My Sawyer Supply Recommendations

Hi, NY-NJ Trail Conference / ATC Sawyers:

At the last couple of sawyer classes, several of you have asked for recommendations and suggestions for vendors for our gear and supplies. I've also been emailed by a few of you, and have responded with specifics. Finally it was suggested that I make up a full listing of all that stuff and make it available to everybody. So – here it is. These all are my personal selections and thoughts – I don't have any agenda other than getting the right stuff for my uses. Your opinions and results will likely vary…

So, here's various vendors/manufacturers I've done business with for stuff, broken down by topic. There's plenty of others, but these are the one's I use, and I've editorialized and opined.

PPE [The good stuff ain't cheap – the cheap stuff ain't good! It's our body we're protecting, here!]

Notes:

*1) As of July 2022 the minimum specification for chaps is **ASTM F-1897-2008**. It's the "2008" part that will change. The current level is, I believe, "2016". Every vendor offers multiple levels. If you're buying chaps now, get the highest you spec can. The minimum level is going up soon, and lower-graded chaps will not be grandfathered. The number of plys or layers will differ across manufacturers, depending on the specific materials used (more is usually better), but the real criteria is the ASTM number.*

2) Be sure that your hard hat (be it a simple hat, or a system helmet) has a 6-point suspension; not all do. Cheaper, 4-point suspensions are classified as "bump caps" and do not qualify for us. Also, check the manufactured date, as the hat will officially "age out" at 5 years from then – not from when you buy it. It's coded in the hat.

- Chaps: [My personal choice is Labonville, with Bailey's house brand a close second]

  Note: Make sure you get the right size for you (cover at least 2" below the top of your shoes). Some manufactures do "S/M/L" sizing, others use ranges of inches.
  - Bailey's Online (www.baileysonline.com) – Their house brand are very good stuff, they also sell Labonville and Elvex.
  - Labonville (www.labonville.com) – They will sell direct, but at list price.
  - Amazon (www.amazon.com) – Stick with the mainline name brands, and make sure you get the correct ASTM spec. (Tip: If they cost under $75, ignore them!)
  - FullSource (www.fullsource.com) – They sell a full line of safety gear and feature Elvex chaps.
  - Stihl dealers – The Stihl-branded chaps are also offered in levels below the specs we have to adhere to, so be careful. Also, pretty expensive.
  - Husqvarna dealers – Same drill as with Stihl's chaps.
  - Local arborist supplier – Most sell the brand that matches their gear, some sell Labonville and Elvex. This is probably where you should look last unless you have a regular relationship with them. Double check the specs!
- System Helmets: [My personal choice is Peltor or Oregon. A hat that fits your head and has the required 6-point suspension is what you want.]
  - Bailey's Online (www.baileysonline.com) – They sell Oregon, Peltor, Elvex Husqvarna, Delta, Stihl.
  - FullSource (www.fullsource.com) – They sell a full line of safety gear – featuring Elvex helmets.
  - Your saw dealer – Make sure it has 6-point suspension. Not all OEM's do....
  - Tractor Supply – They sell various brands. Make sure it has 6-point suspension.

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- Eye Protection: [Required, even with system helmet face shields. They can be glasses, goggles, etc., as long as they are “full wrap” coverage.]
    - Tractor Supply, Lowes, Home Depot, etc. all have for use with or without prescription glasses. Just make sure they are actually “impact rated”.
    - Your saw dealer – but they'll probably be expensive "logo-wear" gear.
    - Bailey's Online (www.baileysonline.com)
- Hearing Protection: [Required only if not using a system helmet, but not a bad idea to use in addition to earmuffs if your saw is really loud. Basically earplugs of some sort.]
    - Tractor Supply, Lowes, Home Depot, etc.
    - Your saw dealer – but they'll probably be expensive
    - Bailey's Online (www.baileysonline.com) (see note below…)
    - FullSource (www.fullsource.com)
- Gloves:

    Note: Cut-resistant gloves are nice, but really expensive, and often don’t fit well. You probably just want well-fitting work gloves. Also, consider winter versus summer use – probably get pairs for warm and cold weather. Also consider wet conditions, and how your gloves will work then.
    - Tractor Supply, Lowes, Home Depot, etc.
    - Your saw dealer – but they'll probably be expensive "logo-wear" gear.
    - Bailey's Online (www.baileysonline.com) (see note below…)
    - FullSource (www.fullsource.com)

Wedges: [Some 6" and 8", maybe 2 each, one is rarely enough]

Note: You want “double taper” wedges, where both sides slope. Some have of ridges or textures – nice for felling, but not really important for us. You want plastic wedges – not metal of any type!

