

BEGINNING FARMER PROJECT FINDINGS | 2021

A COMPREHENSIVE GUIDE TO BUILDING LAND-LEASE PARTNERSHIPS FOR SILVOPASTURE, SOLAR AND PUBLIC LANDS

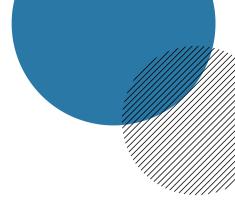
LEARNED NORTH CAROLINA BEGINNING FARMER PROJECT

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PROJECT SUMMARY: THE ADVICE WE'D GIVE YOU OVER COFFEE Here's what we set out to do:

The NC Beginning Farmer Project, funded by a US Department of Agriculture NIFA grant and hosted at the Center for Environmental Farming Systems at NC State University, aimed to accomplish the following objectives between 2018-2021:

- Develop and test innovative ways to assist beginning farmers' with access to land;
- Grow the number of successful beginning meat producers by providing targeted resources and training identified as key needs which is not currently available;
- Increase consumer-to-farmer bulk buying for maximum profit potential; and
- Increase knowledge, access to resources, and aspirations to help beginning meat producers operate profitably for Cooperative Extension agents, Small Business Centers (SBCs) and other agricultural educators.



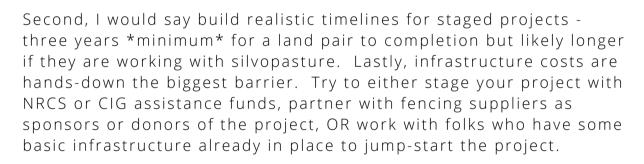
And here's what we learned while we did it:

An interview with Lee Menius, Program Coordinator, and Sarah Blacklin, Director

What would you tell a person about to begin a similar program, if you only had 15 minutes for coffee with them?

Lee: Make sure you have ample funds for infrastructure. Think about the big picture and help with the marketing as well as the production and vice versa.

Sarah: Ha! Great question. Have at least one solar company and one land trust partnered or invested in the project on the front end. We had the land trust partnership at the onset but it took us a year to connect with the right people within the private sector solar industry (a.k.a., people passionate about working with farmers, who could also act as or identify key decision-makers within the industry, and who were willing to be transparent about their budget/needs to move a project like this forward).







What was your favorite memory from the project? What was the most rewarding?

Lee: I have two - successfully launching MeatSuite in 2020 and rapidly exceeding the goals that we set, and all the work we did helping develop tools such as MeatSuite, Bulk Meat Agreement, Teaching Tools, Leases, and Grazing Plans to support beginning farmers.

Sarah: The most rewarding thing was seeing how innovative farmers and land partners can be at troubleshooting and running a project with just a little boost. I think of key influencers, like Extension agent, Brian Parrish, who sent us various candidates for silvopasture, helped write complimentary equipment grants to help the producers secure infrastructure money, and creating a showcase silvo site in his county that he will now use to lead multiple presentations to farmers throughout the state. The innovation exists within the farmers and supporters on the ground. This grant just gave them the nudge and support to run with it. I also have to say that I absolutely love the team we have had on board leading this effort, notably Lee Menius and Matt LeRoux. They have continued to pivot and innovate throughout COVID disruptions to train farmers and meet the most pressing needs of the time.

What was your worst memory or experience? Why?

Lee: This isn't really a worst memory, but definitely a frustrating point - there was a case where we put a lot of work into making a land pair, only to have the land-controlling party either drop the project at the last minute. It was hard to work nearly a year to reach an agreement only to have the project dropped because one of the key people in the company left or changed positions.

Sarah: I would say trying to build trust within a private industry before we had developed the "ins" and found the right motivated influencers. Once we found the right partners, everything else just fell into place.

What's your favorite story or feedback you received from a farmer in this project, and why?

Lee: Probably the best story from a farmer was that this project helped jump start a transition that got her out of an abusive relationship. Another was that this process gave one of our farmers enough opportunity to significantly increase his farming operation to the point where he was able to start selling meat.

