**RICE LAKE** 

CONNECTING THE GLOBAL WEIGHING,

DIMENSIONING AND PROCESS CONTROL COMMUNITIES

## Thriving Horses and Happy Hearts p. 22

Weighing at the Blueberry Farm *p*. 4

Electricity Born from Fire *p*. 16

Optimizing Crops with Weight-based Batching p. 26

## The Standard's Latest

It is a pleasure to welcome you to The Standard, a magazine from Rice Lake Weighing Systems. This year brought new additions, stories and information from the world of weighing, which we are very excited to share with you.

From weighing elephant calves to flour for food production processes, weight can affect industries of all types and sizes. In this magazine, you will read how businesses and applications around the world use Rice Lake's solutions to achieve the best in their processes: elephant calves are weighed on a RoughDeck<sup>®</sup> floor scale to track their health, an innovative Canadian fertilizer company integrated 920i<sup>®</sup> FlexWeigh batchers into their systems to optimize crop growth with micronutrients, a WM-Ai automatic wrapper helps a Meals on Wheels program and much more!

You will also read an excerpt from our ScaleTalk series about multimeters and how they can be used in the field, as well as new Rice Lake solutions.

We strive to ensure each of our solutions is the best possible option to meet the needs of our customers. I hope you enjoy this issue of The Standard and learning more about these applications.

If you have any feedback or would like to be featured in a future story, please reach out to our team at thestandard@ricelake.com.

Sincerely,

MARK JOHNSON, JR. President





## **Table of Contents**

**02** The Standard's Latest

**04** Small Town, Big Blueberries

**08** Automating Flour Processing in South America

Rough and Tumble Bundles of Joy

**14** Wrapped Up in Something Big

**16** Transforming Trash to Electricity

> **23** Weighing to the Rescue for Horse Rehabilitation

**26** Revolutionizing Precision Agriculture

**30** Weighing the World's Largest Cake Ball

**32** How to Use a Multimeter

34

The Rice Lake Advantage

## **True Stories From Real Customers**

Rice Lake's magazine contains real stories crafted by real people. We strive to represent our products and customers authentically. All content is designed, written and photographed without artificial intelligence.

Do you have a story idea featuring Rice Lake products? Email us at thestandard@ricelake.com and let us know!

# Small Town, Big Blueberries

Rice Lake's RS-130 price computing scales help Cronk's Berry Bucket, a blueberry farm in Sarona, Wisconsin, USA, grow to their fullest potential.





Cronk's Berry Bucket grows three varieties of blueberries with over 1,000 individual plants annually.

Cronk's Berry Bucket has been a booming blueberry farm since 2007, and they are still growing. Kevon and Amy Cronk–owners of Cronk's Berry Bucket in Sarona, Wisconsin– started with half an acre of blueberry plants. Now, they have a full acre with over 1,000 blueberry plants and three different varieties: Chippewa, Patriot and Blueray.

Although there are many varieties of blueberries, only a select few are able to thrive in northern Wisconsin. The Chippewa variety is similar to a wild blueberry—the bushes are lower to the ground and berries are on the smaller side. These blueberries are also perfect for baking. The bush of the Patriot variety looks more like a tree, and these berries are slightly larger than a Chippewa blueberry. A picker-favorite is the Blueray variety—these very large and sweet blueberries fall into your hand almost like grapes!

Kevon says they decided to grow blueberries particularly because "strawberries are too low to the ground," making them much harder to pick and care for. Kevon remembered his college roommate, whose parents grew blueberries as a hobby. Kevon thought blueberries might make a good fit for their land too, as well as something they could do as a family for extra income.

People come from all over the world to pick or order their blueberries. Since opening for business, the Cronk family has met people from Europe and other parts of the world, something that may have never happened had they not started the farm. "People from Eastern Europe, France, England and more have been vacationing nearby or visiting the area and have visited Cronk's Berry Bucket."

"We've had people from all over the U.S., many from large cities, many young and old that have never had the opportunity to pick berries of any kind. Picking becomes an experience many have never had."

> -KEVON CRONK, Owner of Cronk's Berry Bucket

The blueberry picking process is very delicate. Immediately after the blueberries are picked to fill an order, they are handsorted, and any stems or debris are removed. If the blueberries are for an order, they are placed in a cooler until they can be picked up. Cooling them down after being out in the summer heat ensures they stay fresh for as long as possible.



Price computing functions accurately calculate prices according to weight and eliminate over- or under-charging customers.



0

ON/O

For the first few years at the farm, blueberries were sold by pints and quarts. When Kevon realized the size of plants and number of blueberries were increasing, he knew he needed a scale to sell based on weight instead of volume. Through careful research, Kevon decided to get his first of three RS-130 battery-operated price computing scales from Rice Lake Weighing Systems. "One of the reasons we went with a Rice Lake scale is because it's a local company for us," Kevon mentions. Cronk's Berry Bucket is just under 20 miles north of Rice Lake. He also liked that the RS-130 scales are battery-operated, so in the event that it needs to be in the blueberry field where there is no electricity, it still runs correctly.

### "One of the reasons we went with a Rice Lake scale is because it's a local company for us."

-KEVON CRONK, Owner of Cronk's Berry Bucket

Accuracy is also important for Cronk's Berry Bucket. Because the blueberries are sold based on weight, it is essential the scale is accurate to avoid over- or under-charging. With the RS-130 scale, customers are able to see both the weight and price for extra confidence. Kevon says that the kids like watching the display to see the total weight. "It's comical sometimes to watch the kids' faces light up when they see how much they pick," Kevon adds.

The tare and price computing functions of the scale are crucial when weighing blueberries. Unlike bigger fruits such as apples or pears, blueberries must be weighed in a container which is where the tare function comes into play. When weighing blueberries, only the net weight is wanted. By placing an empty container on the scale and pressing "tare" before filling it with blueberries, the scale will calculate only the net weight of the blueberries versus the gross weight which includes the weight of the container. This function gives the operator the correct weight and price.

Because Cronk's Berry Bucket has a set price per pound for their blueberries, they are able to set a PLU key to that specific price. If the price needs to be changed at any given time, the RS-130 has nine PLU keys for different prices per pound. Throughout each season, Kevon keeps track of how many pounds of blueberries have been picked. He also compares blueberries harvested versus blueberries sold, and U-pick versus pre-picked to determine areas they could improve or change.

Cronk's Berry Bucket has three RS-130 scales, all of which helped weigh over 5,000 pounds of blueberries that year alone. "Just plug it in and it's good to go. Very easy and very user-friendly," Kevon concludes. These Rice Lake scales ensure Cronk's Berry Bucket will have accurate weighments and a unique berry-picking experience for years to come.



