

# Citrus Renewal in the Northern Region of Florida: The Experience of Thorsen Groves Packinghouse

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## Introduction

In Milo, Florida there is a big empty spot under some curiously lopsided live oak trees.<sup>1</sup> The Andrew & Boyce packinghouse once stood there, bustling with activity every winter as semi-trucks hauled citrus to the plant to be packed for shipment to market. Andrew & Boyce was the only packinghouse within a fifty-mile radius in an area the USDA calls the Northern Region of Florida's citrus production areas. The plant burned in 1985. Its owners rebuilt it only to have a horrific freeze the next winter wipe out virtually all the citrus within its supply region. The company declared bankruptcy and folded. All the new equipment was sold. Growers no longer were able to send fruit to a local packinghouse.

Practically speaking, it scarcely mattered that A&B was out of business because for another five years it looked as though growing citrus in north central Florida was a historic condition, not a contemporary one. Severe freezes struck approximately every other year during the 1980s and citrus acreage declined steadily as ever more groves were frozen out (Weischet and Caviedes 1987). State-wide, between 1980 and 1990 citrus acreage fell from 845,000 acres to 732,000 acres. The Northern Region was established as a statistical reporting area in 1986 after several severe freezes during the early 1980s. The rationale for the change was that the counties encom-

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I am grateful to "Mike Smith" for his lengthy discussion of "Thorsen Groves." Also: To "John Thorsen," for permission to conduct a discussion of the packinghouse operation with "Mr. Smith."

<sup>1</sup>Geographic, personal and business references are pseudonymous to preserve the anonymity of the firm and its owners.

passed by the region were cold prone and the move would place these counties in a single area. In 1990, the Northern Region was reported to have nearly 32,000 acres of citrus (Commercial Citrus Tree Inventory, Preliminary Report 1992). After 1990 and continuing since then, weather trends seemed to reverse. Citrus acreage in the Northern Region began to increase. By 1996, the acreage had grown to 48,000 acres, an increase of nearly 50% (Citrus Summary 1995-96). Fruit production increased as new plantings matured. Citrus seemed to be making a comeback.

Once fruit is produced, it is processed for market either as juice or as fresh fruit. In the case of fresh fruit, the businesses that handle citrus processing are packinghouses. Normally, packinghouses are located near their fruit suppliers. In other words, the presence of a packinghouse can be an indicator of citrus fruit supplies. The opening or closure of packinghouse is suggestive of a change in condition of the underlying citrus supply or of the economics underpinning the enterprise itself.

Jack Thorsen, a long-time resident of Milo, opened a citrus packinghouse in the Milo area in 1997. Thorsen died shortly after the packinghouse processed its first fruit. His son, John, when asked if he had any idea why his father had become involved in citrus again supplied a succinct answer. He reported that his father had told him "Citrus just belongs here." He referred me to the packinghouse manager for information about day-to-day operations.

I met in January with the manager, Mike Smith, at the Thorsen Groves Packinghouse on Arredondo Road in Milo. The packinghouse is a metal building about 150' x 50'. At one end of the building is a cooler that can be used to hold fruit beyond its normal season so that desirable varieties will be available for special events. For example, the navel orange season is usually complete by mid-January yet navels are popular with the February race week crowd in Daytona Beach. Having the cooler makes it possible to hold the fresh fruit long enough to market it during mid-February when race fans are in the area.

At the other end of the building is a small office containing two desks, some file cabinets, a computer and some assorted shelves, tables and chairs. All administrative duties are carried out from this office. I asked Smith how he came to be the packinghouse manager. Like most stories in Northern County, the answer takes time since there are many loops and bends in the narrative. A native of Milo, Smith graduated from the local high school. He

worked as a citrus inspector for the Department of Citrus. Later he was the assistant manager for Andrew & Boyce. After the fire, freezes and A&B bankruptcy he worked as a long-haul trucker driving fruit from Florida to the northeast and Canada. He was trucking when he heard that Thorsen was thinking about opening a citrus packinghouse. He contacted Jack Thorsen right away and asked to be considered for the manager's job.

### **A New Packinghouse**

Actually, the idea for the packinghouse is said to have originated with Natalie Thorsen, Jack's wife. She formerly worked in the development office at South State Regional College. Temperamentally attuned or trained to identify niche opportunities, she suggested that they open a citrus packinghouse. Conditions seemed to favor the idea of a packinghouse. Jack had replanted his citrus acreage after the 1980s and was now picking commercial quantities of fruit. A few other growers in the area were also producing commercial quantities of citrus. Fresh fruit yields a better return than fruit sold for concentrate and to maximize return, particularly when acreage is relatively small, it makes more economic sense to produce for the fresh fruit market. Still, the nearest fresh fruit packinghouse was in Land O' Sun, about fifty miles away and the nearest concentrate plant was 15 miles away in St. Catherine.