Sarah: For me, I think it would be working with Ursula and Andrea, one of our land pairings that's featured on our site. Ursula is a children's book writer and owns a little swath of pines in Chatham County - land that has a lot of non-marketable scraggly pines, resembling a lot of land in the state. Andrea is a veteran who was living in VA looking for land for her sheep and goats to graze.

Ursula put an ask out on a listserv, stating that she wanted to learn about silvopasture but didn't know where to start. Lee met with her, brought other agents to the land, worked on the timeline and budget with her, and even offered to do the clearing himself when he couldn't find anyone to do the work. Andrea moved to the land with her animals, built a small house on the property, and is now grazing the new understory.

She shares pictures of her expanding herd including her cat-sized lamb which she calls her "cat lamb." I suppose the two of them resonated with me because Andrea needed a break and an opportunity. Ursula wanted to help but didn't know how and had no background in agriculture. This project helped make this process manageable and doable.



Project Structure & Processes

Projects need infrastructure, too: what we learned about the process that we wished we knew sooner



Process Lesson 1: Budgets

Whatever you think it costs, double it.

 We should have included much higher line items for supporting farm infrastructure. Some of our projects cost tens of thousands of dollars to implement, especially silvopasture, so a larger budget to offset landowner and farmer costs would have probably resulted in more partnerships than we were able to secure.

Process Lesson 2: Timelines

Good silvopasture takes time, so be sure to build it in.

- Silvopasture land pairings require long-term implementation periods when starting from scratch, it can take years. This was a challenge in a three-year grant cycle.
- For shorter programs, be sure to identify willing partners before writing a grant or beginning a project, or focus on non-marginal land that doesn't require significant amounts of infrastructure and clearing.
- For longer programs, remember to build in time to clear and thin, time to build infrastructure, and time for forage to become established before grazing begins. If you want to establish a silvopasture by planting trees into a pasture versus thinning existing stands, keep in mind that this is a long-term project. Newly planted trees take an average of 7 years to establish before introducing grazing animals.
- If you're working with marginal land that has unmarketable timber, remember that the thinning, fencing, and water line infrastructure process is particularly expensive without timber value. Many farmers had to have some form of personal capital to invest to make that happen on a shorter timeline on marginal land, and that was particularly hard for beginning farmers.



Process Lesson 3: Suppliers

Finding suppliers at the right time can be a challenge; bring them in up front.

- Finding logging companies able to do small-scale work, especially in clearing marginal lands in a specific way with no lumber to sell from the process, can be difficult. Identifying these contractors at the beginning, and keeping a pool to which work can be referred, would have saved months of time in the process. Area Cooperative Extension Forestry agents are valuable resources and might also know of local contractors.
- We would also recommend identifying fencing companies and other infrastructure providers (for items such as wells and shelters) who might want to sponsor farmer demonstrations, whereby they provide in-kind fencing in or materials as part of the workshop.



Process Lesson 4: Partnerships

People make the world go round. And projects, too.

- In our case, we had planned, worked with, and formally written the Triangle Land Conservancy, a land trust in the state, into our grant program.
- Land trusts are typically NGOs with limited staff and a lot of projects, so it was important to be able to get buy-in through compensation for the staff time and resources needed for a partnership to work.
- Having a land trust on board with an alreadyidentified site can be a good starting point, as you already have half the first equation figured out. However, keep in mind that negotiating user agreements can take a long time.
- Bringing any partners private, solar, or land trust into programs from the beginning will not only make the implementation period easier, but will also help offset some costs through in-kind matches or agreements.
- It's especially important to identify a few different solar companies as partners up front. We did have partners in the solar grazing community at the onset of the grant, staff and contacts changed and it took a long time to find the right "champion" within a solar company - even to begin preparing farmers for the process with details on negotiation, insurance, liability, costs, and contract requirements.

Process Lesson 5: Teambuilding

Get your internal team right, too.

