on management areas at the farm (in addition to the usual tasks performed by all apprentices). Jake Mazar took on the management of our greenhouse seedling production and field planting. His tractor work was spent making stale seed beds, operating the spray rig, and making compost using the JD 2355 and Hesston

see "Apprentice," p.8

WHAT'S HAPPENING AT BROOKFIELD FARM

Production Up. Outreach Out!

The view from the office now is all white. Snow piled upon snow upon ice upon frozen ground. With everything in a state of suspended animation, before the new growing season is ready to be unfurled before us, now is a good time to rest and reflect. From this vantage point, last season is a bit like a dream.....I remember harvesting lots and lots of carrots in the fall, and I remember buckets upon buckets of potatoes, and bin upon bin of winter squash, but sometimes I don't remember all of the details. So to help jog my memory, I spend the months of December and January trying to get a handle on everything that happened on the farm since the time when we fired up the greenhouse heater and put the first hopeful seedlings in the first hopeful pots of soil mix in Mid-March.

When I start going over these numbers and papers and emails and calendar entries, I'm a bit tired. I've just helped pull over one-quarter of a million pounds of vegetables from the earth. After having sowed those seeds, and planted those seedlings, and tended those growing plants, it's a bit of a chore to keep my eyes open. So it takes a little while to get it all done. After staring at numbers on a computer screen for a few hours, my eyes start to shut, and my head starts to bob, and then I take a little nap

see "Farm," p.6



GET A HAMMER AND A NAIL

Improvements Abound



This year we continued to make numerous improvements to our fine collection of vegetable production, harvest, and distribution tools. We replaced our plastic mulch layer, our potato planter, our worn out harvest trucks. We bought our first equipment trailer, which will help us move materials around the farm and make it easier to purchase future tools and supplies.

We put money into displays in our farm shop. We have always want-

ed a glass-front display freezer so that we can sell our own meat, as well as from our neighbors, raising pastured beef, chicken, and pork. And our bread rack was old and hard to clean (wood), so we replaced it with a shiny metal rack instead.

And in our biggest purchase of the season, we upgraded our plow truck. This one not only has working heat, but it also has a dump body. In addition to clearing snow from our parking lot for the winter share, this truck allows us to haul stones to repair our roads and firewood to help us keep our woodstoves filled. It's a big improvement from the days of plowing snow with a scraper blade on the back of the tractor.

Importantly, all of these purchases were made using funds that the Trust has set aside for capital improvement. Every year the farm borrows money from this fund and pays it back to the Trust at a rate of 3% over 5 years. This has enabled us to purchase over \$200,000 worth of equipment while keeping the fund at roughly the same balance (\$30,000) over the past 9 years.

We also kept up with buildings and grounds improvements to keep our farm humming along. We re-skinned the middle fieldhouse and put a new railing on the outside staircase at the barn. We painted the interior of the apprentice house and installed a new roof on our woodshop. And we continued the process of dealing with the birds



in the farm shop by installing soffits on the main barn.

And in our biggest project of the year, we (Dan and Board Member Jen Veshia) wrote and were awarded a grant to make our walk-in cooler more energy efficient. Through a REAP Grant (Rural Energy for America Program) we will add insulation and new energy efficient refrigeration equipment to our walk-in cooler. Considering this cooler is the single biggest user of electricity on the farm, making gains in efficiency in this area will go a long way towards making our farm more efficient and give us an overall smaller carbon footprint. This work will be done by May of 2015.



BIODYNAMIC FARMLAND CONSERVATION TRUST (BFCT), INC.

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Abbe Vredenburg	Administrator
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BFCT NEWSLETTER FEBRUARY 2015, VOL 29, #1

Writer/Designer - Dan Kaplan
(except where noted)

The **BFCT NEWSLETTER** is published once yearly
(February) by the BFCT, Inc.

WISH LIST

New Road Signs
(Bay & Hulst Rd)

12 passenger van
for the weeder crew

ANIMALS ON THE FARM

Our Cows Are Key To Our Sustainability



It's not all vegetables out here on our farm. We have always felt that the interplay between plant and animal is an important aspect of our overall farm health. Our herd of beef cattle spent last winter in the barnyard at Snyder Farm. They ate hay (that was grown on our neighbors fields on Southeast St) and left us over 50 tons of manure in the barnyard. They went onto the pastures late (at the end of April, due to the cold spring) and spent the growing season grazing the fields at Snyder Farm.

Seven calves, separated from their moms in June, were raised in Hubbs' pasture next to our West Field. In the fall, those calves moved to the North Field at Small One's Farm on Middle St. where they ate the residue from the cover crop on that field. At the end of the growing sea-

son, the brood cows birthed seven healthy calves. We brought four 18-month old steers to the butcher in October and then consolidated all of the remaining animals in the beginning of December. By the end of the year, the herd stood at eight moms, three yearlings, and seven new calves; All happily eating hay again in the barn yard at Snyder Farm.