The other side of the fruit production equation is processing and marketing. The Florida citrus industry is self-taxing and self-regulating through the Florida Department of Citrus. As a quality assurance measure, the Department requires that fruit that is commercially shipped must be inspected and certified. Arranging such inspection is bothersome for the individual small grower. There are other headaches for small grove owners as well. Labor is one problem. During the growing season the small-scale farmer can mow, fertilize and spray the groves himself because citrus is not finicky about growing conditions once water, soil and warmth needs are met. During the picking season, however, she or he must find a labor force willing and able to pick the fruit while it is ripe. Other problems include having fruit prepared for commercial sale and finding a market. Each of these activities is complex and requires specialized knowledge, information and equipment. There is also a producer culture in place that is habituated to operation of something akin to a "virtual" activity. This culture has developed to

favor hiring labor and picking crews, sending fruit to outside packers for processing, or even engaging caretaker services and generally waiting for the check to come in due course.

Natalie Thorsen's idea set in motion a chain of responses. Jack decided he would look into converting a fern-packing building into a citrus packing space. His own grove would supply a core quantity of citrus for processing and marketing. As a fernery operator he had access to a large pool of year-round agricultural workers. During the low fern production winter months some labor could be diverted to packinghouse operations. He engaged Smith to begin planning the packinghouse.

Smith started to watch for used packinghouse equipment. He spotted a packinghouse for sale near Montclair. The name of the realtor seemed familiar. On a hunch, he called the realtor who turned out to be someone he knew from his fruit inspector days. With Thorsen, Smith looked at the equipment, finding it to be just the right size to fit the available space. They wanted to know if the owner would sell it separately from the building. She would, but her price was double what Thorsen wanted to pay. They made a counter-offer and bought the equipment, installing it last summer. Processing began in October with the first navels of the season. By being in the market early they obtained good prices.

The equipment they bought includes a fruit washing machine - basically a shallow bin that holds water and dispersant - that the fruit rolls into as it arrives on the line. After the fruit is washed, it passes between rows of stiff brushes and rollers that scrub off dirt. It is then dried by a blast of air as it rolls and tumbles toward the waxing mechanism. Wax - colored orange and containing a small amount of fungicide - is sprayed on the fruit. The thin wax coating extends shelf life of the fruit and gives it eye appeal when it is displayed for sale. After waxing, fruit moves on a conveyer belt to a rolling shelf in front of three or four people who remove blemished, diseased or damaged fruit. No machine can do this job - called inspection. In a larger packinghouse there would be more inspectors. Smith showed me a photo of the Andrew & Boyce plant when the new equipment was in place after the fire. The inspection line was probably 40 feet long and a dozen or more inspectors would have been working on a routine day. Once the "blems" are removed, a machine sorts the fruit by size. The largest fruits are premium size and will be packed and shipped as gift fruit. The smallest will be bagged or packed in jobber-owned containers for roadside or local produce stands and flea markets.

Smith plans to invest in another machine that is often a profit center for fresh fruit marketers, a commercial juicer. Many "blems" are sound yet they are not appealing to the consumer. A commercial juicer allows the processor to convert these "orphans" to a saleable commodity. Fresh squeezed juice is quite popular and extremely profitable. When it is available daily, fresh juice creates a steady return business for the purveyor.

The only non-local fruit broker to whom Thorsen currently ships fruit is located in Arlington, Virginia and sells citrus throughout the Washington area. He was once an Andrew & Boyce customer. Smith plans to build up his customer base by contacting other former A&B customers as well. He thinks the old customers will be favorably disposed toward Thorsen Groves because, among other things, they will recognize the Red Lion logo on the fruit boxes. When A&B's assets were sold by the Trustee in bankruptcy, after all the shiny new equipment, office gear and other tangible goods were auctioned, the Red Lion logo remained. Smith bought the logo as a memento for \$50.00. He kept it registered and offered to let Thorsen use it when he came to work at the new plant. Today each box of graded fruit bears a handsome Red Lion rampant.

