

kinds of stumps that are not generally found on farms, it brings out plainly the fact that green stumps require a great deal more dynamite than dead ones. Also a great deal more labor is required because much time is consumed in cutting the green roots, both before and after the explosion.

The average diameter of the 9 green stumps in the table is 22 inches; the number of sticks of dynamite required was 93; the time consumed in blowing them was 18½ hours for two men whose wages were \$2.75 per day; the fuse and caps cost 60 cents. Thus the total cost of blowing the stumps was \$14.06, or \$1.56 per stump. The cost of blowing the three large green oak stumps was: Dynamite, caps and fuse \$6.70, and labor \$3.85, a total of \$10.55, or \$3.52 per stump of average diameter of 45 inches. While these figures seem high, yet there is no other method by which they could be removed so cheaply.

The amount of dynamite required to blow stumps of the same kind in the same soil does not vary directly with the diameter, but more nearly with the square of the diameter, or, in other words, with the area of a cross section of the stump. The area of the cross section of a stump 48 inches in diameter is 16 times as great as the area of a cross section of a stump 12 inches in diameter. However, only judgment developed by experience can determine how much of the explosive shall be used in a given case.

The cost of blowing green stumps is from two and one-half to three times as great as for dead ones. While each individual will have to determine for himself whether he can afford the cost of removing the stumps, it may not be out of place to offer some suggestions.

Land would have to yield very high profits to pay for blowing green stumps. For ordinary land it seems to us that the most feasible plan is to plant it to some cultivated crop for say two years, during which the weeds and sprouts will be kept down. Sow to grass then, and pasture it for three or four years. Sheep are very effective in keeping down weeds and sprouts. What the animals do not keep down should be