Before we brought them back into the barnyard, we spent a day cleaning out last years manure/hay deposit. We shoveled out the barn, and then used the bucket to scrape the barnyard and make a great compost pile – about 60 tons – next to the barnyard. This will be ready to spread in the spring. We also received about 100 tons of compost from Cooks' Farm (Hadley MA) and about 100 yards of leaves from the town of Amherst. We turned this into about 140 tons of compost that was then spread onto our vegetable fields this season (see below). All of this compost represents one of the tangible benefits of our cattle herd to our overall farm health.

Not only are there thousands of pounds of nitrogen for our plants, but there are also soil building micronutrients and micro-life that help ensure our soil is able to grow nutrient rich plants year after year after year.



SPREAD THE WORD

Straight From the Field



This year we opened our farm up to many school groups. Hartsbrook High School brought their 10th graders for a series of work visits where we talked about topics of seasonal, agricultural importance to our work. Kathleen Maiolatesi brought her Sustainable Ag and Politics of Food classes from HCC to the farm for a couple of visits in the fall. The Pepin Elementary School Afterschool, Crocker Farm Kindergarten, and Wildwood Kindergarten brought students for field trips in October. Zoe visited Holyoke HS, and Leila went to the Common School for classroom presentations.

We were partners in a successful 21st Century Grant with the Amherst Middle School and Seeds of Solidarity. This grant has created an afterschool program centering on many facets of food – production, nutrition, cooking, etc. Funding for this grant will go towards supporting us to be a site where students from the Amherst Middle School can come afterschool on a regular basis to experience food production.

We gave farm tours to the Institute for International Training and Development, the NOFA summer conference, the Farm School apprentice program, a Pakistani exchange summer program at UMASS, and the Sustainable Agriculture Program from the University of Kentucky.

Farmers consulted us about purchasing new farms, assessing new building, and thinking about apprentice programs. We were consulted by researchers and organizers about land tenure models, farm-to-school programs, and accessible gardening. And we were consulted by project organizers about developing a new public/private growing project in Amherst and reviewing a long-term lease proposal for an existing agricultural project in Northampton.

We gave workshops and presentations throughout the year. Dan presented a talk about how he became a farmer at Amherst Live in January and then made a presentation about the origins of the CRAFT program at the first-ever National CRAFT Meeting later that month. He also presented workshops on “Organic Pest Control” at the Hadley Garden Center in March, on “Crop Planning using Excel Spreadsheets” at the NOFA Conference in August, on “Farm Labor Management” at the Stone Barns Center in September, and on “Farm Success” at the Penn State Extension Vegetable Farmers Intensive in December.

We continued to use whatever resources we could afford to support our local community. We donated plants to Gardening The Community and greenhouse space to the Hartsbrook School. We donated vegetables to silent auctions for various community groups (Family Outreach of Amherst, Amherst Ballet, etc), to the

NOFA Conference, the annual dinner for CISA, Leverett Elementary School’s 6th grade greenhouse fundraiser, and the Free Harvest Supper in Greenfield MA. Jessica Harwood, at Rachel’s Table in Springfield, arranged for over 1000 lbs of produce to be gleaned from our fields and distributed to food pantries in the greater Springfield area.

We responded to a host of inquiries this year: newspaper writers, grant applicants, grad students, and radio talk-show hosts who wanted our opinions, supporting letters, or experiences to help them with their productions. And, in the most involved request of the year, we were included in a successful National Science Foundation grant, which is a collaboration between UMASS, Holyoke Community College, and Hampshire College. We will be a host site and will attempt to bring skill training in sustainable energy use on farms.



GIFTS THAT KEEP ON GIVING

Generosity Flows From All Corners

This year was marked by a big surprise increase in gifts to the farm from multiple sources. For the past 10 years we have managed a modest Annual Fund to help support the outreach work that we do on the farm. When we have kindergarten classes come out to the farm for a field trip, or when we host the UMASS sustainable ag students for a tour, we don't charge for these services. Our plan is to recoup some of the costs by soliciting small donations from our mailing list of supporters (the Annual Fund). This year we augmented this appeal by participating in an online philanthropy event – Valley Gives Day. We thought it would be mainly good for the farm to join in among the 463 non-profits



SPECIAL THANKS TO

❖ **Ken Dziuba (our mechanic)**
for donating a 1990 GMC
pickup truck

❖ **Elizabeth & Paul Sustick** for
donating a smoker BarBQ grill

develop our story and share this with a wide group of potential supporters. We also didn't realize that this would be a significant source of income for the farm. If you look at the combined results of Valley Gives Day and the Annual Fund, we saw increases in every aspect of donations to the farm. In addition, this activity spurred other giving: While 30% of Valley Gives Day donations were

trying to raise awareness for their charitable work around the Pioneer Valley. We didn't realize it would be a great way to develop our own communication around and commitment to this aspect of our work. Through emails and social media we were able to develop our story and share this with a wide group of potential supporters. We also didn't realize that this would be a significant source of income for the farm. If you look at the combined results of Valley Gives Day and the Annual Fund, we saw increases in every aspect of donations to the farm. In addition, this activity spurred other giving: While 30% of Valley Gives Day donations were from past annual fund donors, 30% were new donors.



