In the part of the grove where the material was first applied and the pH found to be high—about 6.5—the total acids were even lower than in the check samples. In other words, the pH determinations and total acid titrations show about the same thing; namely, a very high acidity at first, followed by a gradual decrease until a lesser degree of acidity exists than in the untreated areas. This indicates that the residue is basically less acid than the soil upon which it was placed.

While taking the samples for acidity studies, it was observed that the soil underneath where the residue was dumped was much warmer than that of check area out near the trees. Thermometers were placed in the soil to a depth of eight inches and the exact temperatures were obtained. The check soil showed a temperature of about 21° C. (68.2° F.), whereas the temperature of the treated soil showed 35° C. (95° F.), 14° C warmer. The presence of citric acid and the formation of acetic acid no doubt are the causes of the high acidity found in the soil. The oxidation of the sugars and acids accounts for the higher temperature of the soil underneath the treated areas.

Since making these tests, a number of growers have been consulted who have used canning plant residues on their groves. Practically all of them have observed similar injurious effects where too much was applied at one time. All stress the fact that the material should be scattered immediately after being dumped on the soil and that about one truck load should be applied to the equivalent space of four trees. The material was being applied on the grove belonging to Mr. Sample at about the rate of one truck load to the equivalent of one to two trees. Growers are of the opinion that this material is beneficial when properly applied.

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SHOULD THE MOVEMENT OF CITRUS FRUITS OUT OF FLORIDA BY TRUCK BE ENCOURAGED OR DISCOURAGED?

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One of the most serious problems confronting Florida today is the transportation of citrus fruits from the state. Trucking is no less serious in many other states.

Prior to three years ago, it was common to see in citrus Florida great piles of fruit dumped from the packing house; fruit that was unfit for shipment, or fruit that could not be put in containers and sold in the markets for enough to cover the expense.

These cull piles were subjects of comment by visitors, who thought it a great waste. A few trucks owned by home people began to take this low grade fruit, which was unsuited for market and which could not be handled profitably, trucking it to upper Florida and southern Georgia, peddling it to small retailers and commissaries in sawmill camps.

In the season of 1930-31, Florida had a very large crop of citrus fruit, a very large percentage of which was small, which could not be put in containers and shipped to market profitably. Trucks began to flock in from all parts of the country to buy this fruit at low prices and soon put the wholesale fruit and produce dealers out of the Florida citrus fruit business.

Many of these trucks were not interested in the profit to be made in merchandising this fruit, but were interested in its transportation. In some instances they were satisfied if they got the cost of the fruit back and pay for transportation out of the added prices on delivery.

This procedure soon affected all of the markets in the cotton states and even beyond. It brought about a low level of prices and educated the public to Florida citrus fruits at a price that was destructive to the industry. The public will buy any commodity which they use...
as cheaply as they can and when a low level of prices is established, it is impossible to raise it otherwise than by discontinuing the supply.

When these trucks could not sell to the wholesale people, who had already supplied their needs from other trucks, they would go to the retailers and from them to the so-called “curb markets,” where the fruit was peddled along with other farm products of every character, from greens to fence posts. That was lots of fun for the people who could buy our oranges and tangerines at $.75 to $1.25 per bushel and our grapefruit at from $.50 to $.75 per bushel. In practically every city south of the Mason-Dixon line can be seen these “curb markets,” where our citrus fruits can be bought from these truck peddlers, at prices that make the heart of the citrus fruit producer sick.

Discussing the question of the cost of transportation with a number of these truckmen, in a recent three months’ survey from Richmond to Texarkana, and south of that line, I found but one who admitted that he took account of the depreciation of his truck.

In every state in which I made inquiry, there is a law that permits a farmer to peddle the produce from his farm without interference or taxation of any kind. The truckmen were quick to provide themselves with certificates, obtained where they could, that the fruit they were offering came from their own groves. There is a provision, I think, in the state laws that any ex-service man who is partially disabled enjoys the same privilege. In some instances, it is said, some of these truckmen employ such ex-service men to ride with them who claim ownership when questioned.

The net result of this trucking is that there is practically no business done by wholesale fruit men in Florida citrus in any territory reached by these peddling trucks. This applies also to green vegetables from Florida, Georgia, the Carolinas and other states as you advance up the Atlantic seaboard. In consequence, many jobbers are either forced out of business or have lost heavily and are struggling for their existence by handling other commodities which are out of reach of the trucking peddlers.

