BIODYNAMIC FARMLAND CONSERVATION TRUST, INC.

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NEWSLETTER

FEBRUARY 2017

APPRENTICE PROGRAM

The Next Generation

On the job training? Yes. Farm work? Yes. Business management training? Yes. Interacting with the public? Yes. Learning how to oper-

ate two tractors? Yes. Training in crop planning diversified vegetable farms? Yes. It's a long list, so I'll stop there. But we know why we call what we do an apprenticeship and not a job. We know that in order to be successful our future farmers will have to not only under-



future

stand the information that goes into all of the jobs on the farm, but they will have to know how to do those jobs as well. They will have to know the theory and the practice. But, unlike most jobs, this one demands the skills of a generalist, not a specialist. And for this, we offer diversity of training over specialization of skill development.

With this in mind, we seek people who are interested in getting the training needed to operate their own farms, and put them in situations which will maximize these opportunities. Our apprentices are involved in all aspects of the production of over 300,000 lbs of vege-see "Apprentice," p.8

CTRICK 74

Our year round staff (Zoe, Abbe, Karen, and I) spend the months of December and January trying to get a handle on everything that happened on the farm during the past haze-of-a-growing season: from when we fire up the greenhouse heater (March 14) until the time when we clean out the cow barn at Snyder Farm (December 6). It took a while to get going with recollections this winter, since we had a very busy fall harvest season. We pulled the final beets out of the ground on December 4. We began cleaning up. Zoe put all of the see "What's Happening," p.6

60-year drought in our 30th season - Never a dull moment!

After a very cold December and a mostly warm January, February

began with snow. The view from the office window now seems a lot



WHAT'S HAPPENING AT BROOKFIELD FARM

like winter. Giv-

en how difficult

it is to predict

how much more

of this we will

have, now is a

good time to get

this newsletter

done. I want to get these recol-

lections about

last season on

they disappear

into the mists of

memory as the

new season ap-

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before

paper,



GET A HAMMER AND A NAIL

Continuing to Build Our Capacity To Grow Food

When we budget our finances before the beginning of every season, we make a distinction between the money we will spend on operating and capital expenses. We consider operating expenses to be costs for resources that we will use for one year only. Good examples of these are labor, fuel, seeds, and water. Capital expenses are costs for resources that we will use for multiple years; Tools or improvements that will enable us to produce vegetables (our core product) for years to come. We don't have the cash to purchase every tool or build every building that we would love to have to make growing vegetables easier. We have to set priorities for limited resources. And we have to borrow money. Since 2004, nearly all of these purchases were made using funds that the Trust has set aside for capital improvement. This Capital Account (started from a generous donation from a shareholder, invested wisely by the board, and then set into a very stable fund) is our in-house, investment engine that we use to plan for the future of this project. Every year the farm borrows money from this fund and pays it back to the Trust at a rate of 3% over 5 years. In the typical magic of compound interest, this year we were able to spend \$42,420 on capital improvements, while the capital account increased in value by 1.9% (ending balance: \$37,686). Over the past 20 years we have invested more than \$1,000,000 in our barn, apprentice housing, vegetable production equipment and land maintenance equipment. These investments have made our farm more resilient as it faces an always-uncertain future. This year we saw that plainly as we were able to withstand the 60-year drought without significant financial hardship largely due to investments in wells, ponds, pipes, and sprinklers over the past 2 decades. This season we continued to invest in the future – here's how:

Buildings & Grounds

We had one main focus this year in terms of improvements. That was to improve our overall maintenance plan and perform needed upgrades for the "apprentice house" next to the farm at 20 Hulst Rd. Karen worked as our House Manager to create a clean base-line, clarify expectations for all tenants, and develop a solid verification process for the maintenance of the house. She also identified future improvements that were desired to keep this property in good shape. This year we prioritized replacing all of the windows in the upstairs



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of the house as they were over 30 years old and were poorly insulated and vectors for mold.

Besides the work at 20 Hulst, we also installed a new hose trolley in the greenhouse, began construction of our new hay storage at Snyder Farm, installed new ground cover in our cold frame, and began investigating solutions to the problem of not-cold-enough-falls to get our root cellar ready for carrot storage.

Equipment

We made significant upgrades to important areas of production, distribution, and outreach this season. We finally retired our workhorse cash-register for the farm shop in favor of the-very-up-to-date Square ipad. We completely re-designed our website

WISH LIST

Small pickup truck (ford ranger, chevy s10)early 2000s, low rust, automatic

(thanks Zoe!!) and upgraded our harvest containers. We improved our bed-making system and our ability to control weeds on the sides of our beds mulched with biodegradable plastic. And at the end of the season we purchased new irrigation equipment that will allow us to move more water from our pond, with less labor involved.