- Having an evaluator on staff to compile results, manage evaluations, track progress, and turn that information into effective reports really helped us keep track of where we were and how people were responding, especially during the changes due to Covid-19.
- We also built in funds for a land law attorney who was written into the grant to help guide us through the lease and liability problem-solving when coming up with user agreements, especially with land trusts.
- Having a strong network of Cooperative Extension agents in our state helped with outreach to potential farmers as well as landowners they were our most effective marketing channel to help get people signed up.
- Livestock Extension agents were particularly helpful, especially because they could serve as an extra pair of "eyes on the ground" for potential sites and could also apply for regional grants to help supplement our grant funds and provide more infrastructure funding.
- USDA and NRCS cost-share programs were also helpful to many of our farmers, and we built those into project plans to help offset farmer costs.
- Working with our state Extension Forestry agent was vital to the entire process he conducted site visits and helped with thinning and planting strategies on almost every location.
- In addition to the external partners we mentioned in the previous section, we found a champion in Lexie Hain at the American Solar Grazing Association, and she was able to provide countless national resources and connections for us within the solar industry.

Process Lesson 6: Going Online

Implementation during Covid-19 was tough, but some things about remote learning, we'll keep.

- Remote events worked well for many aspects of our trainings, outreach, and recruitment for the MeatSuite platform.
- We did more events than we would have been able to do in person, just based on staff availability, travel costs, and travel time. We didn't do many virtual "booths" at other conferences, though, so missed that informal networking.
- Our big conference for this grant was able to take place in person in the fall of 2019, and that may have given us some momentum during the transition to remote events.
- Rising familiarity with Zoom means that we are also able to provide more of our 1-1 technical assistance and support to farmers this way, helping troubleshoot problems and address issues efficiently over video instead of through site visits.
- In 2021, we saw less turnout for all remote workshops as people began to resume in-person activities in other aspects of their lives.
- Processors were hit hard by the pandemic due to increased demand, and this impacted farmers as well; that audience still required socially distanced in-person visits and/or phone meetings to make the assistance useful for them.
- Virtual butchery training was one of our most popular offerings and we'll likely continue to
 offer them now that we have the formatting and support refined. We were able to film
 speakers and demonstrations up close, manage questions in the chat based on audience
 feedback which differentiated the training from a recorded video and reach a wider
 audience. At one event, we had 300 people registered!

Process Lesson 7: Contracts

These partnerships require education on all kinds of new issues - be prepared to teach, help negotiate, and train.

- Common areas of misunderstanding on both sides included production needs, capital barriers, soil sampling, grazing management plans, and marketing.
- Liability and payment rates / agreement conditions were the two biggest areas where we spent time helping understand the needs on both sides to build successful partnerships.
- Having a point person or team member drive the contract process is key. A lot of time was spent nudging busy people from all parties, benchmarking the process, and reminding them of the goals.
- We have sample user agreements, budgets, liability notes, and contracts available for your use on our website at www.ncchoices.com.

SILVOPASTURE PARTNERSHIPS WITH PRIVATE LANDOWNERS

Sarah & Lee on the challenges, benefits, and things to keep in mind when designing silvopasture partnerships between farmers and private landowners

CHALLENGES

- The biggest challenge is the overall expense of projects (infrastructure, fencing, clearing, thinning, and planting).
- There is likely to be a lack of financial investment (from both parties).
- It takes a long time, especially on marginal land, to get the silvopasture grazing properly set up and even longer if you need to plant vs. thin tree stands.
- The long implementation period, coupled with high costs, means it's difficult to see rapid return on investment for either party.

BENEFITS

- Seeing farmers learn and implement new practices with a positive impact on animal welfare is good for both landowners and community members.
- The landscape is often transformed from scrabbly pine or hardwoods into a mixture of pasture, tree canopy, shade, and sun, and it's attractive to the animals, the landowners, and those driving or walking by!
- Good private partnerships can also serve as demonstration sites to support silvopasture education, as one of our pairings did with Cooperative Extension.
- Having a beautiful silvopasture site that's open for tours, classroom use, and site visits can also help encourage others, including private landowners, land trusts, and solar companies, to offer land to farmers for this practice.



