Keeping your chain saw in perfect operating condition is key to reducing down time in your logging operation. During the workshops and visits to logging operations, I often find that saws are either unsafe to operate or are improperly maintained and tuned causing saws to be unsafe, run inefficiently and even wear out prematurely.

There are many things you can do to maintain your saw(s). If you are unsure how to make a repair or tune a saw, it is best to take it to a dealer. However, if you understand what to look for you will better know when your saw needs the attention of a trained professional.

The following is a summary of basic maintenance steps. Some of these need to be done weekly and others need to be done daily. Please refer to your owners manual for a list of daily and weekly maintenance schedules.

Procedures for Reducing Down Time (RDT):

1. **Air Filter** - Think of this as the chain saw's nose. If the filter is not clean, the chain saw cannot run efficiently. Air filters should be cleaned with soap and water and should be dry before putting them back on the saw. Consider having more than one filter so they can be rotated. Do not use cleaning agents on the filter, such as ether, which will destroy the seals. Do not use mixed saw gas which will leave an oil residue that will collect dirt and fine sawdust particles.

2. **Screws and Bolts** - Always check screws, nuts and bolts; especially after running a few tanks of gas through a new saw.

3. **Starter Cord** - Inspect starter cord daily. There should be some free play in the spring when the cord is pulled out completely. The cord should not be frayed and the handle should not be broken.

4. **Flywheel and Pawls** - The flywheel often collects debris which can cause it to become unbalanced. The flywheel and pawls can be cleaned with a toothbrush and an ordinary bathroom cleaner such as 409. While the cover is off, it is a good idea to clean the wires of the ignition. When these get dirty, the vibration of the engine can cause the wire to break.
5. **Saw Chain** - Inspect chain for cracks and wear.

6. **Bar** - Clean the groove. Heat generated along the bar will cook oil and chips into the rail. This should be **removed daily** or it will tend to clog the bar making it difficult for the chain to pass over it and reduce effectiveness of the oiler. One way to help extend the bar life is to rotate the chains. Your might consider owning three chains, which can be rotated on a daily basis. This will help the chain and bar wear at an even rate.

7. **Sprocket** - When the sprocket teeth at the end of the bar become sharp to the touch, they are worn out and should be replaced.

8. **Clutch, Drum, and Drive Sprocket** - The chain drive sprocket is made of case-hardened metal. If the fingernail can catch in the drive straps, the sprocket is probably worn out. The clutch is a spring clutch, which engages at approximately 3,000 RPM. The drum should be clean.

9. **Chain Catcher** - The chain catcher on the bottom of the saw must be in place to protect the operator from injury and the saw gas tank from rupture if a chain should be thrown off the bar.

10. **Chain Brake** - The chain brake stops the chain in the event of kickback. Most new brakes have an inertia function so the brake will engage even if the handle is not hit. The chain brake must be cleaned daily and can be checked by running the saw at full speed and activating the brake. The chain should stop almost instantly.