- Your saw dealer
- Tractor Supply
- Home Depot (in some areas, not in many)
- Bailey's Online (www.baileysonline.com) (see note below…)

Tool Belt: [This is just personal choice as to what works for you.]

Note: Some guys just string their collection of stuff off the belt of their chaps. I have multiple pairs of chaps, so that doesn't work for me. I have a regular 2" web belt that all the stuff just slides onto. If you get enough stuff on the belt, you may want to also consider suspenders...

- Tractor Supply, Home Depot, Lowes, Harbor Freight, etc. all sell "contractor" tool belts with umpteen pockets and pouches.
- Campmor, Ramsey Outdoor, "Army Navy", etc. stores.
- Bailey's Online (www.baileysonline.com) - They have all sorts of pockets and pouches. (see note below...)
- Your saw dealer

Fuel: [If your fuel is bad – you’re toast! 90% of the time there’s a problem in the class, it’s fuel.]

Note: Gas with ethanol from a gas station (no matter which) is an unstable mixture and will spoil within a month or so to the point that it will not run your saw well, if at all. Since there’s ethanol in it, it could even cause mechanical damage, because the alcohol separates out and you end up burning straight ethanol which causes pre-detonation and other stuff that wrecks pistons! Also, the ethanol will damage all the “rubber” hoses, gaskets, seals, etc. – I was needing a carburetor service/replacement a year between my multiple saws brush-cutter and snow-blower until I stopped using ethanol fuel.

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- If you use less than a gallon or two of fuel in a season, the best move is probably to purchase the pre-mixed fuel that matches your saw's requirement (50:1 is typical for modern saws). It's more expensive, for sure, but it's pretty much bomb-proof. It's basically "white gas" or Coleman fuel with mix oil. Last seen, it was in the $34/gallon range. Commonly offered products are Trufuel or Vpfuel and saw brand.
  - Tractor Supply, Home Depot, Lowes, Dick's Sporting Goods, better hardware stores etc..
  - Your saw dealer, in the house brand.
- If you use more than a couple gallons a year, you've got a couple choices in the mix-your-own world. (These are both also great for your mower, snow-blower, generator, etc.. Just ***not in your car***, as they will kill your catalytic converter.) Make sure you use the correct mix (50:1 vs. 40:1, etc.) ratio.
  - Non-ethanol Fuel: Since it is not permitted to sell non-ethanol fuel at gas stations in NJ, if you live in that state, you'll have to either go out-of-state, or perhaps find one of the few remaining marine fuel stations that still offer non-ethanol fuel. Currently, both NY and PA have some stations (Stewarts, Cumberland Farm that I know of) that offer "high-test, non-ethanol" fuel. Buy the highest octane they offer, and don't buy much more than you need for a few months.
  - AVgas: I use "avgas" for all my small engines. This is small airplane fuel, sold at the pump at general aviation airports. Its designation is "AV-100LL", which stands for "aviation grade, 100 octane, low lead". It has no ethanol (nor any of the unstable additives that have to go in when the lead comes out), thus it is "shelf stable" for well over a year even with out adding a stabilizer. (Yes, it has a minuscule amount of lead, but at a way lower content than auto fuel ever was. For some of you, this may be a deal-breaker, and I get it.) It's typically about 50% higher price than gas station hi-test, but way cheaper than the pre-mix products.

    In either case: You should use a stabilizer if you are storing your fuel for more than a few months, if only to deal with condensation in your storage container. I use StarTron's gas stabilizer, which uses enzymes to disperse moisture and keeps the fuel "fresh". (*Don't use "dry-gas", that's straight alcohol!*) I put the StarTron in the 5-gallon jug I store fuel in, prior to mixing. Most of the main-line mix-oils now include stabilizers, but that only works after you mix the fuel. The Star Tron product can be used alongside Stabil and such. (http://www.starbrite.com/item/star-tron-gasoline-additive)

Mix Oil:

Use only real "chainsaw" mix oil! Just get it from your saw dealer – it's not worth the risk. Bailey's has oil that's fine, but the cost to ship it makes it impractical (see note below). The stuff for 2-stroke boat or mower or motorcycle oil just won't function properly in a chainsaw's motor. The only thing for certain is that you will have more smoke and fumes while you're using the saw – and that you'll possibly have your motor seize up before very long. 'Nuf said on that!
It's tempting to buy your mix oil in quarts – don't do it. Buy the small bottles for the size batch you are mixing (1 gal, 2.5gal are typical). And make sure you get all the oil out of the little bottle (rinse with some gas). The amount of oil in the mix is so minimal anymore, that you want to be darn sure you have the right mix. (Cheating a little short on the gas amount is OK, and won't get you in trouble, but don't go the other way!)

