



RoughDeck® Hopper S scale



Rice Lake's in-house engineers and system experts worked with Scales Northwest and Mid Valley Ag Dryers to design a custom RoughDeck HS hopper scale that fit into the three-hopper vertical stack.

Drying a Mountain of Hazelnuts

Mid Valley Ag Dryers in Brooks, Oregon, needed a new scale system to process the millions of pounds of hazelnuts processed each harvest season.

Rice Lake Weighing Systems' custom RoughDeck® hopper scale could easily process hazelnuts and fit into operations.

What Is a Hopper Scale?

A hopper scale measures bulk materials as they're processed through industrial systems to batch and track products, including hazelnuts.

<i>Challenge:</i>	<i>Solution:</i>
<i>Mid Valley Ag Dryers in Brooks, Oregon, needed to track the millions of pounds of hazelnuts processed each year.</i>	<i>Installing a custom RoughDeck hopper scale, CW-90 checkweigher and 920i® FlexWeigh batching system to process hazelnuts.</i>

How Are Hazelnuts Dried and Processed?

Oregon produces 99% of the United States' annual hazelnut harvest. Without hazelnuts, we would miss out on classic spreads, chocolates, snacks and more. Oregon's large production is a necessity, but it requires many smaller businesses to process and dry the collected hazelnuts. Mid Valley Ag Dryers in Brooks, Oregon, is one of the family-owned businesses that dries hazelnuts each harvest season.

Hazelnut harvesting is typically done after the nuts have fallen off the trees in the orchards. But during collection, leaves, twigs, dirt and other debris are also collected and need to be removed. So, farmers partner with dryers to remove debris, clean and dry the harvest. Properly drying hazelnuts also reduces the risk of mold and extends the shelf life before they are crafted into delectable treats.

For six to eight weeks every fall, Mid Valley Ag Dryers processes 10 to 12 million pounds of hazelnuts and sends them to George Packing Company. The hazelnuts are then distributed and sold worldwide—used for everything from candies and spreads, to pastes and baking ingredients.

Accurate Weighing in Hazelnut Processing

Oregon Hazelnut Dryers was founded in 1985 by Neil Beutler. Neil's brother, Henry, acquired it in 2010 along with his wife, Carolyn, and their son, Tim. The three new owners were excited to continue the family business under a new name, Mid Valley Ag Dryers.

Hazelnuts are weighed on a truck scale upon receipt, known as a dirty weight. Once dried, a clean weight is calculated using a weighing hopper.

The difference between the clean and dirty weights dictates how much the grower will be charged for cleaning and drying. After the first few years of hazelnut processing, the Beutlers realized the hopper scale they relied on for measuring hazelnuts was aging out of use. In 2017, they decided to invest in a new scale to ensure accurate, clean weights when charging farmers.



SURVIVOR® truck scale

Custom Weighing Solutions Tailored for Harvests

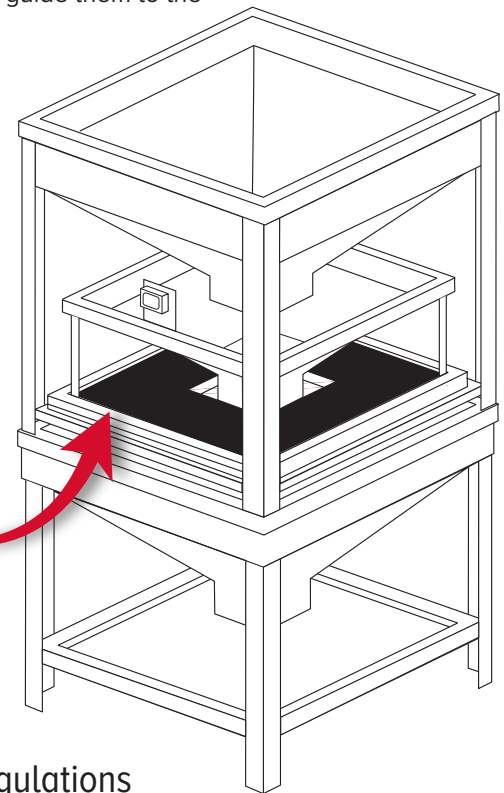
Mid Valley Ag Dryers worked with Steve Orr at Scales Northwest to find the best solution. "When we need something, we go straight to him... He sets us up," Tim Beutler, the current owner, explained. Based on their excellent past experiences with Steve, they trusted Scales Northwest to guide them to the right choice.

