

What's New in Industry!





LIKE NOTHING ELSE

SILO-KING[®]



HAY

- ★ LESS HEATING
- ★ SPEED CURING PROCESS
- ★ REDUCE SPOILAGE
- ★ IMPROVE DIGESTIBILITY

**SCAN THE QR CODE
TO LEARN MORE**





KRONE



BiG Pack

5TH GENERATION LARGE SQUARE BALERS



BiG Pack

A new generation of balers

KRONE PowerClean

A brand new hydraulic knotter fan cleans the knotter permanently. The best part of this is that the air flow is also directed to the areas behind the twine boxes cleaning further areas of the machine.

The additive dispenser

The 5th generation Big Pack models are available with an integral dispenser for applying additives that improve fermentation or conservation of the crop.

The cutting system

Maximum variability thanks to VariCut – different blade cassettes with 51 blades available for all models



Twine boxes

A new and most functional approach

VFS packers

Tried and tested just got better!

Bale chamber

All models gain the much longer baling chamber from the 1290 HDP for firmer, tighter and heavier bales.

KRONE V-knotter

New KRONE V-knotter with the usual reliability of the Deering double knotter system, with no more twine snippets.



SMART TELEMATICS **KRONE SmartBale**

	Average Moisture	15.70 %
	Bale weight	875.50 lbs
	Bale size	90.00 in
	Time	16. Aug. 2023 16:50:03
	Machine	8P305-11 #1072848 #000000000001072848
	Bale ID	6718
	Position	52.290300, 7.283526

