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Cost of Snag Falling on Reforested Areas

On all planting projects it is essential that the fire hazard be reduced to a minimum, both in and adjacent to the area. At present the preliminary work in this regard consists of opening up former logging railroad grades and felling snags not only on the planted areas but also on the more hazardous knolls and ridges immediately adjacent. The increased reforestation programme has necessitated the falling of a large number of snags within the past year and, in view of the interest in this topic to protection officers, it is felt that our experience may be worth passing along.

In October, 1939, three sets of fallers started on the area to be planted this spring and in three weeks felled 1,493 snags on an area of 500 acres at a cost of 27 cents per snag.

This spring, while planting was in progress, from one to three sets of fallers were kept on the snag falling. These men felled 1,000 snags at a cost of 32 cents per snag.

At the conclusion of the planting in March, 1940, both the 1939 and 1940 plantations still required a great deal of snag falling in adjacent areas for protection. A crew of ten men were hired, at 50 cents per hour less $1.00 per day for board, to carry on this work. A foreman was placed in charge of the crew, at $90.00 per month and board, to supervise the falling and to scale each set

every day. A daily record was kept of the number of pieces felled and their basal area in square feet from which we were able to make a detailed cost analysis of the operation. From March 15 to May 4 a total of 9,116 snags were felled in 3,032 man-hours at a cost of 16.6 cents per snag. Added to this was the cost of supervision and scaling of 2.2 cents and saw filing of 1.0 cent, bringing the total cost to 19.8 cents per snag.

The average diameter of snags felled was 16 inches--snags under 10 inches in diameter were not tallied in the scale. The scaling on a square foot stumpage basis was used to give us a comparison of our costs with one of the larger logging companies that pays snag fallers at the rate of 10 cents per square foot. Taking the average diameter of 16 inches, which has a basal area of 1.4 square feet, our costs would be equivalent to 12 cents per square foot as compared to 10 cents paid by the above-mentioned company. Another large logging concern pays snag fallers on a basis of 1 1/2 cents per diameter inch which would be 24 cents for a 16-inch snag as compared to our cost of 17 cents, and 14 cents at the rate of 10 cents per square foot.

Under supervision the average number of snags felled per set per day was 47, as compared to 25 where fallers were not being scaled. Another factor is that even with reliable crews the estimated diameter of snags felled is much higher than the actual scale. On this project the estimated diameters averaged 24 inches while the actual scale on 9,116 snags over the same area was only 16 inches.

The number of snags felled on and adjacent to these two plantations, of 1,000 acres each, totalled 13,665, of which approximately 2,000 were felled by Relief Project workers during the spring and summer of 1939. As a result of these data it is felt that all future snag falling projects can be conducted on

a contract basis at 10 cents per square foot provided a minimum of 5 sets is employed which would warrant the hiring of a foreman to supervise and scale the fallers. There is no doubt that the only satisfactory manner in which snag falling can be conducted is by scaling the fallers every day.

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