In addition to these solicited donations for our active outreach work, we also received

some incredible unsolicited donations this year. In June we received an unrestricted anonymous donation of \$10,000 from the Tides Foundation (San Francisco CA). This donation can be used for any activity at the farm. We want to make sure that whoever was responsible for this incredible gift understands how appreciative we are for this support for our work.

Food production is the basis of our activities on the farm. It's the reason we are doing what we are doing. But we have always hoped that through the production of food the farm could also become a site for other events – both food and non-food related.

This year we were lucky enough to employ the talents of Tamsin Flanders as our Events Coordinator. She used her talents to continue many of our traditions, as well as create some new ones. We started the year with about 25 people who helped us plant the accessible garden and clean up the Farm Shop to get ready for the CSA season to begin. In July we had a great Garlic Harvest where we brought about half of our crop from the field to the barn. Then in mid-August we brought back the corn roast, added some music (Anchordog, Trailer Swift, the No-No's)

and even some stand-up comedy (Pete Mclean!) and had around 200 people for a big farmyard potluck dinner. We picked pumpkins in September, and told stories around the fire while popping garlic on a cool October night. And then ended it all with a giant Harvest Dinner potluck celebration in November.

In addition, there were many events that other people brought to our farm. Rosie Pearson once again celebrated the New Year with a Beating of the Bounds around the perimeter of our patch of earth. The rink builders had a great rink in Jan & Feb of 2014. We co-sponsored the Full-Belly Benefit Dance Party where we raised over \$2800 for local food security. John Root gave a workshop on Wild Edibles around the farm. Our weeder-leader, Erin Ferrentino had three food-preservation workshops in the fall. And Rosie continued her now-traditional, 13th Annual Art Behind The Barn, filling our back porch with artisans of all kinds.

Low-Income Share Fund Established!

In June one of our shareholders gave us a gift of \$5000 to start a new fund to subsidize shares for people who otherwise couldn't afford it. We were able to match half of this donation during Valley Gives Day, bringing it to \$7500. We hope to continue to develop this gift as a way to increase participation in our CSA to people who would otherwise be unable to join us and share the harvest.

PARTY TIME

All Work and No Play....

“What’s Happening ,” con’t.

and start all over again. But eventually this reporting is done, and a much clearer picture of the past season begins to emerge. Before it vanishes in the sands of time, I commit it to a word document, and many excel spreadsheets. Then I present that tome to our Board of Trustees, and they acknowledge reading it! At that point, just before moving on to next year, I want a chance to share it with you – and this is what you have before you now.

Overall, I would have to say 2014 was a great year on the farm, in some ways that were predicted and some that were surprising. We had our share of difficulties, but we also had many experiences that went beyond our wildest dreams. We had one of our best overall production years – 284,703 lbs – but we also lost all of our main-season tomatoes to blight. Our overall share renewal rates were up, but our waiting list numbers were down. We purchased a beautiful new plow truck to keep our parking lot clear in the winter, but we had to replace our well pump on our main irrigation system. Regular expenses were up, but we received un-solicited gifts which offset these cost increases. And we were the recipients of three grants which will help with infrastructure improvements, as well as educational outreach work.

None of this could ever be dreamed about without the continued contribution and commitment of shareholders, donors, friends, and relatives who support us financially, emotionally, and spiritually. I am quite sure that the most important work we do on this farm is stewarding our relationship with our supporting community of eaters, cooks, nature-lovers, parents, seekers, children, activists, sisters, etc. For this we thank you, as always, and hope that through the following pages you can get a glimpse of some of what your contributions have helped to grow and nurture in the past year.

- Farmer Dan (for Karen, Abbe, and Zoe)

OUR FARM YEAR

By The Numbers

Vegetable production overall was excellent this past season, with record strawberries followed by the best fall and winter crops in our history. Many of our crop improvements showed obvious success. A cool summer made for low yields on fruiting crops, and the biggest exceptions to our abundant season, were our field tomato crop, destroyed by late blight and our basil crop, ruined by downy mildew.