Chain:

Note: Make sure to get the right pitch, gauge, and drive link count for your saw. Don't be tricked by thinking that all 18" bars' chains are the same (*see Replacement Bars*).

- Bailey's Online (www.baileysonline.com) (see note below…) - Their Woodland Pro house brand chain is private-label Carlton – and for my money, it's the best chain on the market. They also sell Oregon and Husky branded chain. They have every size combo imaginable.
- Your saw dealer – They certainly will carry the branded chain from their saw maker. They will be good

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(they can't afford to sell junk), and you'll be sure to get the right type and specifications chain.

- Oregon (https://www.oregonproducts.com) – Available from hardware and equipment retailers. They offer pretty good chain in all the usual put-ups. Just check your pitch, gauge, and drive link count. They tend to package their chains by "loop size" rather than link count, and that can differ quite a bit from one saw maker to another.

Chain Sharpening and Care: [Where the metal meets the wood…]

Note: This section will trend a little more toward a tutorial, just because of the topic…
The time and care you spend keeping your chain sharp is the single most critical factor in how effective you will be as a sawyer. A dull chain will tire you out, use more fuel, slow you down, maybe even stop you altogether. In this document, I will only discuss the tools and describe the options for sharpening – my words alone really cannot teach you.
The following are in no particular order of preference, though I've almost never used the first one.

- Get someone else to sharpen them – Your saw dealer, many "mower shops", even some tree-service places will sharpen your chains for you for a price. The going rate of around $7 - $8 might be worth it to you if your usage is fairly light. The only caveat is that some of those guys do less-than-wonderful work. If you are going this route, take in just 1 dull chain loop and have them sharpen it; then go out and test it. If it's good (and you'll know), you're all set. If it's no better (or even worse!) find another vendor. One common failing is they don't check/lower the depth gauges appropriately. Another one is that they sharpen all chains the same – and that's just wrong! Chipper and Chisel chains are usually different, and even within types of cutters, different brands can have different specs.
- Hand sharpen them yourself – This is absolutely a skill you should try to learn some form of. Being able to touch up a chain (like with every tank of gas…) in the field is invaluable.
  - Those of you with a "calibrated eyeball" and a very steady, practiced, hand can free-hand sharpen with just a simple file and depth gauge. My hat is off to those masters/wizards who can do it – I'm not one of them. *(See "angles" and "depth gauges", below)*
  - An option for us mortals is to use one of the various filing aids out there. The links included are just to illustrations of the particular item from Bailey's, most of them are available from your saw shop.
    - The best of them is the "double file" filing guide, IMO. It holds 2 files, a round one for the cutter and a flat one for the depth gauge. It holds the files at just the correct depth – all you have to manage is the angle or angles, depending on the type of cutter. *(See "angles", below)* Both Pferd and Stihl make a 2-sided version (with 4 files) that you just flip over when you change sides of the chain. Here's the Pferd one: https://www.baileysonline.com/pferd-cs-x-chain-sharp-filing-guides-17300p.html I have 2 of these, one for each of the 2 sizes of chain I have (.325 and .375) since the cutter files are different diameters.
    - There is also a very simple "file holder" that controls the depth. Like all of these tools, they have some kind of alignment guides so you can get a reasonable hit on the angles. *(See "angles" and "depth gauges", below)* The advantage to these is that they are cheap, light and small, easy to keep in your pack. Everybody makes them – here's Oregon's: https://www.baileysonline.com/oregon-assembled-chain-filing-guides-orf-31690p.html
    - A more involved file holder device is the "Granberg File-N-Joint Precision Filing Guide". It's somewhat complex to get set up correctly, but once you get all the settings tweaked, it's the next best thing to a bench grinder. It holds the file in exactly the right height, cutter angle and side angle. You just stroke the file in it's frame and it makes you look good. It's light, but a little clumsy to have in your pack – more like something you'd use back at home, or at the trailhead. Here it is: https://www.baileysonline.com/granberg-file-n-joint-precision-filing-guide-g106b.html
    - If you are using the right kind of chain, there's a really cool little tool from Husqvarna that just