Map Satellite

Google





KRONE





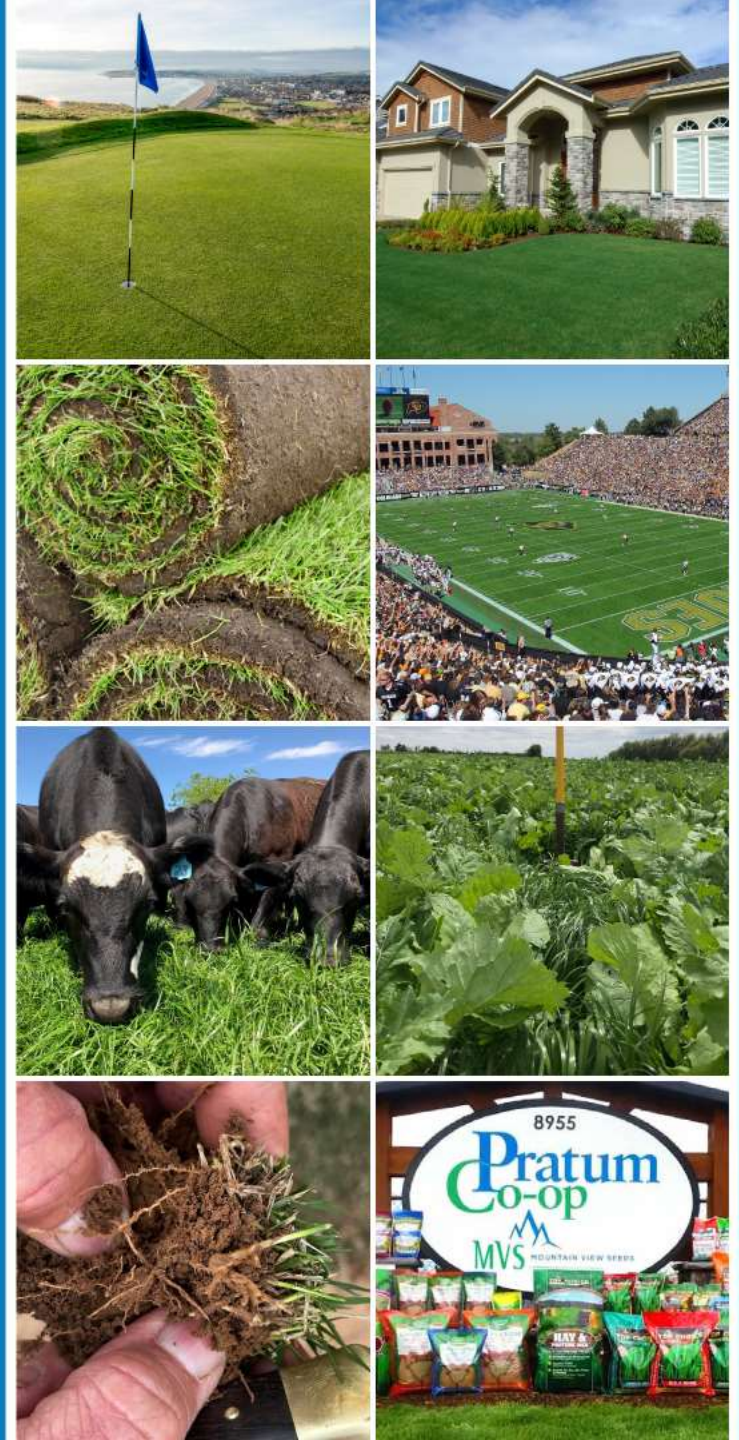
**FROM THE FIELD
TO THE BAG**

Largest Vertically Integrated US owned Grass Seed Company

**Top 6 Wholesale Grass Seed
Companies in the World.
Ship 70M lbs. of Grass Seed Annually**

**GOLF | LANDSCAPE | SOD
SPORTS TURF | FORAGE | COVER
CROP VEGETATIVE GENETICS |
CONSUMER**

New!! Alfalfa





MVS 4220Q

Alfalfa

FD= 4 WSR= 2

AGRONOMIC & PEST RESISTANCE TRAITS

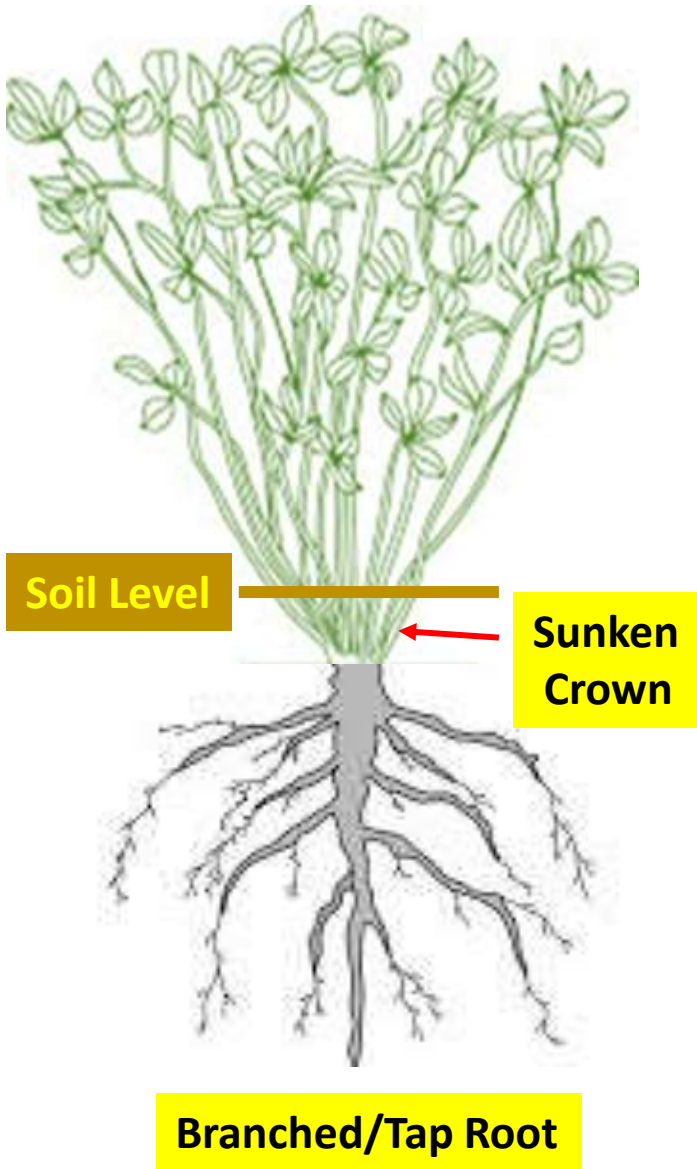
Disease Resistance Index	35/35
Anthracnose	HR
Bacterial Wilt	HR
Fusarium Wilt	HR
Verticillium Wilt	HR
Phytophthora Root Rot	HR
Aphanomyces Root Rot (Race 1)	HR
Aphanomyces Root Rot (Race 2)	HR
Stem Nematode	HR
Spotted Alfalfa Aphid	HR
Pea Aphid	R





MAJESTIC

★ CLIMATE READY ALFALFA ★



FD=4 WSR= 1.5

- **High Resistance To All 8 Major Diseases Including Aphanomyces Race 1 & 2 and the New Anthracnose Race 5**