Our biggest equipment improvement was the purchase of a precision weeding tool from a company called HAK from Holland. This tool, which was suggested by our past apprentice Paul Bucciaglia, was an absolute game-changer for our production (even though we didn't get it until June). You have to see it to believe it, but we are able to cultivate up to three rows at a time, very quickly, and without doing nearly any damage to our crop. Included in this we are able to get the weeds IN THE ROW, not just between them. Yes, we will still need

SPECIAL THANKS TO OUR FANTASTIC STAFF

Our Adminisrator **Abbe Vredenburg** (22 years and counting!) & **Ken Dziuba** our mechanic for the past 4 seasons.

our weeder crew to get the carrots, onions, etc. But the rest of our crops will be taken care of much quicker with this tool in the future.

PEOPLE YOU'LL MEET

Managerial Triad - Three heads are better than one!!

This was a big year in terms of how we manage our small farm. Zoe settled into her first year as first-permanent assistant manager, solidifying her areas of past management (such as irrigation, greenhouse, planting) and adding new ones as well (on-farm distribution, marketing). Karen's role on the farm became more defined as a manager of distinct areas (20 Hulst Rd, livestock fencing, employee health, events coordinator, and farm shop sales) as well continuing as our crew cook and filling in where necessary. I tried to incorporate these changes in a way that would give over more responsibility, while not losing our operational efficiency and expanding our manager base. Despite the stress caused by the drought (much more work involved in both watering, and the effects of drought-stress on plants and livestock) we had a generally successful first season of trying to expand our long-term employee capacity.

In the coming season we are looking forward to continuing to expand on this successful first year. Zoe has expressed an interest in continuing to deepen her involvement in managing more areas of the farm. And Dan and Karen have expressed an interest in broadening their interests beyond the farm while still maintaining deep and meaningful connection to this project. We have been working since last fall to figure out the specifics of this new configuration and are excited that we are coming up with a great plan for the 2017 season. We will all still be fully a part of the structure, but exact details of day-to-day management areas have not yet been fully defined. Our overall goal is to continue to transfer daily operations and management to Zoe, while Dan and Karen remain in mentorship and training roles, as well as fully trained workers.



Zoe Breaks It Down at the Wheelouse pre-dinner, farm walk

Some changes you will notice right away are that Zoe's job title will now be changed to Farm Manager, to reflect her continued focus on managing everything that goes into managing the day-to-day activities of Brookfield Farm. Dan and Karen will be called General Managers to reflect their continued role in mentorship, oversight, and long-term experience with the entire project. On the more practical side, you will probably see Zoe more in the Farm Shop and hear from her directly in our weekly Shoptalk. You'll still see Dan driving around on tractors and Karen constructing fences in the cow pasture, but you might also see them in town or on the Cape on the weekends!! Overall, we are feeling very fortunate to have such a strong foundation to build both an experienced and youthful leadership team that will work long into the future.



SPREAD THE WORD

Straight From the Field

It has always been an explicit goal of the Trust to use our experiences operating Brookfield Farm to provide as many opportunities for learning about sustainability, food production, energy use, nutrition, and any related topics.

This year we were happy to have our past apprentice, Leila Tunnel, as our "Farm Educator," and connect our farm with various school groups. She once again implemented the 21st Century Grant with Amherst Middle School by hosting after-school farm visits in the spring and fall. In the summer, she ran a series of week-long intensives where students explored the theme of food & health in depth. And in the fall, she ran 8 after-school field trips. In addition, she worked as the Middle School "garden educator," teaching classes, and working on a Farm-to-Cafeteria initiative where she used Brookfield Farm produce to create programming around healthy eating. Leila also coordinated farm visits from the Crocker Farm and Wildwood Kindergartens, who brought students for field trips in October.

In addition, Kathleen Maiolatesi brought her Sustainable Ag and Politics of Food classes from Holyoke Community College to the farm for visits in the fall. The UMASS Sustainability class came out for a one-hour talk about fertility management, and then helped us with the fall harvest of carrots and potatoes. We gave farm tours to the Farm School apprentice program, a Pakistani exchange summer program at UMASS, and the NOFA Summer Conference in August. In addition, Zoe hosted two small groups of students from the Prospect Farm Transitions Program about employment opportunities on

organic vegetable farms. And we hosted groups for community service days, including the Umass Mens Ultimate Frisbee team who gave us a hand with our potato harvest in October.

Farmers sought out our consultation about adding assistant managers, working with non-profit trusts, crop planning, building a dumbwaiter, farm business management resources, relationships between farmers and non-profit Boards of Directors, and annual plans & budgets. We were consulted by researchers about invasive species (autumn olive), post-harvest storage of vegetables, soil nutrients, and farmland habitat for shrubland birds.

We gave workshops and presentations throughout the year. Dan presented a talk about Financial Management for Diversified Farms at the NOFA-MA Summer Conference. Zoe presented a workshop on "Pick Your Own Management" at the NOFA-MA Summer Conference. Dan taught a 1-credit class at UMASS (Stockbridge School) on "Crop Planning for Diversified Vegetable Farms" in the fall, presented a webinar on budgeting and financial management for NOFA MA in October, and spoke to the Holyoke Community College "Food Justice" class about our CSA in October.