Our overall production was up 8% from 2013 and 7% higher than our 10-year average (267,000). A cool wet spring, which slowed everything down, really brought on the strawberries and greens to

Vegetable Production 2014

		per	2014	2013
	TOTAL	Unit share	(LBS)	(LBS)
BEET	7410 LBS.	14.3	7410	4945
BEET W/TOPS	2120 BU.	4.1	2120	1844
BITTERMELON	0 LBS.	0.0	0	0
BROCCOLI	4495 LBS.	8.5	4495	4760
BRUSSELS' SP.	1230 PC.	2.4	1230	960
BRUSSELS' SP. TOPS	345 LBS	0.7	345	205
CABBAGE	14429 LBS	22.9	14429	14215
CABBAGE, CHI.	1450 HDS.	2.8	4350	5970
CANTELOUPES	1620 PC.	3.1	8100	6850
CARROT	29610 LBS.	46.9	29610	16040
CARROT W/TOP	2045 BU.	3.9	2045	2967
CAULIFLOWER	2985 LBS.	5.7	2985	3215
CELERIAC	4270 LBS.	7.5	4270	1580
CELERY	1990 PCS.	3.8	1990	0
CHARD	3025 LBS.	5.8	3025	1525
COLLARDS	1295 LBS.	2.2	1295	805
CORN	1677 DZ.	3.2	11739	14420
CUCUMBER	4340 LBS.	8.3	4340	2460
EGGPLANT	1630 LBS.	3.1	1630	3550
ESCAROLE	500 HDS.	1.0	500	705
FENNEL	1025 PC.	2.0	1025	745
GARLIC	1138 LBS.	2.2	1138	1320
GARLIC SCAPES	280 LBS.	0.5	280	280
GREENS	5465 LBS.	10.4	5465	5570
KALE	7785 LBS.	13.7	7785	5383
KOHLRABI	810 LBS.	1.6	810	246
LEEK	10175 PC.	15.0	10175	6675
LETTUCE	9252 HDS.	17.8	9252	9937
LETTUCE	3955 LBS.	7.6	3955	3040
OKRA	17 LBS.	0.0	17	135
ONION	10295 LBS.	19.8	10295	8615
PARSNIP	2830 LBS.	3.6	2830	3530
PEPPERS, HOT	910 LBS.	1.8	910	640
PEPPERS, SWEET	3195 LBS.	6.1	3195	3185
POTATO	18415 LBS.	35.4	18415	13930
POTATO, SWEET	2875 LBS.	5.5	2875	5975
RADICCHIO	1085 LBS.	2.1	1085	405
RADISH	1740 BU.	3.3	1740	1543
RADISH, DAIKON	3625 LBS.	7.0	3625	920
RADISH, STORAGE	1335 LBS.	2.6	1335	150
RUTABAGA	3100 LBS.	5.7	3100	400
SCALLION	3085 BU.	5.9	3085	3222
SPINACH	1675 LBS.	3.2	1675	2002
SQUASH, SUMMER	4665 LBS.	9.0	4665	4410
SQUASH, WINTER	29100 LBS.	56.0	29100	28500
TOMATOES	5040 LBS.	9.7	5040	13660
TURNIP, HAKUREI	1080 BU.	2.1	1080	1031
TURNIP	3540 LBS.	2.8	3540	2420
WATERMELONS	9290 LBS.	17.9	9290	13100

	2014	2013	% dif last year	% dif 10 yr avg
Total Production				
total lbs (including PYO)	284703	263013	8%	7%
total lbs. (no PYO)	253015	228325	11%	9%
winter share production	48215	34688	39%	36%
acreage planted	30.3	30.1	1%	3%
crops planted	63	61	3%	9%
Distribution Comparison				
total lbs per share	363.0	343.5	6%	-4%
cost per lb. share	\$ 1.53	\$ 1.62	-6%	15%



start. But that same cool damp weather made for some difficulties with our fruiting crops. We never had our usual glut on our summer squash or cucumbers. The eggplant and peppers were never consistently abundant. Without a long stretch of really hot weather we didn't have much swimming of any kind this summer (either in the lake or in the zucchinis).

We particularly felt the sting of the cool damp summer in our field tomato & basil crops this year. The tomatoes, after just a week of wet weather, quickly succumbed to late blight despite our attempts to protect them with elemental copper. We have been spared the worst of this since 2009 (when we last lost our entire crop), even though other farms in the area have had some troubles. But this year we were the earliest and hardest hit of any farm we know. This disease is so tough to deal with because of how quickly and strongly it comes in when it finds you. We think the key to this for the future will be relying on disease resistant varieties, which are now starting to become more readily available.