On the difference between partnership success and failure:

Lee: Overall investment and long implementation period. We had many landowners willing to offer up land for lease but they did not have the funds or the interest in spending the funds to see the sites prepared for a farmer to use. The places where it was successful were well funded or had a long time or family connection to the tenant which made the investment possible.

Sarah: Most people really want small ruminants or cattle to graze silvopasture. Farmers who had poultry or pasture-raised pigs were definitely not attractive to the land owners we worked with even if we provided strict grazing management plans to reduce impact. There are not nearly as many small ruminant producers in our state, so those were hard to find for silvopasture, yet cattle required costly infrastructure.

On something that would help overcome obstacles to these partnerships:

Lee: Access to cost share funding through state and federal programs for silvopasture development would have helped the most!

Sarah: A list of goat producers or a goat association would have been helpful. Goats and their ability to graze secondary growth that sheep and cows won't graze, would have been a great fit for a lot of land opportunities but we struggled to find goat producers in close proximity to the sites.

More lessons learned, budget and lease templates, and information about these partnerships can be found at https://cefs.ncsu.edu/resources/negotiating-farm-leases-lease-budgets/.



PARTNERSHIPS WITH SOLAR COMPANIES

Sarah & Lee on the challenges, benefits, and things to keep in mind when designing silvopasture partnerships between farmers and solar companies

CHALLENGES

- Working in the corporate structure of companies was difficult for most farmers.
- Working under an NDA (non-disclosure agreement), which is required by most companies, will mean not being able to share much of what we learned.
- The difficulty of finding the right advocate for solar grazing within the company can mean significant delays and obstacles.

BENEFITS

- Putting land once used for only solar back into agricultural production is rewarding.
- Solar companies gain environmental options for landscaping & maintenance.
- Farmers can create payment structures to provide these services.
- It's not just financially beneficial to both parties, but can also create relationships between farmers and solar companies that help local economies continue to flourish.

On the difference between partnership success and failure:

Lee: Partnerships failed when we didn't have an advocate within the company or when there was a lack of willingness to pay for the farmer's services. Successful projects required an advocate within the company and a willingness to adapt existing mowing contracts to create a payment structure for the farmer providing similar services.

Sarah: It was difficult to find the right person in the right position within the private sector solar companies who were allowed to share their management budgets as well as the # and location of available sites. We also had a great deal of sites that were huge with expansive acreage, some with panels too low to the ground to graze, etc. which were not conducive to or grazable for small producers. For many sites, the forage was also not equivalent to what a farmer would have in an open pasture, so determining a budget based on usable forage took time and had many variables.



Once we found the right solar partners able to share information and figure these details out together, a lot of pieces fell into place fairly quickly. We found that one a farmer was in the system and connected with a solar company, it was then easier for them to secure additional sites. The more sites typically made the deal more attractive to the farmer.

On something that would help overcome obstacles to these partnerships:

Lee: We would have been able to find advocates sooner had we had a better understanding from the beginning of the corporate structure and how they view these solar grazing services

Sarah: A map of solar installations across the state and what companies managed them, and an org chart of solar companies and contacts of site managers who were interested in grazing opportunities would have been a big help. ASGA is doing some great work getting these sorts of resources out to the public.

MAKING SOLAR GRAZING WORK

- Land access through both solar operations and land trusts present unique challenges for all farmers.
- Policies that encourage solar companies to develop projects in a manner that makes them more readily accessible for grazing could open up great swaths of land for agricultural use. Policies such as tax incentives for companies to include agriculture production and the use of cost share incentives to develop agricultural use of these areas will help with the challenges of getting farmers onto solar sites.
- Agriculture decision-makers in the same room as our energy decision-makers will
 go a long way towards building these partnerships for long-term success. Solar
 companies and farmers can not only work well together, they can HELP one
 another if the right parameters are in place.
- Solar site acreage, tax status, location, and even the composition on the panels can make or break an opportunity to pair that site with a farmer who can manage the site through environmentally friendly grazing and who needs more pasture. If we bring influencers on both sides in the room on the front-end of key policy decision making, we can design energy expansion to be a net positive for agriculture versus the perception some have of solar taking agriculture land away from rural America.

