

## **ForestHER podcast. Season 1, Episode 1. “Making More Than Sawdust”**

Becky Barlow (BB): It can be difficult for family forest landowners to sell small quantities of timber. Timber that, if sold, can be financially significant to them. Maybe they have a small woodlot and want to thin out some trees. Or maybe they would like to sell a few dozen trees that were pushed down to make way for a road or homesite. But in reality, these small-scale timber harvests do not make financial sense for a traditional logging crew. So how can a landowner utilize this timber, so it won't be left in the woods to rot? Today we will explore how portable sawmills may be part of the solution. I'm Becky Barlow, and this is ForestHER.

BB: Portable sawmills are just what they sound like, a sawmill that can be pulled behind a pickup truck or SUV and moved from location to location to cut downed timber into boards. Boards that can then be dried and used for specialty products like cabinets or furniture, or in some cases the construction of barns or sheds. About 10 years ago I was introduced to portable sawmilling and realized that it could potentially be helpful to family forest landowners who had small amounts of timber that needed to be utilized. Not long after that, I started to wish for a portable sawmill that could be used for Extension demonstrations. Fortunately, in 2017 we were able to purchase a portable sawmill thanks to generous donations from an Auburn University “Tiger Giving Day” project. And that same year, we had another stroke of good luck.

Adam Maggard (AM): Hey I'm Adam Maggard. I'm a Forestry Extension Specialist with the School of Forestry and Wildlife Sciences at Auburn University and the Alabama Cooperative Extension System, and I focus on forest systems management.

BB: Adam joined our extension team as a specialist in 2017. He had an interest in portable sawmilling and quickly learned how to operate our sawmill. He has since given talks and demonstrations on the ins and outs of portable sawmills to over 600 people across Alabama. This summer I visited with Adam on a day he was conducting a demonstration and asked him to share a little about our sawmill and how he sees portable sawmilling technology fitting in land management plans for family forest landowners.

AM: The majority of our private landowners in the state own somewhere between 10 and 50 acres, so it's hard for those landowners to get somebody out there to harvest and to sustain their management on that property when they need it. Whether it's from some downed trees or bug attacks/insect attacks on their trees or they just have some trees they need thinned out for management purposes. So the portable sawmill was actually another opportunity for them to get that work done and also potentially even, you know, make a little money to help pay for the management cost. You can buy one, they are reasonably feasible relatively speaking. You can get them anywhere from a few thousand dollars up to 80/90 thousand dollars, you know, just depending on all of the bells and whistles you want on them and kinda what you need it for. Obviously the higher the price you're getting things like hydraulics and you can cut larger wood with it and your board feet per hour rate goes up with that as well. But it's really whatever fits your needs. The other option is; there's a lot of folks with portable sawmills that do it for a business and around the state a lot of the portable sawmills, they will come out to your

property, usually you can hire them by the hour. They also will do it by the board foot. And I have also seen it where landowners can just kinda, you know, there's sawmills that need wood and landowners can workout deals: hey you come and get the wood and you can have it. You know, and the saw mill will come and get it and take back and they'll cut it up for whatever purpose they need it. So it is another outlet for smaller landowners in the state to get some of that management done, get some trees out that they need cut or if they just have a valuable tree in their yard or something that has sentimental value that they want to make some products out of. It's a way to do that for landowners.

AM: We use a Wood Mizer LT 35. It is a hydraulic sawmill I purchased somewhere around the 21-24 thousand dollar mark. They have several ones that are not hydraulic that are a lot cheaper but I can tell you that the Hydraulics are worth the cost if you're going to be cutting a lot of wood. It's definitely beneficial and it's really efficient. You can cut wood all the way down to a tenth of an inch. On the Sawmill it has a setting on there that's all computer driven that you can repeat your cut and it will automatically go back to that next level so if you're cutting 2 inch boards once you make the first cut you go back and you hit the button on the computer and it'll drop down to where it needs to be for the next two inch cut so you can move through some wood pretty quick once you get the hang of it. It has the hydraulic lift arms and stabilizers on it and the outriggers to secure the wood as well which is very beneficial when you're dealing with heavy, heavy logs and trying to get them set on the sawmill to cut the wood. The lift gate and the hydraulic lift arms are absolutely, in my opinion, a necessity. And it is a real safety feature as well, it'll help secure that log from moving. When you start to cut the log, the heavier it is at the beginning it's easy to secure it, but as you start cutting that log it loses its weight and it starts to get more flimsy and can bounce around on you and those features prevent that from happening, and it's real fuel efficient. You can cut a lot of wood on a tank of gas, and it's pretty mobile. The nice thing about it is that it hooks to the back of your truck kinda like you're hauling a small boat and you can drive it right through the woods right up to the log, next to the log you're wanting to cut you don't have to be a certain place or take the log somewhere you don't want too. So it, they are truly portable compared to what portable sawmills used to mean many years ago when they had to be taken apart and packaged up and moved by a whole crew of workers so it makes it accessible and it gives landowners another opportunity to get some work done on their property, but also if they have some trees they want cut for certain reasons they can have that done too. It really opens up a lot of doors for our private landowners in that smaller acreage range anywhere from 10-50 maybe even up to 100 acres. The folks that run portable sawmills for a business they'll do anything from actual small thinnings, they'll clear bug spots, they'll take out storm damaged trees and anything in between. I've seen them go from the forest and doing a small thinning operation to going to the middle of town and taking down a yard tree. So it really has a lot of different outlets in terms of its uses and abilities.