Previously, a Rice Lake Weighing Systems SURVIVOR® truck scale had been installed to weigh incoming hazelnuts. The scale has been working reliably since 2005, so Tim and Henry were confident in choosing Rice Lake as their scale manufacturer for their operations.

Mid Valley Ag Dryers needed more than just a standard scale. Their hazelnuts are processed through a custom vertical system of three hoppers made by Wiesner Metal Fabricators, and the weights must be tracked as the hazelnuts pass through the hoppers.

This way, the nuts can be easily batched into 300-pound groups. The state of Oregon also has to approve both the hopper scale and truck scale every year to verify accuracy within two pounds per thousand.

The RoughDeck® HS Hopper Scale



Monitoring Hazelnuts to Meet Regulations

The Beutlers relied on Rice Lake's expertise for a scale that aligned perfectly with their hoppers. Rice Lake's in-house engineers and system experts worked with Scales Northwest and Mid Valley Ag Dryers to design a custom RoughDeck HS hopper scale that fit into the three-hopper vertical stack. RoughDeck scales are known for their reliability and durability, so Mid Valley Ag Dryers has a solution that lasts for years.

HEADQUARTERS

230 West Coleman Street
Rice Lake, Wisconsin 54868 - USA
Tel: 715-234-9171 | Fax: 715-234-6967
www.ricelake.com

The hopper doors are controlled by a nearby wall-mounted 920i FlexWeigh batching system which automatically opens and closes the doors to process hazelnuts based on weight. The 920i FlexWeigh is a powerful control system that fits into complex operations flawlessly, such as with Mid Valley Ag Dryers. The new weighing system only takes up a small portion of their facility, and the 10 to 12 million pounds of hazelnuts processed each year pass through it before being shipped.

“We put the new [hopper] scale in back in 2017, and it’s never failed a state test,” Beutler said. Mid Valley Ag Dryers can always meet local requirements with their Rice Lake products.

Another aspect of hazelnut drying regulations involves weighing 100 grams of hazelnuts for every 15,000 pounds processed per delivery as a quality sample. Mid Valley Ag Dryers uses a CW-90 checkweigher to perfectly measure 100 grams for each batch of processed hazelnuts. The CW-90 is a reliable scale and easily handles the weighing needs of Mid Valley Ag Dryers.

A Complete System for Hazelnut Drying

Mid Valley Ag Dryers also installed two LaserLight2™ remote displays to track the pounds of hazelnuts processed daily, so they could assess how full storage containers got from a day of work and display weights to truck drivers. The LaserLight2 clearly shows weights so Mid Valley Ag Dryers can easily track totals.

A Strong Future with Rice Lake

Armed with a full system of Rice Lake solutions, Mid Valley Ag Dryers can be confident in their hazelnut weights. Hazelnut fans can continue looking forward to the millions of pounds of nuts dried each year by facilities such as Mid Valley Ag Dryers.



CW-90 checkweigher



LaserLight2™ remote display



920i® FlexWeigh

Frequently Asked Questions

Understanding hopper scales can be difficult. Here are some of the key things you should know.

1. What Is a Hopper Scale Used for in Agriculture?
 - a. A hopper scale is used to weigh bulk materials in processing systems. In agriculture, it is used to measure products for precise batching and efficient handling.
2. What Are the Benefits of a Custom Hopper Scale System?
 - b. A custom hopper scale system is beneficial because it can fit into unique setups and work with existing equipment.
3. What Is a Legal for Trade Weighing System?
 - c. A Legal for Trade weighing system meets government standards for accuracy and is certified for commercial transactions.