More lessons learned, budget and lease templates, and information about these partnerships can be found at https://cefs.ncsu.edu/resources/negotiating-farm-leases-lease-budgets/.

PARTNERSHIPS ON PUBLIC LANDS

Sarah & Lee on the challenges, benefits, and things to keep in mind when designing partnerships between farmers and land trusts

CHALLENGES

- As NGOs, many land trusts often operate under group consensus with lots of staff and leadership groups in discussion about direction, strategy, and execution.
- Sometimes turnover was high, as it is in the sector, and it was hard to find a permanent point of contact for the project for the first year.
- Most of the opportunities we came across required significant infrastructure investment, which wasn't something either land trusts or farmers could fund.
- It can be difficult to reach agreements on lease negotiations due to legal constraints, and the delay in resolving these issues can mean financial difficulties for farmers facing seasonal constraints.
- Land trusts are often balancing volunteers, donations, and multiple other projects.

BENEFITS

- Giving opportunities to farmers who had no access to land is incredibly rewarding.
- Being able to advocate for farmers as part of community spaces was a benefit not just for the farmers but for the people using these public spaces.
- Allowing the public to see working farms in their normal destination for weekend walks, bike rides, and hikes increased interest in farming, especially since it reached communities that might otherwise never connect to agriculture.
- Working with amazing people at the land trusts. We share many goals, values, and passions surrounding land stewardship, so having the opportunity to dive into the nuances of agriculture and public lands as partners was very rewarding.



On the difference between partnership success and failure:

Lee: Usually, with land trusts, it was down to conflicting interest within the organization or extensive infrastructure requirements. Most land trusts were willing to work with us, but there were obstacles we just weren't able to overcome.

Sarah: The land trusts we worked with seemed very interested in working with small ruminants or cattle but were less inclined to work with poultry or pigs. Cattle takes more acreage and infrastructure so balancing the right partnership took time. It also helped to have donated fencing and some infrastructure on the site which saved a great deal of cost; the land trust was also able to take a farmer work trade to offset some costs.

On something that would help overcome obstacles to these partnerships:

Sarah: As these models grow, it will be helpful to compare our case studies to other states, especially when it comes to how other livestock producers negotiated user agreement terms. While we could find information on incubator farms and smaller plots in other states, we would be interested in comparing our work on developing long-term leases for larger acreage livestock on the national level.

MAKING PUBLIC LAND GRAZING WORK

- Land trusts play a vital role in protecting water resources and open spaces. Expanding programs that help fund the protection of working agricultural lands can accomplish those goals and ensure the availability of agricultural lands for generations to come.
- Even though land trusts may be able to conserve working lands through programs such as FRLPP, for beginning farmers the infrastructure investment to access these lands can be quite a challenge that many land trusts are unable to assist with due to their tight budgets.
- Making cost share opportunities a priority for farmers on these lands can help develop and maintain agricultural opportunities in these situations.

More lessons learned, budget and lease templates, and information about these partnerships can be found at https://cefs.ncsu.edu/resources/negotiating-farm-leases-lease-budgets/.



WHAT WE LEARNED FROM PARTNERSHIPS THAT DIDN'T WORK OUT: SOLVING FOR PROBLEMS BEFORE YOU SEE THEM

LESSONS LEARNED FROM PRIVATE SILVOPASTURE PAIRINGS

TOP CHALLENGES

for non-viable partnerships between private landowners and farmers

- It takes time to prepare land for silvopasture thinning, seeding, establishing forage, installing water lines, and installing fencing can take months depending on the season. Some landowners and farmers were unable to wait this long for the land to become usable for silvopasture.
- The infrastructure expenses can be a financial burden on the farmer and the landowner.
- Landowners tended to want small ruminants or cattle and were less willing to accept poultry or pasture-raised pigs even with a strict grazing management plan to reduce environmental impact.
- Some land could have been used easily for goats, because of their ability to graze secondary growth, but it was difficult to find goat producers in close proximity to our available sites. And, while goats don't require as much infrastructure as cattle, for example, the solid fencing requirements do add considerably to the cost of implementation. Goats also tend to be complementary species used on farms for other purposes, such as clearing areas for cattle or sheep.

