

Sawyers and Swampers Introductory Course

Prepared for NY/NJ Trail Conference' Trail-U

[WORKING DRAFT]

Overview of Course Elements

This course is intended for people planning on becoming working, certified, sawyers within the programs offered by the New York / New Jersey Trail Conference. It consists of 3 distinct classes, which will be offered on an as-needed basis.

The first of the three classes offered, is an introduction to the activities of all saw team activities. It is strongly recommended for those who have little or no experience working around or with a chainsaw, as well as for those who are new to the NY-NJ TC sawyers' program. People who intend only to work as a sawyer's assistant (commonly known as a "swamper") will only need to take this course, prior to working with a sawyer in the field.

All those intending to obtain certification as a sawyer must successfully complete the second course in the series, as it is the core USFS Sawyer Certification course. This class is required for all sawyers; and is offered only to prospective sawyers for work within the auspices of the NY/NJ Trail Conference. In general, students who complete the USFS course for the first time will be graded as "A" (apprentice) sawyers. Apprentice sawyers may only operate in the company of a "B" grade sawyer or higher.

Upon successful completion of that second course, the third course will take the form of in-the-field workshops. For that majority of students who complete the USFS course as "A" sawyers, this will provide an opportunity to get practical experience and practice in the type of work that NYNJTC sawyers are expected to undertake. These will be organized fairly frequently, on an as-needed basis, as a means of acquiring the needed field experience prior to upgrading to a "B" certification.

To upgrade to a "B" certification, all "A" grade sawyers will, after sufficient field experience, retake the USFS certification course (the second course in this series). Upon satisfactory completion thereof, they will receive a "B" grade certification, which can be refreshed at subsequent USFS re-certification courses.

Sawyers and Swampers Introductory Course

Prepared for NY/NJ Trail Conference' Trail-U

[WORKING DRAFT]

Course 1: Intro for Sawyers and Swampers

1. Introduction
 - a) Instructors
 - Each instructor should introduce themselves, giving a brief summary of their roll within the Trail Conference, and about their subject-related experience.
 - b) Students
 - Each student should introduce themselves, and give a brief summary of their roll (if any) within the Trail Conference, and about their intentions and expectations for the courses.
 - c) Location information
 - Acknowledge the hosting facility.
 - Identify the locations of bathrooms, exits, etc.
 - If there are “coffee and” items offered, indicate where they are, and if there are any kind of no-food-in-here rules.
 - d) Schedule for the day
 - Plan to take a break about hourly. Should be quick – 5 minutes.
 - Class will be mostly talking and show-and-tell for the first part.
 - Then the class will move outside to see, first hand, what has been discussed.
 - The class will return to the room for final Q&A, and evaluations.

2. A basic beginner's class for sawyers and swampers.
 - a) Review the “Overview of Program” information with students to insure they understand the overall training progression.
 - There are 3 classes in the full program.
 - This one, and the third one, while not mandatory, are strongly recommended for sawyers.
 - This is the only class which is needed for swampers, although they may partake in the third class if they wish.
 - b) Poll students for intended class track
 - How many are going on to be sawyers?
 - How many are just looking to be swampers, at least for now?
 - c) Explain what is expected to take place in the current class
 - Since members of a chain-saw team share many common activities and responsibilities, this initial class will concentrate on those things.
 - This class will be the primary one for those intending to become swampers, but not sawyers. This course will explain to them the various functions and expectations of a swamper.
 - This class will be a primer for those intending to proceed to becoming a certified sawyer. Those students will continue on to take the USFS - approved chain-saw operator course.

3. Explain what each role is, and what is expected of each.
 - a) Sawyer
 - Operates the chain saw

Sawyers and Swampers Introductory Course

Prepared for NY/NJ Trail Conference' Trail-U

[WORKING DRAFT]

- Helps to transport equipment, fuel, tools, etc..
 - “Chief Safety Officer” The sawyer is the final arbiter of what will be considered as safe to undertake, and is responsible for maintaining a safe work site at all times.
 - Is required to have First Aid, CPR & Blood Borne Pathogens training
- b) Swamper
- Clears brush and cut tree pieces after they are cut, keeping the work area clear underfoot for the sawyer
 - Helps to transport equipment, fuel, extra tools, etc. They need not be a Sherpa, but everybody needs to carry a fair share of the load.
 - “Assistant to the Chief Safety Officer” When the sawyer is operating the saw, the swamper is his or her proxy. They are responsible for keeping the sawyer safe and aware of possible dangers which may arrive while the cutting is going on.
 - Is not required to be a certified operator – but it helps if they have an understanding of what is going in.
 - The swamper is the crowd manager, and must make certain that passers-by do not create a dangerous situation.
 - Is recommended to have First Aid & CPR training. Since the one most likely to suffer an accident is the sawyer, having someone else be able to handle things is important.
4. Introduce students to what is needed to perform the tasks in a safe and effective manner.
- a) Personal Protection Equipment (PPE)
- Hard hat, required
 - Face and eye protection (required for sawyer while sawing)
 - Hearing protection, recommended
 - Gloves, recommended
 - Long pants & shirt sleeves, recommended
 - Heavy work boots, required
 - Saw chaps (required for sawyer while sawing)
- b) Basic work site safety considerations
- Things overhead that might fall while work is going on.
 - Loose rock or dirt underfoot.
 - How stable is the down tree(s) that you are undertaking?
 - Snakes, bees, poison ivy, etc.
 - Weather – Too cold? Too hot? Too windy? Thunderstorms?
 - Physical state of members of the team.
- c) Safe work practices
- Never operate a chain saw when alone
 - Always use the full PPE appropriate to your activity
 - Swampers should stay at least 10 feet away from a running saw unless explicitly instructed to do so. This would pretty much only be in the case where the sawyer has paused and needs a wedge knocked in and needs the swamper to hammer.
 - Sawyer and swamper must communicate at all times about what is going on.
 - The swamper should not be clearing material while sawing is going on, unless they are

