Used exerpt from 1982 Annual Report Summary Booklet dated March 1983; no annual report located from researcher.

1982 ANNUAL REPORT - ALMOND RESEARCH PROJECTS

Objectives: To identify a feasible and cost-effective method for removing, processing and transporting almond brush from the orchard to a potential buyer(s) of densified almond brush.

Interpretive Summary: An appropriation was made for this project to cover unanticipated brush utilization research needs which may develop during the 1982-83 fiscal year. To date no services have been required and no funds have been spent.

Project No. 82-Y3 - Brush Utilization
Field Trials

Project Leader: George E. Miller, Jr. (916) 752-1896
Agricultural Engineering Extension
University of California
Davis CA 95616

Objectives: To develop a feasible and cost-effective method for removing, processing, and transporting almond brush from the orchard to potential buyers of densified brush.

Interpretive Summary: Two methods of brush densification have been identified: in-row and orchard-side densification. In-row densification involves use of a continuously-moving chipper or hammermill. In-row densification eliminates need for buck-raking but can cause damage to orchards and interferes with orchard activities. Orchard-side densification may involve the use of a semi-stationary hammermill, tubgrinder, chipper, baler or module builder in addition to loaders. All of this equipment has been field tested.

During 1982, Dr. Bryan Jenkins, UC Davis, designed, constructed and tested a module cutter. Demonstrations held earlier had shown that brush compacted by moduling and then cut into units of approximately one ton each could be ground through a tubgrinder about three times faster than brush not compacted. The cutter was tested in Fresno and then returned to Davis for modification.

A cooperative program was developed, presented and approved by the California Energy Commission for funding a heavy-duty module builder. The module builder was constructed by Taylor Machinery Corporation, Visalia. Weaver's Tree Service, Fresno, agreed to purchase it. Weaver's has the necessary support equipment including a Medallion 1010 tubgrinder and loading equipment. The module cutter will be loaned to Weaver's during the testing period. Actual operation of this line began in January 1983.

Other brush harvesting concepts have been developed by other parties and are either in actual operation or in experimental stages. These include Morbark chippers, Nicholson chippers, in-row shredders built by Rear and L.A. By-Products and an in-row harvester constructed by Tink. Also a baling concept using packer trucks is being developed.