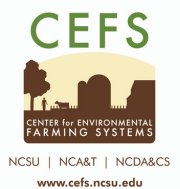




**NC Choices**  
a Center for Environmental Farming Systems Initiative



BEGINNING FARMER PROJECT FINDINGS | 2021

# BUILDING SUCCESSFUL LAND PARTNERSHIPS FOR SILVOPASTURE, SOLAR, AND PUBLIC LAND MODELS

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## PROJECT OVERVIEW

This case study explores the challenges, opportunities, and lessons learned by the NC Choices Beginning Farmer Project Team in building land-lease partnerships. We have a series of spotlights that share information about successful partnerships and a long-form guide to implementing these programs in your own state or community.

However, this guide focuses specifically on what we learned from the time and resources we invested in partnerships that didn't pan out - and what we'd recommend to others facing similar challenges.

We spent several months working with both farmers and landowners of all kinds to prepare for a potential land-lease partnership. At the end of our three-year grant period, we had confirmed all 15 of the partnerships we had set out to reach in the grant - but we had also invested significant time and energy into non-viable partnerships that did not become full contracts.

This guide is intended to highlight the common issues that arose in private silvopasture, solar company, and land trust environments and for farmers, with potential solutions to help others avoid the same challenges.



WHAT DID - AND  
WHAT DIDN'T -  
WORK

## 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*



United States Department of Agriculture  
National Institute of Food and Agriculture

## About the PROJECT

This project is supported by the Beginning Farmer and Rancher Development Program competitive grant no. 2018-70017-28550 of the USDA National Institute of Food and Agriculture.

## 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.

*One of our solar reps shared a video from a site he managed with a farmer - and the video was him giggling as the farmers' flock surrounded him time and again when he got out of his truck to check the solar panels. It's the connections between the agricultural community and the solar companies enjoying the win:win and really working in partnership that is the most rewarding!*

*- Sarah Blacklin, Project Director*

## 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.



## About our TEAM

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## LESSONS LEARNED FROM LAND TRUST SILVOPASTURE PAIRINGS

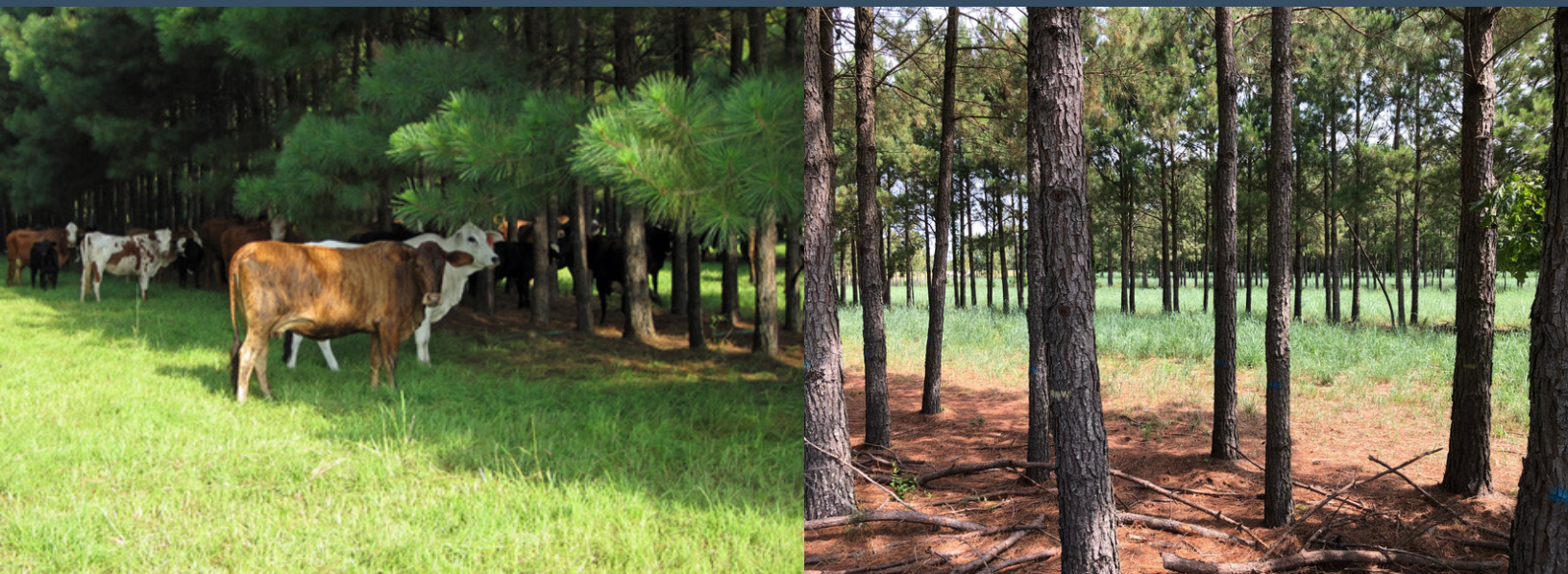
### WHAT WE LEARNED FROM SUCCESSFUL PAIRINGS

*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 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.

## 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.
- 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/>.