AM: So with the portable sawmill one question I get asked a lot is about the blades and how long they last, and in our case we will push them too somewhere in the 9-10 hour range of cutting wood, but a lot of what we're doing is for demonstration purposes. A lot of folks that are running it for a business making wood products might be a little less they'll probably run it 5-6 hours before they change their blades out. It's not a circular saw like the big wheel saw that you see. It is a band saw, and it runs off of a pulley system kinda like a bicycle wheel if you think of the way it wraps around.

BB: On the day of our visit, Adam was cutting logs from a shortleaf pine that had been salvaged from an urban area. The tree had recently died but the wood was sound making it a good candidate for sawmilling. When we counted the rings to age the tree we discovered it was over 100 years old. I asked Adam if I could record him cutting a log, just so you can get a sense of what it sounds like – and how quickly cuts can be made. So in the clip that follows you will hear the sawmill crank up, then there is the squeal of the blade starting to turn and the spray of water that is used to keep the blade cool while cutting. The engine idles for a moment and then cutting begins. The squeaking at the end signals the cutting head has reached the end of the log and the blade has been disengaged.

BB: After he finished cutting the boards, Adam talked a little more about how folks use portable sawmilling for a job or hobby. And he also brought up some of the special considerations that go with using wood from a portable sawmill.

AM: It is pretty wide ranging what folks do and the folks that own their sawmills a lot of them do it for a hobby and they don't keep track of how long it takes or expenses but a lot of them do it full time and those folks can make very good money doing it. They make a lot of their money off of specialty woods such as cedars and hickories and oaks. And the ones I've talked to personally they kinda pay the bills with everything else; the small thinnings or cleaning up a bug spot and so forth. Those will kinda keep them going but they really make their high-quality products and high value wood; your oaks, cherry, cedars are really what makes a lot of money for the landowners. I've seen it both in terms of being paid by the hour to come out and take some wood and cut it up, I've seen it done by the board foot, and I've also seen it done by kind of an exchange deal where they need some wood they want to make product out of they would have to come out and work out a deal with the landowners trying to get the wood out.

AM: But you do have to consider drying the wood you're going to cut it where it's green and then you're gonna have to take it somewhere to stack it and dry it. A lot of the full-time folks that do it every day for their business and a lot of them have their own kilns and then some of them prefer just to air dry. Depending on the type of wood that's gonna take several months at least, probably looking at close to half a year to even over a year before you can even attempt to get it down to the percent moisture in that wood before you can use it. It really depends on what you are using it for. If it's an outside project it's not gonna have to take as long to do that if you're using it for something that's gonna be working around living space or where folks are gonna be it's gonna need to dry down a lot longer, and you're also gonna have to get it inspected in terms of getting it approved to use if you're building just like cowpens or something on your property like a storage shed it's not necessary in all cases. It is county by county so you

do need to check with your local county and your local authorities, but if it is something that's gonna have living quarters for humans or something that is substantial it will have to be inspected.

BB: While all landowners could potentially profit from the use of portable sawmills, based on what we learned it seems like those owning smaller acreages could benefit most. Landowners can even purchase their own sawmill if they would like to regularly saw wood from their property. Or they can partner with a sawmill owner to get the work done. Those who own their own sawmills may do it for a hobby or business, cutting lumber that can be used to make furniture, cabinets, or smaller structures. But Adam made a good point - is it important that you know local codes and laws before using lumber cut with a portable sawmill for building structures. You don't want to put a lot of time, money and effort into something that you may not be able to use.

BB: So if you are interested in learning more about portable sawmills, you can visit the "Resources" link found on the ForestHER podcast page, or you can contact one of the Alabama Cooperative Extension System Forestry, Wildlife or Natural Resource Agents working in your county. You can also check the Alabama Cooperative Extension System calendar for upcoming workshops in your area.

BB: Thanks for listening! We hope you will join for future ForestHER podcasts. In the meantime, remember - find your voice, to be bold, and to do good things for your land.