Your success depends on selecting irrigation products and technologies that maximize your profit and minimize your risk.

Lindsay’s rugged equipment, integrated technologies and plug-and-play add-ons form a broad line of solutions that will make the most of your operation.

Your local Zimmatic® by Lindsay dealer can help you customize the right system for your needs.

To learn more, visit your local dealer or go to www.lindsayadvantage.com.
Our congratulations to Zimmatic® by Lindsay dealers Henry Aschoff and Keith Wiehn, president and vice-president, respectively, of Petersen Ag Systems, Inc., who have been named the Nebraska Small Business of the Year for 2013 by the U.S. Small Business Administration.

The Norfolk-based firm is an agricultural equipment supplier of irrigation and grain handling products with outlets in Osmond, Hartington and Fremont, Nebraska, and Onawa, Iowa.

Petersen Ag Systems was chosen as the state’s top small business based on its history as an established business, growth in number of employees, increase in sales and unit volume, response to adversity, and innovation in products and services offered.

Since buying the business 13 years ago, Aschoff and Wiehn have grown the company from 11 employees to 41; the company hires 15 to 20 part-time employees during the summer, and plans to hire an additional 10 to 12 employees over the next 12 to 18 months.

The pair guided the company through the recent nationwide economic downturn by cutting their own salaries, freezing new equipment purchases and reducing inventory, all while keeping its workforce intact.

“How we do business has separated us from the competition,” Aschoff said. “We want to be able to go to church on Sunday and not have to hide from anybody.”

Petersen Ag Systems serves as the third-largest dealership in the world for Zimmatic by Lindsay irrigation systems, with a territory which covers a large part of the state and counties in Iowa and South Dakota. Recently, the company was named one of Lindsay’s top 10 dealerships in the country thanks to high marks for its sales and service.

Congratulations Henry, Keith and the entire Petersen Ag Systems team!
Irrigation rates and per day use of water from the Ogallala Aquifer have been sliced in half through the adoption of improved irrigation technology and water stewardship, according to the recently released Panhandle Regional Water Plan.

The study cites data from the United States Geological Survey (USGS) showing that while from 1995 to 2005 total acres of irrigated crop land increased, the total yearly use of water for irrigation was cut by more than half. According to Duane Smith, head of Duane Smith and Associates, the consulting firm that compiled the study, this reduction greatly lengthens the usable life of the Ogallala Aquifer.

“We know the Ogallala is a finite resource of water, but the numbers show that with continued adoption of new technology and better stewardship, this water should be available for a long time,” Smith said. “The water users of the Panhandle have done a great job in improving the efficiency of their water usage and with continued improvement, we can continue to stretch each drop of water further and add more years of life to the aquifer.”

Smith cited numbers compiled by the USGS that show overall water use from the Ogallala peaked in the 1970s with a steady decline since.

Source: Southwest Farm Press, May 2, 2013, news article

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Oklahoma Panhandle Irrigators Cut Ogallala Aquifer Water Use in Half

Irrigated land is more than twice as productive as rain fed land

70% of the fresh water we use globally goes toward irrigation – inefficient irrigation systems waste this precious resource

Gravity irrigation uses up to 60% more water than pivot and lateral systems

Percentage increase in yields with Lindsay’s pivot and lateral systems (compared to non-irrigated fields)

Lindsay Corporation recently partnered with the Arbor Day Foundation to help restore the tree population in the Los Padres National Forest.

The Arbor Day Foundation planted 1,200 trees, one for each Lindsay employee, in celebration of the recent Arbor Day and Earth Day. A mix of Ponderosa Pines, Jeffrey Pines and Sugar Pines were planted to help restore what was lost during a massive forest fire.

Los Padres National Forest spans more than 200 miles in south-central California and is home to more than 450 different fish and wildlife species. In September and October of 2006, the Derby Fire burned more than 160,000 acres of land in the national forest.