Disease Resistance Index = 40/40

Branched/ Tap root: Advantage in problem soils





Breeding For "Drought-Resilience"
Dr Ian Ray - NMSU

Drought-Resilient Alfalfa



FD=5



FD=8



FD=8

Available Fall 2025/Spring 2026





ARCUSIN

BALE HANDLING SOLUTIONS | 1976



OUR STORY



1938

The Cusiné family started in the agriculture world trading mules in the province of Catalunya, Spain



1968

In 1968, they become one of the first baler and tractor importers and distributors in Spain



1976

Armando Cusiné and Manuel Cusiné, father & son, funded Arcusin. The first machine they produced was the AutoStack stacker that was designed to collect small square bales



1985

In the early 80s, with the introduction of the first large square balers, we jumped at the opportunity to develop one of the first stackers that could move big square bales



2018

Incorporation of the third generation in the family business group. Their background in engineering coupled with their knowledge of the agriculture industry bring Arcusin a new spectrum full of new and fresh ideas to keep innovating.



2014

The Forstack bale accumulator was introduced in the market. Unique patented system for the collection of large bales and small bale bundles



1996

Manuel Cusiné invented the first bale bundler for small square bales 27 years ago, the MultiPack A14. Some of the first units still remain operative nowadays



1994

The first Arcusin machine was exported internationally. Big company effort to develop a solid network of global dealers

OUR STORY

+40 years
ARCUSIN

▶ 2019

Opened Arcusin Corporation in the USA



▶ 2023

USA main market
20 dealer network



Products

AutoStack XP/FSX

MultiPack E-14

Forstack

AutoPick

ARCUSIN

Most USA farmers know us by our bale bundlers (MultiPack) , but we also manufacture bale stackers and accumulators



Always Innovating

- First Company to manufacture 3 Tie Bundler!

- Saw the same need for the 3 tie farmers as we did for 2 tie. MultiPack E-14, first series to handle bigger bale. Handling 3 tie bundles becomes easier for farmer, and consumer.
- Bale accumulators can handle all big squares, and now bundles too!



QUESTIONS?

DEMO POSSIBILITY

THANK YOU





ARCUSIN

BALE HANDLING SOLUTIONS | 1976



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www.arcusin.com





ROOC

Penergetic Solutions

Booth 511

Penergetic International

- Family owned business headquartered in Switzerland
- Conducting business in 40 plus countries around the world
- U.S. began importing and distribution in 2012
- Have established and growing dealer network in 35 plus states

Key Products featured at Conference

- Penergetic K: Soil activator which accelerates microbial activity, mitigates soil compaction and enhances water and nutrient absorption through improved root development.
- Penergetic P: Foliar which improves nutrient flow, improves disease resistance, increases mycorrhizal fungi, and accelerates photosynthesis.
- Numerous alfalfa field trials (summary is in your welcome bag) have shown a significant ROI in the areas of improved yield and improved quality.
- All Products can be used on organic (OMRI) or conventional operations.

New since our last conference

- Penergetic bWV: Deer and Pig repellent
- Penergetic bZV: Small mammal deterrent for gophers, rabbits, squirrels, moles and various other above and below ground mammals.
- Penergetic bVV: Bird deterrent for crows, blackbirds, geese and various other species.

Come see us at booth 511!!