As for the basil, this has been a growing problem on farms in the northeast for the past 2-3 years, but we haven't had it so bad in the past. The basil gets a greyish mold on the underside of the leaves (downy mildew) and then it can't photosynthesis effectively so it becomes quite stunted. Unfortunately, at this time there are no currently known remedies or actions (either organic or chemical), with the exception of growing the basil in a greenhouse and changing the air every couple of hours. We might experiment with this in a field house this coming summer.

Our only other real problem for our growing season was our irrigation pump breaking just as we planted our tender sweet potato plants. We were experimenting with growing these on plastic mulch, to increase the heat (and the yield), but that means they need to be watered-in soon after planting. It took a week for our irrigation well to be repaired and in that time we lost half of our seedlings.

On the positive side, that same cool, damp summer, brought our fall crops into a terrific growing pattern. Follow that with a glorious dry fall with a very late frost, and we had bumper crops of almost all of our autumn specialties. Leeks, onions, potatoes, celery, celeriac, broccoli, cauliflower, and cabbage were all abundant this fall. And our carrot yield was "off the charts" – weighing in at just over 29,000 lbs (beating our previous record of 20,000 lbs by a mile).

Agriculture Flourishing In Pioneer Valley!

*In the past 5 years
(according to the 2012 Ag Census)*

agricultural **land** in production has **increased by 8.7%**
(+11,502 acres)

agricultural **value** of product sales has **increased by 30%**
(+\$ 11 million)

-reported by Daily Hampshire Gazette, May 15, 2014

Some of the changes we made to our growing techniques really paid off this year. We increased late summer production of cutting lettuce. We replanted our strawberries to a spot that hadn't had any disease pressure, and got ourselves a bumper crop. We released predatory wasps (*pediobius*) earlier into our bean patch and had great success with no bean beetle damage. And we reduced the amount of time some of our greenhouse seedlings are grown for, making for overall healthier plants going into the field.

As you'd expect – when production is up, so is the volume of our CSA shares. Our overall share size (Boston and On-Farm Pickup) was up 5% from 2013. With the same price from a year ago, this meant that the overall cost of the share (per pound) was down. This year our Boston-area share had 363 lbs, which is \$1.53 per pound. We feel that there are many (non-monetary) values for purchasing a CSA share. We also think that it's good to know what the monetary value of the share is from year to year, so that we can compare that to the general marketplace. Whatever way you slice it, by numbers this was a great season of growing.

Farm Finances Looking Good

Overall, this year we had a positive net profit as our income was up and our expenses were level from 2013. This positive cash-flow resulted in our ability to fully pay back all loan commitments this year, leaving us in good financial position, as well as a much better operating position, with equipment and building improvements. This has helped our balance sheet continue to show signs of overall health. Our long-term liabilities are down (-3.5%) and our total equity is up (8.9%)



loader (see p.3). Will Van Heuvelen spent his second year managing our livestock as well as our daily harvest. His tractor work was focused on plowing and harrowing the 30 acres we used for vegetable production as well as putting all of our seeds in the ground with our Allis Chalmers G tractor. In addition, Will and Jake decided to learn about running a business together by operating a pastured poultry venture –where they raised, slaughtered, and sold over 600 birds on our pastures through our farm shop. They did this all on their free time. They didn’t make much money, but they learned a lot about production, housing, slaughtering, health department regulations, and so much more.

It took a special person to come into this returning group, so we were glad to welcome Leila Tunnell in April. She had previously worked at Red Fire Farm during the fall season after transitioning from her work as a music teacher in NYC. She is also an accomplished Ultimate Frisbee player, having played at the highest level of the sport

groups.

Each of our apprentices were also involved in all aspects of the production of over 250,000 lbs of vegetables on 30 acres of crop land. They were by turn greenhouse propagators, vegetable planters, shopkeepers, delivery drivers,

and harvest crew members. All season long this on-the-job learning was supplemented through our participation in the CRAFT Program (www.craftfarmapprentice.com), which offers our apprentices 10 farm visits on various sustainable ag topics, giving them a chance to see how different farms solve similar problems, and to create a peer group with 40 apprentices from the other 15 participating farms. And in the fall, once the winter squash is in the greenhouse, we begin to have weekly sessions to go over a variety of farm business management topics – how to create a budget, how to read a financial statement, how to manage a website, how to plan for vegetable production, how to create a daily task list, among others.

