

WILDLIFE & FISHERIES

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Equipment and Labor Needs for Prescribed Burning

Equipment and labor needs for prescribed burning are misunderstood by some people. The equipment and labor truly needed for a prescribed burn depend upon the burn plan and the burn site. The most essential things for every burn are a good burn plan, an experienced and capable fire boss, at least one healthy helper, one or more power driven sprayers and one or more torches. Other tools such as portable two-way radios, backpack sprayers, rakes, power blowers, chainsaws, tractors, mowers, discs, plows, dozers, graders or helicopters are necessary in some circumstances but not every burn.

A land manager can become an experienced and capable fire boss by helping other skilled people burn, participating in burning workshops and studying some of the many publications and videos available on the subject. We burn at most of the NF farms every year, especially during February and March. People are welcome to come help and learn.

Almost any area can be burned safely with just two people if the burn is planned correctly. When burning relatively large areas with only two people, relatively wide fireguards are individually burned and then extinguished along the backfire and flank fire portions of the burn site. During the day of the main burn, the backfire and flank fires are lit again along the burned fireguards and allowed to burn until it is safe to light the head fire.

With only two people, this can be a time-consuming process, but it can be done. It is generally more efficient to burn with four or more people. With four or more people, two or more crews can work simultaneously so the whole area can be burned in much less time without having to extinguish the fire.

The most important equipment for every burn are torches and power driven sprayers. A power driven sprayer should be attached to a vehicle that can easily move around the burn site. It should have an adequate water supply that is matched to the nozzle spray rate and the water volume needed for the burn. The spray should be pressurized with a pump and easily directable toward the fire. Fire truck sprayers, cattle sprayers, weed sprayers, mist blowers and four-wheeler sprayers can suffice.

Only one power driven sprayer is usually needed at a burn site with exclusively noncombustible fireguards such as creeks, rivers, roads, tilled strips, dozed strips or graded strips. The sprayer is only on standby in this situation in case the fire jumps a fireguard. However, it is not the norm for a burn site to be completely surrounded by noncombustible fireguards. With erosion considerations that exist on most local properties, mowed fireguards are very common.

When burning along mowed fireguards, two or more power driven sprayers are necessary. With mowed fireguards, the burn plan depends upon one or more sprayers to put the fire out along the fireguards. Since a sprayer is a mechanical device, it will eventually break down, sometimes at the worst possible time. So at least one more sprayer than is being used should be on standby.

Some land managers do not have a good sprayer or enough sprayers to conduct the type of burn they want. In my experience, power driven sprayers are the greatest equipment limitation to most burns. I believe a business opportunity exists for someone to provide rental sprayers for this purpose in south central Oklahoma.

Torches are a better way to establish a continuous fire front than starting several minifires along a fireguard with something like matches. Torches help create a fire front that burns evenly and quickly away from a fireguard leaving a minimum of unburned vegetation near the fireguard.

Torches can be homemade (such as a stick wrapped with heavy cloth soaked in a diesel-gas mixture), flare type, pressurized type or drip type. We primarily use hand-held drip torches which cost about \$100 to \$180 apiece and are sold by the following companies (only a partial list): Ben Meadows at 800-241-6401, Forestry Suppliers at 800-647-5368, General Supply at 800-647-6450 and International Reforestation Suppliers at 800-321-1037.