HAY



TM

KINGS

Managing Alfalfa Yield Loss by planting Roundup Ready Alfalfa

2020 and 2022 Roundup Demonstration Trials

Dan Liska

2020 Roundup Demonstration Trial

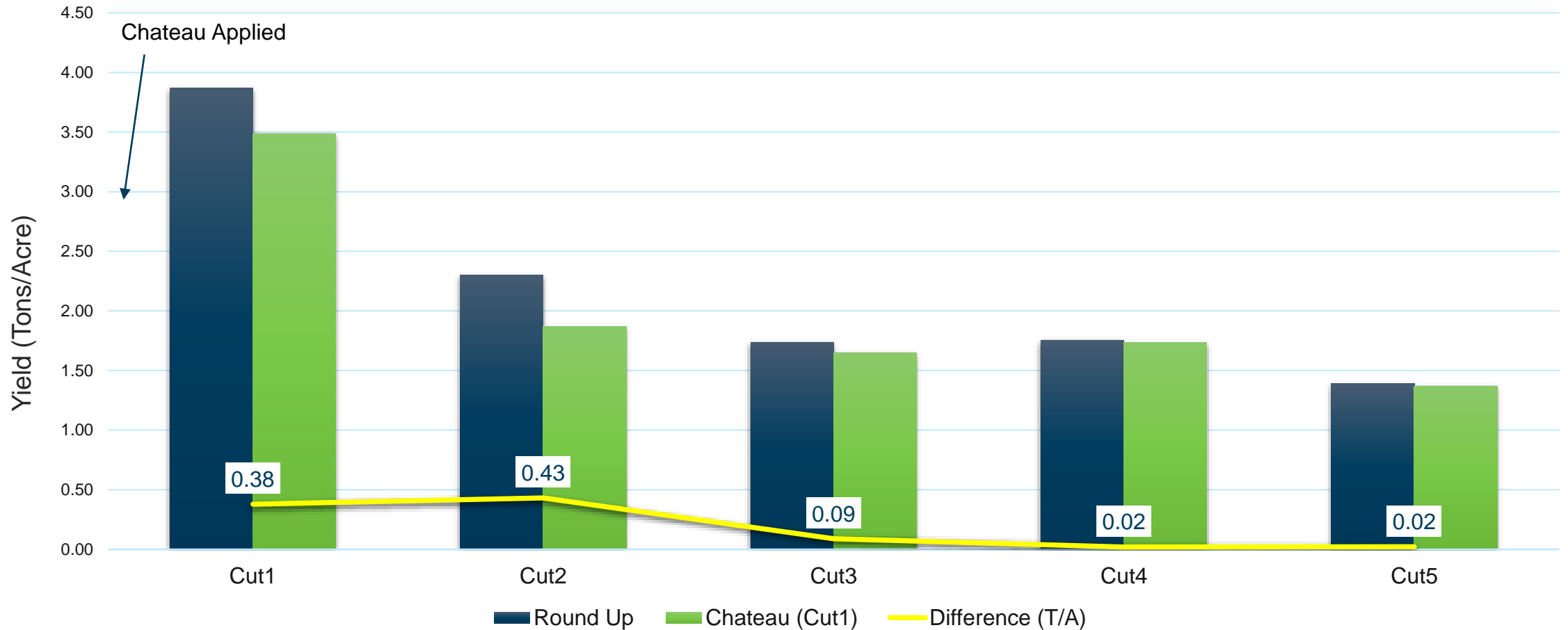
FGI Research Station, Nampa ID | Spring 2020 Seeding



- 24 Roundup Ready and HarvXtra entries replicated in 2 blocks
- Chateau and Roundup Herbicides applied March 8, 2021 (2 months prior to first harvest)
- Photo taken 20 days post herbicide spray



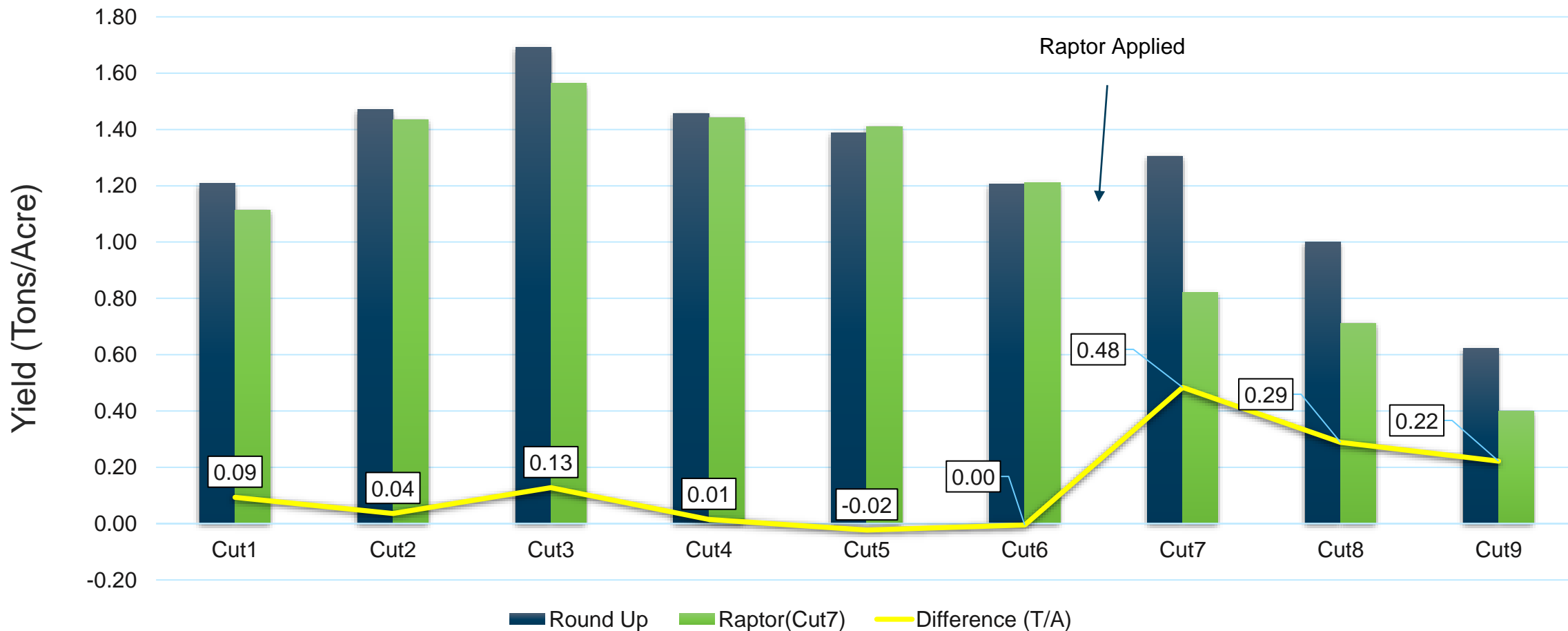
Alfalfa Yield Loss with Chateau Herbicide