## **Labor**

When operating at full capacity, Thorsen Groves Packinghouse requires 18-22 workers. Since the plant operates on an "as necessary" basis, the workers are called for scheduled runs and are paid at hourly part-time rates. On the day I visited, the secretary was calling workers for a 2:00 p.m. run. Field boxes of oranges were stacked on the loading dock and more arrived by 10-ton truck while we talked. The boxes would later be moved one at a time by forklift and dumped into the hopper at the beginning of the line. The truck driver and his buddy came in to say hello to Smith. A regular hand, a Latin American, checked on what should be done before the line was started. Thorsen Ferneries employs many Latin Americans especially people of Mexican and Guatemalan origin. They live in the Milo area where their children make up a large percentage of the local school population.

Although there have been attempts to invent and develop mechanical orange harvesting devices, there is still no economically feasible way to pick oranges by machine. Mike and I talked about the picker that Dr. MacAfee worked out that featured a rebar bent in waves that were spaced just closely enough to catch an orange and

pull it from a branch. We agreed that it was the cleverest picking arm we had ever seen but Mike reported that MacAfee had never patented his invention and that he had been unable to interest an agricultural equipment maker in developing it as a commercial product. After the freezes, MacAfee, who once owned two hundred acres of citrus south of Moon Lake in Boundary County plowed his trees under. Now he raises cows.

Because citrus must be hand-harvested, it is seasonally labor-intensive. Existing Thorsen Fernery labor crews provide a way of locating and deploying agricultural workers on a demand basis. When the harvesting season comes around during the winter, ferns grow less rapidly and the labor crew can be shifted to citrus harvesting and packing activities.

Once, labor crews were comprised chiefly of black workers. Laborers ordinarily were organized by a crew leader who acted as a business manager and took crews from small job to small job. Citrus picking was extremely wearying because the mature trees grew 25'-30' high requiring long ladders to reach fruit borne high in the air. Trees were more dispersed as well because they were planted on greater "centers" — 20' x 20' or even 25' x 25'. Typically there were 82 trees to the acre in an old grove. In contrast new plantings are often maintained as dwarf trees bred to dwarf naturally, or are hedged or topped at 12' - 15' tall. The trees are spaced more closely too, resulting in a density of roughly 128 trees per acre. (Citrus Summary 1996-97). Picking under these conditions is easier although still not a "good job." The influx of Latin American, Haitian, Caribbean and Vietnamese immigrants has had an impact on the composition of work crews in these low wage, low skill jobs. Labor crews comprised of immigrants —especially Latin American immigrants— have become common in the agricultural regions north of Orlando. Thorsen crews reflect this circumstance.

Thorsen crews pick for Thorsen Groves and for other producers who are Thorsen customers and suppliers as well. Fruit is brought from the groves in field boxes — two compartment wooden crates containing 90 pounds of citrus that have been used in the state for 75 years. Or, fruit may be brought to the packinghouse in 1,000 pound palletized wooden bins or in rigid, square plastic tubs that can be lifted mechanically and stacked.

After cleaning, grading and packing, the fruit may be marketed directly to consumers or it may be sold through other channels. Fruit is sold locally and nationally to jobbers and brokers. It is sold directly to walk-in customers and by mail. Last year, when the

business opened, 10,000 brochures were mailed to prospective customers. The mailing resulted in about 1,000 orders that Smith felt was an excellent response. He expects to repeat his mail order circulation next season.

### **Business Prospects**

The persistence of citrus production in the Northern Region of Florida is a remarkable phenomenon. Conditions that favor citrus growing are marginal in the Northern Region, yet growers repeatedly have replanted and produced their citrus crops there. Still, the ability and willingness of Thorsen Groves to undertake a market-side citrus enterprise such as a packinghouse facility probably lies with the economic success associated with successful operation of a different agricultural activity, fern-growing. Fern-growing surpluses, both of labor and capital have apparently been channeled into making the citrus packinghouse a viable business. If the packinghouse is viewed as a separate entity, the Thorsens have been their own venture capitalists. From another perspective, the revival of Thorsens' citrus planting and the extension of the business into packinghouse operations is an elaboration of an agricultural system that the Thorsens have evolved for themselves. The system includes growing, preparing and marketing two perennial crops. One is a highly seasonal crop, citrus, while the other crop, floral ferns, may be harvested year-round.