## The Standard in Price Computing Scales

#### **Challenge:**

Due to the growing number of customers, blueberry bushes and yields, Cronk's Berry Bucket needed an accurate scale to sell blueberries by weight rather than volume and provide data insights.

#### Solution:

The RS-130's memory keys allowed Cronk's Berry Bucket to accurately weigh blueberries with a set price-per-pound feature. The scale also helped Cronk's Berry Bucket track total sales and calculate total berries harvested.

Rice Lake RS-130 price computing scale







## Automating Flour Processing in South America

Together with Rice Lake's Netherlands location, Básculas Mauri designed and assembled sophisticated weigh belt feeders to ensure consistent quality and high efficiency for a client in Colombia.

When the engineering team of Básculas Mauri, in Tarragona, Spain, was contacted by a nearby company specializing in the handling and automation of powder to integrate a weighing system into their equipment, several challenges presented themselves. The system would be weighing flour as an ingredient in baking cookies, which may seem like a simple process. However, because flour dust is highly explosive (even more than gunpowder), associated equipment must be treated with safeguards and specific certifications. Secondly, although Básculas Mauri and the engineering company responsible for the product transport (Radar Process) would be able to assemble the system in Spain, they would not be able to oversee installation because that would be handled by the OEM customer in Colombia.

ATEX is a series of directives the European Union (EU) enforces to ensure safety requirements are met in explosive environments. These environments are classified into zones based on the likelihood of an explosion. While flour dust is a high risk when it collects into a combustible cloud, in this application, "I was very impressed with the stainless-steel construction and overall capabilities. I knew it would be an accurate, long-lasting solution for the customer."

> -ORIOL MAURI, software engineer for Básculas Mauri

the phenomenon is unlikely to occur during normal operation or will persist for a short period if it does happen. Colombia doesn't have its own directive and chose to adopt ATEX, which meant Básculas Mauri's system needed to be approved for ATEX Zone 22 dust zones.

While they had never worked with Rice Lake's Master<sup>™</sup> brand of equipment before, they contacted Rice Lake's office in the Netherlands which specializes in weighing bulk material in motion. After meeting with Jaap Oosterlee, sales manager for the Master brand, and learning more about the system, Básculas Mauri decided the Master weigh belt feeder was the best choice for the application. "It met ATEX Zone 22 requirements," explains Oriol Mauri, a software engineer for Básculas Mauri. "and Master weigh belt feeders maintain a consistent flow of material-ideal for applications striving for the highest possible product quality."

Because Oriol was not able to visit the customer's site personally, he relied on photos and descriptions to envision the end result. Understanding the process was critical for designing a successful system. The weigh belt feeder would be installed at a port, where flour is offloaded from ships. During the product's conveyance, it needed to be weighed on a certified Legal for Trade scale to accurately calculate tax fees. The first Master belt scale would be used here, integrating with an aspiration system that cleans the powder and removes lightweight impurities from the batch.

After taxes are determined and the flour is aspirated, it moves through a pipeline and is weighed a second time after arriving inside the factory. Básculas Mauri and Robitec developed a custom software to capture weight data through ProfiNet and work with the customer's ERP, data and automation systems. They assembled the equipment based on the customer's specifications and shipped it to Colombia for installation. "I was a little nervous that something would happen between Spain and Colombia," Oriol remembers. "Although the equipment was very secure and well-packed, it's a long voyage and these are sophisticated machines. Thankfully, everything arrived safely and they had very little trouble with installation."

Oriol's background made him a perfect technician to ensure the application's success. Some might say he was born for a role in the weighing and automation industry. His grandfather started Básculas Mauri over 50 years ago. His father and two brothers already worked for the company, specializing in general weighing and mechanical equipment in Catalonia, Spain. They saw a need to expand into automated solutions, personalized for each customer, and asked Oriol (the first family engineer) to work with these digital systems. Oriol began working in Básculas Mauri's new branch of engineered products and custom programming.

Today, Básculas Mauri is recognized for all aspects of weight-based industrial needs in Spain. The flour application is running at peak efficiency—processing up to 15 tons per hour. "We are really happy to partner with Rice Lake," concludes Oriol. "The system is working flawlessly and I'm proud to present Master products from Rice Lake to our customers. I look forward to working on many similar systems in the future."

Básculas Mauri's Engineering Team is on the cutting edge of weighing, opening new doors for the business. Big data, the Internet of Things (IoT) and advanced weight-based automation are no longer on the distant horizon. They are the present, and Básculas Mauri has it all under control.

## The Standard in Hazardous Locations

#### **Challenge:**

Since flour dust is highly explosive, automating the weighing process can be a challenge. Básculas Mauri needed to supply a weighing system in Colombia that could safely handle the product.

#### **ATEX Certified Equipment:**

To meet ATEX Zone 22 requirements, equipment in hazardous areas must be ATEX certified, including:

- Belt scales
- Load cells
- Speed pickups
- Junction boxes
- Weigh belt feeder motors
- Connections and enclosures

#### Solution:

Rice Lake's Master brand of equipment includes weigh belt feeders certified to meet ATEX Zone 22 requirements, which are necessary when dealing with flour dust. The weigh belt feeders helped Básculas Mauri be confident in the efficiency and safety of the processing system for its client.

Master™ Weigh Belt Feeders







## Rough and Tumble Bundles of Joy

At Omaha's Henry Doorly Zoo and Aquarium, a custom RoughDeck<sup>®</sup> floor scale became part of the team assisting the African Elephant Species Survival Plan when the zoo welcomed two new elephant calves in January 2022.

African savanna elephants are listed as endangered on the IUCN Red List of Threatened Species because their population decreased by at least 60% from the 1970s to 2021. This is why three zoos accredited by the Association of Zoos and Aquariums (AZA) helped orchestrate an elephant rescue mission in 2016 when Eswatini, formerly known as Swaziland, declared a state of emergency due to extreme droughts. Relocating the elephants was a complex logistical process with careful planning and cooperation between Hlane Royal National Park officials in Eswatini and the U.S. Fish and Wildlife Service.

Not only was Eswatini facing extreme droughts, but food supply scarcity and pressure on other wildlife conservation contributed to the urgency to relocate the elephants. Conservationists were concerned the elephants would be culled to combat the ecological risks created by the drought. After the U.S. Fish and Wildlife Service granted the permit for the elephants to be moved, the AZA worked to ensure they were quickly and safely brought to the facilities in the USA. Omaha's Henry Doorly Zoo and Aquarium adopted five females: Jayei, Kiki, Claire, Omma and Lolly, who live in the 28-acre African Grasslands habitat among other African wildlife. The AZA-accredited Omaha Zoo is considered one of the top five zoos in the world, and they participate in the African Elephant Species Survival Plan (SSP) with other accredited zoos to help ensure the health and survival of the species.