Sawyers and Swampers Introductory Course

Prepared for NY/NJ Trail Conference' Trail-U

[WORKING DRAFT]

at least 20 feet away, and the sawyer has indicated it is OK to do so.

- Even while clearing cut material, the swamper should keep watch of the sawyer's surroundings and warn them if something changes and a dangerous circumstance develops.
- Hikers and other passers-by should be stopped and held at least 50 feet away. If they will not comply, then the sawing activity should be halted until they pass through.
- Use proper lifting and moving techniques, and safety considerations while doing them.
- When you get tired, stop and go home. The trees will wait. Tired sawyers and swampers get hurt much more easily, and more often!

5. Discussion and Demonstrations

- a) Go outdoors to a previously identified venue with “typical” blowdowns and related materials
- b) Review site safety basics
 - General site conditions, footing, etc.
 - Overhead hangers or branches with potential to break off while working
 - Other leaners
 - Spring poles, and other booby-traps
 - Access to, and escape routes from, the work area
- c) Site preparation for sawyer
 - Clearing of loose brush and other flotsam
 - Clearing of escape route
 - Removal of any other hazards
- d) Crowd management
 - Managing passing hikers
 - Managing other helpful people
 - Controlling “Volunteer Creep”
- e) Discuss hazards, problems, and what to do about them
 - What to do with “hangers” and “breakers” - a.k.a. “widow-makers”
 - What are, and what to do with, spring poles
 - Pressures in a tree
 - Binding and stretching
 - Compression, tension, twisting and torque
 - Root-balls
- f) Discuss saw basics, stance, grip, approach to cutting
 - Show and tell
 - Posture
 - Full wrap thumb & why it is so important
 - Discuss the “philosophy” of dealing with trees which need to be cleared
 - Where and how to start
 - How much to cut
 - Avoiding wrecking your saw chain (at least).
 - General saw maintenance, fuel, etc.

Sawyers and Swampers Introductory Course

Prepared for NY/NJ Trail Conference' Trail-U

[WORKING DRAFT]

- g) Discuss and demonstrate safe handling of materials to be cleared
 - Review proper lifting and moving techniques, and safety considerations while doing them.
 - If possible show peavy, log-jack, mattock, rock-bar, etc. Also the good and bad of cut branches as ad-hoc levers.
 - Be aware of where things will be rolling (don't be in the way); plus, you don't want to leave large sections of logs in such a position that they could become dangerous runaways if someone were to get them going.
- h) Proper conditions to leave a work site in, once the job is completed
 - Brush disposal
 - disburse as broadly as possible
 - possibly use to hide an ad-hoc reroute that occurred
 - if dragged far enough away, can be piled to make small animal shelter
 - Cut log pieces disposal
 - If agency has vehicle access and wishes, then leave near the trail/road for them to pick up.
 - If not, then distribute cut pieces randomly off the trail. Do not make cord-wood!
 - Beware of creating a rolling hazard. A large diameter log will roll very well, and travel a long distance if it gets started.
 - Spread your chips and bark bits around – don't leave them in piles. They will compost quicker that way.

Sawyers and Swampers Introductory Course
Prepared for NY/NJ Trail Conference' Trail-U
[WORKING DRAFT]

Course 2: USFS Sawyer Certification Course

This is the standard course now being delivered by certified instructors. It is required for all chain saw operators working under the auspices of the New York / New Jersey Trail Conference.

