



Revolutionizing Precision Agriculture

DyTerra, an innovative Canadian fertilizer company, utilizes a 920i® 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® FlexWeigh filler/batching systems and BenchMark® or Summit® 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.

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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. 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:

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® 3000 floor scale