Through the SSP, the Omaha Zoo hosted different males in the hopes the females of their herd would be impressed by their suitors. It can be difficult to introduce new elephants to established herds, but it can be especially difficult to introduce adult males because elephant herds are matriarchal. The Omaha herd was no exception, but they found a match when Callee arrived from Birmingham in May 2019. Callee was born at the Pittsburgh Zoo in 2000 and weighed 9,080 pounds, making him the largest elephant of the Omaha herd. He quickly became an integral member of their herd, increasing their social wellbeing.

## A Long Wait

In March 2021, the zoo celebrated the fifth anniversary of the herd arriving in Omaha and animal care staff publicly announced Claire's pregnancy. She was the first female pregnant by Callee and was approximately 13 years old, weighing 5,350 pounds. An elephant's gestation period lasts 22 months, and zookeepers had been carefully monitoring Claire for the first year to ensure her pregnancy was healthy before sharing the exciting news.

A few months later, in October 2021, the zoo announced a second elephant was pregnant. Kiki, whose name means "favorite child," was approximately 17 years old and weighed 6,450 pounds. Kiki's pregnancy was not as straightforward as Claire's, keeping zoo staff guessing for a few extra months. Kiki and Claire had begun showing signs of pregnancy around the same time, though zoo veterinarians were concerned when Kiki's hormone levels dropped. Veterinarians began performing weekly ultrasounds when Kiki was 11 months into her pregnancy to verify the health of the fetus. With the help of a reproductive elephant specialist, blood flow and a foot were seen on an ultrasound. Approximately a month later, a zoo veterinarian heard the baby's strong heartbeat and staff were confident sharing the news.

In early December 2021, Scales Sales and Service donated and installed a Rice Lake Weighing Systems RoughDeck<sup>®</sup> floor scale in the calf training area to ensure the zoo was ready for their newest residents.

The Omaha Zoo had previously worked with Scales Sales and Service for multiple scale installations and knew they would understand the demands this scale would face. Scales Sales and Service is headquartered in Omaha, Nebraska, but they have multiple offices in Nebraska, Colorado and Iowa. "We've worked with Rice Lake before and we know the quality of their products," the owner of Scales



Sales and Service said. "When we heard the zoo was preparing for elephant calves, we knew a RoughDeck was the best recommendation we could make. The scale has the capacity and durability needed to weigh elephants."

## **Double Trouble**

Elephant calves are expected to weigh 200 pounds or more when they're born, already full of rambunctious energy and curiosity. Zoo staff welcomed Kiki's calf on January 7, 2022. This first bundle of joy was a female named Eugenia who weighed 181 pounds when she was 10 days old. Eugenia is spunky and can often be found leading the older females around the elephant family quarters.

Just a few weeks later, on January 31, staff announced the birth of Claire's calf, a male named Sonny who weighed 202 pounds when he was a week old. A playful calf, one of Sonny's favorite activities while exploring outside of the barn has been smashing his face in the sun-warmed sand. Animal care staff will closely monitor the calves' growth and steady weight gain to determine whether they are receiving enough nutrients from nursing or if they need intervention care. The calf scale is located in the calf training area, which is attached to a larger section of the elephant family quarters so the calves can freely explore it. Eugenia and Sonny can easily enter the training area with Kiki and Claire keeping close watch, though neither mom can enter this space. Even though the RoughDeck floor scale has a capacity of 5,000 pounds, Eugenia and Sonny will outgrow the calf training area before they reach that weight. Until the calves are old enough to begin training with solid food as rewards, staff use play and toys to create opportunities for the calves to step onto the 4-foot by 6-foot platform so they can record weights.

Kiki and Claire allow the other females to assist in mothering their calves, helping the younger Omma and Lolly learn how to mother calves they will have in the future. In March 2022, the Omaha Zoo announced that Lolly is pregnant by Callee and they will be welcoming a third calf in 2023. Callee's previous interactions with the herd have staff confident that he will be able to spend a great deal of time with the calves as they grow, but staff will carefully evaluate the herd's behavior to ensure everyone remains happy and healthy. Staff hope Callee will continue to bond with the females and father more calves in the herd, ensuring the RoughDeck calf scale is part of the African Elephant Species Survival Plan for years to come.

## **Double Trouble has Company**

Summer 2024 Update

Since the birth of Eugenia and Sonny, Omaha's Henry Doorly Zoo and Aquarium has welcomed three—yes, THREE—more elephant calves! Elephant breeding and birth in zoos is incredibly complex, so being able to welcome five calves over the course of two years is a tremendous success for the African Elephant Species Survival Plan.

Callee sired calves with Lolly, Jayei and Omma before he was relocated at the recommendation of AZA African Elephant SSP staff. This relocation helps mimic elephant behaviors in the wild-males typically live in bachelor herds and only join matriarchal herds for breeding. Callee now calls the Sedgwick County Zoo in Wichita, Kansas, home.

Lolly gave birth to a male named Mopani on March 2, 2023. He's named after African mopani, or mopane trees, and while he weighed 222 pounds when he was born, Mopani had grown to 737 pounds by his first birthday.

A few months later on August 6, 2023, zoo staff welcomed Jayei's calf, a female who weighed 290 pounds by mid-August. She was named Amandra, which means "strong woman," in honor of her mother, the herd's matriarch and most experienced mother.

Omma, also Jayei's daughter, gave birth to a male on February 20, 2024. Named Hondo, meaning "warrior" or "fighter," he weighed 248 pounds by March 3.

On their second birthday, with tiny tusks growing, Eugenia weighed 1,340 pounds and Sonny weighed 1,540 pounds. With their siblings, these elephant calves are sure to keep their RoughDeck scale busy in the coming years. If you want to learn more about the calves, you can watch them learn and grow through Omaha's Henry Doorly Zoo and Aquarium's Facebook or Instagram.

## The Standard in Animal Health

#### **Challenge:**

In Omaha's Henry Doorly Zoo and Aquarium's efforts to save an endangered elephant species, a new, heavy-duty scale was needed to monitor the growth of calves in its facility.

#### Solution:

A custom 4-foot by 6-foot RoughDeck floor scale fit perfectly into the zoo environment. It endures the roughhousing of elephant calves and provides accurate weights for young elephants with a capacity up to 5,000 pounds.

RoughDeck® floor scale

380 Synergy Series indicator





"Each team member is connected by a sincere belief that we can partner to abolish senior hunger and eliminate isolation."

-TRIO COMMUNITY MEALS

Wrapped Up in Something Big

FeedMore Western New York's Meals on Wheels program is making a huge impact on food security among local seniors with the help of an Ishida WM-Ai automatic wrapper.

