



TREES FOR GRAZERS

SilvoPro Business:

a short course for professionals developing a
silvopasture-focused business

by

Austin Unruh

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Part 1: Understanding your personal context

Introduction

Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has. —Margaret Mead

Silvopasture, the thoughtful and intentional integration of trees and pasture, is vitally important for the economic and ecological health of our communities, yet it is currently far too little applied. Equipping you to change that is the goal of this guide.

The time certainly is ripe for silvopasture. It offers to address many of the most pressing agricultural issues of our time. Fighting climate change by sequestering carbon is front on the minds of many, but that is only the tip of the iceberg. Silvopasture also gives agriculture increased resiliency to the effects of climate change, buffering livestock from the effects of too much heat, too much cold, too much rain or far too little. Trees can provide cooling from the sun, shelter from the wind, hold rainwater in the soil where it belongs, provide feed during critical times of year, add fertility, provide rich habitat, add new farm income streams, bolster farm self-sufficiency, and so much more. And the wonderful thing is that we don't need to wait for some billion-dollar company to invent a shiny new technology. The 'technology' is right here, in the forms of trees and grasses, cows and chickens, electric fencing and simple tractors. Those are all the physical ingredients that are needed to remake a huge proportion of agriculture into a resilient, perennial, humane, generous and regenerative reality.

There is one missing ingredient: You. You are needed to make silvopasture happen. There are real reasons that silvopasture has been so little applied up until now, but none of them are for lack of technology or inherent flaws to silvopasture itself. Rather, what's been missing is people who are thoughtful, creative and dedicated enough to learn how trees can solve the problems being faced by graziers in their communities, and then set out to make things happen.

There are several basic issues holding silvopasture back, all of which can be solved, but all of which will need to be solved differently for every context. That is why in this book I have zero intention of telling you the exact formula for which trees to plant where, as what spacing, and using what money. That approach would be foolish and ineffective, since what works in one context will not necessarily work in another. Rather, my goal is to give you a framework for understanding what issues need to be addressed uniquely in your context, and how you might go about solving them. Trust me, it's not rocket science, or I never would have figured it out.

At Trees For Graziers we have learned that if we 1) adapt silvopasture to the needs and problems of our farm clients, 2) help them access funding to soften the cashflow hit of the investment in silvopasture, 3) provide access to high quality nursery stock, and 4) make establishing silvopasture easy, we can see tremendous eagerness among farmers to adopt the practice. If you take these steps, you too will unlock tremendous good for farmers, the wild and domesticated life that calls their farms home, the land, and their communities.

My goal is to empower countless people to engage with silvopasture as professionals, professionals who are intentional, strategic, and effective at what they set out to accomplish. No one person can do it by themselves. The work will not always be easy, but I can attest that it is rewarding, and that when done well, the reward gets richer and richer with time.

First, in order to understand where I am coming from, you will need to understand the context under which I learned and plied my trade, so that you can see where my context is similar or dissimilar to yours, and forge your own path.

Understanding Context

Context! Context! Context! I will say it a lot, but I cannot say it enough. Thoughtfully examining your unique context is absolutely critical to success in silvopasture. Please, please, please do not simply copy what has worked for me in my context and paste it to yours. This will not go well.

I'll share here the context under which I have worked and started Trees For Graziers, highlighting my personal context, local silvopasture context and the funding resources available in the region. My goal in writing this is to clarify for you how personal characteristics, background, and regional context has shaped my professional work with silvopasture. It is not to show you 'the path forward'. Your context will be different, so the way you go about things will be different. You will have different strengths, weaknesses, character traits, inclinations and opportunities from me. Your region and clients have different needs, livestock, soils, climates, and even trees than mine, so silvopasture will absolutely need to be adapted to your unique context. By first sharing my context, my goal is for you to compare and contrast it with your own, in order to determine how you'll best engage with and work professionally with silvopasture.

My personal context

Had someone told me 10 or 15 years ago that I'd be developing professional resources on silvopasture, I'd have said they were nuts. Though my dad grew up on a farm, I most certainly did not, and had no significant inclination or exposure to agriculture growing up. I grew up in a small town, got a college degree in social work, and my most significant job before starting a tree-planting business was as a houseparent of teens in the foster system. Beyond 6 credits of an online masters in agroforestry, I have no formal schooling in agroforestry. And all business management training has taken place at the unprestigious and yet often expensive school of "Hard Knocks".

Despite having almost no formal training or preparation for what I do today, what has helped me the most is an insatiable appetite to learn and try new things. For better or worse, ideas are constantly swirling through my head, and it's a personal hobby to understand and piece together the big picture of how things work and fit together. That has been especially important in the very early phases of silvopasture, since there were very few guides to show me how to move forward, nobody who had tackled the things I wanted to tackle in my context.

And though I started out with very little cash, I was fortunate enough to have no debt and a low cost of living, as well as access to a few acres of land. That allowed me to start the business on a shoestring, and not have to turn much of a profit for the first years as I fumbled my way through and figured out how to make this all work.

When I first started the business, I didn't yet have kids, but it wasn't long before our oldest was born. That made me quickly decide that I would not be traveling long distances in order to plant. That's a common thing among tree planting companies, but it did not fit with my goals of being at home for my family. I also am still deeply rooted in a place and community. If that hadn't been the case, I may have chosen to move for a job in the field of agroforestry, but that simply wasn't an option we were willing to consider.