We continued to use whatever resources we could afford to support our local community. We donated greenhouse space to the Hartsbrook School and Gardening The Community, our upper & lower fields for Jade Alicandro-Mace's herbalism classes, our entire farm as a site for a photojournalism project, and our farmyard to a local men's group to hold round-the-fire meetings in the evenings. We allowed our main barn to be used by the Pioneer Valley Grain CSA for a distribution in January, Brute Squad (Leila's Ultimate Team) for a team retreat in August, and Wheelhouse Farm to host an on-farm dinner in

October. We donated vegetables to silent auctions for various community groups (Family Outreach of Amherst, Common School, and Community Involved in Sustaining Agriculture) and to the NOFA Conference. We received kitchen scraps weekly from Not Bread Alone to add to our compost area. And, 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.



Zoo Disc comes up big in the potato field!

GIFTS THAT KEEP ON GIVING

Charitable Giving Continues to Increase!

ANNUAL FUND & VALLEY GIVES

\$total gifts (124) +64%\$total dollars (\$12,078) +80%

Once again, we made modest efforts towards asking for support for the outreach work we do around the farm. And once again, those modest efforts reaped greater rewards than we hoped. Share fees pay for the food production at the farm. For

everything else we do – having school groups on the farm, giving workshops at farmer conferences, speaking about our experiences to community college nutrition classes – all of these "outreach" efforts are supported by our Annual Fund and other non-solicited donations which we receive as gifts.

In addition, in May we took part in an online philanthropy event – Valley Gives – to enlarge our reach, by focusing our attention on our "Donor Supported Fund (DSF)." We consider this project another form of "outreach" as it gives access to our CSA shares to people who might have a difficult time affording the cost of our share. We were able to secure matching gifts of \$2500 to support this effort, and with this leverage, we were able to raise a total of \$5931 through 54 individual gifts. This season, we provided 7 families with Donor Supported Shares. The DSF stands at \$7698 at years end, and the gifts this year continued the work of establishing this as an ongoing project.

Thanks for the great signs, Amelia!!



Our Annual Fund, which consisted of a single appeal in November, yielded \$6147, which is 34% higher than our 5-year average (\$5005). Generosity continued to outstrip all previous year. Total donations \$12,078 (32% higher than our previous record). Total Annual Fund Gifts: 82 (15% higher than average). Annual Fund participation: 7.8% (17% higher than average). This year, we not only

SPECIAL THANKS TO

*Amelia Beigel for making us 30 heavy-duty, beautiful Pick Your Own signs as a community service project!

Roberta Lojko for refinishing our farmyard furniture, donating additional chairs, and spiffing up the 20 Hulst Rd landscaping! increased our overall donations, but we increased our pool of recipients for that money. Not only kindergartners, and apprentices, but also financially-struggling families who loved bringing their children to help pick peas at the farm. To all of you who made donations, please be assured as to where they went and that they were gratefully received by all



PARTY TIME

All Work and No Play....

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 Karen was 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 a farm open-house and spring planting day where we showed some new folks around the farm and separated our perennials in the front garden. We had a Solstice Bonfire in June with Wheelhouse Farm truck providing dinner and Karen leading a very enthusiastically-received trail walk. In July we had a great Garlic Harvest where we brought about half of our crop from the field to the barn. In August, we had a new event - "Bike to Brookfield" - a benefit for the rail trail, encouraging people to ride a bike to the farm, find out some great news about pedal power in the valley, and enjoy the Wheelhouse Farm Truck. In September we had a high-energy Pumpkin Harvest Party, but our plans for a potato dig and garlic pop were foiled by rain. Erin Ferrentino had a hands-on fermentation workshop in the Farm Shop in October. We ended up our events season with a high-spirited Harvest Dinner potluck celebration in November where we looked back on our season, gave some special recognition to our neighbor and friend Carol Wood, and looked ahead to some exciting plans for the coming year.

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. After a hiatus of one year, we brought back the Full-Belly Benefit Dance Party in March were over 300 people came out to dance and donate over \$3500 to support local food security at a benefit co-sponsored by over 25 local food-related groups. We were a destination for a "Western Mass Bike Maintenance Party" where participants enjoyed Artifact

Cider in our farmyard after learning about how to care for their bicycles. John Root gave a workshop on Wild Edibles around the farm in June. Wheelhouse Farm Food Truck hosted a series of farmyard dinners in June, July, and August, made a super fancy and delicious meal for 50 lucky people in a nearlyunrecognizable Farm Shop in October.



Karen & friends 'round the bonfire!

"What's Happening," con't.

equipment in the fieldhouse on December 12. I found a little window to install the ground stakes for the new fieldhouse on December 8. Zoe had her vacation. Abbe cleaned up many administrative piles. Eventually, though, the cleanup was done, the last purchases made and bills paid. And then we set to the process of taking stock. Zoe looked at production records. Abbe looked at bookkeeping & data records. I compared the profit and loss to the budget. And on and on. Eventually it was all written down, and we began to try and make some sense of it all.

