We operate a sawmill and we seem to be getting a lot of sawdust buildup on our bandsaws when we cut white ash. I was wondering if you could send me any info on tylosis in white ash and how to prevent sawdust buildup on our bandsaws?

Tylosis? I am not a botanist. I am just an old saw doctor. I know nothing about tylosis. But because I used to hammer saws for a number of handle mills, I am quite familiar with the pitch build-up associated with sawing ash.

You refer to sawdust buildup, but I assume you mean pitch buildup on the shoulders of the saw. Circular saws, narrow bands, wide bands—it’s the same situation with all three. Softwoods deposit a black pitch on the body of the saw, while hardwoods deposit their pitch on the shoulders. Different hardwood species have different colored pitch. Hard maple is a light beige color and ash leaves a pitch that is a slightly darker beige. The big problem with ash pitch is that the deposit can become relatively thick, to the point where it can get in the way and can cause binding and friction, which can create unwanted heat at the rim of the saw.

Mills that saw varied hardwood species can solve the problem by sawing a red oak log. I assume it’s the tannic acid in the oak that will quickly clean most if not all of the ash pitch from the shoulders. If, on the other hand, you are sawing exclusively ash, as any handle mill would, there are some other ways of dealing with the issue.

The first thing I do to every saw I hammer is to clean it with a wire cup brush on a grinder. If you are going to use precision straight edges and tension gauges on a saw, it must be free of pitch and any other debris. Your straight edge needs to rock on high spots, not extraneous material such as pitch.

Thanks to my work for handle mills, which saw ash exclusively, I spent a lot of time struggling to grind off that rather thick pitch. I also spent a fair amount of time experimenting with different kinds of cleaning chemicals, trying to find an easier solution to the problem than elbow grease.

I suspect muriatic acid might have done the trick but I was in no mood to handle a chemical that harsh. I know that lye mixed with water would have done the job, but that would involve building a dip tank that would completely submerge a 60” diameter saw, along with an easy way to load and unload the saw and an area where I could hose the lye off. And then I would worry that the saw might develop rust in the sockets where the bits and shanks are.

I did try many other more benign cleaning agents with less than optimal results. Eventually I just gave up and went back to spending the extra time with the wire cup brush and a dust mask.

Then a funny thing happened. One of the handle mills I dealt with needed a few saws hammered right away, so the mill manager decided to bring the saws to my shop himself. All he had for transportation was a Ford Bronco, so he attached a roof rack, loaded the saws on top, and off he went down the road with his very top-heavy load. It just so happened that he drove through a torrential rainstorm on his way to my shop. And much to my surprise, as we unloaded the saws from the top of his car, the saw on top was completely free of ash pitch. After all of the chemical experimentation I
did, it turns out the one substance that works the best, happens to be good old H2O.

If you are sawing nothing but ash on a regular basis, and you want to get rid of that pesky pitch on the shoulders, just pour a little water on the saw while it is running. Note that this approach should be exercised with caution, because water will also cool the saw. That’s okay as long as you don’t get the saw seriously hot and then start spraying water on it, which could cause it to crack if it is hot enough.

Another caution would be that if you decide to apply water to the saw while it is running, make sure that you run the same amount of water on both sides at the same time. If you were to apply water to only one side, you would be cooling one side of the saw while not cooling the other. That will dish the saw, because one side will be a different temperature, causing the cooler side to shrink while the warmer side stretches.

You can run a constant drip or spray, or just turn on the water for a log or so when you start seeing that unsightly buildup on the shoulders. Either way, at the end of each day you should spray the saw down with WD-40 to disperse the water and prevent rust.

If you are not sawing ash but you are still running a hot saw, don’t think about cooling it with water. Instead, find out why your saws are heating and fix the problem. Head saws don’t need to be water-cooled to run properly. They just need to be mated to proper collars, hammered correctly and sharpened properly. Sure, it takes more than that to make saws run right, but those are the basics that need to be addressed first.

Questions about sawmills and their operation should be sent to Forum, The Northern Logger, P.O. Box 69, Old Forge, NY 13420, FAX #315-369-3736.

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