One of the downsides of being a ravenous learner is that I get bored quickly. There have been several times where I realized I could simply settle down and keep doing a particular agroforestry related job (like planting and maintaining buffers as a one-man-show) for the next decade and lead a very simple life. It's all figured out, it just needs to be honed, polished, and done every year repeatedly. That may sound great to many. But I knew I'd succumb to boredom without new challenges, so I determined to keep expanding into new territory, like silvopasture consulting, implementation, professional training, etc.

Lastly, I have a strong 'visionary' streak in me, and a desire to see large and systemic change happen in the field of silvopasture. It is both a blessing and a curse, a goad that keeps prodding me onward. I fought taking on employees for a long time, preferring instead the simplicity of running the business alone. But as I realized that I would soon bounce into the limits of what I could do myself, and how those fell far short of my vision for silvopasture being adopted across the country, I decided we'd need a whole team of dedicated folks to make it happen. We're still very early in that journey, but the results so far have been great.

My silvopasture context

Trees For Graziers is located in and has mostly been focused on serving Lancaster County, Pennsylvania, which has a very rich farming community. The county is filled with Amish and Mennonite farms, many of which are very small by modern standards. Most of our silvopasture clients to-date have been organic dairies milking fewer than 50 cows, though there have been some larger exceptions. Dairy is the primary pastured livestock production happening in our area. There is some beef, as well as small-scale pastured hogs and pastured poultry, but folks raising livestock on pasture in our area are predominantly raising milk cows.

Organic and grass-fed dairies are our main niche. Because all organic dairies are required to have their cows eat at least 30% grass from pasture during the growing season, organic dairies typically have a lot more pasture than conventional dairies in our area. For our purposes, dairies that are 100% grass-fed are even better, as cows are that much more dependent on pasture, and need that much more shade. Shade is by far the #1 concern that brings people to us. Heat stress is on everyone's mind during the summer, and is expected to become a more significant concern as more people produce grass milk in the area, and as summer highs rise.

You should know that land is expensive here. At the time of writing one might expect to pay \$30,000-50,000 or more per acre of good farmland. We are known for having fertile soils covering our gently rolling hills, but that is not the only factor that drives prices up. Demographics are a huge factor. Amish and Mennonite families tend to be large, and farming is not only an occupation, but also a preferred way of life. Because communities are tight and travel is largely by buggies, there's a large preference for staying close to home, which significantly raises the prices of land. This is in addition to the pressures of development, as well as proximity to major cities, which gives farmers good sales outlets. All this to say, land here needs to pay for itself, and there's a high bar to clear. When developing a silvopasture system, anything that were to severely limit productivity or be an economic drag would be a non-starter. There's no line of people willing to set aside a large portion of their fields while trees planted in

silvopasture grow the 5-10 years needed before livestock can be reintroduced. Trees need to fit as seamlessly as possible into these production systems for them to be accepted. Systems that might make sense where land can be rented for \$50/acre, like pulp timber, are out of the question. On the other hand, high-value trees like cloned female honey locusts should make good sense, as investing in those is a whole lot cheaper than investing in more land. And tree crops for human consumption are a very interesting option in this region, given the availability of on-farm labor and the need to make significant income per acre of land.

My funding context

Accessing funding for silvopasture has been an uphill battle for us in these early years. Because of some poor experiences with the practice (mostly related to hogs in the woods and clearing to create silvopasture) the state NRCS does not support any form of silvopasture at the time of writing. It's not uncommon for waves of jealousy to roll over me as I look at EQIP cost share rates in other states and dream about what I could do with funding like that. Instead, our success in this field has been dependent on building the connections and relationships with funders in order to establish financial support for silvopasture.

One of our saving graces has been that we happen to be located in the most agriculturally polluting county in the Chesapeake Bay watershed, which has received a lot of financial support for agricultural Best Management Practices. While silvopasture was on nobody's radar in 2018, it is seeing more and more support as farmers, funders and conservation groups see the progress we have made. But that wasn't the case for our early plantings, the ones we've since used to demonstrate that this is indeed possible. Rather, we had to get creative, using a variety of funding sources. Some funds were tied to water quality, while others were tied to carbon credits. But none of them have been consistent. In fact, we have not used any one of the funding sources for more than one year, as all were either short-term or had very limited budgets. That funding inconsistency has created a real drag on our ability to plan for future plantings, cost us a lot of time and energy in seeking out funding, and meant we have to tell our farm clients to wait while we look for money for them.

I fully anticipate that financial support for silvopasture will become easier to come by in the years ahead. Agroforestry is a rising star in the fight against climate change, and is critical in providing resilience to farms. The work being done to show that this practice works and can indeed succeed will be critical for policymakers and conservationists to trust that money invested in silvopasture will be money well spent. In the meantime, we will continue being as creative as possible in finding cost-share for

our clients, and matching our clients' goals with the funding we can scrape together for them.