WHAT WE LEARNED FROM SUCCESSFUL PAIRINGS

for partnerships between private landowners and farmers

- Silvopasture helps farmers learn and implement a new practice, one that has a positive impact on animal welfare.
- Successful pairings usually had some kind of connection, whether as family members or preexisting partnerships, that helped them weather the length and cost of the match.
- Access to cost-share funding, county grant programs, or other sources of funding to complement our small grant funds for land would have helped more pairings come to fruition.
- When the partnerships work, they really work: one of our paired farmers is now using his site as a demonstration and classroom setting through Extension to share their practices with other farmers in his region.

Silvopasture, if done properly, is just plain beautiful. It's incredibly satisfying to see a landscape transformed from scraggly pine or marketable timber or hardwoods into a mixture of pasture, tree canopy, shade, and sun. I liken it to a picture of a forest out of an old fairy tale and it really does make you turn your head. It is incredibly satisfying to see the land transform in this work, and to see the pride the farmers and landowners have in showing off their accomplishment and the natural beauty in it. Add to that, animals grazing where you get to see cattle utilizing the benefits of the shade from the canopy, the new forage, and it's just a very rewarding sight.

- Sarah Blacklin, Project Director



About the PROJECT

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LESSONS LEARNED FROM SOLAR COMPANY PAIRINGS

TOP CHALLENGES

for non-viable partnerships between solar companies and farmers

- Finding the right contacts within a solar company was the single biggest challenge we faced. Internal champions can be difficult to find, but once you do, they can help with the other hurdles that will arise with solar sites.
- Our state didn't have a map of solar sites in the state or a collection of private companies, although there was a solar energy association. It took some trial and error and additional research before we could identify the right solar managers in companies that were open to shared silvopasture.
- Working under an NDA (non-disclosure agreement) is challenging for a number of reasons, primarily that there are things we can't share from those partnerships to help others interested in this work.
- Transparency was also an issue in setting up partnerships, as solar companies are often unwilling to share their costs for managing different sites or where they had available sites. This led to challenges in identifying partnerships that would make economic sense for both the solar company and the farmer.
- Finding grazeable sites was more of a challenge than we had anticipated, as some sites had installations too low for forage and others had varying levels of forage available. It was challenging to create forage budgets from these sites as they were all different and contained different challenges for the farmer.
- Corporate structures take longer to operate within, including involving legal teams and higher insurance liability requirements; this can often result in a longer delay in getting animals out for grazing.
- Most solar companies required either a higher insurance coverage policy or some adjustment for risk
 and liability on the part of the farmer. This often included guidelines directed more at construction and
 equipment vendors, which grazing can fall under for solar companies, and sometimes these policies
 aren't available to farmers. Insurance requirements often required some negotiation between the
 farmer and the site.

WHAT WE LEARNED FROM SUCCESSFUL PAIRINGS

for partnerships between private landowners and farmers

- It takes a long time, but eventually large swathes of land can be put back into agricultural production, and become more environmentally friendly.
- Financial benefits occur for both parties in most cases the farmer and the solar company in addition to the environmental benefits.
- New partnerships form when one successful pairing takes off and this can have longer-term impacts on the local farming community and on the solar companies' many sites throughout a state.
- Similarly, once a farmer has successfully negotiated the first contract, many more sites become available, and as they're already in the system with proven results, the negotiation process gets easier from there.
- If we were to begin the grant process all over again, we would write in a designated solar partner from the beginning, just as we did with the land trust, to ensure we had an 'in' within the industry and a site pairing to use as an example for other solar companies.

