According to the survey, the average southern pulpwood contractor employs 2.6 employees not including the owner and operates one shift crew. Seventy-five (75) percent of the contractors deliver to a single market; however, they are highly mobile and are willing to shift to alternate consumers based on price and other considerations. The average weekly output was fifty-two (52) cords per week, although the range was five to eight hundred cords depending on the degree of mechanization. Fifty (50) percent of the operators surveyed produced less than twenty-five (25) cords per week. The states of Louisiana, Mississippi, and Texas had the lowest output per manweek which correlates with their high degree of manual harvesting technology. It is also significant that less than twenty (20) percent of the producers were capable of delivering long wood. significant harvesting factor throughout the study area were the farmers who maintained small timber plots. These operators are highly seasonal, working only after the traditional agricultural season, and utilizing farm equipment dually as timber harvesting equipment. They provide a significant market potential for attachments to conventional farm equipment.

Specialized logging contractors or multi-disciplinary contractors often tend to be larger in size than the pulpwood contractor and to be more mechanized. The average of the logging contractors interviewed by Sandwell during the course of this study operated approximately \$250,000 worth of equipment consisting of two (2) skidders, a knuckle boom loader, and two (2) road quality truck and trailers.

Several sources concurred that the average contractor was forty-two (42) years old with almost nine (9) years of education and has been in the business approximately twelve (12) years. An interesting trend however was that producers of four hundred (400) or more cords of pulpwood or timber per week were generally older and had more education, and had been in the business the least amount of time.

There is no single source for identifying all the independent logging companies that make up the market potential for log harvesting equipment. The American Pulpwood Association, Washington, D.C., will, for a fee, supply their directory of members. The State Forestry Commissions maintain a more complete registry of logging contractors and will generally supply such documentation to inquirers at little cost. These state inventories are generally quite extensive, describing the operations in detail and listed approximatly fifty (50) percent more operations than the American Pulpwood Association directory. Another useful source of logging contractors is the Directory of the Forest Products Industry, published annually by Miller Freeman Publications. This directory emphasizes large logging contractors and corporate logging groups. A summary of these various state forestry commissions is listed in Appendix 3.

Types of Logging Equipment

The actual forestry machinery utilized in an operation is usually a compromise between what is silviculturally desired, what is operationally feasible, and what machines the contractor has available. The equipment that a contractor will purchase is influenced by the type of logging operations in which the contractor intends to participate. The following is a description of the logging equipment that is currently being sold in the southeastern states.