Now, with the dust settled, it's possible to draw some conclusions. While experiencing the worst drought in 56 years, our production was in line with our 10-year average and showed marked improvement in some areas that we have invested resources in the recent past years. We raised CSA share prices, which enabled us to give raises to all long-term core employees, and continued to sell all of our shares. We made major upgrades to infrastructure, including our apprentice house and vegetable production systems. Our overall financial bottom-line was very positive as income was nearly level and expenses were down. And we increased our outreach capacity by showing a substantial increase in fundraising results and completely revamping our website. Despite such an extreme weather year, it appears that we had a generally successful season.

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. This was even brought into sharper focus this season as we felt the strength of our community's long-term support as we were able to withstand the drought without substantial financial pain due to investments in infrastructure that you have made in this project over the past 30 years. We are more convinced than ever 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, and our land. 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.

OUR FARM YEAR

Drought Creates Winners & Losers, CSA share sales strong, and Positive Finances bring salary increases.

Farmers were calling it a "30 year drought," but according to the National Weather Service, our area hasn't experienced a summer as dry as 2016 since 1956. Despite the 60 (!!) year drought, our production remained (somewhat surprisingly!) steady this year. Everything we could irrigate, we did irrigate. Everything we couldn't, we prayed for. We mostly lost those, but some very opportune rains saved a few

	2	2016	- 1	2015	% dif	% dif
Total Production					last year	10 yr avg
total lbs (including PYO)		278646	1	304013	-8%	2.1%
total lbs. (no PYO)		237246	- 2	263888	-10%	-0.4%
winter share production		41585		59170	-30%	6.7%
acreage planted		29.5		29.9	-1%	-1.1%
crops planted		65		63	3%	10.9%
Distribution Comparison						
total lbs per share		465.8		499.2	-7%	0.4%
cost per lb. share	\$	1.25	\$	1.11	13%	10%
avg. lbs. per share each w eek		19.4		20.8	-7%	0.4%

Vegetable Production 2016

			23403000		
	TOTAL	TT !-	per	2047	0045
	TOTAL	Unit	share	2016	2015
n en entré	11050	LDO	40.0	(LBS)	(LBS)
BEET	11250		12.9	11250	4620
BEET W/TOPS	2100	22	4.0	2100	330
BROCCOLI		LBS.	6.8	3535	4510
BRUSSELS' SP.	1755		3.4	1755	1760
BRUSSELS' SP. TOPS		LBS	1.5	765	345
CABBAGE	12265		16.9	12265	10312
CABBAGE, CHI.		HDS.	2.5	3975	3582
CANTELOUPES	2275		4.4	11375	
CARROT		LBS.	17.2	8965	16987
CARROT W/TOP	1950		3.8	1950	2988
CAULIFLOWER		LBS.	1.7	875	1995
CELERIAC	2925	LBS.	5.3	2925	2625
CELERY	1410	PCS.	2.7	1410	455
CHARD	2095	LBS.	4.0	2095	1885
COLLARDS	1190	LBS.	2.3	1190	838
CORN	705	DZ.	1.4	4935	10199
CUCUMBER	9815	LBS.	18.9	9815	4940
EGGPLANT	6670	LBS.	12.8	6670	5320
ESCAROLE	700	HDS.	1.3	700	785
FENNEL	685	PC.	1.3	685	1255
GARLIC	1141	LBS.	1.3	1141	1097
GARLIC SCAPES	575	LBS.	1.1	575	135
GREENS	5385	LBS.	10.4	5385	5852
KALE	7605	LBS.	14.6	7605	7920
KOHLRABI	1120	LBS.	2.2	1120	800
LEEK	6820	PC.	11.9	6820	8200
LETTUCE	8365	HDS.	16.1	8365	9010
LETTUCE	720	LBS.	1.4	720	1630
OKRA		LBS.	0.2	108	20
ONION		LBS.	11.7	6095	10265
PARSNIP		LBS.	0.0	0	1680
PEPPERS, HOT		LBS.	1.9	1010	635
PEPPERS, SW.	3655		7.0	3655	3055
POTATO		LBS.	17.0	8865	33100
POTATO, SW.	11625		22.4	11625	12485
RADICCHIO		LBS.	1.3	650	655
RADISH		BU.	1.8	940	
RADISH, DAIKON		LBS.	3.7	1940	1525
RADISH, STORAGE		LBS.	6.2	3240	500
RUTABAGA		LBS.	5.0	2600	6400
SCALLION	3055		5.9	3055	2420
SPINACH		LBS.	0.5	285	840
SQUASH, S.	11210		21.6	11210	
SQUASH, W.			62.4	32430	
	32430				
TOMATOES	16025		30.8		
TURNIP, HAKUREI		BU.	1.7	875	1043
TURNIP		LBS.	4.8	2500	
WATERMELONS	8250	LBS.	15.9	8250	12800

SPECIAL THANKS TO OUR VOLUNTEERS

Kate Bolmarcich, Abbe Nash, Tom Salva, Robeta Lojko, Jess Wolff, and Peter Aronson

& OUR FALL HARVEST CREW OF ONE: John Stubbs!!



crops just in the nick of time, making for a mostly nice fall harvest.