Modern merchandising in perishables necessitates equipment of plants with refrigeration where such commodities can be preserved in storage from deterioration and decay which they would suffer without such cold storage facilities. There is great unrest among these wholesale fruit and produce dealers and naturally they are disinclined to junk their plants at great loss to themselves.

They are, throughout the country, forming associations among themselves and securing legislation looking to the control of this trucking problem. Such a law was enacted in a recent session of the Tennessee legislature, embodied in the following amendment to their revenue bill:

“Each person, firm or corporation engaged in the business of running a wagon, truck, auto or other vehicle, and who sells and delivers fruits, vegetables, nuts and produce (where it is not produced or raised by the vendors or seller), candy, cigars, cigarettes, tobacco and drugs, or merchandise, is declared to be a peddler and as such shall pay for each wagon, truck, auto or other vehicle in each county per annum $100.00. (This tax is not to be paid for a period of less than one year.)

“The Commissioner of Finance and Taxation shall especially charge the State Highway Patrolmen to prevent unlicensed peddlers from operating within the state.”

A peddler must, if he goes into Tennessee, pay to the state $100.00 license, to each county in which he peddles $100.00 license and in each town another license, making a total, generally, of $300.00 in the first city that he visits and $200.00 in each subsequent county and city. Other states are gradually enacting similar laws.

While this trucking out of Florida has practically destroyed the market, in a very large part of this country, for our citrus products, except at prices that are ruinous to producers, there is yet another feature that is just as serious. Many of our counties have bonded heavily to construct good roads. These roads are built of light material and for light traffic. They were never intended to carry such loads as are carried over them in these trucks. These bonds extend over a long period of years. The property owners
are taxed beyond their ability to pay to meet the interest and sinking fund on these bonds. The roads are rapidly being destroyed, and long before the bonds can be paid the roads will have been destroyed and the various counties owing these bonds will not be able to get further money with which to reconstruct them.

In an interview with Mr. Mayo in Tallahassee the latter part of December, he stated that he had kept inspectors on the highways who had kept a close tab on this and he knew they were carrying out forty-five car-loads of citrus fruits per day, and that the week before he saw me, a truck left a packing house in Polk County with 504 boxes of citrus fruits in the truck and trailer.

The trucks are with us to stay. As long as we will permit them to travel our roads, and the truck manufacturers and sales agencies will sell trucks at a small payment down, and the gasoline stations dot our highways, they will be here.

Viewing the proposition as set forth above, steps must be taken to regulate and control the trucks. Just how it can be done must be worked out. With the tremendous taxes that we have to pay, the citrus fruit producers must receive a fair compensation from their products or they must go out of business. It is the duty of the state to devise ways and means by which our citrus property and our highways can be protected from this destruction.

In discussing this matter with the manager of one of the largest shipping interests in California, he states that they are having this same trouble, and that trucks are taking oranges from Southern California to El Paso, 600 miles, and as far as St. Louis, which must be nearly 2,000 miles and that these truckmen frankly admit that if they can break even on the fruit they are satisfied to take the cost of transportation.

This is not solely a Florida proposition. Every state in the union today is confronted with this condition. Trucks are taking cotton from the banks of the Mississippi and transporting it to the mills in the Carolinas. They have brought the railroads to their knees. We see railroad stocks such as the New York Central, the Pennsylvania and the Atlantic Coast Line and many others, that not far back were selling at from $1.75 to $2.25, today selling at from around $.16 to $.25.

A small percentage of our citrus fruits goes out of the state by truck. That small percentage has destroyed the markets for our fruit. When I began a survey of this truck situation, in November, I left Florida with the feeling that the trucks had been a great blessing to us the season previous. It took but a few days to convince me of the error of that feeling. I can see every reason for discouraging the trucking of our fruits out of the state and I can see none for encouraging it.

SOME PROBLEMS OF THE PECAN GROWER

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The problems of the pecan grower are many; in fact, they are too numerous to permit a full discussion of them all in the time allotted for this paper. Therefore, only a few of the major ones will be considered.

According to data obtained from U. S. D. A. Bureau of Crop Statistics, the average annual production of pecans in Florida is about 1,400,000 pounds, considering the years 1924 to 1931, inclusive, with an average yearly value of about $350,000. The 1931 yield was the largest of record, being given at 2,200,000 pounds, although many of the nuts in the central northern Florida district were of very poor quality, due to the excessive deficiency of rainfall in that area during the critical period of nut development and maturity and the fact that many trees were carrying great quantities of nuts. However, the quality was good in areas where the moisture supply was fairly adequate. Due to unfavorable