“Lindsay Corporation is one of the world’s leading providers of irrigation and water management systems and is committed to protecting and caring for our land, water and the environment for future generations,” says Richard W. Parod, Lindsay Corporation President and Chief Executive Officer. “This is a great opportunity for us to help restore the tree population of Los Padres National Forest and also to honor and recognize our dedicated employees around the world.”

Los Padres National Forest spans more than 200 miles in south-central California and is home to more than 450 different fish and wildlife species.
Soil moisture monitoring and a weather station are now available as part of the Growsmart® by Lindsay product line.

These plug-and-play add-ons use a wireless connection to report relevant weather and soil water data from the field to a secure customer account on the Web. FieldNET by Lindsay software and supporting mobile apps provide the graphical user interface, convenience and reporting growers need to make more informed irrigation decisions.

Reece Andrews, new technology product manager at Lindsay, says the Growsmart sensors are designed to provide information that enhances irrigation management using FieldNET’s management tools, which allow growers to remotely monitor and control their entire irrigation system.

Growers are automatically notified about conditions that require action,” he says.

The soil moisture monitor and probes can be named for quick reference and linked to the associated fields. Soil moisture trends are illustrated in easy-to-read graphs and provide current trending and season-over-season history.

“Integrating soil moisture and the weather station with FieldNET allows growers one easy-to-use platform that controls pumps and pivots, records water and energy usage, tracks soil moisture levels and trends, and logs local weather station information.

Soil moisture monitoring can help growers decide when to apply irrigation and alert growers if they are over-watering, which wastes not only water but also energy. The soil moisture monitor can also help reduce runoff and leaching, and decrease fertigation and chemigation costs.
The state-of-the-art weather station includes sensors for wind speed and direction, solar radiation, air temperature, humidity, precipitation and calculated evapotranspiration. A low-maintenance tipping rain bucket is included as part of the weather station. Historical records are maintained for quick access, with trending charts together on one page.

Jon Schram recently installed several of the soil moisture sensors in his irrigated corn and soybean fields.

“The soil moisture sensors allow me to monitor the soil moisture more accurately and make irrigation decisions accordingly,” Schram says. “FieldNET works great to monitor and control my whole irrigation system, even when I’m away from the farm and on vacation. It’s a great service.”

Andrews added, “The new soil moisture monitor and weather station are designed for quick access to field feedback that can result in better overall irrigation management and improved crop yield and quality.”

For more information, visit growsmart.com or talk to your local Zimmatic dealer.

“FieldNET gives you graphing and configuration to monitor soil moisture status.

FieldNET tracks weather conditions down to the micro-climate of your field.

State-of-the-art weather station includes accurate, low-maintenance tipping rain bucket.

ENHANCE YOUR IRRIGATION MANAGEMENT WITH FIELDNET

FIELDNET STATUS ICONS AND ALERTS

Easy-to-read icons and configurable alerts keep you informed.

GOOD ALERT

GOOD ALERT

Moisture status

Weather alerts
MORE CROP PER DROP

“Water+ Intelligent Irrigation Platform is a comprehensive and all-inclusive program that brings together other management tools that range from soil moisture probes to weather data—all managed by the power and convenience of FieldNET.”

— Greg Whitmore, Shelby, NE
Irrigated corn growers confront unique challenges daily – many of which are beyond their control. It’s time to rethink water and use this precious resource more efficiently.

**COLLABORATION CREATES WATER+ INTELLIGENT IRRIGATION PLATFORM**

On July 11, 2013, Lindsay Corporation announced its collaboration with Syngenta, one of the world’s leading companies in crop productivity, to provide customers with Water+™ Intelligent Irrigation Platform. By combining cutting-edge Lindsay irrigation expertise with top-performing Syngenta seed genetics, traits, seed treatments and crop protection inputs, growers can experience optimum corn yields with significantly greater flexibility in irrigation scheduling and water conservation.