Vegetable Crop Production:

Our overall production was down 8.3% from last year, but still 2.1% above our 10-year rolling average. We grew a whopping 278,646

lbs. of vegetables. We had beautiful early lettuce and a moderate strawberry crop, along with a steady stream of greens including a great crop of chard. The early cucumbers in the fieldhouse and in the field amply filled in the sometimes-thin weeks of early July. When it stopped raining in May, we waited as long as we could but finally broke out the irrigation. We started irrigating in June, after a spring with moderate moisture. We didn't take a week off 'til the third week of August. At the Snyder Farm, the pond drained 'til there was only a third of it left, and we had to move "down the beach" with our irrigation pumps. But it never emptied. And at the home farm, the well kept right on truckin'. We had to irrigate both newly planted crops and crops that were trying to germinate, as usual, but also crops much farther along in growth than

we usually do. We even irrigated corn! It would be very interesting to be able to separate out the statistics of fields where we have irrigation from those that we don't. We grow corn and other crops in several places in the same year, some of the crop in an irrigate-able field and some in a field without access to water, so we don't have records of the irrigated vs. non-irrigated yield. While we struggled to find windows to plant our late summer and fall crops, a few really well timed rains,

and one field that held just a little water for just long enough really helped us pull through. Our winter squash, sweet potatoes, minor roots and fall brassicas did quite well as a result.

The dry weather had some serious benefits - including less disease

pressure because many plant diseases proliferate in moisture and ... there was none! This helped in our cucurbit production (wow so much zucchini!!), and also in our basil production. We were relieved again that our tomato crop never succumbed to late blight. We grew our early tomatoes in a particularly cold and wet spot (by accident!), and it turned out to be a perfect location given the weather. We might have had tomatoes longer had we installed drip irrigation when we laid the plastic, but as it was the harvest came in at an astounding 16,025 lbs., less than 500 lbs. shy of last year's monster crop.

Some crops even set production records in 2016. It was an all-time high for beet production, cantaloupes, popcorn, eggplant, cucumbers, kohlrabi, storage radish and summer squash. The eggplant

number is significant, as our new techniques and strategies from last year continue to pay off. Our peppers were also notable this year. Peppers are still an area for improvement, but our production increased for the first time since 2012.

We suffered some crop loss due to the drought. Corn production was much lower than usual, as we had to give up on several plant-



corn: irrigated and not.....



"Apprentice," con't.



tables 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 onthe-job learning was supplemented through our participation in the CRAFT Program (www.craftfarmapprentice. com). This offers our apprentices 10 farm visits on sustainable riculture topics,

last season at Medway Community Farm. She had a strong interest in community-based market growing and was hoping to get another layer of experience here while also getting more experience with machinery and larger-scale systems. She did all of our field prep, pulling the plow and harrow behind the John Deere 2355. She learned about vegetable cultivating tractors operating our Farmall Cub and cultivating our tender young crops of leeks, winter squash, and broccoli. She also took part in our harvest management rotation starting in August and kept us busy with her attention-to-detail and substantial organizational skills. We are glad to report that she will be with us again in 2017, taking on increased responsibilities in greenhouse propagation and Boston-area CSA distribution.

Rebecca Winters (aka "Sunny") also spent last season at Green String Farm, in California, after having decided to transition from a solid career as a graphic designer in NYC. She and John took a cross-country journey together, working on farms and exploring the many ways that people were working in new ways around our food system. We were lucky enough to be their last stop on the tour. She operated our main row crop tractor (Landini 5860) and took part in all of the basic functions of mechanized vegetable production, from bed prep to transplanting and cultivating. She also specialized in direct seeding all of our finicky crops – carrots, beets, parsnips, and greens with our Al-

lis Chalmers G tractor. She took her turn in the harvest management rotation keeping us all in line with a wellworn clip board! She is returning for a second season in 2017 and hopes to focus on harvest management and tillage operations.

While it is certainly difficult to train and retrain new people on the farm every season, we do it because it is also rewarding to train new farmers. We are mindful of the personal sacrifices our apprentices make to do this work, without much hope of big financial reward and plenty of uncertainty of how to make these skills practically useful in their own futures. We are proud to be part of their work; hopefully one more positive step on the path towards a new way of relating to our earth around food production.

giving them a chance to see how different farms solve similar problems, and creating a peer group with 40 apprentices from the other 15 participating farms. In addition, Zoe took part in a UMass extension program to learn about advanced Integrated Pest Management techniques and how to teach others to perform these tasks. She then trained our apprentices in these skills. And in the fall, once the winter squash was in the greenhouse, we started weekly sessions teaching 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.

