

50 Years of Irrigation Innovation

By Chester Peterson Jr.

There are two words that set T-L Irrigation apart from other manufacturers of pivot irrigation equipment: “We’re farmers.”

Ingenious design, excellent engineering, quality manufacturing, and quick, thorough service and support also differentiate this company.

To be sure, each of these has contributed to the company’s success. They’re the reasons T-L is one of just a handful of center-pivot manufacturing companies that survived of the 50 or so that started up in the late 1960s.

Yet most important of all down through the years has been that simple, but so meaningful sentence proclaiming, “We’re farmers.”

The man who first expressed this philosophy—and who continues to do so a half-century after founding T-L Irrigation—is President LeRoy Thom.

That’s why new products and modifications have always first been thoroughly tested on T-L’s own fields, and why the final decision to market them is based on how a farmer would view and use them to make money.

As LeRoy points out, “That’s company policy. We wouldn’t think of selling a new product unless we tested it for at least a year ourselves on our own farms. We learned a long time ago that what might look so good on the drawing board to an engineer doesn’t always work out in the mud.”

For instance, one obvious and important concern a farmer has before writing his check for a center-pivot system is how long he can expect to keep it working with minimal maintenance.

T-L has tested units in Arizona that ran 4,000 hours a year in order to get a handle on this vital question. The brutal dozen or so years the first center-pivots installed there have operated are the equivalent of 40 or 50 years of normal usage. And, yes, they’re still irrigating crops.

The “We’re farmers” thinking runs through the entire company, too. As LeRoy notes, “I don’t think there’s a one of our 250 employees who doesn’t have some farm connection, whether engineer, salesman, in the plant, or management. This makes a big difference.”



Dave, LeRoy and Jim Thom shown together in front of T-L’s new distribution facility.

Also, he’s proud that almost certainly no other irrigation manufacturer has as many second generation employees working with it, either in the plant or in management.

One of many payoffs to customers from this “We’re farmers” approach to design, manufacturing, and testing is pace-setting warranties that are two to three times better than any competitive pivot system made.

As you can see from “T-L Irrigation—Through the Years”, the company’s accomplishments have been many. But, as Paul Harvey says, “Here’s the rest of the story....”

LeRoy was born on a Ravenna, Nebraska farm, growing up in the “Dirty 30s”. He was in training as a Navy pilot when WWII ended. On his return to the University of Nebraska he decided to combine his agricultural background with engineering.

After graduating, LeRoy and newly married wife, Jean Ballance, went to Scottsbluff, Nebraska. Here he supervised seven counties as a district engineer for the Soil Conservation Service.

He later worked for two-and-a-half years for the Foxley company at Deer Lodge, Montana, as irrigation engineer and farm boss of 45,000 acres.

LeRoy and his wife then moved to Hastings, Nebraska. For a while he traveled the state as a sales representative for Farm Improvement Company, which sold hand-moved irrigation systems.

His interest and expertise in irrigation led to the formation of T-L Irrigation Company as a distributor of irrigation systems in Nebraska.

LeRoy was, of course, the “T” and the operating partner. J. G. Love was the “L” and the financial partner until LeRoy bought him out six years later.

LeRoy and Jean, who served as secretary and bookkeeper, and Art Neal were the only initial employees. And, although he isn’t the “L” as many people have thought, Bob Lubken started work the next year. He still has close ties and is considered a part-timer.

T-L also began distributing products for several other manufacturers—which as a result meant that LeRoy was on the road selling at least five days of almost every week.

He now says he regrets not having the family time then that he’d have liked. But, he points out that this is often the price an entrepreneur has to pay in the early years of establishing a growing company.

There’s a story typical of LeRoy’s idea of fairness that a few old-timers at T-L still talk about. The Habco Dryers he was also selling then normally retailed for \$3,300. LeRoy had firm orders one rainy year for all the 150 dryers the company could ship him.

The dryers were in great demand. Some farmers offered to pay more money, one as much as \$10,000, for a dryer if LeRoy would sell him a dryer instead of to someone already promised one. That didn’t happen.

During the summer of 1969, a dozen years after T-L began to manufacture and sell a tow-line irrigation system, its first two center-pivots were set up in fields for testing.

T-L also began the first of numerous side-by-side tests, with one unit sporting webbed tracks like a snowmobile and the other relying on inflated tires.

The following year 18 systems were sold, the first of the thousands that have since irrigated crops in 44 states and in more than 30 countries. These early center-pivots were built with jackshafts and chain drives.

LeRoy considers the 1973 switch to planetary gear box drives as one of the key factors in farmer acceptance of T-L systems. As he points out, “It was different, unique, and also the best.”

Only T-L center pivots operate continuously without stops and starts thanks to a unique hydrostatic design that relies on hydraulic oil flow rather than electricity.

“We looked at electricity before building our first center-pivot system,” LeRoy remembers. “We had some reasons why we decided against powering with electricity.

“First of all, farmers work with hydraulics every day and understand them. They usually can make what repairs are needed themselves.”

“Second, we worried about having to send a service man 50 miles or possibly further just to change a fuse.”

“Third, we were concerned about the safety factor, and also the potential liability of the Company.”