And as we expected, Will and Jake (along with Zoe, who will also be working half-time as our assistant manager next season) are starting a new venture – Wheelhouse Farm - which is aiming to be a sustainable community farm in the Franklin

county area. As for over a decade. She brought all of these experiences and wanted to learn all about our farm; how we grow vegetables, care for animals, manage labor, prioritize tasks, and run our CSA. She hoped that she could get a complete season on the farm and play a little frisbee as well. Over the course of the season Leila spent her tractor time learning how to make planting beds, plant all of our seedlings, lay plastic mulch (Landini 5860), and was responsible for cultivating our most finicky plants (onions, carrots, greens) that are very small and grow very slowly at first, with our other Allis Chalmers G. She also began managing some of our daily harvest and Boston distribution during the fall season. She also played Ultimate with Brute Squad (Boston), going all the way to the National Club Semifinals in October. Leila has decided to return to the farm in 2015 and hopes to focus on primary tillage, making compost, greenhouse management, field planting management, harvest management, and interfacing with school

As a first step they are starting a food truck in 2015, preparing fresh, local food from the farms in our area for events near and far. Look for their kickstarter video coming soon! So, yeah, it’s hard when





PEOPLE YOU'LL MEET

The Harvest Crew

Sometimes we make plans. We see a need, and then we have an idea and then make that idea come to life. Other times, plans are made for us, and we just have to be smart enough to open our eyes and try to adjust our thinking to reality. For years, our neighbors, our kids, and their stray friends would ask if they could help on the farm. If they were too young to be on the Weeder Crew we would tell them they could help us harvest vegetables. We didn't think 14 year-olds would really be able to stay focused for 4 long hours of crawling on their hands and knees, pulling weeds in the hot sun. Better to have them struggle with bunching scallions under our watchful eye!

Well, these kids kept coming back for more, summer after summer and eventually we had a big pack of them out there. We didn't pay them much, but enough that it was starting to add up. And more importantly they returned year after year, so new kids couldn't get any opportunities. So, we finally decided to deal with this reality and change our practices. First, we decided that if you were finished with 10th grade, you were finished with the Harvest Crew (you would be offered a job on the Weeder Crew (see the picture below - Drew, Jesse, Sarah, and Jacob). For new recruits, if you were finished with

8th grade you could be hired for the Harvest Crew, on a trial basis - 3 days a week, for 3 weeks maximum. After 9th grade you would be eligible for more weeks during the growing season.

This season we had 6 new members of our Harvest Crew (Caleb Kennedy, Alex Howe, Josh Dobrow, Emilia Aiken-Hafner, Oliver Noyes, and Avery Clotfelter) who joined our two "old hands" – Noah Zobel and Ryan Dinger. These folks did learn how to bunch scallions, as well as how to harvest cucumbers, tomatoes, lettuce, zucchini, and much more. They learned how we wash vegetables after harvest and how they get stored in the cooler. More importantly, many had their first work experience outside of the home. We know that it is increasingly difficult for kids to find summer jobs and we want to provide that opportunity. Hopefully by changing things up a little bit we will ensure that increased interest in our positions won't stop us from getting more kids involved in years to come.

SPECIAL THANKS TO OUR FANTASTIC VOLUNTEERS

❖ **Brittany Luvera, Maya Novisky, Angela Oldham, Michele Emanation** for helping in the greenhouse, field, and perennial garden

❖ **Peter Aronson** for helping wash vegetables and lugs nearly every day of the harvest season!



FOOD FOR THOUGHT

How the Great Food War Will Be Won

By Jonathan Latham, PhD

Of all the (many) articles I have read in the past year about sustainable agriculture, this one stands out as the most controversial and challenging. If you believe the author, you can both have more hope for the future, and more fear that we have a very big (and different) fight on our hand (than we once thought). What do you think?

By conventional wisdom it is excellent news. Researchers from Iowa have shown that organic farming methods can yield almost as highly as pesticide-intensive methods. Other researchers, from Berkeley, California, have reached a similar conclusion. Indeed, both findings met with a very enthusiastic reception. The enthusiasm is appropriate, but only if one misses a deep and fundamental point: that even to participate in such a conversation is to fall into a carefully laid trap. The strategic centrepiece of Monsanto's PR, and also that of just about every major commercial participant in the industrialised food system, is to focus on the promotion of one single overarching idea. The big idea that industrial producers in the food system want you to believe is that only they can produce enough for the future population (Peekhaus 2010). Thus non-industrial systems of farming, such as all those which use agroecological methods, or SRI, or are localised and family-oriented, or which use organic methods, or non-GMO seeds, cannot feed the world.

To be sure, agribusiness has other PR strategies. Agribusiness is "pro-science", its opponents are "anti-science", and so on. But the main plank has for decades been to create a cast-iron moral framing around the need to produce more food (Stone and Glover 2011).

Therefore, if you go to the websites of Monsanto and Cargill and Syngenta and Bayer, and their bedfellows: the US Farm Bureau, the UK National Farmers Union, and the American Soybean Association, and Crop Life International, or The Bill and Melinda Gates Foundation, The Rockefeller Foundation, USAID, or the international research system (CGIAR), and now even NASA, they very early (if not instantaneously) raise the "urgent problem" of who will feed the expected global population of 9 or 10 billion in 2050.

