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SOUTHEASTERN MINNESOTA LOGGER ATTITUDES AND OPERATING CHARACTERISTICS

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A study of southeastern Minnesota logging operators was initiated in 1961 to describe the size and organization of their operations, to learn their attitudes toward the forest resource, and to ascertain their expectations of future timber supplies and market conditions. The attitudes and operations of loggers, the middlemen in the forest products manufacturing process, can have an important influence on the management of the forest resource they service. Information on these attitudes and operating characteristics provides a useful background for analyzing private forest management opportunities in a given region.

The 1953 Forest Survey estimated that almost 20 percent of the six-county area of southeastern Minnesota (Fillmore, Goodhue, Houston, Olmsted, Wabasha, and Winona counties) is commercial forest land, of which almost three-quarters is in the oak timber type. The forests of the region are important to the local economy "not only for the value of the timber they produce, but also for their controlling influence on erosion and stream-flow" in this area of ridges, valleys, and rough, steep hillsides.[2] The private landowners, who hold 96 per cent of the region's forests, often sell timber on the basis of limited marketing information.[3] It appears likely that efforts to assure future timber production or maintenance of adequate protection forests through changes in current harvest practices can have little success if they meet the active resistance of logging operators.

Seventeen logging operators who work either entirely or partly in this region cooperated in the study by granting personal interviews. This sample includes about one-third of the known timber operators in this area. The combined output of the sawmill operations included in the study makes up about 85 percent of the annual sawtimber drain from the region, but the proportion of total veneer log volumes that these operators remove could not be estimated. The characteristics of these operators are summarized in Table 1.

Crews and Equipment

The independent logging operators, who typically bought stumpage and sold logs to processors, had from 1 to 3 men in their crews with little evidence of job specialization. The workers frequently changed jobs and worked cooperatively on all phases of the operation.

The operations that were directly affiliated with processing mills had more variation in crew size, ranging from 2 to 10 men. While some mills relied almost exclusively on their own logging crews or contractors for their log supply, others relied more heavily on independent operators. The mill-affiliated crews typically had considerably more job specialization in their organizations, with men assigned almost exclusively to falling and bucking, skidding and loading, or trucking.

1/ Instructor and Associate Professor, respectively, School of Forestry, U. of Minn.
2/ Iron Range Resources and Rehabilitation Commission. 1957. The Forest Resource of Southeastern Minnesota. 60 pp.
3/ Skok, R. A. and R. I. Beazley. 1960. Market Practices and Price Formation for Farm Woodland Products in Northern and Southeastern Minnesota. School of Forestry, University of Minnesota. North Central Marketing Project 17-3. 483 pp. Multilithed.

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The larger operations skidded and loaded with crawler tractors and hauled with tandem-wheeled logging trucks. The smaller operators relied more on wheel tractors for skidding and loading, and single axle farm trucks for hauling. The almost universally used loading device was a front end fork lift mounted on either a skidding tractor or special loading tractor. Three sawmill-affiliated operations used horses for skidding, but two of these also used mechanized skidders. One-man chain saws were used almost exclusively for falling and bucking.

Costs and Stumpage Agreements

Analysis of variance detected no significant differences in reported logging costs between classes of operators. An interesting point regarding costs is that a linear regression analysis indicated that 40 percent of the total variation in logging costs could be accounted for by maximum reported skidding distances, the greater the maximum skidding distance the higher the cost.

Of six possible factors of logging cost (steepness of slope, tree species, tree size, length of haul, stand density, and season of the year), a large majority of the respondents judged that all factors but species appreciably influenced logging costs. It was rather surprising to note that 29 percent of the respondents did not think that steepness of slope appreciably affected costs.

In general, the smaller operators purchased stumpage by verbal agreements, while the larger operators used a rather standard timber deed. Almost all purchases were made on the basis of woods run quality, but exceptions were made for veneer grade logs by five operators. Use of lump-sum and scaled volume types of agreements was about evenly divided among the operators.

Attitudes

Of the operators who responded to this point, 62 percent reported that they experienced keen competition for stumpage, while 33 percent experienced keen competition in selling their products. Regarding future business trends (over the next 10 to 20 years), a composite position based on frequency of response indicates expectation that the product market will be either the same or better than at present while the amount of available timber will be either the same or less, with either the same or lower quality. There is little expectation of changes in quality demanded in products. This suggests a future market in which the premium prices commanded by high quality timber and high quality products will be even greater than at present.

A majority of the respondents felt that owning forest land for stumpage production alone was a good investment, but some qualified this viewpoint with conditions relating to site quality, tract size, present stocking, and financial backing. The *ad valorem* real estate tax was the main reason given by those who believed that this was not a good investment. Although a majority listed "selective cutting" as an important land management practice, there were indications that this practice had different connotations for different respondents. Other practices that received heavy support were cutting cull trees, excluding fire, limiting grazing, and, to a lesser degree, planting.

Table 1. General Description of Operations Included in the Study

Class	No.	Ave. Age of Operator	Years in Business	Plan to remain in business	Average Production Daily	Average Production Yearly	Logging Costs $ per M	Logging Costs No. Resp.
Independents				%	MBM	MBM		
Veneer and staves	3	33.7	15.0	100	2.3	680	$ 43.00	(2)
Lumber and ties	4	33.5	5.4	75	1.8	120	30.00	(2)
Total or average	7	33.6	9.6	86	2.0	360	$ 36.25	(4)
Range	-	25-42	5-20	-	1-5	30-1500	25-60	-
Mills								
Veneer and staves	2	42.0	20.5	100	4.8	340	$ -	(0)
Lumber and ties	8	44.4	19.3	100	7.1	1,690	31.15	(5)
Total or average	10	43.9	19.6	100	6.7	1,420	$ 31.15	(5)
Range	-	29-55	5-35	-	2-21	250-5000	16-47	-
Overall total or av.	17	39.6	15.2	94	4.7	990	33.42	(9)

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