FeedMore Western New York's (WNY) Meals on Wheels program has dramatically improved efficiency after implementing an Ishida WM-Ai automatic wrapper in their production processes. The road to this solution was not simple, but choosing to work toward eliminating food insecurity and isolation was.

The Meals on Wheels program of Buffalo, New York, USA, was founded in 1969 and has been reducing food insecurity by delivering nutritious meals to senior residents in their area ever since. Being "food insecure" means having limited or uncertain access to safe and nutritionally essential foods. According to the USDA, having "very low food security" is indicated by multiple occurrences of disrupted eating patterns and reduced food intake, which may mean missing meals or not having access to enough food to survive. As of 2017, nearly 8 million Americans who are age 65 or older face the threat of food insecurity.

FeedMore WNY partnered with TRIO Community Meals, who is dedicated to providing reliable meal delivery services. TRIO Community Meals has over 50 years of experience providing nutritionally balanced meals to seniors who are homebound or living in senior centers. Supplying healthy meals and friendship to vulnerable seniors is a passion that inspires every devoted TRIO team member. Everyone is united by the sincere belief that by working together, senior hunger and isolation can be eliminated.

FeedMore WNY's Meals on Wheels program provides 4,000 meals every day to senior citizens throughout Buffalo and 28 surrounding communities. With numerous citizens depending on them, FeedMore WNY and TRIO Community Meals continually seek ways to improve meal guality and production efficiency. They also wanted to reduce employee strain caused by the repetitive motion of manually wrapping every meal. Stretching film, filling trays and carefully wrapping contents with a neat, secure seal by hand is a time-consuming, exhausting process. Hand-wrapping the meals was an all-day task for four people and often led to sore muscles; they needed a better solution to continue serving their community successfully.

Rose Ashraf, Operations Director for TRIO Community Meals, researched several automatic wrappers and said a competitor's product didn't make the cut. Continuous problems with operations led the team to return the product. Ashraf continued researching products and suppliers, seeking an automatic wrapper that would be reliable, easy to use and consistently produce an attractive seal—with the added benefit of local training and support. After reviewing Ashraf's research, the TRIO and FeedMore WNY teams decided the Ishida WM-Ai automatic wrapper was exactly what they were looking for. They chose Rice Lake Weighing Systems because of their supportive service representative and Rice Lake retail products distributor, Gregg Barren.

Ashraf says they've been working with Barren, owner of Independent Saw in New York, since they first began considering the WM-Ai automatic wrapper. Barren has been in the industry since 1987 and working with Ishida products since 2006. He took Ashraf to a site using a similar Ishida wrapper where she tested products used by TRIO Community Meals and FeedMore WNY. She was ecstatic with the wrapper's neat, presentable seal for every tray. The support Barren provides, coupled with the affordability of the WM-Ai from Rice Lake, were also key factors in the decision. During the installation, Gregg Barren worked side-by-side with a Rice Lake representative and discovered minor issues concerning where food was being placed on the trays. "He had a couple good suggestions on packaging and placement of their apples and oranges-I mean literally apples and oranges," Barren explained when describing the WM-Ai tray alignments. Barren added that when it comes to Ishida wrappers, he is like the Maytag Man: Once they are installed, he rarely gets service calls because they are reliable and easy to use. Additionally, Barren provided comprehensive on-site training and visited FeedMore WNY every day for two weeks, ensuring their WM-Ai was operating properly. Ashraf added that Barren has also been quick to respond to any wrapper needs. This support and teamwork enhanced the guality of the delivered meals, which also elevated the senior dining experience.

The wrapper's speed also impressed Ashraf. Able to wrap up to 35 trays per minute, the Ishida WM-Ai automatic wrapper also has three variable infeed speed options to prevent items from toppling or spilling during wrapping. But the WM-Ai is also easy to clean if there does happen to be a spill. A film pre-stretching function helps ensure a neat, secure wrap every time. Each container is safely and reliably wrapped on its tray, no matter what's on the menu.

TRIO Community Meals and FeedMore WNY's Meals on Wheels program began using the WM-Ai in the fall of 2017, and within two years, they had wrapped and delivered over 1 million meals. While it took some getting used to, the WM-Ai users all agree they love it; Ashraf says their favorite part is that it does everything they need. Before using the WM-Ai, manually wrapping trays was a day-long process that resulted in slow production in other process areas. After beginning to use the WM-Ai, however, the employees who once spent their days wrapping trays by hand can now support other areas of production.

The WM-Ai easily accommodates different-sized trays and containers for a variety of meal options. Ashraf is also pleased with the wrapper's dependability. "It's very reliable, simple to operate, and it works like a machine! Which is what it is," she laughed as she explained Meals on Wheels WNY's success with the wrapper.

With FeedMore WNY's Meals on Wheels program providing six different meal options for various dietary and health needs, the WM-Ai will certainly stay busy. Thanks to Gregg Barren at Independent Saw and the Ishida WM-Ai, FeedMore WNY and TRIO Community Meals are able to efficiently and reliably battle food insecurity in Western New York.

## The Standard in Wrapping

#### **Challenge:**

The higher demand for TRIO Community Meals and FeedMore Western New York's (WNY) Meals on Wheels programs meant more items needed to be packaged and manually wrapped. Ensuring the food was secure was a slow process that resulted in repetitive motion strain.

#### Solution:

A tremendous efficiency upgrade with the Ishida WM-Ai not only fulfilled the high demand for meals packaged by TRIO Community Meals and FeedMore WNY, but also increased the productivity rate and relieved muscle fatigue for workers.

Ishida WM-Ai automatic wrapper



# Transforming Trash to Electricity

SLOW

000

One of the premier incinerators in the United States, the Barron County incinerator, needed an accurate and durable truck scale to weigh incoming materials. Rice Lake's SURVIVOR<sup>®</sup> OTR truck scale, along with the LaserLight3<sup>™</sup> remote display, provided the ideal solution for long-term business success.



In the heart of Wisconsin, amidst rolling farmlands and picturesque small towns, lies an unlikely power source: the Barron County Waste-to-Energy facility. This modern, meticulously regulated facility incinerates up to 100 tons of material per day, generating clean energy and reducing landfill contributions.

The facility, known as the "Barron County incinerator," is a testament to the evolving landscape of waste management. An example of innovation, ecological awareness and community partnership, the incinerator is one of only a few in the United States that can burn practically any non-hazardous item—even super-insulated coolers, appliances and high-density materials.

To operate efficiently, track incoming waste and calculate fees, an accurate truck scale was needed. "We had been using a competitor's truck scale for a few years," Brent Bohn, Barron County Waste-to-Energy Plant Director, explains. "It became more trouble than it was worth. It really wasn't built to withstand the high volume of trucks over time and corrosive materials crossing the scale."

