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# **Sustaining Pecan Productivity Into the 21st Century**

## **Second National Pecan Workshop Proceedings**

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## EARLY PECAN HARVEST

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Good morning Ladies and Gentlemen. My name is Tom Stevenson. I reside in Albany, Georgia and am involved in the ownership and/or management of six pecan orchards totaling 2100 acres. Approximately 350 of these acres are in the Winter Garden area of south Texas, 40 miles east of Eagle Pass, with the balance in the Albany area. I was born in the San Joaquin valley of California but grew up in the Santa Cruz valley of southern Arizona, between Tucson and Nogales. In the fifties this valley produced cattle, cotton and small grains but even at this early time there was experimenting with pecan production through trial plantings. My first exposure to commercial pecan production came when FICO decided to plant the orchards which are now in production. This was in 1965, nearly 30 years ago. Since then I have had the opportunity to be involved in pecan production in Texas, Florida and Georgia, encompassing most of the U.S. pecan belt. It has been both rewarding and frustrating but always a challenge. As I stand here today and ponder all of the accumulated university degrees, doctorates and hours of research I marvel at how much we still do not know about the crop we are growing. I suppose, for me at least, that is what makes agriculture so interesting.

I have been asked to talk to you today about the advantages and disadvantages of early nut harvest. I do not know exactly what I am supposed to tell you but I will try to relate my experiences with it and what I perceive to be the advantages and disadvantages. My definition of early harvest is at that time when the nut is physiologically mature and will not lose any weight or meat yield during the drying process. From our experience we find that this occurs when the shell markings are virtually complete and have turned in color from reddish to dark brown or black. The vascular bundle may still be attached to the shuck but will be dry or drying and the butt of the nut will have little or no white on it. It is better to be a day or two late on this as trials at our farm in Texas have indicated that for every day you are too early you will lose one quarter to one half per cent in meat yield during the drying period, which may be as long as four days at this moisture level. Over four days this could result in a two per cent meat loss. We proceed when ninety to ninety five per cent of the nuts sampled reach the maturity described above. This is determined by a random sample taken every other day from the orchard, starting about 2 weeks prior to expected maturity. I will begin by discussing the disadvantages of an early harvest. First of all the decision to harvest early

automatically forces you to make two harvests since you will not get all of the crop this first harvest. Depending on tree size, variety and shaking capability you will get somewhere between forty five and sixty five per cent of the crop the first pass. You have committed yourself to two harvests and though the second harvest will represent fifty per cent or less of your crop production it will cost just as much on a per acre basis as the first harvest and probably more on a per pound basis. Depending somewhat on your circumstances we figure direct harvest costs to run about thirty to thirty five dollars per acre per harvest. This is a total of seventy dollars per acre for the season. On a total yield of fifteen hundred pounds per acre this is about five cents per pound in shell, or seven cents per pound on a thousand pound yield. Your entire harvest season will just about double and depending on your lifestyle and other commitments you may not want or be able to devote this amount of time to harvest. My harvest season starts in Texas about the 20th of September and ends four months later about the 20th of January in Georgia. You may wish to modify this and only harvest certain varieties early while not doing those that have no market advantage. Be cautious of shaking young trees this early in the year. It is easy to slip the bark and damage them.

Once into the cleaning plant your costs will be higher with early harvest since a high percentage of the nuts will have to be de-hulled. There will be some loss due to creakage in the hullers and other grading steps, as well as some immature nuts that will be discarded during grading. Higher costs will also come with increased utility costs as drying times are longer and more energy is used. Drying is the most important thing that goes on that this time and can hurt your quality and ultimate meat yield if not done properly. Dryer air should be no hotter than 90 degrees F, which usually is ambient temperature in Texas at that time of year. Dryers with automatic thermostats will usually only fire in the night after temperatures have dropped and the relative humidity has risen. I cannot over emphasize the damage that can be done with hot air dryers if it is not done properly. We do not even turn the burners on the 1st 24 to 36 hours so the that meat and shell moisture has a chance to equalize somewhat. Pay close attention to cleaning and drying operations. Your labor usage will be extended over a greater period of time and can run up your costs if not managed properly. Total cleaning plant costs which include labor, labor overhead, utilities and propane, insurance, bags and supplies, repairs and depreciation are calculated at twelve cents per pound for an average crop but this will fluctuate with crop size as some of your costs are fixed and will raise your cost per pound when a small volume is processed. Depending on the volume and quality of your crop you should have it mechanically harvested, cleaned, graded, bagged and loaded on a truck at your farm for under twenty cents per pound. The higher the volume and the better the quality the lower your costs will be.

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The primary two reasons to harvest early are to take advantage of higher early season prices and to reduce your exposure to weather and varmints. We do it because we know the increased value of the nut early in the season is more than enough to justify the extra expense of the double harvest. We also end up with higher total yields since less of the nuts are left out for varmints and bad weather. Color is lighter early, enhancing value and in Texas we have less exposure to sprouting problems with Wichita, though all varieties I have seen in the area will sprout under the right conditions. We also find less nut loss behind the harvest crews after two trips as opposed to one harvest. The first pass is quick to get the early prices and the second pass is more oriented toward a good harvest job so that as little as possible is left behind. This extra chance combined with the other factors mentioned all help to raise our total yields. There is usually three weeks between the first and second harvest. In Georgia there are years when we have to wait after the first harvest for a killing freeze before proceeding with the second harvest. In Texas this does not occur until January normally and there we proceed without the benefit of a freeze. At times a third pass there can be justified.

The highest price for good quality nuts is almost always at its peak early in the season. The gift packer is the dominant force in this early market as they must have new crop nuts for their product and they must process it early enough so that it can get back out to their customers in time for the holiday season. Mid to late November is about as late as they can take in raw nuts and still get the product processed and back out for the last of the holiday season. In almost all years you will see a drop in cash prices paid to growers at about this time. The gift pack people pull back and let the commercial shellers in, which usually drops the price. The gift packers may still be players in this market but are content to buy at levels established by others that are generally lower than the pre- Thanksgiving prices. This price difference in south Texas vs. December in south Georgia may be as much as 60 cents per pound. Even in Georgia, those quality nuts delivered prior to this time are worth 15 to 20 cents more per pound. By early December it is a commercial sheller's market and the prices reflect this. The gift pack trade is a limited one of 12 to 14 million pounds and could be saturated if enough plantings in early maturing locations were established and well managed. To be successful in this market you must be quality oriented and be able to get the product to the buyer in a timely manner. Gift packers usually pay the top of the market, but expect the cream of the crop in terms of quality. You can also expect them to be repeat customers if you establish a reputation for quality and reliable delivery.