LESSONS LEARNED FROM LAND TRUST SILVOPASTURE PAIRINGS

TOP CHALLENGES

for non-viable partnerships between land trusts and farmers

- Our grant process explicitly set out to determine user agreement requirements and liability and lease decision frameworks we had both a land trust and a land law attorney written in to our team. Without this, it would have taken much longer to navigate an already-lengthy process of meeting legal and liability requirements.
- Land trusts represent a range of interests conservation, environmental protection, watershed restoration, and public use of green space and this consensus approach can make it difficult to come to an agreement about the best way to utilize lands for agriculture.
- Most land trusts are still operating on a preservation and green space basis as their primary goals, so access to working agricultural land is limited and sometimes has to be carved out before the grazing partnership can begin.
- Because of this, many land trust sites would require extensive infrastructure investment in shade, water access, fencing, thinning and seeding, which was both a barrier to the beginning farmer and to the land trust, which operates on a nonprofit basis.
- Like most nonprofits, staff turnover can be high at land trusts, and because the process isn't a short one, often our designated point of contact would change midway through a negotiation process.
- Also like other nonprofit sectors, land trusts are typically operating on a grant-funded basis and doing fundraising while also negotiating with landowners and working to secure land, which can mean that staff have little time to dedicate to partnership needs like this one.
- Land trusts without a dedicated farm manager will be harder to navigate, as there are many people involved in the decision-making process, from leadership to site managers to attorneys.
- Similar to solar companies and private landowners, it would have been easier to place goats (which our state doesn't have a large production base of) on most land trust sites. There was more hesitation about poultry and pigs. Cattle were also prioritized, but require more acreage and infrastructure. The partnership pairing between the farmer, their seasonality dependence, their financial resources, their grazing species, and the availability of land and infrastructure from the land trust were particularly important.



LESSONS LEARNED FROM LAND TRUST SILVOPASTURE PAIRINGS

WHAT WE LEARNED FROM SUCCESSFUL PAIRINGS

for partnerships between land trusts and farmers

- When they're successful, it's a great driver of community engagement with agriculture when they can see the farmer pairings on their weekend walks, bike rides, and hikes, or attend events that showcase the agricultural component of the public lands they're visiting.
- Most of our land trust work was with beginning farmers, and seeing these proposals succeed in spite of challenges gave confidence to the farmer (and to us!) that this type of land pairing could open up new opportunities for farmers who were just starting out.
- Because a land trust and attorney were written in from the beginning, we had some resources to work with and were invested in making the project work together.
- Land trusts, as nonprofits, have the ability to have donated infrastructure as well as more flexible user agreements than private companies or governments would. In our case, we had some fencing and infrastructure donated or repurposed as well as the ability to include work trade and a farmer's connection to an equipment company in the user agreement.
- In the case of liability, there were some "ah ha" moments especially when working with solar and public lands. For example, volunteers and obviously the public are regular visitors on a public land trust. However, for a farmer solely using the land for his/her farm operation, that segment is *not* open to the public. At first, we assumed the standard agritourism signage that spells out "at your own risk" language posted along the fence would suffice. However, it was later determined that the general agritourism signage might actually be misinterpreted as an *invitation* to enter into the farm gate "at your own risk." As such, additional no trespassing signage and language was posted in multiple spots on the farm gate.

Most land trusts seem to be set up for preservation and green space - so the opportunities for access to working agricultural land is limited. However, even though it took longer to find the right pairing and secure the needed infrastructure, giving opportunities to beginning farmers and successfully advocating on their behalf was rewarding, especially seeing them on-site in places where the public could see them, too.

- Lee Menius, Program Coordinator



OUR RECOMMENDATIONS FOR OTHER PROGRAMS

MAKE SURE YOU HAVE AMPLE FUNDS FOR INFRASTRUCTURE.

• You might do this through partnering with fencing companies as sponsors, identifying people who have basic infrastructure in place from the beginning, working with your state's conservation agency assistance funds and agricultural funds, or identifying other partners who can help offset infrastructure costs.

THINK ABOUT THE BIG PICTURE BY INVESTING ENOUGH TIME IN EDUCATION.

• Beginning farmers, by nature, will need help with marketing as well as production, and vice versa. But they'll also need support with legal, liability, and contract negotiation processes. Similarly, for solar companies, land trusts, and landowners, there will be a learning curve for all partners in how this works, what works for them, and what works for the farmer.

