

Other Trail Grading Equipment You Can Pull With an ATV

The V-Drag

The V-Drag (Figure 18) is basically fabricated out of two 67-inch (170-cm) pieces of 4-inch (10-cm) channel iron. It is 54 inches (137-cm) wide. This design sidecasts the trail material rather than pulling it into the center, an undesirable feature.



Figure 18—The V-shaped drag moves material to the side of the trail, a disadvantage.

Perpendicular Cutting Drag

Another grader prototype from the Deschutes National Forest features cutting blades perpendicular to the trail instead of angled (Figure 19). This particular configuration left a small berm of material on either side of the grader. When a pass with the perpendicular cutting drag was followed by a pass with the Deschutes Trail Drag, and then a pass with the tine harrow, trails were left in good shape. Dick Dufourd does not plan to build another perpendicular cutting drag. The Deschutes Trail Drag, with its angled blades and electric actuator, is far superior.



Figure 19—Early prototype of a drag with cutting blades perpendicular to the trail. It needs significant changes to make it work better.

Roller

This basic lawn roller (Figure 20) can be pulled by an ATV. It smooths the surface but provides no compaction. We do not recommend it for trail maintenance.



Figure 20—This garden variety lawn roller did not provide enough benefit to make it worthwhile for trail grooming. Pulling it is a waste of time.

Heavy-Duty Trail Grading Equipment and Accessories

For many trail jobs, an ATV is not powerful enough. Larger equipment is needed. A number of small utility tractors, crawler tractors, and excavators (Figures 21 and 22) have enough power to handle these larger jobs.

The almost unlimited number of accessories for these machines goes beyond the scope of this report. They include dozer blades, rototillers, rippers, and backhoes. However, a few accessories relate specifically to trail grading.



Figure 21—The SWECO 450 light crawler dozer has been upgraded to the 480 model.



Figure 22—Utility tractors are very versatile and useful for heavy-duty trail work.

TrailPlane

The most elaborate trail grader brought to our attention was one developed by Mel Lill for the Cycle Conservation Club of Michigan. A wider version based on modifications of this design was fabricated by the Michigan Department of Natural Resources' Forest Fire Experiment Station (Figures 23a and 23b). The TrailPlane consists of a hydraulically operated box scraper followed by a 350-pound (158-kg) roller. The roller pivots behind the box scraper, steered hydraulically to follow in the tracks of the tractor around tight turns.



Figures 23a and 23b—Mel Lill's TrailPlane, shown as modified by the Michigan Department of Natural Resources (photo by Michigan DNR).



Figure 23b.