After deciding on hydraulics as a foundation, the next choice was between water or oil hydraulics. Water hydraulics was eliminated due

to many wells pumping sand and the resulting valve problem potential. The result has been a safe machine that requires the least possible amount of maintenance, the real goals of LeRoy’s “We’re farmers” thinking.

“The next to best thing farmers tell me is, ‘I’ve run my T-L for five years and it’s never stopped. It’s made me money.’ Of course,” he smiles, “the best thing I hear is, ‘I want to buy another T-L!’”

However, realizing that anything made by man eventually needs at least some sort of repair work, LeRoy from the start emphasized quality service. Currently, 250-plus dealers handle sales and product support.

“My point is that you can have the best mousetrap in the world, but service is what makes the repeat sales,” he believes.

In addition to LeRoy admitting to being a “workaholic” all his life, son Dave, Vice President of Sales, is convinced a large part of T-L’s success rests on a trait that goes beyond hard work: “He’s stubborn. When he’s convinced about something, well, then he’s going to make it work. He doesn’t give up.”

Something else about his father that’s resulted in a progressive business is that, according to Dave, “He’s always surrounded himself with good minds, and made sure bright people are working with him.”

Dave agrees with the “We’re farmers” philosophy that’s guided his father for a half-century in the irrigation business. As he says, “It’s design it right, then make it right.”

“Don’t nickel and dime the farmer with a bunch of parts and down time. If we find the need to modify something on a unit, we fix it. We don’t just say, ‘Well, at 10,000 hours we’ll sell you new motors.’ We know when the farmer makes money with one of our pivot systems he’ll be back to buy more.”

Dave also observes that if you look back in the industry, most good ideas have usually come from farmers. So, while engineers and others often take the credit, some farmer has either had the idea or expressed a special need for solving.

The majority of today’s T-L domestic center-pivot sales are either to convert flood irrigation or to replace older units. On the other hand, almost a quarter of T-L’s present center-pivot production is used for new irrigation development in foreign countries.

“Compared to flood irrigation, center-pivots can save 40 percent of the water and 80 percent of the labor,” Dave observes. “Plus, they’re environmentally friendly since due to lower water application rates nitrates and chemicals aren’t leached through the root zone.”

There are several new developments of the kind that keep T-L ahead of the pack, he reports. Precision Mobile Drip Irrigation, known as PMDI, combines the best of center-pivot with drip irrigation. PMDI saves even more water than sprinkling, all while keeping the wheel tracks dry.

Although at present 98 percent of T-L center-pivots going out the door are galvanized steel, the company leads in offering two options: Aluminum and stainless steel.

Testing is being conducted now with a spray-on coating similar to pickup bed liners on galvanized steel in an effort to keep costs lower for farmers with water that clashes with galvanized steel.

Dave enjoys showing visiting farmers the center-pivots T-L is running close to the factory—and how so many are part of a continuing testing program. For example, each tower of one test system mounts a different type of wheel or track.

“We can offer tons of sprinkler package variations”, he comments. In other words, a T-L sprinkler can be easily specifically tailored to a certain field considering wind drift, runoff, uniformity, soil type, terrain, amount of water, crop, and pressure.

“Our products are competitively priced,” Dave emphasizes, “although we probably aren’t always going to be the cheapest. We think it is more important to build in reliability and lower maintenance features so that T-L is always the lowest cost in the long run.”

“Our center-pivots are also safer, because they don’t need potentially hazardous 480 volts of electricity to operate,” he adds. “Lightning strikes don’t affect our final drive units.”

Actually, according to Randy George, Vice President of International Sales, the simplicity and reliability that’s made the T-L reputation in this country is appreciated even more in some foreign countries.

“There aren’t many electricians around in most of these places,” he says. “And, hundreds of T-Ls are running in third world countries operated by people who can’t read or write. So, it’s important that the units be designed and built to keep running with a minimum of maintenance.”



George is enthusiastic about the future of T-L worldwide. For instance, T-L center-pivots in New South Wales, Australia, increased cotton yields 30 percent and improved crop quality in the midst of a long-term drought.

Jim Thom, Vice President of Finance points to another way T-L is unique in the pivot irrigation business. He explains that since 1983, the beginning of some tough years for many farmers, T-L has been providing its own financing to buyers.

“We don’t have to call the bank and say, ‘Well, how do you want to do this?’. We can keep financing in-house and manage it all from right here,” he says. “This gives us the flexibility to put different programs together to fit the needs of our customers.”

The only thing T-L lacks, he continues, tongue-in-cheek, is a large hierarchy. Jim says that, “I may be discussing financing with a first-time customer one minute, talking to someone else about delivery schedules the next, and purchasing materials after that. We’re a family-owned business just like most of our customers.”

“I had no idea 50 years ago that T-L irrigation would get this far,” LeRoy comments.

“It’s really been fun to help in the development of center pivot irrigation. When I first started selling hand-move systems we talked about 80- to 100-bushel an acre corn. Now we talk about 200 to 250-bushel yields.”

“If you’d been working with irrigation back then you would have felt like I did when center-pivots came along: It’s like a dream. Today there’s nothing that can take the place of a center-pivot irrigation system—especially a reliable, safe T-L built by farmers!”

