

Harvest Diary:

Sunday, October 9th - The early October rains have kept us out of the orchard until today. We had hoped to begin harvesting on September 28th, but wet ground and harvesting equipment don't mix very well. The tree shaker and the self propelled sweepers tend to sink in and create big ruts. To harvest pecans one needs hard, flat dry ground.

By noontime, the bright sun had burned off enough dew to signal that the 2005 harvest could finally begin. A whole years worth of work would be measured in the quality and quantity of pecans that could be gathered by our harvest crew. The first machine to work the row of nut laden trees is our tree shaker. This machine grabs the trunk and violently shakes the entire tree, disgorging a waterfall of ripe pecans. Once a full row of trees has been shaken, the two sweepers move in to gently brush the pecans into one big central row. This central row, or windrow, as we call it, is then inhaled by a group of machines that looks like a freight train. In fact, it is our big tractor pulling a pecan harvester, discharging a stream of nuts into a trailing nut wagon. Although the machinery of harvest has been idle for ten months, it only takes an hour or so for the crew to get into a gentle rhythm of tree shaking, sweeping and harvesting. By sundown, we have seven trailer loads of nuts, and we are ready to start our cleaning plant the following day. We all sleep well this night, tired from a long afternoon in the sun, but happy knowing that the harvest is under way.

Monday, October 10th - A gentle rain has fallen sometime during the night. The orchard has large puddles in areas, and it is clear that the field harvest will be on hold for a day or two. Today, we will focus on running the material that we harvested yesterday through our cleaning plant. This process separates the nuts from the dirt, rocks and shucks that get picked up by the harvester.

We will also spend the day going over all the equipment that we used yesterday in the field. All

of the old equipment (and some of our tractors are twenty years old) held up pretty well. The lone exception is the brand new self propelled sweeper that we are using for the first time. Some of the bearings in the sweeper head broke off late yesterday. A call out to the California manufacturer reveals that our harvest conditions may be rougher than those normally encountered, and that we should probably upgrade the parts. We really can't wait for parts to come from the coast, so our head mechanic Martine comes up with a work around and spends the afternoon rebuilding the head.

By days end, we have nine thousand pounds of clean pecans resting on the screen floor of a large drying trailer. A big fan gently blows air up through the floor, and over the next four days the moisture content of the nuts will drop to six percent, a good level at which to crack the nuts. But this is where our work ends; a large tractor trailer load of nuts will be sent to a shelling plant in Arkansas for the final processing.

Tuesday, October 11th - The orchard floor is still too wet to restart the harvesting process. Cloud cover hangs over the Quemado valley, and along with the lack of any discernable breeze, the conditions for ground drying are not very good. A low pressure system that is bringing early season snow to Colorado is wreaking havoc on our harvest. The weather system has been over us for two weeks now; it is simply not moving. The weather forecast continues to suggest a "chance of thunderstorms".

Our harvest is at a standstill. We will spend the day making some changes to the equipment in our cleaning plant; a little work with the cutting torch here, a bit of spot welding over there. Cleaning pecans is really an exercise in material handling, and as the material moves through the plant, there is a tendency for it to find the path of least resistance. Sometimes that trail leads off of the conveyor belt and on to the floor. If we could be in the field harvesting today, then these changes would most likely be put off until the winter. But with time on our hands, making these repairs becomes the order of the day.

Wednesday, October 12th - A 6am walk through one of the pecan blocks indicates that the

ground is dry enough to support the harvest machinery. By 7:30am, the tree shaker is lined up with the first tree, ready to start its violent work. Our field crew arrives and they ready themselves with their backpack blowers and rakes that are necessary to get all of the pecans into the row where they can be collected by the sweepers. But as we get ready to start, a new problem appears: the dew is rapidly building on the grass, and it will affect our ability to sweep the nuts into a concentrated row. There is nothing to do but wait until the dew has burned off. Normally, we don't have much dew, but the recent rains have saturated the ground, and the low cloud cover creates ideal conditions for dew formation.

It's 9am, the sun is shining, and we are ready to get started. The orchard quickly becomes a beehive of activity; machines and field workers are in motion everywhere. It takes about two hours to get some windrows of pecans formed so that the harvester can begin its work. Every thirty minutes, the harvester picks up 3000 pounds of nuts and green shuck material. At the beginning of the harvest, some of the pecans are ripe, and some of them are still enclosed in their green shuck. Our cleaning plant will remove the shucks from the nuts, allowing the nuts to dry out so that they can later be shelled.

We work through a few kinks, but everything is progressing well. By lunchtime, we have a shuttle bringing trailer loads of nuts to the plant on a regular basis. Fortunately, we are at a point where we can start to fine tune our process, looking for any slight change that will allow us to harvest nuts faster and more efficiently. Load after load of fresh pecans heads to the plant. We keep expecting something to break or stop running, but our worst fears are not realized. Our only miscalculation of the day is that we have shaken too many trees, and our harvester must run until almost 10pm to pick up all the nuts that are now on the ground.

Thursday, October 13th - An early morning check of the weather radar shows that there are some major storms about forty miles to the west of us over Mexico. Weather radar, which we access over the internet, is a great tool that helps us to plan our day's events around the orchard. The radar today shows that some of the storms are pretty severe, dropping up to three inches of rain per hour over certain areas. New storm cells seem to be popping up all around us.

We head into the orchard with our equipment just before 9am. Given the dew formation, there is no rush to get into the harvest rhythm too quickly, as everyone senses that a storm is about to

hit us at any minute. A few drops fall, but a scan of the sky shows rapidly moving clouds, and the hope is that the weather will break and we can start our nut gathering. There is one row of nuts that could not be picked up last night owing to the darkness, and now our harvester struggles to get the pecans up off the wet ground. Pretty quickly, our harvester is a mélange of nuts, mud and wet grass clippings.

The sporadic rain drops are now coming more frequently, and it is apparent that we are not going to escape the storm. As the intensity builds, a decision is made to send all the men and equipment back to headquarters. At first, we hold out some hope that the storm will quickly pass and that we will get back into the field today. But as the morning passes, and there is no break in the weather, it becomes clear that we are looking at an extended delay in the harvest.

What might have been a manageable situation rapidly deteriorates around lunchtime. A squall line, which is a series of very intense storm cells, moves over us and begins to drop up to two inches of rain per hour on us. By mid afternoon, our orchard looks like a lake and there is some serious flash flooding in the country around us. All told, this storm will dump six and half inches of rain on our land. It will be a week before we can resume harvesting. The only silver lining is that the storm did not produce hail or high winds, either of which would have knocked nuts out of the trees and into the fast flowing water. It is not the start to harvest season that we had hoped for, but eventually the orchard will dry out and we will resume our harvest. Once again, we are reminded that producing food is not an easy endeavor, the challenges are enormous and the risk of total loss is as close as the clouds.