Because the incinerator is located in the nearby town of Almena, Wisconsin, USA, a mere 25 miles from Rice Lake Weighing Systems, Bohn was already familiar with Rice Lake's reputation for manufacturing high-quality truck scales that thrive in challenging environments. "We contacted UniFide CST Scale Systems in Chippewa Falls, Wisconsin, and they installed the SURVIVOR OTR truck scale. We also needed a scoreboard for drivers to see their weight while on the scale," Bohn adds. The LaserLight3 remote display was the perfect solution to provide a real-time weight display. "Both have been great," Bohn concludes. "The SURVIVOR truck scale has been quite an upgrade, and it's nice to have a scale we can count on. We have a constant stream of trucks and can't afford to have any downtime."

### **A Solution Born of Necessity**

The story of the Barron County incinerator begins in the 1980s, when landfills were the norm but concerns about environmental impacts, such as groundwater contamination, were growing. Barron County, like many communities, faced the challenge of sustainably managing its waste stream. The traditional approach of burying trash in landfills needed to be reimagined.

"Many of these companies have goals to reduce their carbon footprint. Rather than having their trash sit in a landfill for decades, we turn it into something useful in the form of electricity."

> -BRENT BOHN, Barron County Waste-to-Energy Plant Director

> > SURVIVOR

County leaders recognized the need for a more innovative approach. They sought a solution that would not only address the immediate waste disposal needs but also provide long-term environmental and economic benefits. After careful consideration, the waste-to-energy facility opened in 1986.

Over the years, the incinerator has become an invaluable resource—both locally and nationwide. Businesses of all types, including massive online retailers, industrial and consumer-goods manufacturers, construction companies and other environmentally-conscious customers regularly utilize the incinerator.

"Many of these companies have goals to reduce their carbon footprint," Bohn explains. "Rather than having their trash sit in a landfill for decades, we turn it into something useful in the form of electricity. The only byproduct we cannot use is ash, which amounts to a small fraction compared to the original materials."

## From Trash to Electricity

The process at the Barron County incinerator is a blend of engineering and environmental science. It begins with the arrival of trucks weighed on the SURVIVOR OTR truck scale. This weight is recorded and the trucks dump their materials within the facility, then are weighed again as they exit. The difference in weight is calculated and used to charge the customer.

Trash is then fed into a massive two-stage furnace, where it is burned at extremely high temperatures. The primary furnace reaches 1,300° Fahrenheit while the secondary furnace often exceeds 1,800° F. This intense heat not only reduces the volume of waste by approximately 90% but also generates steam, which is used to power a turbine and generate electricity.

Trash and other materials are collected from the community and weighed on a SURVIVOR® OTR truck scale.



The facility uses state-of-the-art air pollution control devices to minimize emissions. They also employ measures to protect water quality by preventing contaminants from leaching into groundwater.



DAILY STORM TO 4:00pm

CAI

Approximately half of this electricity is sold to a neighboring cheese factory, which utilizes it to power their daily operations as one of the largest blue cheese processors in the world. The remaining energy is used to sustain the incinerator plant itself, and the rest is sold back to the grid to power thousands of homes and businesses.

### Making a Difference in the Region

While the concept of burning trash might raise environmental concerns for some, the Barron County incinerator operates under strict environmental regulations. The facility is subject to regular inspections and monitoring by the Wisconsin Department of Natural Resources and the U.S. Environmental Protection Agency.

The facility is equipped with state-of-the-art air pollution control devices to minimize emissions. These devices remove pollutants such as particulate matter, heavy metals and acid gases from the exhaust stream. In addition to air pollution control, the facility also employs measures to protect water quality. The ash generated from the incineration process is carefully managed and disposed of in a lined landfill to prevent any leaching of contaminants into the groundwater.

The Barron County incinerator not only offers a reliable and cost-effective solution for waste disposal, reducing the county's reliance on landfills, it creates jobs in the community. The incinerator also serves as an educational resource, hosting tours for schools and community groups to learn about waste-to-energy technology and sustainable waste management practices.

Like any industrial facility, the Barron County incinerator faces its share of challenges. Along with the ongoing need to maintain and upgrade the facility to ensure its continued efficiency and environmental performance, another challenge is the need to address public concerns. While the facility operates under strict environmental regulations, incinerating trash is often misunderstood and assumed to contribute to air pollution. However, through new technology and extensive emission controls, very little pollution is generated. "Most people assume our smokestacks are emitting pollution," Bohn explains, "but it's just steam generated by the massive amount of heat we use. Incinerating at high temperatures is actually far more environmentally friendly than using landfills."

## A Model for Sustainable Waste Management

The Barron County incinerator demonstrates that waste-to-energy technology is a viable and environmentally responsible solution for addressing the challenges of waste disposal. By creating this innovative solution, the incinerator not only solved local challenges but regularly accepts materials from locations as far as Texas and California—providing essential services for a nationwide need. The incinerator shows how a small, rural county can make a big impact on the environment and economy through sustainable waste management practices.

To accommodate the growing need for its services, a second truck scale is being considered. Bohn has been so impressed by the SURVIVOR OTR, he is not considering a different brand. "It's got to be another SURVIVOR," he concludes. "As we expand, it's nice to know Rice Lake offers weighing solutions we can rely on."

## The Standard in Waste Management

#### **Challenge:**

The Barron County Waste-to-Energy facility incinerates up to 100 tons of materials daily and needed a truck scale that could properly withstand the high truck volume and corrosive materials transported.

#### Solution:

Rice Lake's SURVIVOR OTR truck scale withstands corrosive materials and the demand of constant weighments. A reliable, robust truck scale assists the Barron County Waste-to-Energy facility in continuing to produce clean energy and make positive environmental impacts. The scale's 12-year warranty ensures it will be a dependable solution for years to come.

SURVIVOR<sup>®</sup> OTR truck scale

LaserLight3<sup>™</sup> remote display











## Weighing to the Rescue for Horse Rehabilitation

After years of using a weight tape, Rice Lake's RoughDeck® EQ equine floor scale and weight indicator transformed health processes for the Maine State Society for the Protection of Animals.

"I can't believe we went so long without a scale. It's been a game-changer and is one of our most essential tools. We could never go back!"

> -PEG KEYSER, Advancement Director, MSSPA

The Maine State Society for the Protection of Animals (MSSPA) rescues and rehabilitates abused and neglected equines. With hundreds of horses rescued, their services are integral to the equine community in Maine and beyond. Many horses arrive severely malnourished and underweight, and each horse is placed on an individualized re-feeding program to improve health. Key to this re-feeding is accurately tracking horses' weight. This was especially difficult without an accurate scale, which was the MSSPA's situation until a generous donation from Maine Scale in Auburn, Maine, USA, revolutionized their intake and



Violet was one of the horses rehabilitating at the MSSPA farm. She recovered from malnutrition thanks to the team's careful treatment.



health-monitoring process with Rice Lake's equine floor scale and weight indicator.