TFG Business Context

Here's a little timeline to give you a sense for the evolution of TFG as a business

- Summer 2017. Started a business under the name Crow & Berry Land Management. Focused on riparian buffers, especially multifunctional buffers that could yield crops and income, but my actual income-making services were mowing and spraying standard riparian buffers. Started super-PT and very seasonal, with other jobs paying the bills.
- Spring 2019. By now I am doing full time work in the business. So full-time that my first foray into a silvopasture experiment was to drop off some tubes, trees and barbed wire at a farm and say "you put them together and see if they'll hold up to the cattle, cause I don't have the time."
- Spring 2020. First silvopasture plantings. No FT staff yet, only on-call seasonal help. My first silvopasture was planted in the early days of Covid by a bunch of highschool boys who had no other way of hanging out than to work for me, and their parents desperately wanted them out of the house. You can bet our protocols were a bit looser than what they are now.
- August 2021. Hired first FT staff, and officially started "Trees For Graziers", so people wouldn't always ask "what does Crow & Berry do?". We ran both business names for a while before rolling it all into TFG.
- February 2022. Published *The Grazier's Guide to Trees*, mostly because I was tired of explaining Silvopasture 101 to potential clients again and again.
- November 2022. First SilvoPro course (the bootstrapped, dry-run version). We knew this was needed and decided to go for it while applying for a SARE grant for future SilvoPros.
- January 2024. We now have 7 team members including myself, and I do very little of the day-to-day work anymore, leaving the consulting, planning, project management, planting, aftercare, nursery and education in hands much more skilled and specialized than mine. Nobody is traditional full time year-round, except me. Most work 32-ish hours per week, and the one who works 40 hours takes summers off to fish commercially in Alaska. Being able to change gears

and have fun is a key part of seasonal work. Roughly 30% of our income is from buffers, the rest from silvopasture, of which most is consulting and installation. In the nursery we're still mostly in the R&D phase, and the implementation side of the business is cash flowing the nursery for now.

You'll notice it took me 4 years from my start in business until I was ready and able to hire my first staff, and almost 3 years to even do my first silvopasture planting. I had to feel it all out and make it up as I went along. I am optimistic that many of you can make a quicker jump into this. Silvopasture is better established now, with more support and resources than even just a few years ago. And I'll do my best to share from my trial and error so you can avoid some of the bumps on the path, and maybe take a couple less detours than I did.

Principles for silvopasture professionals

- Play the long game (aka embrace the pace).
 - We're talking about trees here. Trees take long to mature, long to show your work. This is the opposite of tech companies working with apps, where you get to show your results after a couple weeks of all-nighters. The trees set the pace. You can do this good and rewarding work until your 90's and beyond!
 - With each additional year, the trees you planted in year 1 will be more impressive to potential clients. The trees will sell your services for you, given the time. And your satisfied clients will sell silvopasture for you over time.
 - Conservation funding cycles are long. It's not uncommon for a project to take 2 or 3 years from conception to funding application to acceptance, planning and implementation. That process won't be rushed, and trying to rush it will usually end up biting you.
 - We're talking about a practice that challenges old and ingrained habits, plus the general culture of agriculture. The status quo did not develop overnight, nor will silvopasture become the new status quo in a year or two. It's moving in the right direction, but it will take time.

- Don't oversell.
 - This goes along with "Play the long game". It's better to undersell your services and move at a slower pace than overhype your services and push for implementation at a faster pace than is suitable. Your business will do better in the long term if you avoid overselling, and your clients will be better.
- Build trust.
 - Silvopasture work really relies on building trust and respect from your clients for the long-haul. It also relies on word-of-mouth recommendations, farmers telling their neighbors and cousins how they should go to you for help. Remember that trust is lost easier and quicker than it is gained. So do your best to handle clients fairly and honestly, communicate expectations clearly, and do your best to create more value for your clients than they expect.
- Start small, start smart.
 - Small scale projects are the easiest when you're just starting out. They don't require as much design, project management, labor, materials, funding, etc. They may be less efficient from a cost-per-tree perspective, but in the beginning of your silvopasture work, gaining experience is more important than cost-per-tree efficiency.
 - Homestead-scale projects are a great starting point, as they usually can find sufficient funding through NRCS's CSP, which is available anywhere, or pay out of pocket. They can also typically handle the planting labor in-house, meaning you don't need to outsource labor to a subcontractor.
 - Certain species are easier to start with than others. Willows, poplars and black locusts stand out as really easy species.
 - Certain stock is easier to start with and gives quicker results. Starting with 10' willow or poplar live stakes will yield impressive results early on, which is important as you look to gain interest in a region. Small seedlings take longer, and you may want to avoid expensive grafted trees while you're starting out, because they are trickier to work with, and mistakes are more expensive.

- Poultry are much easier on trees than larger livestock, so starting with poultry is a great strategy. As far as ruminants go, it's much easier to protect trees from sheep than cattle.
- Embrace working in phases.
 - There is incredible value in working on projects over the course of multiple years. Being able to project your workflow is key to business stability. It allows you to work well ahead of time to line up the funding, genetic stock, labor, etc. that will be needed to complete a project.
 - Working in phases allows for ample time for observation, on your part and on the part of the farmer. That process will improve the quality of your work and quality of your plan with each additional phase.
- Use silvopasture services to complement your other work.
 - Winter is for slowing down, connecting with folks, and writing silvopasture plans, since farmer schedules are slow. Depending on climate, winter can also be a time to plant. That's not always the case in Pennsylvania, but if you live further south, you may be able to plant right through winter, so long as trees are dormant and the ground isn't frozen.
 - Spring is the main planting season. Much of this is before things get busy in farm fields.
 - Summer is a slow time for silvopasture, other than aftercare and showing off your work at pasture walks (make sure to pick a hot day so everyone wants shade!). Summer is nice for visiting farms and writing plans, as the growing season gives you a better perspective on the farm than the dormant season does.
 - Fall can also be a planting season, but tends to be much slower than the spring, due to limitations with plant stock. In the long-term, fall is when tree crops can be harvested, processed and sold.
 - You can start with one set of services, and add others over time. Plan writing would make the most sense to start with, followed by offering installation services, then aftercare, even nursery production. You'll probably still want other work to get you through slow times, but silvopasture work can make a great component of a satisfying career.