Assessing the relative economic success of these two enterprises is difficult. Returns for cut floral ferns are thought to be quite high. A ferngrower told me five years ago that his profit for leatherleaf fern was about \$2,500 per acre per annum and that when he grew tree fern he doubled his return. On the other hand, citrus growers are unlikely to divulge their returns for fresh fruit. They frequently say they are going broke, yet it is illogical that they would continue to grow citrus if that is true. Fruit sold for concentrate is shipped and paid for in bulk. A grower may know how many acres were harvested but the outsider is unlikely to learn these particulars. The market price that is known is the current and historic market price for oranges by the 90 lb. box, *for concentrate processing*. In the 1995-96 season, orange prices for concentrate ranged from \$3.91 to \$5.81 per box. In the 1996-97 season, the range was \$3.61 to \$4.26 per box. Oranges were relatively more abundant during the 1996-97 season and the price was lower as a result. Without knowing how many boxes were harvested per acre, it is impossible to say whether such

returns were satisfactory. Research conducted by the Department of Citrus suggests that commercial yields may be as high as 405 boxes per acre. Muraro and Oswalt have said that revenues for the respective seasons were \$1,794 (net \$957) and \$2,733 (net \$1,896) [these figures are for oranges to be processed in the Central Region].

Fresh fruit brings a higher return but requires higher quality. Thorsen packinghouse is a processor, marketer and shipper of fresh fruit. It appears from the Thorsen brochure that was circulated to potential customers that a successful fresh fruit marketing business can make a good profit. The brochure for Thorsen Groves offers its most expensive product, a 40 lb. deluxe box of fruit for \$42.00. A rough calculation suggests that the cost of the fruit, packing, and shipping may total \$18-\$20. The balance less miscellaneous overhead, \$22-\$24, would be profit. This amount represents approximately \$44.00 per 90 pound box or ten times the concentrate returns for juice oranges.

It remains to be seen how this new firm will carry out its innovative marketing plans. The secretary expects to obtain and use an Internet program to create an interactive website where citrus and, possibly, citrus boutique items such as reusable gift crates or citrus motif household goods can be offered. The county extension agent, who actively works with citrus producers, arranged for Thorsen Groves to have a remote sensing weather station - part of the new statewide weather reporting system - on site. This placement assures Thorsen's management of continuing feedback from technical information sources. The use of intelligent technology methods surely can be a time, labor and quality enhancement strategy for agricultural marketing. Applications may actually evolve as Mrs. Thorsen brings her own administrative experience to the business.

## Conclusions

Several conditions related to the entire Thorsen enterprise illustrate themes in current economic geography. One of these themes is the economy of scope. Thorsen has expanded from monocropping and processing floral fern to duo-cropping and processing both floral fern and citrus. The two systems share some production characteristics. For example, underlying labor and location conditions are similar as well as complementary. Each crop requires extensive use of unskilled labor although peak production periods fall during different seasons. The crops share similar



general capital needs such as farm equipment, storage and office systems. Such general costs, the substrate expenses, have been spread to second crop production and processing. So broadening the product lines to include fresh fruit shipping as well as floral fern has created synergies for the individual enterprises that now comprise the Thorsen's business.

The Thorsens have adopted technological advances in both producing and processing citrus fruit. Citrus is a capital-intensive enterprise. There is a high degree of inertia in the investment because at least three years elapse from the time when the tree is planted until fruit production begins. Mature trees remain productive for 25 to 40 years. Accordingly, because an established orange grove represents an inertial investment, there are rare opportunities to apply known technical innovations. The freezes of the 1980s offered an opportunity to refresh the production system using innovations that were known but not applicable until the entire existing system was destroyed. For citrus, the application of innovations included planting improved varieties, installing enhanced nutrient delivery, freeze and drought protection systems (in the form of sophisticated drip irrigation) and maximizing planting patterns.

The same attention to technological improvement has marked the way the packinghouse has been configured. As a start-up business, it was designed to take advantage of innovations in communications and management schemes that reflect contemporary conditions. Use of a flexible workforce, installation of computerized links and a willingness to try new ways of creating a successful operation show conditions this business shares with contemporary businesses in other sectors.

Another theme that is not often identified or discussed in the current literature is the effect of history - the friction of history, or perhaps, more accurately, the coefficient of history. The packinghouse business illustrates this blend of old and new. Smith, in particular, has resuscitated historic conditions, linkages and practices to adapt them as they appear to be useful to the business. The fact that he values and seeks out links with the past suggests that there are ways in which businesses are conducted that transcend the usual conditions of location, capitalization and the like. Thorsen Groves is an example of a new business that has its roots in the past but that is scaled and adjusted to today's fluid economic conditions.

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