Founded in 1872 to protect working horses, which pulled carriages and fire engines for the city of Portland, Maine, the MSSPA farm sits on 124 acres in the nearby, rural town of South Windham, on the River Road. The nonprofit horse farm offers onsite veterinary care and services critical to rehabilitate horses in need.

Often, these animals are seized by Maine law enforcement (Animal Control Officers and District Humane Agents)—rescued from abusive and/or neglectful homes and brought to the farm for healing and, hopefully, future adoption. The MSSPA is a private, nonprofit organization operated by a team of employees and dedicated volunteers, investing over 10,000 hours per year to keep the farm running strong. In order to provide the best medical care for neglected horses, however, more than hard work was needed.

"We had been using a weight tape for our intake and monitoring processes for years," explains Peg Keyser, advancement director for the MSSPA. "It's like a flexible tape measure but instead of reading inches or centimeters, it is marked in pounds or kilograms. By wrapping it around a horse's belly, we were able to calculate weight based on the diameter." However, this process does not take into account the important factors of muscle density and body fat distribution, leading to inaccuracies up to 20%.

"We knew using the weight tape wasn't good enough for accurate veterinary care, especially when it came to medication dosing." Peg continues, "When a horse arrives here, they typically don't come

> with any information. They are like a puzzle, and weight is one of the biggest pieces needed to solve the puzzle. Before any training can take place, a horse's weight and optimum health needs to be in a good place."

Identifying the need for a scale, the MSSPA set about writing a grant proposal to make the purchase and Peg began researching scales. She found the RoughDeck EQ equine floor scale and, after contacting Rice Lake Weighing Systems for more information, got in touch with Maine Scale, the local scale dealer. Peg reached out to Maine Scale to figure out the cost of the scale, shipping and delivery, so she could put the grant application together.

Tom Boughter, owner of Maine Scale, took immediate interest because of the noble cause as well as a personal reason-his wife, Marcy, happens to love horses. After learning more about the MSSPA's mission, Tom felt compelled to help. "After a long conversation, where Tom asked so many good questions about the work that we do here at the farm, he said to me, 'Well, Peg, you're going to have to write that grant for something else, because Maine Scale is going to donate the scale to the MSSPA." Not only would he coordinate the purchase and installation, he would provide it at no cost. "I was stunned," Peg remembers. "Tom's generosity was amazing! Receiving the scale was like Christmas morning, and we put it to use immediately."

The barn staff and attending veterinary staff are thrilled with the change. With fast, accurate weights, they are now able to prescribe proper amounts of feed and, when necessary, medication. Rehabilitation progress is often tracked through healthy weight gains, some of which were too minor to be reflected on a weight tape. With the precision of a digital readout, even the most minute improvements can be identified and tracked. "I can't believe we went so long without a scale," Peg concluded. "It's been a game-changer and is one of our most essential tools. We could never go back, and we are SO grateful to Maine Scale!"

Not only are the new, accurate weight readings appreciated by the MSSPA, safety is also improved. Abused animals often get nervous when close to a new human, warranted by their history of negative experiences. Wrapping a weight tape around the horse's belly was not always accepted by the animal in a calm manner-putting the employee at risk. Walking the horse onto the scale is an easily achievable objective, much appreciated by the MSSPA's staff.

Rehabilitation can be a long process, and, once accomplished, a horse becomes eligible for adoption. "We can get really attached to these horses," Peg says. "Bringing them back from their initial condition and seeing them recover, begin to trust people again and eventually thrive...it forms a bond. When they leave for a new home, you might think it's a sad day but it's actually the best day because it means they've made it. They're going to have a good life."

With the scale in frequent use, the RoughDeck EQ has also found its home at the MSSPA. This gift from Maine Scale is not only appreciated, it makes a measurable difference in abused horses' lives and the people who care for them. As their mission continues to grow, the MSSPA's facilities are also expanding. An indoor training facility and visitor's center was constructed in 2018, and soon, they hope to build a new barn for guarantined animals-equipped with a second RoughDeck EQ scale.

## The Standard in Equine Weighing

#### **Challenge:**

The Maine State Society for the Protection of Animals needed to track weights when creating health plans for malnourished horses. While weight tape was used in the past, it didn't account for muscle density or body fat distribution.

#### Solution:

Rice Lake's RoughDeck EQ equine floor scale can track even small changes in a horse's weight. Since the weight tape made horses nervous, the scale was a safer, more accurate solution that became an essential component in MSSPA's rehabilitation process.

RoughDeck<sup>®</sup> EQ equine floor scale 482 Legend<sup>®</sup> Series digital weight indicator







For more information on the MSSPA or to become a "horse hero." scan the OR code or visit www.msspa.org.



# Revolutionizing Precision Agriculture

DyTerra, an innovative Canadian fertilizer company, utilizes a 920i<sup>®</sup> FlexWeigh filler/batcher, combined with Rice Lake's floor scales, in an OEM blending system to deliver customized micronutrient-coated solutions.



In the evolving world of agriculture, precision and efficiency are paramount. Located in western Canada, DyTerra is cultivating innovation with modern fertilizer solutions. The company specializes in NH3, liquid and granular fertilizer handling equipment, and developed a unique MicroCote® application system to optimize crop growth and soil conditions.

At the heart of this operation lies Rice Lake's 920i<sup>®</sup> FlexWeigh filler/batching systems and BenchMark<sup>®</sup> or Summit<sup>®</sup> 3000 platform scales. These components are integrated into an OEM blending system known as MicroCote, which is revolutionizing how fertilizer and micronutrient applications are managed.

Coating fertilizer with micronutrients is becoming an increasingly popular practice for crop producers; however, it requires fine-tuned precision to achieve desired results. Too much or too little of an ingredient can ruin an entire crop. The 920i FlexWeigh with custom programming intelligently manages the blending process to eliminate potential mistakes and deliver consistent results. With multiple configuration options, including fully independent single- or multi-product declining weight batch blending, the 920i FlexWeigh is only one piece of the puzzle.

DyTerra custom-engineered a solution to include Rice Lake's platform scales, a 264-gallon (1,000-liter) tote, auger, pump and spray bar. The 920i connects via an Ethernet cable to external systems, allowing them to read scale data and adjust settings, including delivery quantities and motor control. This setup allows customers to tailor the system to their specific needs, whether liquid coatings are being delivered to a blender or a multi-product batch is being managed. By controlling actuators and relays, the MicroCote system directs the flow of liquids and, by toggling motors on and off, manages quantities in real-time.