- Just as each animal and plant needs to be adapted to its context, so each silvopasture-related business should strive to adapt itself to its own unique context. The problems faced, trees used, scope of work, planting seasons, busy seasons, slow seasons, funding sources, project partners, etc. will all be different, depending on context. It's up to you to adapt your offering to your context. Please do not simply copy and paste what TFG has done because your context will be different, guaranteed.

Describing Your Context

Introduction

The goal of this document, and the many questions that follow, is to guide you through the process of adapting silvopasture to your own context. You don't need to answer all questions, or even most. They are here to spur on your thought process, and you can use as many or few prompts as you want. Do take the time to reflect on the questions. Doing some good reflection is a surefire way to save yourself loads of time and money in the future by avoiding costly mistakes and *not* going down unproductive paths. Business is an intellectual sport; consider these questions your pushups. Start them during your formal training, and come back to them later as you've gained more experience and insight. It will be time well spent.

Personal Context

- What drives or motivates your work in silvopasture?
- Describe the legacy you envision leaving.
- What will it take to leave that legacy?
- What fears or hesitations do you have in this work? (examples: not sure I have enough expertise, unsure I'll have the time to follow through like I want, not confident about running my own business)
- What limits and constraints do you have? (examples: not able to travel because of commitments at home, unable to consult during busy season)

- How will silvopasture work complement your existing work or lifestyle?
- How will silvopasture work conflict with your existing work or lifestyle?
- What unique strengths or background do you bring to your work with silvopasture?
- What weaknesses or knowledge gaps do you currently have?
- Of the subject matters where you are not strong, which will you work to develop strength in, and which will you rely on outside experts to help with?
- Reflect on your work style. Are you a visionary, or very practical? Do you prefer administrative work or planting trees all day? Do you want to be part of a crew, or lead a crew? Determining these things will help you determine what roles you should fill within the ecosystem of silvopasture.
- Describe your interest in the doing the following:
 - Plan writing and consulting
 - Accessing and administering implementation funding
 - Wooing funders if implementation money is not readily available
 - Hands-on work—Implementation, aftercare, thinning
 - Project management and organization
 - Nursery growing

Part 2: Silvopasture Context

Resources

[The Grazier's Guide To Trees](#) (especially Appendix 1 which starts on page 61 in my copy)

[Tree Species Profiles](#)

[Recommended Nurseries for Silvopasture Trees](#)

Defining the Problems

- Below are the big problems that come up again and again in work with silvopasture clients around the country, and around the world. However, not all are applicable everywhere, and all will differ from context to context. For example, farms in Vermont will deal with much greater cold stress than those in Louisiana or Nicaragua, and farms in a mediterranean climate, with little rain during the summer and fall will experience a lack of forages at a different time of year than someone in the Mid Atlantic. In some regions, there are way too many farms completely reliant on one income stream, like beef or dairy and could use some diversification. In other regions, perhaps diversification is less needed than a consistently profitable cash crop, like American chestnuts were for Appalachia several generations ago.
- These problems will differ from farm to farm, but here we want you to paint with broad brush strokes about what is generally true for your region or clientele. The more you can flesh this out with examples or stories, the more helpful it will be. For each major problem facing your clients, describe the degree to which it's a problem, when it's a problem, how farmers currently address the problem, etc.
 - Heat Stress
 - Cold Stress
 - Seasonal lack of feed
 - Soil health

- Lack of income diversification
 - Unpalatable forages/high plant secondary metabolites (like toxic fescue, reed canary grass, etc.)
 - Poor pasture/forest management
 - Others (wildfires, lack of construction or fuel wood, insufficient shelter for poultry to roam, etc.)
- Note also the particular and pressing environmental and social issues of your region that silvopasture can help address. Water quality is a major issue in our region, in particular the areas draining into the Chesapeake Bay. Water quality issues are major factors in many areas. Your area could also have particular needs related to wildlife travel corridors, endangered species, etc.
 - Looking ahead, what problems might be coming for your area in the next 20 years which silvopasture may be able to address, or which should be considered in planning? Changing climate, changing population makeup, changing regulations, etc.
 - Consider the opportunities that silvopasture can bring. New enterprises in wood, nuts, fruits, livestock feed, ecotourism, and hunting should be explored.

Species Selection

- Now that you have determined and defined common problems for your context, we will focus on determining just what trees will best address those problems within your context. The species that are appropriate will vary widely, depending on the context and problems the trees are addressing. A honey locust is a great tree for Virginia, but likely not a great fit in southern Florida. Meanwhile, southern Florida has all sorts of trees that someone in Virginia would love to plant but cannot.