This year we welcomed all new faces to our farm and they quickly found

their way around and became integral crew members. John Dickens grew up in Florida and worked on Green String Farm in California before coming east to see what real weather was like. He wanted to experience an entire season on a farm and get a good grounding in machinery operation and farm-business training as well. His tractor time was spent making stale seed beds, operating the spray rig, and making compost using the JD 2355 and Hesston loader. When the summer rolled on, John brought his hard-working attitude to the harvest management rotation. John's season on the farm re-kindled a strong interest in the academic pursuit of solutions related to climate change. He is taking classes and moving towards a degree in environmental studies in the coming year.

Rebecca Leung grew up in New Jersey, and had a variety of work experiences from the federal reserve to botanical gardens, before spending







As usual we continued to hear from our past apprentices....here's a few highlights:

Will Calkins ('15) came for a visit this spring on the way through to his job on a lobster boat off the Maine Coast. Leila Tunnel ('14-'15) created and enlarged her role as Farm Educator of Brookfield Farm and worked as ag educator in Amherst Public Schools. Jake Mazar ('13-'14) and Will Van Heuvelen ('13-'14) had a

very successful and expanded 2nd year at Wheelhouse Farm Truck, (Amherst, MA). Caro Roszell ('13) completed her 2nd season on her New Wendell Farm (Wendell, MA). Peter McLean ('10-'12) & Tobin Porter-Brown ('10-'11) completed a 4th season at Book and Plow Farm (Amherst, MA). Aaron Shier ('12) finished his graduate degree at the Agriculture, Food, and Environment program at Tufts U. (Medford, MA) and has become an avid Ultimate Frisbee player (happens to every farmer). Erin Roche ('11) finished her second year as an extension agent at UMaine (Orono, ME) specializing in risk management and crop insurance. Andy Szymanowicz ('07) sold Sol Flower Farm and began a new venture in Spain. **Kerry Manire** ('07-'11) completed her 5th season at Provider Farm (Salem, CT) and had a baby boy, Shepherd in February! Brigitte Derel ('09) is managing Full Heart Garden (Chatham, MI) as one of four resident farms at the North Farm of Michigan State University. Lisa McKeag ('08-'10) continued at UMASS extension (Amherst, MA) and as Secretary of the New England Vegetable Growers Organization. **Danya** Teitelbaum ('08) completed her 8th season at Queens Greens (Amherst, MA) and loaned us a portable cooler for our carrots this winter.



Chris Babis ('04-'07) is a sustainable urban landscape manager and is really slaying the guitar/vocal scene (San Antonio, TX). Amy Smith ('06) completed her 6th season at Heart Beet Organic (PEI, Canada) and is considering installing on-farm sensors from, (Kerry's dad), Larry Manire. Amy Cloud ('01, '06)



completed her 9th season at Three Rivers Farm (Elsah, IL) where she built a new main barn. Marc Cesario ('02, '07) completed his 6th season at Meeting Place Pastures (Cornwall, VT). Jeff Tober ('03-'06) finished his 10th season at Fernbrook Farm (Bordentown, NJ) celebrating with a special anniversary apprentice get together! We see **Scotti Goss** ('03), when she picks up her farm share and gets engaged! Casey Steinberg ('02-'04) completed his 12th season at Old Friends Farm (Amherst MA), got married in September, and had a baby girl, Ida, in January 2017! Su Wasseluk ('00-'03) is back at the Nurse Practitioner gig in Cape Cod and we are psyched to see her whenever she picks up her winter share! Jenny Hausman ('00) completed her 9th season at Piccadilly Farm (Winchester NH). Paul Bucciaglia ('99) completed his 14th season at Fort Hill Farm (New Milford, CT) and encouraged us to purchase our HAK cultivator. Rebecca **Downing** ('98-'99) has a successful psychotherapy practice (Holyoke, MA). Kim Koprince ('96-'97) works in an addiction resource center (Holyoke, MA). **Kate Rossiter** ('96-'97) provides research for American Farmland Trust and is a shareholder at Jenny Hausman's farm (Northfield, MA)! **Don Zasada** ('96-'97) competed his 11th season at Caretaker Farm (Williamstown, MA) and continues to work with us as a collaborator in the CRAFT program. All of these folks continue to have a mighty effect on our food system and we love hear-

ing from them anytime they find the time. If you are not on this list, but were you our apprentice, we want to hear o m f r you! Let us know what you are up to!!



FRIENDS AND NEIGHBORS

What's all the Buzz About?

(written by Zoe Abram)

It's a Dan's world on the honey shelf in the farm shop: we've sold Bonita and Dan Conlon's honey from Warm Colors Apiary in Conway for many years, and this year we added two MORE Dan's! We now also sell honey from Daniel Berry's Invisible Cities Apiary and honey from local beekeeper Dan Wright. Besides the fact that we're partial to Dan's around here, why three honey vendors? Daniel Berry and Dan Wright keep bees on land we currently farm. It's a "sweet" partnership, bees and vegetables. The bees help pollinate our crops, which provide the bees forage for honey-making. We've hosted various beekeeper's hives over the years. But what's news is that for the first time,

our very own beekeepers are producing honey to sell, adding an extra element of sweetness and hyper-local options to the farm shop. I caught up with Dan and Daniel about their operations, and keeping bees in South Amherst.