Likewise, whenever these same organisations compose speeches or press releases, or videos, or make any pronouncement designed for policymakers or the populace, they devote precious space to the same urgent problem. It is even in their job advertisements. It is their Golden Fact and their universal calling card. And as far as neutrals are concerned it wins the food system debate hands down, because it says, if any other farming system cannot feed the world, it is irrelevant. Only agribusiness can do that.

The real food crisis is of overproduction

Yet this strategy has a disastrous foundational weakness. There is no global or regional shortage of food. There never has been and nor is there ever likely to be. India has a superabundance of food. South America is swamped in food. The US, Australia, New Zealand and Europe are swamped in food (e.g. Billen et al 2011). In Britain, like in many wealthy countries, nearly half of all row crop food production now goes to biofuels, which at bottom are an attempt to dispose

of surplus agricultural products. China isn't quite swamped but it still exports food; and it grows 30% of the world's cotton. No foodpocalypse there either.

Of all the populous nations, Bangladesh comes closest to not being swamped in food. Its situation is complex. Its government says it is self-sufficient. The UN world Food Program says it is not, but the truth appears to be that Bangladeshi farmers do not produce the rice they could because prices are too low, because of persistent gluts. Even some establishment institutions will occasionally admit that the food shortage concept – now and in any reasonably conceivable future – is bankrupt. According to experts consulted by the World Bank Institute there is already sufficient food production for 14 billion people – more food than will ever be needed. The Golden Fact of agribusiness is a lie.

Truth restoration

So, if the agribusiness PR experts are correct that food crisis fears are pivotal to their industry, then it follows that those who oppose the industrialization of food and agriculture should make dismantling that lie their top priority.

Anyone who wants a sustainable, pesticide-free, or non-GMO food future, or who wants to swim in a healthy river or lake again, or wants to avoid climate chaos, needs to know all this. Anyone who would

like to rebuild the rural economy or who appreciates cultural, biological, or agricultural diversity of any meaningful kind should take every possible opportunity to point out the evidence that refutes it. Granaries are bulging, crops are being burned as biofuels or dumped, prices are low, farmers are abandoning farming for slums and cities, all because of massive oversupply. Anyone could also point out that probably the least important criterion for growing food, is how much it yields. Even just to acknowledge crop

yield, as an issue for anyone other than the individual farmer, is to reinforce the framing of the industry they oppose.

The project to fully industrialize global food production is far from complete, yet already it is responsible for most deforestation, most marine pollution, most coral reef destruction, much of greenhouse gas emissions, most habitat loss, most of the degradation of streams and rivers, most food insecurity, most immigration, most water depletion, massive human health problems, and so on (Foley et al 2005; Foley et al 2011). Therefore, it is not an exaggeration to say that if the industrialization of food is not reversed our planet will be made unlivable for multi-cellular organisms. Our planet is becoming literally uninhabitable solely as a result of the social and ecological consequences of industrializing agriculture. All these problems are without even mentioning the trillions of dollars in annual externalized costs and subsidies (Pretty et al. 2000).

So, if one were to devise a strategy for the food movement, it would be this. The public already knows (mostly) that pesticides are dangerous. They also know that organic food is higher quality, and is far more environmentally friendly. It knows that GMOs should be labeled, are largely untested, and may be harmful. That is why the leaders of most major countries, including China, dine on organic food. The immense scale of the problems created by industrial agriculture should, of course, be understood better, but the main facts are hardly in dispute.

There is no global or regional shortage of food. There never has been and nor is there ever likely to be.

FRIENDS AND NEIGHBORS

Mi Tierra Tortillas (by Zoe Abram)

Mi Tierra tortillas were our best selling new farm shop item this year. Roast or sauté a mix of vegetables, add cheese, salsa, and there's dinner! What's the secret to such a good tortilla? The answer is simple, according to Jorge and Dora Sosa, who co-own the tortilla business with Michael Doctor of Winter Moon Roots. The secret is making nixtamal – cooking corn with lime, before rinsing, soaking and grinding.

For such a simple answer, why is it so hard to find good tortillas? The Sosas asked the same question. Originally from Mexico, they never found a satisfying tortilla in the US. They complained about the smell of packaged tortillas found in grocery stores. The pressure to have shelf stable tortillas leads producers to add all sorts of things: most packaged tortillas have upwards of five different preservatives. When they visited a California tortilla factory to research equipment, they noticed all the workers wearing protective gear and learned that the preservatives in most tortillas are highly corrosive to workers skin if handled. So they set off to make a different product: just corn, lime, water. For the corn, they buy local heirloom corn, from Hadley farmer Al Zahowski, and from Maple Grove farm in Ashfield.