List the tree species that would address area:

- Shade trees
- Windbreaks
- Mast crops for livestock

- Mast crops for human use
 - Leaf fodder
 - Nitrogen fixers
 - Timber
 - Wildlife/hunting
 - Other
- Note whether there's genetic selection work that needs to be done for certain species to thrive in your area or research that needs done to see whether certain species are applicable. For instance, no honey locusts with very high sugar contents have been identified in USDA Zones 5 or colder, to my knowledge. Those would be great to find or develop, but will likely require a generation of seedling honey locusts to be planted in cold climates to see which ones do best.
 - Note also which species might fare better or worse in a changing climate. Since trees take a while to mature and will be around for decades or centuries, it's best to project forward. In southeastern Pennsylvania, persimmons are not a very common tree, but that might change, as persimmons seem to be almost a weed in parts of Virginia. And while I would love to experiment with Siberian pea shrub, our region is a bit warm for it already, and it'll likely only get warmer.
 - Identifying what trees you'll want to use is one thing. Being able to source them can be another challenge entirely, especially for these niche silvopasture species and cultivars.

Your Silvopasture Context

For this prompt, we recommend doing some study on tree species. A few resources to look at would be TFG's [Tree Species Profiles](#) (for mostly northeastern / mid-Atlantic plant hardiness zones) and [The Grazier's Guide to Trees](#). Also, take a look at our [Nursery Recommendations](#). If you know of nurseries that are producing good stock (even of certain species or varieties), please share.

Defining the Problems

- What problems are farmers and landowners in your region facing? Consider problems that might be latent as well (that is, problems which aren't verbalized since farmers aren't able to articulate the problems or aren't asking for solutions because they can't imagine that there might be solutions to them). Environmental problems could also be addressed here as well, especially if you are working in a non-profit or agency capacity tasked with stewarding natural resources. Being as specific as possible about who experiences these pain points and when the silvopasture would be valuable. Cattle on pasture experience heat stress differently than cattle in barns all summer. If there's lack of feed during certain times of year, when is it lacking, what is it lacking (for instance, stockpiled cool season forages are high in protein but low in energy), and what are the current solutions?
- **Problem 1:**
- **Problem 2:**
- **Problem 3:**
- **Problem 4:**
- **Problem 5:**

Opportunities

- While agroforestry can address existing pain points, it can also bring in new opportunities. What new opportunities do you believe agroforestry can bring to your clients and community? Be specific about who will care and be driven by these opportunities. Examples could include developing land for silvopasture plus hunting, or gaining economic diversification through tree crops.

- **Opportunity 1:**
- **Opportunity 2:**
- **Opportunity 3:**

Silvopasture Trees

- What tree species would address those problems and how so? What tree species would offer new opportunities? What specific traits from these trees are you looking for?

Tree Species	Benefits	Notes

Sourcing Nursery Stock

Now that you've considered what trees you will need to source for your projects, finding reliable sources, good genetics,

- Where are you going to source your top 5 species?
- Are they available in the quantities that you anticipate needing?
- What are the bottlenecks in your supply chain?
- For tree stock that you can't access, what is your strategy to acquire it? Or what is your strategy until that stock becomes available?

Part 3: Getting It Done

How will you plant?

- Here's the most basic question you'll need to answer for your context: How will I go about planting trees? When will I plant? What layouts will I commonly use? What tools are best suited to my context? For example, if you're in steep country, planting on contours or with keylines may need to be part of your consideration. If you're in flat country, you can likely disregard planting on contours. If you're primarily planting closely-spaced trees, it's better to do them with a mechanical planter, but if the spacing will be wide and the placement needs to be precise, hand planting each tree individually might be the way to go.
- At TFG we have moved primarily towards hand-digging each tree hole, because it allows us to most accurately place trees exactly where we want them and achieve a very precise spacing or grid pattern, to a degree that wouldn't be possible with a tree transplanter. However, we haven't done a lot of high-volume tree plantings where trees are planted tight together. When those scenarios arise, we either make do on a small scale, or get a transplanter in. Also, if you will be subcontracting plantings to custom planting crews, note what methods they are able to use, so you can match your planting plan with their capabilities. All these factors play into what methods you will use to establish trees in your context.
- In *The Grazier's Guide to Trees*, we lay out the main method that we at TFG have found useful in getting trees established. However, our method most certainly is not the only means of getting trees established in a pasture. Depending on your context and your tree species, you may find that other methods work better. For instance, TFG doesn't plant many conifers, but if your context requires a lot of conifers, you'll need to know really well how to plant those. Or, if your area is too hot for tree tubes, or you plant a lot of trees that have leaves that are too big for tree tubes, you will need to adjust.

Layout and Planting

There are some basic and universal aspects to tree layout that can be applied to many contexts, like arranging trees on a grid, on contour or along a keyline, keeping spacing as a multiple of machine width, aligning windbreak trees against prevailing winter winds, orienting shade trees North-South, etc. What layout patterns are

particularly well-suited to your region and context? (For example, if you live in the Southeast and are growing pine plantation silvopasture, your layouts will be very different from someone growing honey locusts for shade and feed on small dairies in Pennsylvania. If wind and snow are major factors, your layouts should take them into consideration. If you're in steep hill country, planting on contour will be much more necessary than for flat farms.)

- Does the topography of your area tend to favor or rule out using contours/keylines/grids?
- Are you comfortable laying out contours, keylines or grids?
- Do you have access to people or tools to establish the needed layouts?
- What level of precision do you think you'll need on most of your jobs (accurate down to the millimeter or will a few feet left or right be an acceptable margin)?
- What do you envision being common layouts for your plantings? Will trees be densely planted or spaced widely?
- How will you plant most of your projects (transplanter or tractor auger or by hand)?