Dan Wright raises his 25 bee hives at Small One's Farm and two other sites in the area. Dan started keeping bees after moving to the northeast from the west coast. Dan works full time for the USDA and was inter-

ested in contributing more directly to local farming and food production. For Dan, beekeeping appealed as a way to take part in the enormous agricultural output an area with a very small number of farmers can produce. Moving 25 hives to Massachusetts from New Hampshire two years ago was an adventure - think little trailers behind his car, nighttime, bees pouring out of a dropped hive box, and crawling up his pants (they don't fly in the dark, but they still sting!). When Dan arrived and started scouting bee sites, he was looking for good wind protection, sun exposure, and a little bit of higher land to allow for air drainage. At Small Ones his landlord has had to build windbreaks because the site is exposed, but the forage around seems to be quite diverse, with bees having access to woodland and wildland forage in addition to food crops. Dan uses natural treatments like organic acids, derived from insects (ants) and plants (rhubarb, nettle, etc.), or cultural methods like creating brood breaks for dealing with the now-ubiquitous varroa mites rather than chemical medications and pesticides. He's most excited about his light-colored honey from early in the season, which has a gorgeous color and great bright floral flavor.

Daniel Berry's bees are at the Snyder Farm, tucked in our most secluded and tree-protected cow pasture. One thing he likes about the site is the firefly show around the 4th of July. Daniel got into beekeeping after working in agriculture with animals and horses, was fascinated by the idea of farming with insects, which he noted is unique

to producing honey with bees and silk with silkworms. We sell Daniel's "Massachusetts" honey in the farm shop, which is a mix of his five sites, including the Snyder farm. It's dark and delicious; the color is the result of the Japanese knotweed proliferation in our area. As a single dad with a full time job, producing 1200 lbs. of honey might keep Daniel busy enough, but honey is not the only focus of his bee business. With the 100 hives Daniel now keeps, he's able to tolerate a certain amount of loss every year and therefore can raise bees with no chemicals or pesticides, organic or conventional. Instead, he selectively breeds his bees for resiliency and resistance to the viruses that come with the varroa mite, learning from the methods of Kirk Webster, a beekeeper in Addison County, VT. His favorite part of his business is actually breeding queens. This work is labor intensive and involved: selecting the best queens to breed, preparing special hives to raise the queen cells, etc. Daniel raises 50-75 of these specially

selected queens annually, with a goal of selling 20 – 30 overwintered nucleus colonies to spread these resilient genetics among other beekeepers.

I was struck by how much both beekeepers know about what's in bloom when. Dan described drawing circles of various radiuses around his potential hive sites, to consider what forage might be available in each season. Daniel's spreadsheets record past years blooms, and allow him to predict related bee activity. For

and allow him to predict related bee activity. For example, keeping track of the goldenrod blooms of past years helps him prepare for this year's bloom, which he knows from experience will coincide with the bees second swarming period. What else are bees eating in our neighborhood? They forage on flowering trees, shrubs and wildflowers for up to two miles around. There's the whole Holyoke range, and tons of staghorn sumac, blackberry, and multi-

Over the winter, some hives will perish, but the number varies dramatically, from 10% of hives to 60% depending mostly on the weather. The more shifty the winter weather, the worse the bees will fare. If there's snow cover, the bees will be blanketed in a more consistent temperature 'til spring, which they prefer. After talking with these beekeepers we can watch for snow with new eyes too: here's hoping for a blanket for the bees, who are prolific pollinators for our crops, and who produce honey for our sweettooths. And here's to their partners and stewards, the beekeepers!

IN MEMORIAM

Mary Elizabeth Sumner Snyder
August 31, 1921 – June 28, 2016

Friend of the bees and everything else too.

She will be missed.



flora rose.



ings that we weren't able to irrigate. Even those that we could water eventually grew too high for the sprinklers, so we had shrimpy harvests in those fields too. But at least we got a taste! Our potato yield also suffered dramatically. We grew only 8,865 lbs. this year, at least 10,000 lbs. less than we'd planned, and 24,235 less than last year. Luckily, sweet potatoes did remarkably well. Not only was production up even from last year's great crop, but also the size of the sweet potato was much more standardized: no sweet potatoes bigger than footballs this year. There were several other losses as well. We had only a small amount of cauliflower because of a greenhouse production error. The parsnips failed to germinate and were overrun by weeds, because we had too much to do during that mid-summer period, with all the watering.

CSA Distribution:

As you might expect, our CSA shares saw the effects of the drought and of our slight decrease in production in their shares. This year, the on-farm share saw a 7% decrease in total share volume and the Boston share was 10% smaller. Because we increased the share price for 2016 for the first time since 2013, price per pound rose to \$1.25/lb. for the On-Farm Share and \$1.82/lb. for Boston shares. We know that there are many (non-monetary) values for purchasing a CSA share. We also think that it's good for us to know what the



"Our Farm Year," cont.

monetary value of the share is from year to year, so that we can compare that to the general marketplace. It also helps us to quantify how shareholders really do help by taking on a piece of the risks and rewards of our farm production, a core piece of the CSA model. Whatever way you slice it, by numbers this year show both the struggles of the drought and that we still produced and distributed a whole lot of vegetables!