### **Customization is Key for Customers**

"MicroCote is a fully customized solution," explains Michael Petrov, project manager at DyTerra. "Adapting off-the-shelf technology, like Rice Lake's indicators and scales, helps us meet unique demands. I especially like the simplicity and flexibility of Rice Lake's 920i. It's easy to understand and has been the perfect solution for us." In an industry where operators range from tech-savvy engineers to hands-on farmers, accessibility and ease-of-use matters.

The OEM MicroCote system uses one of two platform scales, either the BenchMark or Summit. Depending on the customer's delivery demands, the appropriate scale is selected to match requirements set by Measurement Canada for Legal for Trade certifications. For larger deliveries, the Summit is typically selected, otherwise the BenchMark is used for its increased resolution at smaller deliveries. The result is a batcher that offers durability, precision and reliability—three non-negotiables in modern agriculture.

The automated system also has the ability to control liquid paths via relays and actuators. This ensures customers can fine-tune their process, from coating granular fertilizers to delivering precise blends to truck beds for field application. It also shines in its versatility, providing compatibility with different blending setups. DyTerra supports two primary systems: a blender with central blade, where granular and liquid products are dumped and mixed, and a continuous auger that kneads various granular and liquid products into a uniform mixture.

Interestingly, DyTerra's integration of weight-based automation wasn't a foregone conclusion. Many liquid fertilizer companies use flow meters, which measure volume as liquid moves through pipes. "We did consider flow," Petrov recalls, "but ultimately chose to use weight because we want to offer affordable solutions, and cost-effective meters are not reliable at measuring accurately." Air gaps, clogs or inconsistent flow can skew readings in the liquid flow meter systems, leading to inaccuracies farmers can't afford. Scales, by contrast, offer a direct measurement of weight, unaffected by pipeline conditions to provide more precise and reliable results.

"I like the simplicity and flexibility of Rice Lake's 920i. It's easy to understand and has been the perfect solution for us."

> -MICHAEL PETROV, Project Manager at DyTerra

This decision reflects DyTerra's approach to technology. While liquid flow meters have their place, accuracy in this application is not their strength. Both DyTerra and Rice Lake prioritize consistency, accuracy and durability–qualities that resonate with farmers who trust products to help grow their livelihood.

Customization is a recurring theme in DyTerra's story. From the 920i's integration with third-party automation to adaptations for the MicroCote system, the company thrives on tailoring solutions to fit specific needs. It starts with understanding the customer's operation. Are they coating granular products with a liquid enhancer like PROCOTE®? Do they need a high-resolution system for small quantities or a robust setup for larger volumes? The answers shape the solution.

Customization extends to programming as well. DyTerra collaborates closely with clients to tweak the 920i and batch unit settings. This hands-on approach ensures customers get exactly what they need—fostering trust and ensuring equipment meets expectations. As a result, fertilizer companies are increasingly switching to DyTerra's equipment across North America.

## **Enhancing Soil and Crops**

DyTerra's equipment, purchased by customers, is designed to enhance soil health before or after planting. These are often paired with liquid offerings like PROCOTE, a micronutrient blend that coats granules to boost their efficacy. A tote of PROCOTE rests on the scale, for example, and is dispensed and pushed onto the granular product, and the two meet in the blender.

By precisely controlling how much liquid is applied, whether via weight readings from the Summit or BenchMark scale, customers can optimize nutrient delivery without waste.

E P

The result is a tailored soil enhancement strategy that improves crop yields and sustainability.

In a world where every ounce of fertilizer counts, DyTerra's blend of innovation, customization and simplicity is sowing the seeds for a more efficient, sustainable future. And with the 920i at its core, the harvest looks to be very promising.

## The Standard in OEM Solutions

#### **Challenge:**

DyTerra needed highly customizable weight controllers and floor scales to ensure accuracy and consistency in their custom-made micronutrient blending systems.

#### Solution:

oummit

Rice Lake's 920i FlexWeigh batching system, and BenchMark and Summit 3000 floor scales, control DyTerra's OEM declining-weight system with precision and reliability. High-quality fertilizer is enhanced with micronutrients to increase farmers' yield and crop quality.

#### 920i® FlexWeigh System

BenchMark® platform scale

Summit<sup>®</sup> 3000 floor scale





## Weighing the World's Largest Cake Ball

Scooter's Coffee partnered with Scales Sales & Service in Omaha, Nebraska, to weigh a record-setting pastry treat with Rice Lake's Summit<sup>®</sup> floor scale and weight indicator.

From its inception, Scooter's Coffee set out to create amazing experiences for its customers. From crafting rich, smooth coffee to delicious baked treats, the business is thriving more than a quarter century later. In March of 2023, the company wanted to celebrate their 25th birthday in a big way. They targeted a world record—the world's largest cake ball, to be precise.

### A Single Coffee Kiosk Grows to a Thriving Nationwide Franchise

Founded in 1998, Scooter's Coffee began as a drive-through coffee shop in Bellevue, Nebraska, USA. Scooter's Coffee opened additional locations around Omaha before franchising the business in 2001. Now, with over 850 locations across the USA, Scooter's Coffee offers a full range of food and beverages.

To weigh the massive treat with a method precise enough to pass Guinness World Records' strict guidelines, Scooter's Coffee partnered with Rich Lincoln from Scales Sales & Service. Guinness World Records requested a scale capable of weighing 300 kilograms (661 pounds) with a resolution of 1 gram (0.035 ounce). With a capacity of 5,000 pounds (2,268 kilograms), the rental Summit floor scale that Scales Sales & Service had in stock would need some adjustments.

"Achieving Guinness World Records' specified resolution would not be possible at a high capacity, but we knew we could get a lot closer," Rich remembers. "We swapped out the 5,000-pound load cells with 1,000-pound cells since we knew the target weight was in that range. At that capacity, we were able to achieve a resolution of 0.2 pounds, or 90 grams."

## **Baking a World Record**

On March 23, 2023, nearly 2,000 franchisees and employees gathered for the Scooter's Coffee GROW Conference and 25th birthday celebration. It took two hours and approximately 30 employees to assemble the 11 cake layers and apply buttercream frosting and sprinkles. Each of the 50 Twinkiesized sprinkles weighed approximately 2.5 ounces.

Once finished, the cake ball was transported to the scale for its official weigh-in. As it was placed on the scale, the results were finalized. Rice Lake's weight indicator displayed the final weight at 848 pounds (385 kilograms), and a new world record was set!

### Weighing Ensures Quality Throughout Operations

Scooter's Coffee and Harvest Roasting are no strangers to Rice Lake's solutions. While this unique application was best suited for a rental, they use Rice Lake scales and load cells throughout their regular business processes. Accurate weights are essential to maintain the quality and consistency of Harvest Roasting's proprietary coffee blends.