Prioritization and Phases

- What types of trees are easiest to work with and most likely to thrive?
- How can you get early successes and quick ROI on farms?
- What trees can you start with while funding is hard to come by? Consider cheap seedlings rather than expensive grafted trees, low-density plantings for just enough shade, or plantings that don't require shelters.)
- What trees would you or your clients want to work with but are not available at a reasonable price yet?
- How will doing projects over several years affect the project management and funding side of implementation? It can be helpful to have advanced notice of projects for project management purposes, but it's less efficient to have many smaller projects.

- Do you have access to funding that will allow phasing projects over several years? (Many grants are short term, like 1-3 years, and only really allow one planting by the time the grant is done. NRCS-EQIP plantings can be strung out over a longer time.)

Aftercare

- For the trees that you have described as common or valuable in your context, describe what the aftercare protocols look like. (Examples: Pruning up tall trees or timber trees, pollarding or coppicing other trees.)
- (Tip: Always build aftercare into the budget from the start, whether covered by a grant or making it clear to the landowner that aftercare is critical. Aftercare isn't nearly as exciting or sexy as planting a tree, but it's just as critical to success. It is also a great source for recurring income, a means of learning by coming back year after year to something you planted and seeing what worked and what didn't, and a means of staying in touch with the farmer, especially in scenarios where you want to plant multiple phases of silvopasture. It may be worth offering aftercare services at a low margin for the sake of gaining experience and ensuring success, especially on your early plantings.)
- Can you build aftercare into budgets with funding you're accessing? NRCS, for example, typically does not factor in aftercare.
- Who will do the aftercare? Will you build that in as a standard part of your offering or will you rely on the farmer or another entity to perform aftercare?
- If the farmer will be doing aftercare, how can you incentivize or nudge them to get it done in a timely manner? While everyone has good intentions of getting things done, when reality strikes and trees don't get the preventative care they need, losses can be really high.

Funding

It will be very important to understand the funding opportunities for silvopasture in your region. Given that most farmers are not swimming in cash and can't afford to make many investments that won't pay off for 5-10 years, access to outside funding is the lifeblood of most large-scale silvopasture projects

- What planting scale will your typical clients need? Pros working with large farms will engage with cost-share very differently than those primarily working with homesteaders.
- What resources are there to subsidize the writing of silvopasture plans?
Developing a plan is the first step towards applying for funding. [Finding funding to write plans can make a huge difference in the success of a silvopasture business. That's because many funders are reluctant to allocate money to silvopasture before they know there are shovel-ready projects. But in order to get those projects lined up, they first need at least a basic plan. Developing those plans takes real work, and many farmers are reluctant to pay for planning services that won't yield a return for 7 years or so (maybe 2 years from the time the plan is written until funding is acquired and trees are in the ground, then another 5 years until they see benefit.) Finding a source of funding to cover the up-front planning service can give you and your clients the freedom to develop a solid planting plan and allow more effective searching for implementation funding.]
- What funding does NRCS have for the various practices in your region:
 - Silvopasture
 - Alley cropping
 - Windbreaks
 - Riparian buffers
 - Grazing plans
 - Forest management plans
- At what scale is using the [Conservation Stewardship Program](#) more profitable than EQIP in your state? It currently offers a minimum of \$4,000 annual payment for a 5-year contract.
- How difficult is it to actually receive funding for silvopasture from NRCS in your state? This differs by state as well as county, as some states have staff that are familiar with silvopasture, whereas some staff are reluctant to offer support. In some cases, it may just not be worth applying for cost-share, and instead it's better to pay out of pocket or look for other funding sources.

- Are there specific allies at NRCS or other funding agencies that can advocate for you?
- What conservation groups are currently making funding available for silvopasture?
- What conservation groups would be likely candidates to make funding available for silvopasture?
 - If it's critical to bring in new funders for silvopasture, describe your strategy to get them on board.
- What loan opportunities could be a good fit for your region? Ideally these would be special conservation-minded low-interest loans, or loans with deferred payment for several years while the trees are maturing.
- Of the funding sources you have identified, how are the funds dispersed? This is critical for cash flow purposes. Can you get the money at least partially paid up front? Is it all paid after the fact? If so, in 30 days, or often longer? Be aware that often reimbursement processes can take time if things get gummed up in administration, meaning you might not see payment for a project for 3-6 months in some cases. You'll want to avoid being in that spot.
- What roles will you play in getting money to farmers? Will you leave them to do the application? Will you go after grants for them? Will you collaborate with a nonprofit partner, having them be the main applicant and you provide technical expertise on the application? We have found the most success with the last approach, and, in our context, if we'd leave each farmer to apply for their own funding, we wouldn't have much of a business.

Part 4: Running A Business

Introduction

Being able to write plans is a good starting point, but silvopasture is all about implementation. A pretty drawing or a convincing spreadsheet won't do anything unless the trees get in the ground or the woods get thinned. The best and most obvious way that I have found to make that happen is through the vehicle of a silvopasture-focused business. While I'll focus on sharing from what I know best, namely running a private, for-profit business, much of the same lessons pertain to helping farmers in a different business context, such as a non-profit or government agency. All need to understand and apply basic realities of the process and flow of providing silvopasture services.