Water+ Intelligent Irrigation Platform represents an entire agronomic system in one easy trial-tested solution – bringing together market-leading Syngenta genetics, traits, crop protection inputs and Agronomic Advice Platform with a series of state-of-the-art irrigation technologies, equipment and expertise from Lindsay Corporation.

With Water+ Intelligent Irrigation Platform, growers can achieve improved control of their operations – from planning through harvest – by developing strategic planting plans, monitoring their crops and controlling their pivots from their laptop or smartphone, receiving up-to-date crop management recommendations and irrigation updates, and analyzing harvest results, among other capabilities.

Water+ Intelligent Irrigation Platform enables farmers to maintain their irrigated land and their maximum yields while reducing water use by up to 25%.

In addition to the tangible benefits of increased yield potential and greater water efficiency, Water+ Intelligent Irrigation Platform translates to security, control, convenience, flexibility and time savings for growers.

“Our approach will include helping growers identify the most critical limiting variables and putting a program in place to better measure, analyze, track, and predict their impact in real time,” said Barry Ruffalo, President, Irrigation at Lindsay Corporation.

**REDUCING COSTS AND MAXIMIZING YIELDS**

Syngenta will aid in Lindsay’s ongoing goal to help growers maximize yields by providing optimum genetic potential, pest and disease control, and effective water management. Water+ Intelligent Irrigation Platform will reduce operating costs with fewer trips to the field, precise application (no wasted application) and automation, while leveraging existing assets.

Not only is the new program easy to use, but it also improves profitability by integrating crop inputs, water solutions and local services in a convenient and easy-to-implement solution tailored to customers’ specific needs. Water+ Intelligent Irrigation Platform gives farmers complete control over their irrigated corn acres.

“We look forward to working with Syngenta to help farmers save time, manage their irrigated acres more efficiently and improve their return investment potential,” said Ruffalo.

Water+™ is a trademark of a Syngenta Group Company.
“NFTrax has more area on the ground and doesn’t push out as much soil to create a sidewall. There’s no track or anything now.”

— David Fowlkes
David Fowlkes Farms

Flat tires, downtime, and rutting are huge issues for some growers.

One such grower is Sammy Stahl, Irrigation Manager at Stahl Farms in Moses Lake, Washington. Stahl has had to worry about managing 120-150 flat tires a year on his 200 pivots.

“Each flat tire is an hour of downtime – if you catch it in time,” says Stahl. “If not, you’ll have a driveline that goes bad, and it can possibly put a lot of strain on the gearbox.”

Another grower is David Fowlkes, owner of David Fowlkes Farms in Lindsay, Nebraska. Previously, traditional tires killed his alfalfa plants.

“Traditional tires push out the soil and smother the plant,” says Fowlkes. “That destroys the roots and kills the plant.”

RETIRING TRADITIONAL ALTERNATIVES

Enter NFTrax – an airless wheel assembly from Lindsay with greater traction and improved track maintenance, without the downtime concerns associated with standard pneumatic tires.
Stahl has been using three sets of NFTrax on his standard eight-tower Zimmatic pivot to irrigate 130 acres of potatoes.

“NFTrax is a home run deal,” says Stahl. “Not having to check for flat tires is a major breakthrough because there is so much less downtime.”

Fowlkes is also using three sets of NFTrax on his standard 10-tower Zimmatic pivot and has seen the benefits first-hand this growing season.

“NFTrax is better on my alfalfa plants compared to traditional tires,” says Fowlkes. “NFTrax has more area on the ground and doesn’t push out as much soil to create a sidewall. There’s no track or anything now.”

**WHY IT’S BETTER**

NFTrax is an airless design that will never go flat and keeps wheel ruts to a minimum. There’s no punctures, no air pressure to check, no bad sidewalls, and longer overall life – saving growers time, labor, and replacement costs.

NFTrax’s steel core vulcanized rubber track is tensioned over 10 drive points. In contrast, standard pneumatic and solid tires apply greater pressure to the middle of the track base as they roll, generating a deeper trough for runoff. The NFTrax applies more even pressure across the entire belt surface, forming a flatter, shallower imprint.