SECURE INVESTED PARTNERS FROM THE BEGINNING.

- This is especially important for solar companies and land trusts, and can drastically reduce the time it takes to identify sites and negotiate contracts. Similarly, work with a land law attorney from the outset.
- **For land trusts:** our work would not have succeeded without the land trust being written in as an in-kind partner from the beginning, with land set aside to work with. This helped during a lengthy negotiation process of determining what the best balance was between agricultural use and environmental conservation and drafting that into a legal agreement that met the needs of all parties.
- **For solar companies:** We spent almost a year trying to find the right private-sector partners for the project and were only eventually successful because we found a great connector in the solar industry who could make personal introductions to the right people in the right places. During the first year, we felt we wasted a lot of our time signing NDAs with companies who would still not disclose operations and management mowing costs, which made it difficult to determine a budget and a successful partnership model.

BUILD REALISTIC TIMELINES FOR PROJECTS.

- Although we anticipated a year, in most cases our successful pairings took between 2-3 years to successfully to reach completion. This is because of both the negotiation process and because of the environmental and seasonal needs of silvopasture.
- Even when you have farmer candidates who are ready to begin grazing immediately, the timeframe for silvopasture implementation is long it can take up to a year before a system is ready to graze, and even workarounds such as planting trees in pasture requires a long wait period while trees are established.

BE HONEST ABOUT YOUR LAND OPTIONS AND ACCOUNT FOR INVESTMENTS IN IMPROVEMENTS.

• A lot of marginal land in North Carolina has scraggly, not marketable timber, so the thinning, fencing, and water line process is particularly expensive for those who can't recap timber value. Similarly, farmers don't often have the personal capital to invest to get the infrastructure in place on a shorter timeline.

IDENTIFY THE RIGHT SUPPORT STRUCTURES IN YOUR REGION, ESPECIALLY FOR SMALL SCALE WORK.

• In addition to having a land law attorney on staff as a professional resource, there are many other contractors it was difficult to find and secure, especially for small scale work such as thinning trees or installing fencing. Identifying contractors for that kind of work upfront would significantly reduce the timeframe needed to prepare a site for grazing.

ADDITIONAL RESOURCES

SAMPLES FOR LAND TRUST AGREEMENTS

- HELPFUL USER AGREEMENT EXAMPLES FOR FARMERS AND LAND TRUSTS
 - In the case of a lease agreement for a farmer grazing public land, we began the partnership with
 a one year user-agreement trial set price per acre of \$500/yr with the option to pay that off with
 volunteer time to improve things like fencing and infrastructure. As we expanded acreage in
 developing a longer-term user agreement, we worked with both parties who decided to alter the
 agreement.
 - o Since livestock producers are more dependent on larger acreage than veggie or small incubator farms (where the \$500/year usage fee works since they will not likely be expanding or changing acreage in their business), they set a value to # of acres and that price was adjusted at or below the USDA market value per acre where the user farmer has *sole* access. Price per acre could vary depending on the condition the acreage is in. For example, if the land has water, power, fencing then the rate might be higher such as \$30-\$40/acre and if it's in poorer shape with no infrastructure or secondary growth, then it might be more like \$10/acre or something like that. Trusts can also charge for "flash" grazing acreage, where the farmer does not have sole access to the land but where their animals can provide a temporary, seasonal, or flash grazing service to various public tracts. For temporary flash grazing, the price would be a much lower price like say \$15/acre.
 - We also discussed a plan for the farmer to work off debt written into their user agreement. For example, if a farmer invests \$10k into site improvements in one year, discuss how that investment can get carried forward, such as capturing up to \$1k/yr to be applied to rent for the life of lease, etc. These are the types of nuances that only come up through trial and error when working with two businesses and trying to satisfy each of their business needs.



OTHER HELPFUL RESOURCES

- Beginning Farmer Project
- MeatSuite
- Guides, template leases, budgets, and agreements, and teaching tools for silvopasture pairings are also available on our website at https://cefs.ncsu.edu/food-system-initiatives/nc-choices/resources/.