Let's make it clear from the outset that running a business is not easy. Half of new ventures close shop within the first 5 years of operation. Now that's one thing for a tech startup or a donut shop or a lawn mowing service. You can still do some pretty good stuff in a few years, even if you decide to close shop. But a silvopasture business is only getting started by year 5. In year 5, the trees you planted in years one and two are now only starting to get impressive and sell your services to those who see them. If working in phases, at this point you should have recurring clients. You should also have better access to funding. It takes a number of years to get the flywheel spinning, and at the 5-year mark, you're just starting to see the fruits of what you've worked at so hard and patiently. So, we want to set our sights on developing businesses that will last way over 5 years. We want to create businesses that can offer high-quality services for decades, even generations to come. We're talking about trees, so we have to talk about long-term horizons.

One key to running a long-term silvopasture service is having a business that is thoughtfully adapted to your unique context. This includes considering factors like the demand in your area and funding available, but also more personal matters like the personality type of those leading the business, and what unique limitations they have. For instance, I originally started working exclusively with riparian buffers, because that is where the local demand for conservation tree planting was. At that point, there was no clear demand or funding support for silvopasture. Once the first silvopasture project got underway, demand and funding slowly built, allowing Trees For Graziers to form as an entity focused almost exclusively on silvopasture. I also determined that, because I was starting up the business while starting to have kids, I would strictly limit travel, meaning I prefer to keep projects within an hour's travel, which is doable in our context. That is only now shifting as we bring people onto the team that are willing and able to travel.

Also, I soon realized that I enjoy working most as a systems thinker, someone who tries to fit all the big structural pieces together, like marketing, funding, nursery production, etc. That creative pursuit has led me to develop this course and other training programs, to write *The Grazier's Guide to Trees*, and likely much more in the future. It has also pulled me away from much of the day-to-day, hands-on work, meaning that I needed to learn to delegate that responsibility. At several stages along the way, I could have stayed a one-man operation and decided to leave it at that, but I knew I'd be bored out of my wits without new, creative problems to solve. Knowing what makes you tick and what sucks the life out of you is critical in being able to put together a silvopasture career that fits you.

Keep in mind that there is a tremendous difference between being able to do the technical skills (writing a silvopasture plan, matching trees to their correct places, running a tractor) and the business skills (balancing cash flow, managing employees, filing taxes) of running a successful, profitable silvopasture business. You can be the best silvopasture planner and a master tree planter, but that does not necessarily mean you should run your own business. If you do decide to start your own silvopasture business, remember that a lot of your time will necessarily be spent doing the business stuff, rather than the technical stuff you may enjoy most.

Marketing

- Who is your target audience? Homesteaders, dairy farms, poultry farms, large operations, etc?
- Among your target audience, identify a few early adopters and influential leaders
- How can you get some early successes so you have positive projects to show off?
- What are their unique needs?
- How will they learn about your services?
- How will they be convinced that silvopasture is valuable to them?
- What pain points can silvopasture solve for them?
- What unique connections do you have?
- What events in your region can you piggyback on for outreach?

- How will you establish initial demonstration sites that will allow for greater education in the future?

Cashflow

- How much money do you have for business capital?
- How much credit do you have access to?
- Can you weather 3-6 months without pay from jobs?
- Can you weather 1-2 years before your work with silvopasture provides a full-time (seasonal) income? How will you meet your income needs between now and then?
- How does work with silvopasture compliment other income streams for you?
- Will you purchase the materials up front for jobs or will you require landowners to pay for materials?
- What up-front payment will you require from landowners?
- Will you offer pro-bono consulting to get projects flowing?

Project Management

TFG provide templates that can be adjusted according to contexts

- Develop a landowner contract.
- Write down project flow (first contact, read the book, fill-out questionnaire, etc.).
- Adapt TFG supply checklist and workflow checklist.

[Online Questionnaire](#)

[Planting Plan](#)

[Planting Plan with Explanations](#)

[Project Flow Chart](#)

Planting and Implementation

- Who will plant large projects? Your crew, friends, a sub-contractor, etc. A huge key in silvopasture plantings, because it's such seasonal work, is being able to scale up your planting team for short periods of time.
- If a subcontractor, which ones are available in your area?
- How much advance notice do they need?
- What time of year can they be available? Sometimes traveling crews aren't available exactly when you want them, because they are still working their way to your area, or already passed and won't be back your way until next season.

Aftercare

- Who will perform the aftercare?
- How often will it be performed?
- What, if any, special equipment will be needed?
- If trees need to be top-worked several years after planting, who will do that?
- How will you track those projects so you know when to go back and top-work?

Seasonality Considerations

- When will you do the bulk of the following:
 - Consulting
 - Planting
 - Aftercare
 - Marketing
 - Resting
- Describe what work you will do in seasons when not doing work with silvopasture.

Breakdown of silvopasture services

Most folks will decide to offer some, but not all services that farmers need to establish silvopasture. Some are logistically more challenging, or harder to cash-flow, or unsuited for for-profit groups. Below I try to flesh out more information around various services that one can choose to offer so you have a better sense for what makes sense for you.