Sawyers and Swampers Introductory Course

Prepared for NY/NJ Trail Conference' Trail-U

[WORKING DRAFT]

Course 3: Sawyer and Swamper Field Workshop

1. Introduction
 - a) Instructors
 - Each instructor should introduce themselves, giving a brief summary of their roll within the Trail Conference, and about their subject-related experience.
 - There will be a much lower student to instructor ratio for this course (2 – 3 students per)
 - b) Students
 - Each student should introduce themselves, and give a brief summary of their roll (if any) within the Trail Conference, and about their intentions and expectations for the courses.
 - c) Schedule for the day
 - Class will be mostly sawing and talking about sawing.
 - Everybody will have as much saw time as possible
 - To begin with, the class will start out as a group, then break up into “teams” of an instructor and 2 – 3 students
2. Poll students for intended class track
 - a) How many are going on to be sawyers?
 - b) How many are just looking to be swampers, at least for now?
3. Review what each person's role is
 - a) For this class, everybody will also be a swamper at some point.
 - b) Sawyer
 - Operates the chain saw
 - Helps to transport equipment, fuel, extra tools, etc.
 - “Chief Safety Officer” The sawyer is the final arbiter of what will be considered as safe to undertake, and is responsible for maintaining a safe work site at all times.
 - Is required to have First Aid, CPR & Blood Borne Pathogens training (does everybody have it?)
 - Is responsible for informing the swamper of his/her duties, and of their safe work practices
 - c) Swamper
 - Clears brush and cut tree pieces after they are cut, keeping the work area clear underfoot for the sawyer
 - Helps to transport equipment, fuel, extra tools, etc. They need not be a Sherpa, but everybody needs to carry a fair share of the load.
 - “Assistant to the Chief Safety Officer” When the sawyer is operating the saw, the swamper is his or her proxy. They are responsible for keeping the sawyer safe and aware of possible dangers which may arrive while the cutting is going on.
 - The swamper is the crowd manager, and must make certain that passers-by do not create a dangerous situation.
4. [Before starting out] Review Personal Protection Equipment (PPE)
 - a) Hard hat, required

Sawyers and Swampers Introductory Course

Prepared for NY/NJ Trail Conference' Trail-U

[WORKING DRAFT]

- b) Face and eye protection (required for sawyer while sawing)
 - c) Hearing protection, recommended
 - d) Gloves, recommended
 - e) Long pants & shirt sleeves, recommended
 - f) Heavy work boots, required
 - g) Saw chaps (required for sawyer while sawing)
5. [Before starting out] Review crowd management
- a) Hikers and other passers-by should be stopped and held at least 50 feet away. If they will not comply, then the sawing activity should be halted until they pass through.
 - b) Managing other helpful people
 - c) Controlling “Volunteer Creep”
6. [At every site] Review basic work site safety considerations
- a) Things overhead that might fall while work is going on.
 - b) Loose rock or dirt underfoot.
 - c) How stable is the down tree(s) that you are undertaking?
 - d) Snakes, bees, poison ivy, etc.
 - e) Weather – Too cold? Too hot? Too windy? Thunderstorms?
 - f) Physical state of members of the team.
7. Review safe work practices
- a) Swampers should stay at least 10 feet away from a running saw unless explicitly instructed to do so. This would pretty much only be in the case where the sawyer has paused and needs a wedge knocked in and needs the swamper to hammer.
 - a) Sawyer and swamper must communicate at all times about what is going on.
 - b) The swamper should not be clearing material while sawing is going on, unless they are at least 20 feet away, and the sawyer has indicated it is OK to do so.
 - c) Even while clearing cut material, the swamper should keep watch of the sawyer's surroundings and warn them if something changes an a dangerous circumstance develops.
 - d) When you get tired, stop and go home. The trees will wait.
8. [At every site] Discuss what is to be done (will decline in volume as day progresses)
- a) Spring poles, and other booby-traps
 - b) Escape routes
 - c) What to do with “hangers” and “breakers”
 - d) Binding and stretching
 - e) Tension, twisting and torque
 - f) Root-balls
 - g) Where and how to start cutting
 - h) How much to cut
 - i) Avoiding wrecking your saw chain (at least).
9. Do the determined job. (Note: This should be the majority of the day's activity!)
- a) Discuss with peers what is being done
 - b) Discuss what is changing

Sawyers and Swampers Introductory Course

Prepared for NY/NJ Trail Conference' Trail-U

[WORKING DRAFT]

- c) Hints, Techniques, Tips & Toys
- d) Review proper lifting and moving techniques, and safety considerations while doing them.
- e) If possible show peavy, log-jack, mattock, rock-bar, etc. Also the good and bad of cut branches as ad-hoc levers.
- f) Review the proper conditions to leave a work site in, once the job is completed
 - Brush disposal
 - disburse as broadly as possible
 - possibly use to hide an ad-hoc reroute that occurred
 - if dragged far enough away, can be piled to make small animal shelter
 - Cut log pieces disposal
 - If agency has vehicle access and wishes, then leave near the trail/road for them to pick up.
 - If not, then distribute cut pieces randomly off the trail. Do not make cord-wood!
 - Beware of creating a rolling hazard. A large diameter log will roll very well, and travel a long distance if it gets started.
 - Spread your chips and bark bits around – don't leave them in piles. They will compost quicker that way.