The unique tread design, that minimizes soil disturbance, coupled with the high/low pressure points, controls water runoff and reduces track erosion for faster field drying time. Without large ruts to drive over there’s less wear and tear on all types of farm equipment.

Solid tire alternatives may provide “no flat” performance but have limited flexibility, forming deeper ruts and creating more stress on the machine’s driveline. NFTrax glides smoothly right over field obstructions without getting stuck or putting undue stress on the machine. Plus, the load of the tower is spread across the full footprint of the track – maximizing flotation.

And unlike standard tire sidewalls, mud and soil deposits outside the track are kept to a minimum.

Proven through advanced design and on-farm testing, NFTrax can help growers across the country who have problems with flat tires and rutting, minimizing downtime in the field.

To see the video, go to youtube.com/lindsayirrigation

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**TRADITIONAL TIRES VS. NFTrax**

Through extensive field testing, NFTrax’s wheel track depth is 30-50% less than that of standard 11.2x38” tires in similar operating conditions. When compared to solid tire alternatives, improvement to the track depth is even greater.
HARNESSING THE SUN
Even on a cloudy day, it seems like the sun is always shining on the Beller Feedlot family farm in Nebraska.

A sign at the entrance to the feedlot on Highway 91 near Lindsay in northeast Nebraska proudly proclaims “Family Owned Since 1958” and advises “Enjoy Beef.” Started with just two steers and a can-do spirit, Beller Feedlot has grown to where it now finishes about 12,000 head of cattle annually, targeting the prestigious Certified Angus Beef® brand. And now the third generation of Bellers are involved in the operation of the feedlot and farm.

On this particular day, the sky is clear as can be and the sun is shining bright as ever on the Bellers’ irrigated cornfield. Pivots are running as much as possible to help fill the ears and supplement a rain deficit this July.

Nearby, in the same irrigated cornfield, a massive new solar panel array is cranking out 25 kilowatts of electricity to help power the Bellers’ irrigation system and pump, which in turn are being used to water the corn growing under that same hot summer sun.

“The solar panels are generating ROI and that’s a real benefit for us.”
– Terry Beller
Beller Feedlot

The Lindsay solar-powered center pivot irrigation project is designed to help the Bellers save money on their irrigation bill and to generate additional revenue during non-irrigation times of the year.

“We were looking for something new and exciting and this is it,” says Terry Beller, who along with his brother, Mike, operate Beller Feedlot. “We normally irrigate about seven weeks during the year, so the other 45 weeks of the year, the solar panels are generating ROI, and that’s a real benefit for us.”

Lindsay helped spearhead the project, one of the first commercial solar-powered center pivot irrigation projects of its kind in Nebraska, by providing technical, logistical and product support to the Bellers.

“Lindsay offers growers a broad line of integrated irrigation solutions, from pumps to pivots and plug-and-play add-ons – all designed to help make growers more productive, efficient and profitable,” says Randy Wood, Lindsay vice president of sales and marketing. “Solar projects like this are another opportunity for Lindsay to collaborate and partner with growers on technology innovations and product add-ons that lead to greater efficiency and profitability on their farms.”

The solar panels at Beller Feedlot consist of five stationary photovoltaic (solar electric) racks. Each rack is

FAST FACTS
BELLER FEEDLOT

Beller Feedlot is a third generation family-owned cattle feeding operation near Lindsay, Nebraska. It was originally started in 1958 by Terry and Mike’s parents, Jim and Mary Beller, with two steers that were given to them as a wedding present by Jim’s father.