- **Consulting.** Consulting is likely to be the starting point for many. It is logistically very easy to get into, requires no overhead expenses, and offers lots of value right away, since overseeing and navigating silvopasture system design and installation is a niche, specialized knowledge base that can save people many thousands of dollars and lots of frustration, plus get them far ahead of where they could be on their own without doing the heavy lifting of navigating funding, nurseries, etc. Most farmers have never done this, and would only ever do it a few times for their own farm, so experienced consultants can bring a wealth of insights including best stock to work with, proven planting and protection methods, common mistakes, good funding programs, etc. From a business perspective, once you have some skill set here, you can charge a good margin, since the amount you can save a client, especially on a larger project, will greatly surpass what you charge.
- **Funding acquisition.** By this I mean playing matchmaker and helping clients navigate the funding options that are available. This is in many ways tied to the consulting piece, but differs from the technical knowledge needed to determine which species to use, how to plant them and how to lay them out. This is more about being knowledgeable about the various funding resources, how to tap into them, how to get through the bureaucracy, etc. This can often make the difference between a dream and an actual project. Without the funding to reduce the cash flow hit, many projects simply would not happen, or they would need to be strung out in small pieces over a very long time. Sometimes this is a very hands-on process, like if there are smaller nonprofits that you're connecting farmers with and helping them fill out paperwork. Or it can be hands-off if you're mostly referring them to their local NRCS office for EQIP or CSP funding, though even there you'll need to be involved with educating and building trust with NRCS staff, since most will be completely unfamiliar with agroforestry practices.
- **Grant writing and administration.** This is something that TFG has mostly stayed out of, in favor of partnering with local conservation nonprofits. I prefer being able to minimize my administrative overhead and complexity, and

outsource it to groups that have dedicated grant writing and admin teams. Also, as a for-profit organization, we're very limited in what grants we can pursue. When we do pursue grants, it's usually in collaboration with a nonprofit, where they are the applicant and we bring the technical expertise and find farmers to participate in the grant.

- **Nursery.** Running a nursery can be a great business compliment to a silvopasture service. It can also be slower and more challenging logistically than offering consulting services. The easiest plants to start with are large willow or poplar poles, since those are almost impossible to find elsewhere, are costly to ship even if you did find them, very easy to grow, and offer a great starting point for farmers wanting shade. Another easy nursery option for starting out is to buy small seedlings, grow them out in a nursery bed or pots for another year to sell as a larger, more resilient seedling. At TFG we've grown our own live stakes, bought in most of our seedlings, like black locust, oaks and persimmons, and taken on the production of honey locust ourselves, which included a very steep learning curve with lots of wasted energy. Only recently, now that we can dedicate staff to it, have we gotten into clonal propagation of mulberry, persimmon and honey locust.
- **Planting.** Someone obviously needs to do this, and you offering the service takes the burden off of farmers, who are typically already too busy. It's also a good source of income over several months of the year, if you can take on the seasonal increase in workload. It is logistically more challenging, requiring you to coordinate plant deliveries and safe storage, tree shelters, crews, mulch delivery, travel, etc., but very similar to what a landscaping install crew would deal with. Your homesteader clients will likely do this themselves. If you can subcontract all or some of your jobs to a traveling planting crew (especially the big jobs), that could allow you to keep your operation simple and very low-overhead. At TFG we've found it very valuable to handle the planting process in-house, as it allows us to control jobs from start to finish, minimize handoffs, keep quality high and get feedback on what works well and what does not. Even though it takes more overhead (trucks, trailers, side-by-side, year-round and seasonal crew, etc.), this forms the backbone of our services, without which we wouldn't have much of a company, and we would not have implemented half of the projects we have. But there are options where you can keep your business very simple, stay a one-person consultant/project manager and only work with DIY clients or clients who can get in a separate contracted planting crew, with your oversight to ensure all goes to plan.

- **Aftercare.** Good care post-planting often makes the difference between success and costly failure, and gives you great return for the time and effort put in. It's the small things that go a long way, like pulling weeds inside tubes so they don't choke out trees, dropping a vole deterrent down the tubes, correcting a broken stake or a tube that flew off. Usually we find that maintenance never gets to the top of the to-do list for farmers, and trees suffer as a result, when just a little maintenance could have solved the problem. This is another service that requires almost no overhead or logistics. You won't make a ton of money with it, but you'll get really valuable insights on what's working and not working, increase the success rate of your projects (which will help you get more projects in the future), and put you in regular contact with your clients so you can line up future phases of installs.
- **Sales and project development.** This is less a service you provide to your clients, and more something that's necessary to be in business, so I wanted to highlight it. I have experienced a very significant 'latent demand' for silvopasture. If you make silvopasture easy for folks to say 'yes' to, you'll find that there is real demand. But most folks won't come pounding on your door looking for your services. You need to get out there, make yourself available, talk at events, do pasture walks on your older projects, etc. Reach out to folks you think are early adopters and leaders in the community. Just because it's 'sales' doesn't mean it has to be icky or intrusive. We never push our services, and never try to force someone into a project. I only want to work with folks who are all-in, and we do our best to rub shoulders with that crowd. The result has been great adoption in our local area, and a strong business.

Conclusion

We hope that following our journey and thinking through considerations regarding a silvopasture business has been helpful to you. If you have any feedback or further questions, please reach out to us through our website: treesforgraziers.com. Please consider joining our [1-day or 3-day SilvoPro workshops](#) or join one of our SilvoPro Business courses online.