

DETERMINATION OF AVERAGE EMPTY BACKHAUL MILES PER TRUCKLOAD

In order to determine the amount of fuel consumed in empty backhauling by Florida FF&V trucks, one must identify trucks that haul FF&V from Florida, and then follow the return trip to observe the backhaul miles traveled empty.

No secondary data were available on the number of empty backhaul miles experienced by truckers hauling Florida FF&V. A backhaul questionnaire was developed and distributed during April 1979 by the Transportation Research Center, Department of Civil Engineering, University of Florida, with the assistance of Henry Ramirez of the Food and Resource Economics Department, Institute of Food and Agricultural Sciences. The questionnaire [Pavlovic, 1980, pp. A14-16] was designed to collect information from each trucker on: (1) the unload destination of Florida FF&V, (2) the distance traveled loaded or partially loaded during the backhaul, (3) the percent utilization of capacity during a partially loaded portion of the backhaul, and (4) the distance traveled empty during the backhaul.

Sampling Technique

Sampling was performed in April 1979 in order to distribute the questionnaire before the peak and slack months for Florida FF&V shipments. April was a representative month for those months with volumes greater than the average (Figure 1). It was assumed that April was an average month for manufactured product flows into Florida which could be used as backhauls.

The survey was conducted at Florida Agricultural Inspection Stations on three interstate highways: I-10, I-75, and I-95. These stations accounted for approximately 81 percent of the total fresh citrus traffic passing all stations (16 total stations) during the 1978-79 marketing season and 83 percent during April 1979² [Florida Department of Agriculture and Consumer Service, 1978-79]. Sampling took place on the southbound (I-75, I-95) and eastbound (I-10) lanes of traffic to assure sampling of truckers returning to Florida after hauling a load of FF&V out of the state. By sampling the southbound/eastbound lanes it was possible to ask the trucker if he/she had just hauled a load of FF&V out of Florida on his/her last trip. If so, the trucker was included in the sample.

Because of the amount of traffic, safety hazards, and the truckers' desire for quick inspection, it was not possible to randomly select carriers. There was no assurance of getting a questionnaire to a carrier once it had been selected. Also, only with the inspector's help could all types of trucks that

2. No similar figures exist through the Agricultural Inspection Stations on the distribution of fresh vegetables.