- Finishes about 12,000 head of cattle annually, targeting the prestigious Certified Angus Beef® brand.
- Jim and Mary Beller are still active in the operation, as are several members of Terry and Mike’s family and other family members.
- Includes approximately 400 acres of irrigated corn and soybeans.
- In 1969, Jim Beller bought the fifth center pivot ever produced by Lindsay.
- The pivot is still operating at its original location and is now being powered, in part, by electricity generated from the solar panels.
The following companies and organizations helped to make the Lindsay solar-powered center pivot irrigation project possible:

- Beller Feedlot (Terry and Mike Beller)
- Lindsay Corporation
- Nebraska Public Power District
- Nebraska Public Power District
- Solar Heat & Electric in Omaha (provider and installer of the solar panels)
- Frisch Electric in Lindsay, Nebraska
- United States Department of Agriculture Rural Energy for America Program

**SOLAR POWER INCENTIVES**

USDA’s Rural Energy for America Program (REAP) provides financial assistance to agriculture producers for renewable energy systems, including solar. With technical, logistical and product support from Lindsay and other partners, the Bellers applied for a $17,000 REAP grant, which is in process and being reviewed by USDA.

In addition, there is a 30 percent federal tax credit available for renewable energy projects such as this. Similar solar systems also may qualify for accelerated depreciation, bringing the first year return above 40 percent.

An interesting side note to this solar project is that Terry and Mike Beller’s father, Jim Beller, who started Beller Feedlot and who is still active in the operation, bought the fifth center pivot ever produced by Lindsay in 1969. That pivot is still operating at its original location and is now being powered, in part, by electricity generated from the solar panels.

Terry Beller sees the connection. “When my dad bought that pivot in 1969, it was a lot of money at the time and something totally new. He probably wondered if it was a wise investment, if it would pan out. Well, that pivot is still pumping and running as we speak today. The best thing my dad ever did was invest in that pivot,” Terry Beller says.

“‘The first person I talked to about doing this solar project was my dad. He encouraged me. He said, ‘Go for it!’” With less energy usage, a federal tax credit and a renewable energy grant (see sidebar), the solar project is expected to pay for itself in less than seven years.

**Terry (left) and Mike Beller at the solar panel control box.**

13 feet deep and 27 feet wide. The entire array is 9 feet high and 139 feet long. The panels have a “name- plated” capacity of 25 kilowatts and an estimated lifespan of 25 years.

Three pivots and the main water pump tie into the project.

If, for example, the irrigation water pump and the pivot motors are using a total of 50 kilowatts of electricity, the Bellers will see an immediate reduction of 25 kilowatts in the amount of electricity that they are buying. When not providing power for the pump and pivots, the solar array puts additional electricity back into the electrical grid, which the Bellers receive credit for at the end of the year from their utility provider.

“This solar array allows the Bellers to reduce their power consumption from the commercial grid, but because they are still tied into the grid, they don’t have to rely on solar power alone. This provides a very flexible solution that reduces their operating costs, but never puts their ability to irrigate at risk,” Wood says.
Mechanized irrigation is an essential part of the solution to feeding a growing world population, and producing improved crop yields and quality with fewer inputs. The next generation of emerging technologies for center pivots and laterals is fundamentally advancing irrigation even further – saving water, energy and labor.

MAXIMIZING IRRIGATION EFFICIENCY
Increasing irrigation efficiency involves the ability to minimize water losses from factors such as wind drift and evaporation from the soil surface. For mechanized irrigation, the single biggest advancement towards increasing irrigation efficiency has been in sprinkler technology. High performance sprinklers spread the water out over a wide area, even when mounted below the truss rods of a center pivot. These rotating and spinning devices operating at low pressure have dual benefits – increased soak time and low application rates.

CONTROLLING RUNOFF
Runoff can result in unwanted water and fertilizers being carried into streams and rivers. Soil erosion is not only a pollution issue, but also results in lost fertilizer and lower overall crop growth. Increased runoff means lower application efficiency which increases operating costs.

A wide wetted pattern results in a lower average application rate, which provides longer soak time for water intake.