The Sosas had recently purchased a tortilla making machine and were poised to begin the tortilla business when a tragic fire destroyed the

machine along with their business and several others in fall 2013. The Sosas had already contracted to buy corn from Zahowski, and though they had no machine after the fire, they honored their commitment and made their tortillas by hand for several months. With funds from Common Capital, a Holyoke-based institution that invests in small Western Mass. Businesses, the Sosas were able to buy new machinery. "To make 3,000 tortillas by hand this winter [before they had the machine] took seven hours and five people," says Sosa. "With this machine, 40 minutes."

Michael Doctor's responsibilities include sales and distribution. Now that the Sosas can make tortillas so fast with their mixers and machinery, sales are growing quickly! In the winter when the farm shop is closed, you can find Mi Tierra tortillas in retail locations state wide. "One thing that motivated me is that this is the next frontier in terms of local agriculture," Michael explains, "For 25 years I've been involved in this thing we call the local food system. Up until recently, this system has mostly been about local vegetables. If we are to expand beyond vegetables to other foods, we need to do it in a way that makes sense ecologically and economically. The truth is that most grains just don't grow well in New England compared to the midwest. Corn is the one exception. Maize has been cultivated here for thousands of years and is well adapted to our messy New England climate."

Since the fire, have there been any challenges? Mi Tierra's challenges



"Food For Thought," cont.

But what industry understands, and the food movement does not, is that what prevents total rejection of bland, industrialised, pesticide-laden, GMO food is the standard acceptance, especially in Western countries, of the overarching agribusiness argument that such food is necessary. It is necessary to feed the world. But, if the food movement could show that famine is an empty threat then it would also have shown, by clear implication, that the chemical health risks and the ecological devastation that these technologies represent are what is unnecessary. The movement would have shown that pesticides and GMOs exist solely to extract profit from the food chain. They have no other purpose. Therefore, every project of the food movement should aim to spread the truth of oversupply, until mention of the Golden Fact invites ridicule and embarrassment rather than fear.

To read the rest of this article (and see the citations) – please go to <http://www.independentsciencenews.org/environment/how-the-great-food-war-will-be-won/>

sound remarkably similar to ours at the farm: they are the challenges of producing a fresh, local product in a world of processed food. There's an urgency to freshness: Mi Tierra's delivery driver leaves for deliveries at 2 am, when tortilla making ends. Recently, Whole Foods decided to move their main tortilla display from the refrigerated section to a dry goods shelf. With no preservatives, Mi Tierra tortillas need to be refrigerated. Luckily, demand for and the uniqueness of their product benefited Mi Tierra. Starting this week, they will be available in the refrigerated section of all the Whole Foods stores in New England.

In this age where our food is more and more processed, how do you eat a real tortilla? We recommend that you store them in your fridge or freezer, and warm them on the stove top for 30 seconds on each side before enjoying. You can also wrap a small stack of tortillas in a damp paper towel and microwave them on medium-power in 30 second increments.



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“Apprentice,” cont.

great people leave. But it’s great when new great people come. And it’s great when great people leave to do great things somewhere nearby. That’s what we mean by an apprenticeship program, anyway, right!?

This year we also heard from:

Caro Roszell (Assistant Manager at Simple Gifts Farm Amhers, MA), **Peter McLean & Tobin Porter-Brown** (Book and Plow Farm, Amherst College), **Aaron Shier** (Agriculture, Food, and Environment program at Tufts U), **Jasper Gardner** (Montpelier, VT), **Erin Roche** (UMaine, veg crop research), **Kerry Manire** (Provider Farm, Salem, CT), **Lisa McKeag** (UMASS extention), **Adan Martinez** (Yale Enviro Grad School), **Danya Teitelbaum** (Queens Greens Farm, Amherst, MA), **Andy Szymanowicz** (Sol Food Farm, Ancramdale, NY), **Chris Babis** (Grad School UNMex Water Resource Management), **Amy Smith** (Heart Beet Organic, Prince Edward Island), **Amy Cloud** (Three Rivers Farm, Elsah, IL – building a new barn!!), **Marc Cesario** (Meeting Place Pastures, Cornwall, VT – welcomed a new baby girl, Normandie in January!),

Jeff Tober (Fernbrook Farm, Bordentown, NJ), **Casey Steinberg** (Old Friends Farm, Amherst MA), **Paul Bucciaglia** (Fort Hill Farm, New Milford, CT, teaching us how to grow eggplant this winter!), **Su Wasseluk** (Nurse Practitioner, Cape Cod, walking the AT in the spring!!), **Jenny Hausman** (Piccadilly Farm, Winchester, NH), **Kate Rossiter** (Northfield, MA), and **Don Zasada** (Caretaker Farm, Williamstown, MA).