## The Standard in Floor Scales

#### Challenge:

Scooter's Coffee wanted to break the record for the world's largest cake ball. But to comply with Guinness World Records' requirements, a high-capacity scale with precise resolution was needed for the record-setting dessert.

#### Solution:

Summit

Rice Lake's Summit 3000 floor scale has a capacity of 5,000 pounds and, by modifying it with smaller load cells, Scooter's increased the resolution to 0.2 pounds. Combined with a Rice Lake indicator, the weight was clearly displayed so everyone could celebrate when Scooter's broke the record with its 848-pound cake ball.

Summit® 3000 floor scale

680 Synergy Series indicator

## Online Resources

Rice Lake offers a wide variety of resources to assist you on our website and YouTube channel. From introductory topics to advanced troubleshooting techniques, our library continues to grow as we answer your questions. Visit www.ricelake.com to find videos, articles, white papers and more.

The ScaleTalk series is a popular playlist on our YouTube channel that includes short, instruction videos for scale technicians of all experience levels.

Do you have suggestions for future topics? Contact multimedia@ricelake.com.

Follow Us on Social Media





Welcome to ScaleTalk, a recurring section of The Standard. In each magazine issue, ScaleTalk will present an educational topic related to the scale industry, such as product tutorial or best practice. From beginning technicians to seasoned veterans, we hope every scale professional will find this section to be interesting and valuable. In this installment, we will explain how to use a multimeter.

# How to Use a Multimeter

A high-quality multimeter is an essential tool for any scale technician. There are three main types of multimeters that can be used to measure voltage: analog, manual-ranging and auto-ranging.

Analog multimeters were the first solution for electronic measurements but fell out of favor due to low accuracy. Now, technicians can use manual-ranging digital multimeters that measure voltage based on a range, but the range must be input manually. Many technicians prefer auto-ranging digital multimeters to automatically calculate the range using volts, amps or resistance as the unit of measure.



## **Measuring Voltage**

There are two types of voltage: direct current (DC) and alternating current (AC). AC is used for measuring objects such as standard electrical wall outlets, while DC voltage is used for batteries and similar devices.

You must set your multimeter to AC or DC when selecting voltage, then you can start testing the scale. Begin with an empty scale. As pressure is applied to the load cell, the value shown on the multimeter increases, and measurement decreases as pressure is removed from the load cell.

## **Measuring Current**

Measuring current helps to verify that a scale is outputting the proper current. To measure current, set the multimeter's dial to DC for milliamps. On the analog output option card, you should see a plus and minus "I" and a plus and minus "V." The "V" stands for voltage, and the "I" represents the intensity of the current. Place your red lead on the positive and the black lead on the negative, and it should display the proper results.

### Measuring Resistance

When taking bridge resistance measurements of a load cell, ensure the multimeter's connection is not touched as measurements



are taken. Similarly, it is essential that power is not applied to the system, as it could interfere with readings and damage the meter.

Technicians may need to test individual wires, connections or continuity. Refer to the operation manual for your multimeter to learn how to verify and test certain aspects.

## **Testing Batteries**

To test a battery, ensure your lead is changed to the position for measuring DC voltage. Place the positive and negative leads on the respective sides of the battery to calculate readings.

For example, an AA battery is rated at 1.5 volts when fully charged. When tested, the multimeter should provide a reading close to the rated voltage. If it's much lower, the battery is no longer suitable.



## Want to Learn More about Multimeters?

Scan the QR code to find our multimeter ScaleTalk playlist.





## THE RICE LAKE ADVANTAGE

## **PREPARE FOR NMFC CHANGES**

As of July 2025, approximately 2,000 items under the National Motor Freight Classification (NMFC) are now classified using a strictly density-based system.

It is critical for shippers to verify whether items they ship are impacted. If so, they need to identify the new classification codes and provide accurate weight, dimensions and density for every shipment. To calculate density, divide the weight (in pounds) by the volume (in cubic feet). Once density is determined, refer to the NMFC to identify the appropriate freight class.

Less-than-truckload (LTL) carriers will be closely monitoring freight shipments. If a shipment is audited and the density does not match the bill of lading (BOL), freight may be reclassified and a chargeback issued to the shipper. With Legal for Trade forklift scales and automatic dimensioners, carriers can easily audit pallet densities.

To minimize the risk of costly reclassifications, most LTL carriers and third-party logistics providers recommend investing in Legal for Trade automatic dimensioners. Rice Lake's iDimension® Series ensures shippers are compliant with NMFC changes, calculating dimensions in seconds. The average reclassification fee is \$125, so experiencing just two reclassifications per week could easily justify the investment in a device such as the iDimension Flex. For efficient, accurate measurements, rely on Rice Lake's iDimension Series.

For more information on automatic dimensioning solutions compliant with NMFC changes, contact Rice Lake's experts.

## EXPLORE DYNAMIC BULK WEIGHING SOLUTIONS

Mining operations often run 24/7 to maximize efficiency and production while minimizing downtime. Master<sup>™</sup> belt scales reliably weigh and transport bulk material, even in the harshest conditions. These scales can be paired with the SCT-4XD and 1280 HMI for fast.

accurate data processing and real-time monitoring. The SCT-4XD manages up to four load cells and features 100 conversions per second, ensuring operators have the latest data to keep facilities running smoothly.



1280 HMI

## KEEP MOVING WITH IN-MOTION VEHICLE WEIGHING

Weighing vehicles in-motion streamlines operations and maintains steady traffic flow, so you can revolutionize your operations. If your site weighs 100 trucks in a 10-hour workday, you could increase throughput to 1,500 processed trucks daily using the SURVIVOR® OTR IMS Legal for Trade in-motion truck scale system. By keeping vehicles moving, your facility will lower emissions, boost throughput, limit truck braking and improve site safety by keeping drivers in cabs.

To calculate your potential transaction increase, carbon reduction and fuel savings, scan the QR code to view Rice Lake's calculators:







230 W. Coleman Street Rice Lake WI 54868-2404

Change Service Requested

## **Rice Lake Always Has Time for You**

Rice Lake provides 24/7 customer support, 365 days a year. We assist customers like you worldwide, no matter the challenge. With the industry's top professionals and durable products, we're proud to support you in every way we can.



#### AMERICAS

#### Corporate Headquarters RICE LAKE, WISCONSIN

Jasper, Alabama Fernley, Nevada Kent, Washington Concord, California Charlestown, Massachusetts Monterrey, Mexico Panama Pacifico, Panama

#### EUROPE

Modena, Italy Milan, Italy Farnham, United Kingdom Heteren, The Netherlands Paris, France Barcelona, Spain ASIA

Shanghai, China Indore, India Chennai, India

OCEANIA Sydney, Aust<u>ralia</u>



www.ricelake.com • 1-800-472-6703