sits on the top of your bar with rollers to guide the file. It's the same as the "file holder" above, in that you have to control the actual filing angle – though it is somewhat easier with these. The down-side I've found is that they don't support other than a 90" side angle, so no chains with 80-degree (like most all Carlton chain). I've tried them several times, and I've never had any success on Stihl saws – don't know why, and if anybody comes up with an answer, please let me know. There are any number of other gizmos, guides and gadgets, and I'll admit to having tried most of them – and I'm not using any of them anymore. Taking a tour through the Bailey's website under their "chainsaw filing accessories" will show you all kinds of options.

- Dremel Tool type grinders, are a tempting upgrade from hand filing with a holder/guide. They are typically a jig that sits over the chain and guides a small hand-held grinder over the cutter tooth as though using a file. In my opinion, these are more trouble than they're worth. You have to have power of some kind, and they are much heavier than a couple little files. Also, the grinder bits are prone to wearing down fairly quickly, which reduces their diameter and results in an incorrect shape to the cutter. Give them a miss, in my opinion.
- Bench/table mount chain grinders are the "commercial grade" option. They're what your saw shop uses, though theirs will be a very expensive (probably automated) one, and more than you need. I bought one several years ago, and never regretted it. To get one that will serve you well will cost about what 25 to 30 loops would if you send them out to be sharpened. My break point was about 18 months – clearly your situation will differ. They are not hard to set up, just a little fussy. You will need a grinding wheel sized for your chain, most of them come with 2 – 1/8" for .325" and 3/16" for .375". Using a bench grinder takes a little care to build a technique, but the results when done correctly are very good. An 18" (74 DL) loop takes me about 3 – 5 minutes to do, and all the teeth are exactly the same, which is really hard to do with a file. The downside is that if you get too "greedy" while you grind, you can overheat the cutter and change the tempering and make it dull off easier. Since I frequently am cutting really junky, dirty wood, often on/in the ground, despite my best efforts I can dull a lot of chains on a trail build clearing run. To save time and effort, I just take 4 or 5 loops of chain with me and swap them out, rather than trying to sharpen them in the field. If I've hit a rock or a nail in the tree, the chain probably needs much more help than just a simple filing can give. The grinder I have is no longer offered, but here's one similar: https://www.baileysonline.com/oregon-bench-wall-mounted-chain-grinder-120-volt-410-120.html

Angles: This is where things can get really confusing. Every chain maker has their recommended optimal filing/grinding specs. Depending on if it's full-chisel or semi-chisel the top plate angle can be anywhere between 25° and 35°. Stihl is typically 30°, whereas my Carlton is 35°, and Oregon's seem to vary. Same with the side plate angle; Stihl is pretty uniformly 90° no matter which type the tooth is. Carlton and Oregon are generally 80°. If you go on the internet, you'll find 86 different folks with 98 different opinions… All I can say is: C*onsult the info that came with your chain!*

Files: Firstly, make sure your files are sharp – yes files get dull after a while, just like chain. Next, you should always push the file into the work – never, ever, "saw" it back and forth. Every backstroke will wreck what you just did, and will hurry the file's demise. This goes for basically any file you'll use, including the flat file for the depth gauges.
The usual round file for standard .325 cutters is 3/16" diameter, and for standard .375 cutters the file is 7/32" diameter. In both cases, the "low profile" chains will be a smaller round file. Again: *In any case, consult the info that came with your chain!*
For lowering the depth gauges *(see below)* you really want to get a file with no teeth on the sides. That way, you can't accidentally nick off the leading edge of the cutter while you file the depth

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gauge. Get them wherever you get your chain – your saw shop, Home Depot, Tractor Supply, etc..
Here's what I use: https://www.baileysonline.com/pferd-depth-gauge-raker-files-15050p.html