Low application rates and engineered rotating streams that create a wet-rest cycle lead to gentle water application – keeping the soil structure intact. Recent research from USDA-ARS has shown that for soils susceptible to surface sealing from water drop impact, the sprinkler with the largest wetted diameter was predicted to maximize infiltration. If a center pivot sprinkler irrigation system is operated over a bare soil at the application rates used in their study, a surface seal is going to form, and the only way to maximize infiltration depth is to apply the water over the largest time interval possible.¹

PROPER SPRINKLER MOUNTING HEIGHTS MATCHED TO CROPPING ROTATIONS
Higher sprinkler mounting maximizes the wetted radius and provides greater sprinkler overlap. New, low-pressure sprinkler technology mounted on top of the center pivot reduces water losses associated with high-pressure sprinklers. When compared to devices placed just above the mature crop canopy, moving low-pressure sprinkler devices from above to within the crop canopy provides little savings in water and has no impact on yield if runoff in the field is controlled.²

END GUN SOLUTIONS FOR EXTRA ACREAGE
A Big Gun® sprinkler (operating through a complete rotation) on a quarter-section pivot can effectively irrigate up to 20 additional acres (8.1 ha). Considering the cost-effectiveness of putting this additional land into production, an end gun alternative shouldn’t be overlooked.¹

ABOUT NELSON IRRIGATION
Based in Walla Walla, Washington – Nelson has dedicated the last four decades to designing and producing agricultural and industrial products that fit its mission – finding ways to save water, save energy and do a better job of irrigating. Visit www.nelsonirrigation.com for more information.

As a successful sugar beet farmer, Jeff Henry finds his new Zimmatic pivots to be pretty sweet. While conserving water supplies, the new pivots are helping him run the farm his parents started years ago.

Henry grew up on a farm in Jerome, Idaho, only a few short miles from his current farmland. He spent his childhood learning the ropes from his parents, Bob and Colleen, and upon returning home from earning a plant ecology degree from Idaho State University in 1989, he found farming to be a career that made sense. He’s now been farming for 20 years.

A LOVE FOR FARMING
“It’s hard to explain to somebody why you do it,” he said. “It’s something you have to love and really want to do.”

The family-owned farm is operated with the help of Henry’s brother, Bob Jr., and his nephew, Ryan. He is planning on his son Jacob joining the team soon. He and his wife, Natalie, also have two daughters, Elizabeth and Kelsey.

Henry is an 18-year representative on local growers boards and a retiring 16-year representative on the American Sugar Beet Growers Association (ASGA). He recently earned the title of “2013 Sugar Producer Grower of the Year” by Sugar Producer magazine.

With more than 2,000 acres, Henry says they always have sugar beets growing somewhere on their land. He alternates the beets with malt barley for four rotations, and grows alfalfa to replenish the soil.

A PIVOTING SUCCESS
In order to better care for his vast amount of crops while keeping water conservation in mind, Henry purchased several Zimmatic pivots, including five new pivots bought last fall and this past winter. The new pivots are “much more efficient.”

With available water amounts being a concern for Idaho farmers, the Zimmatic pivots are just what Henry needs to help conserve the local water supply. Water sources in the area are 60 percent canal and 40 percent deep well.

THE RIGHT AMOUNT OF WATER
Henry says the key to profitably raising beets in desert-type land is to use the right amount of water. Ideally, one-third of an inch a day is recommended. With the Zimmatic pivots, Henry puts out three-fourths an inch every two and a half days, which is the time it takes for each pivot to make a full circle.

Before Henry started using the Zimmatic pivots, he utilized the old hand-line irrigation units. He says they were putting out too much water and beets don’t respond as well to extreme amounts of moisture.

Henry’s Zimmatic by Lindsay dealer, Don’s Irrigation, is only a few miles away from his farm. “They provide nearly instant service when we need it. They are really great to work with . . . parts, whatever we need. They are excellent and have a great staff.”