Livestock and Compost Production:

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 a cold early spring) and spent the growing season grazing the fields at Snyder Farm.

Five yearlings, separated from their moms in May, were raised in Hubbs' pasture next to our West Field. They went to the butcher in July for a beef sale in August. Two other yearlings were left with the herd and turned into brood cows. Four calves (8 months old) were raised in Hubbs' pasture in August and stayed until December. They are being raised by Jason Edwards this winter because the brood cows began calving in August and now have 5 small calves with them. By the New Year, the herd stood at 10 moms, 5 calves, and 4 yearlings,

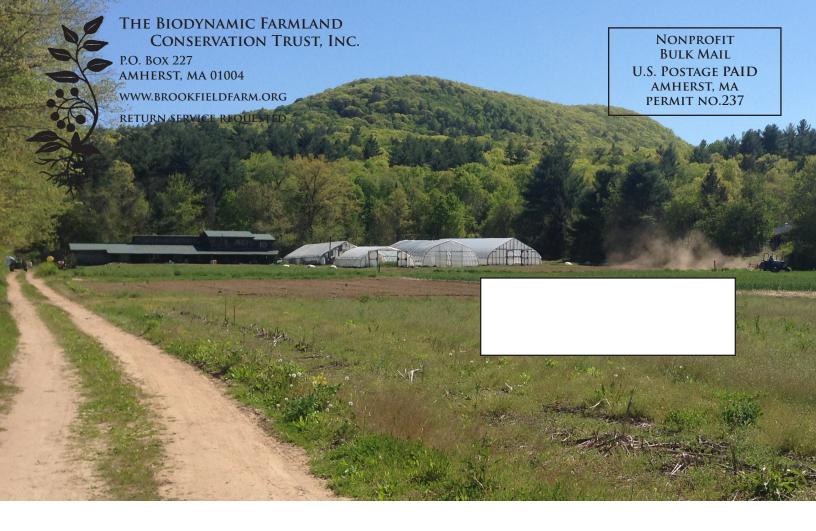


Summer pasture for the calves in the drought...

All seeming contented, eating hay again in the barn yard at Snyder Farm (or J & R Farms).

Our grazing was difficult this year as the drought caused the pastures to completely dry-out by mid July. Thanks to Bob Gray who let us use another pasture for the dry summer cows. We still needed to feed supplemental hay in the summer and our cistern at Snyder Farm went dry in July necessitating pumping water from the irrigation pond for the cows to drink in their pastures. While the pastures revived a bit in the wetter fall months, they were still pretty thin and we needed to begin feeding our winter hay a few weeks earlier than usual (around November 5).

Before we brought them back into the barnyard, we spent a day cleaning out last year's manure/hay deposit. We shoveled out the barn, and then used the bucket to scrape the barnyard and make a great com-



"Our Farm Year," con't.

post pile – about 60 tons – next to the barnyard. This will be ready to spread in the spring. In April and May, we spread about 200 tons of compost onto our vegetable fields. In November, we gathered all of the materials, and will make another 150 tons of compost this coming spring from cow manure from Cooks' Farm (Hadley MA) and about 100 yards of leaves from the town of Amherst. 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.

CSA Share Sales:

While we do not have the waiting list that we enjoyed in the early 2000's, our CSA share sales continue to be strong. With so many other options for purchasing CSA shares, there is little incentive for

anyone to put their name on a waiting list. But we have been tracking renewals and sales for over 15 years, and this year was not much different. Overall our retention rate was 80.1%, down slightly from our 10-year average (-1.8%). The real difference was in the Boston Area where retention was down 4.3%. Our on-farm retention was 86.1% (up .5%). We increased our marketing efforts, especially focusing on the idea that we have shares available, as we know that many people believe we still have a waiting list many years long. We believe this was effective in keeping our share sales strong. We increased our overall sales locally (+6.3%) to make up for the drop in the Boston Areas (-14.8%) which kept our overall share sales nearly even (-.2%).

Farm Finances:

Overall, this year we had a positive net profit of \$2525 as our income was up (2.1%) and our non-labor expenses were up only .8% level from 2015. We were able to put our price increase directly towards

salary increases for all of our long-term, year round employees. This positive cash-flow resulted in our ability to fully pay back all loan commitments this year, purchase much needed infrastructure improvements, and leave our capital account with a higher ending balance (\$37,686, +1.9%) than expected. Our positive financial position has helped our balance sheet continue to show signs of overall health; Our long-term liabilities were down to \$302,000 (-4.2%) and our total equity is up to \$633,680 (+10.2%).



Special Thanks to our Weeder Crew who kept our crops clean this summer!