Depth Gauges: (also called "rakers"). These control the depth of the bite the following cutter takes. As you sharpen the cutters, they become lower (they taper down towards the back end), and if you don't lower the depth gauges to match, your chain will eventually just stop cutting. Theoretically, you should check them after every sharpening, but realistically it won't show up as a need until you have removed nearly half the cutter as you sharpen it. Lowering the depth gauges is actually quite simple and quick. Place one of the myriad of measuring gauges over the tooth, and use a small flat file to remove whatever sticks up above the gauge. Depending on what kind of wood you are cutting, it supposedly matters what the depth is; but realistically since we pretty much always cut "whatever it is", I go with the "hardwood" depth of 0.025". As I say, there's a bunch of options, including one that often comes with your saw. Get them wherever you get your chain.
Here's what I use: https://www.baileysonline.com/oregon-depth-gauge-tool-orf-22290p.html

Replacement Bars: [Bars do wear out!]

Big Tip: Take a spare bar and chain with you. If your saw gets bound, it's a lot simpler to just unbolt the motor from the stuck bar, stick on the spare bar and chain, and cut yourself out, than to have to carry another saw, call for help, or hike out and come back later with another saw.
Note: Make sure what you buy is for your brand of saw's mount (Stihl, Husky, etc.), and that the gauge and link count are correct. The specs are usually stamped or engraved into your current bar. The specs you want to be sure match what you have are:

- Cutter height (chain size): In our world, it's either .325" or .375"
- Drive links (D/L): This is how long the actual chain is, and thus the number of cutters and the real length of the bar.
- Gauge: This is the width of the slot in the bar, usually either 0.050" or 0.063"

Generally, resist the temptation to put a larger bar on your saw, since most dealers will have already mounted the largest one suitable for it when they sold it to you (a cheap way to make a saw "bigger", and more expensive). Most bars now have a sprocket tip – you want that if you have the choice.

- Your saw dealer – They will sell you an OEM bar that is correct for your saw. This is never a bad idea, except possibly for the price.
- Bailey's Online (www.baileysonline.com) – They sell good replacement bars in a couple different "weights". Just check the drive link count for your length, as some of their low-profile bars can be different than what you have now, even for the same "bar length".
- Oregon (https://www.oregonproducts.com) sells a number of replacement bars, I've used them, and I can say they're fine. These are in the usual hardware and equipment stores. Again, check the drive link count for what you are buying, as some of low-profile bars can be different than what you have now. You could end up with a bar that doesn't fit any of your current chains.

Bar Oil:

Note: Buy real, actual bar oil. Don't buy off-brand or general purpose "saw oil" or 30W motor oil offerings from hardware stores – they just don't work right and you'll tear up your chains and bars.

- Stihl offers both the regular bar oil, and also a winter mix that flows better in really cold (sub 20's) temperatures. (And if it's that cold, I'm not going out to cut, anyway!)
- Husqvarna offers standard "all-season" bar oil. I've not used it, but lots of folks do.
- There are all-season "vegetable-based" bar oils that are made from canola oil. They work fine, and are required in many sensitive wetland and wilderness areas. They are more expensive, but you aren't

spraying petrochemicals all over the woods. You supposedly shouldn't swap back and forth, so if you do switch to veggie, plan to have that saw dedicated to the veggie oil. At the moment, I'm only familiar with "Motion Lotion" (really!) from Bailey's, but I'm sure others make it.

In summary:

- Your saw dealer is generally your best, first option. Certainly for your saws. You'll never go wrong doing business with a reputable OEM dealer. Sometimes the cost of doing so is offset by having a reliable, at-hand expert for when (not if) you need them.
- If you really want "one-stop-shopping", your answer is Bailey's. I buy a lot of my stuff there, as should be obvious. Their prices are reasonable, their house brands are really good and a good value. They are not Stihl dealers, but they do have legit 3rd-party parts, and chains don't care who's saw they're on. The only down side to them is that they are in California, and the shipping can get your attention on small orders – so it might make sense to bundle things and do one big order (maybe a "team buy" with a buddy?).
- A lot of this stuff is offered on Amazon – and that's certainly an option. Just be double-darn sure you are actually getting what you think. With the possible exception of wedges, if it's off-shore (and not from Sweden, etc.), you probably don't want it.... ;-)
- Generally, you don't want to buy your saw from a "big box store" retailer. The saws are almost always "cheaped down big box specials" and frequently are not covered by the real manufacturer's warranty. Just go to a real saw vendor – whichever brand you prefer. You'll get a better machine, and have a real service option when you need it.