SWEET DEALS
Henry sells his sugar beets to Amalgamated Sugar Company, who is owned by the Snake River Sugar Cooperative. Amalgamated Sugar produces powdered, granulated, white, and brown sugars.
The U.S. Food and Drug Administration (FDA) has proposed a Rule on the Standards for Growing, Harvesting, Packing and Holding of Produce for Human Consumption that has raised a number of concerns from the irrigation industry as well as growers who rely on irrigation to produce a robust crop.

According to David Beaudreau, Jr., of D.C. Legislative and Regulatory Services in Washington, D.C., the proposed rule would set limits on the amount of coliform bacteria that can be present in agricultural water, which includes water that is used for irrigation. In addition, the standard requires that irrigation water have E. coli levels under 235 colony forming units (CFUs) of generic E. coli per 100 milliliters for any one water sample.

More than 200 Agricultural Commodities

In developing the rule, the FDA focused on six primary commodity groups: herbs, leafy greens, melons, sprouts, tomatoes and “other.” According to the National Onion Association, the “other” category represents more than 200 agricultural commodities.

“Most growers recognize that surface water used to irrigate a variety of crops will not meet this standard,” Beaudreau says. “Bacteria levels in surface water are often very variable, making it difficult for growers to determine which water can be used to irrigate and which cannot.”

Beaudreau says requiring extensive testing or treatment of this water would be difficult for growers and would ultimately increase the cost of the produce that they sell to consumers.

“Fortunately, the irrigation industry has several members who believe that there are irrigation technologies which have the potential of decreasing the contact that the water has with plant/crop foliage, thus reducing or eliminating the concern that some at the FDA have with the contact this water may have with produce intended for human consumption,” Beaudreau says.

LEPA Irrigation Technology

One of these irrigation technologies is Lower Energy Precision Application (LEPA) irrigation. With LEPA, irrigation water is applied into the furrow between the rows of the plants, keeping the plant canopy dry.

LEPA eliminates the contact that any water would have with the plant canopy, which reduces the amount of contact the water has with the plant canopy’s surface area – decreasing the possibility of pathogen contamination.

Beaudreau suggests the final FDA rule create an exemption for irrigation technologies such as LEPA and recognize these technologies as an efficient practice in the irrigation industry.

Deadline for comments on the proposed FDA rule is Sept. 16, 2013.

Lindsay continually strives to make irrigation more cost-efficient. And now, by investing in variable frequency drive (VFD) technology, growers have the opportunity to take part in a VFD energy savings program.

Rick Reinders, Watertronics president, says Watertronics-certified Zimmatic by Lindsay dealers can help growers save time and money through VFD.

VFD TECHNOLOGY

Unlike traditional fixed-speed pump technology, VFD controllers adjust the speed of new or existing motors to match output requirements. As a result, the pump sees less wear and tear, and both water and energy is used more efficiently.

“This is one of the first programs of its kind in the agriculture industry designed to save growers money on their electric bills,” says Reinders. “By placing a Watertronics VFD controller on their new or existing irrigation motors and pumps, customers will see lower water and energy usage, with less wear and tear on their pumps and irrigation equipment.”

FREE ENERGY SAVINGS CALCULATOR

As part of the energy savings rebate program, growers can access an easy-to-use online calculator that figures how quickly a VFD controller can pay for itself in energy and water savings.

“The energy savings calculator is a great tool that allows growers to see just what VFD technology can save them,” says Reinders. “It’s simple to use and instantly shows how much money can be saved by purchasing a Watertronics VFD controller.”

DATABASE OF ENERGY REBATES

Because VFD energy savings rebates may be offered through local energy providers, Lindsay has also created a searchable online database to help growers access this information.

Visit www.SAVEwithVFD.com for details.
Lindsay pivots, laterals and hose reel irrigation systems are helping one of the world’s largest vegetable growers and processors increase yields, quality and profitability in the heart of Russia’s most productive agricultural region.

The large, modern Lindsay irrigation system is located on the Rogovskaya farm in the Krasnodar region of southern Russia, which is managed by one of the world’s largest food processors – the Bonduelle Group.

Because of the mild climate and abundant water supply in the Krasnodar region of southern Russia, the farm managers are able to “double-crop” peas with sweet corn, and also provide a reliable, steady supply of raw materials for Bonduelle’s vegetable processing facility located in nearby Timashevsk, Russia.

Today, approximately 5,683 acres (2,300 hectares) of green peas, sweet corn and sugar beets are irrigated by the following Lindsay products:

- 14 Omega pivoting laterals
- 3 standard laterals
- 16 center pivots
- 2 Perrot® by Lindsay hose reels
- Zimmatic by Lindsay BASIC control panels

“In designing and planning the Lindsay system at the farm, it was important that the irrigation complement and provide for a strict crop seeding and delivery plan,” says
Damien Cochelin, Lindsay Russia regional manager.

“It was crucial to match harvest and delivery of the peas and sweet corn as closely as possible to the demands and schedules of the processing facility. The Lindsay irrigation system was designed to allow Bonduelle to do that and to process more of the crops locally, which increases the processing facility’s efficiency and ultimately – profitability.”

This helps tremendously in scheduling delivery of the product and better matches vegetable processing capacity to supply.”

**GREEN PEAS**

Without irrigation, green peas needed to be planted at the Rogovskaya farm between early March and the end of April. This also meant the peas needed to be harvested June 1 through June 25.

Now, with irrigation and careful planning, the peas can be planted through May 10 and the total harvest season extended an additional 10 days. This allows the processing plant to extend the pea canning process by an additional 10 days as well.

**SWEET CORN**

With irrigation, the sweet corn can be planted after the peas are harvested, resulting in a profitable double-cropping system. Irrigation is used to help the crop emerge and to survive hot, dry spells in the region. It also increases sweet corn quality and moisture content.

Damien says: “Irrigation allows for good planning so the farm managers can harvest and deliver so much sweet corn per day to the processing plant.

**INCREASED YIELDS**

By almost any measurement, Lindsay irrigation products have increased yields, quality and efficiency at the Rogovskaya farm (see “ROI Summary”, right).

However, perhaps the biggest benefit is the ability to double crop the peas and sweet corn and to better match crop supply with crop demand at the Bonduelle factory in nearby Timachevsk.

“Thanks to the Lindsay irrigation system, the farm is now able to better time planting and harvesting and crop delivery schedules,” Cochelin says. “The farm is able to double-crop the peas and sweet corn, and able to provide much more and better quality crops to the Bonduelle processing facility.”

**SUGAR BEETS**

In addition to peas and sweet corn, sugar beets are grown at the Rogovskaya farm. Sugar from the beets is used in the vegetable processing and canning operation while the rest of the sugar beets are sold as a commodity.

Lindsay irrigation has resulted in a substantial increase in sugar beet yields, in some cases up to double the dryland yields.

**ROI SUMMARY**

- Green pea crop yields increased from 1.79 tons/acre (4 metric tons per hectare) to 3.26 tons/acre (7.3 metric tons per hectare)
- Sweet corn yields average 7.59 tons/acre (17 metric tons per hectare)
- Sugar beet yields increased from 22.32 tons/acre (50 metric tons per hectare) to 35.71 tons/acre (80 metric tons per hectare)
- Vegetable crop supply and delivery more closely matches processing facility capacity and demand

**FAST FACTS**

- Bonduelle is a family business established in 1853 and today is a world leader in ready-to-use vegetables
- Bonduelle’s vegetables are grown on over 284,171 acres (115,000 hectares) and sold in almost 80 countries under a number of different brands
- Over 9,000 employees
- The Timachevsk, Russia, vegetable plant’s production capacity is 55,116 U.S. tons (50,000 metric tons) per year
SEE THE LATEST INNOVATIONS FROM GROWSMART BY LINDSAY

Details inside . . .

ABOVE GROUND

WEATHER STATION

AND BELOW

SOIL MOISTURE MONITOR