Total yield loss over two years following Chateau herbicide was 1.36 T/A (0.94 T/A yr1 and 0.42 T/A yr2)



Alfalfa Yield Loss with Raptor Herbicide



Trial planted Fall 2022 in Los Banos, CA
 6 Roundup Ready and HarvXtra entries in 2 blocks
 Raptor herbicide was used at seedling stage in Fall 2022 and after Cut #6 in summer 2024
 Total yield loss of 3 the harvests following Raptor herbicide was 0.99 T/A



Because of factors outside of Forage Genetics International's control, such as weather, product application, and any other factors, results to be obtained, including but not limited to yields, financial performance, or profits, cannot be predicted or guaranteed by Forage Genetics International. Actual results may vary.

Western Alfalfa and Forage Symposium

2024

Sparks, NV



DFL / La Crosse Seeds

Booth 216

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- DLF / La Crosse Seed
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 - 208-699-1888

- Ron Miller, SW Regional Sales Mgr
 - miller@alforexseeds.net
 - 316-772-8886



We turn Science into Growth



Danish based **seed company** founded in 1872



World market leader **within temperate forage and turf seeds**. Supplying to more than 100 countries.



7th largest **seed company** in the world



Leading research and development program in sustainable and **green crops of the future**

DLF is owned by 3,000 growers specializing in growing and developing forage and turf seed

DLF

- Founded in 1872
 - Dansk Landbrugs Frøselskab, which translates to the “Danish Farmers Organization's Seed Supplier”.
- DLF is owned by 3,000 growers specializing in growing and developing forage seeds
- Roughly 11% of DLF’s over 2,000 worldwide employees involved in breeding programs and product development
- NA R&D Sites
 - Lindsay, Ontario Canada
 - Port Hope, Ontario Canada
 - Bangor, Wisconsin USA
 - West Salem, Wisconsin USA
 - Touchet, Washington USA
 - Philomath, Oregon USA
 - Berry, Kentucky USA

Research & Product Development North America



- Research Station
- Forage Trials
- Alfalfa Trials
- Turf Trials

TOUCHET, WASHINGTON, USA



The Touchet Research Station is located in the Columbia River Basin and plays a critical role in alfalfa breeding as the principal site for all R&D seed production. Researchers breed dormant and semi-dormant alfalfa for biotic (nematodes, wilt, root rots, and aphids) and abiotic (drought and salt) stress tolerances. They also manage yield trials, nurseries, and disease and pest screenings.

PORT HOPE, ONTARIO, CANADA



The Port Hope Research Station comprises the most extensive private forage testing program in Canada. The replicated product development trials ensure only the best adapted varieties are advanced to commercial use. Ten distinct species of forage grasses and two species of legumes are evaluated for yield, winter hardiness, disease resistance and forage quality. This location also hosts turf grass and hybrid corn demonstration trials.

BERRY, KENTUCKY, USA



The Berry Research Station consists of 5,000 trial plots (2,000 turf and 1,000 forage). The hot and humid environment is optimal for evaluating disease tolerance, specifically gray leaf spot, brown patch, and summer patch. The research team also collects data on forage yield and quality.

WEST SALEM, WISCONSIN, USA



The West Salem Research Station breeds and tests dormant alfalfa varieties in the heart of Midwest dairy production. Selection nurseries and yield trials are used to evaluate yield, forage quality, disease resistance and persistence of new alfalfa products. The facility also houses turf and forage trials, a pathology lab and several growth rooms where many disease isolates are maintained and evaluated for their ability to infect alfalfa varieties.

PHILOMATH, OREGON, USA



The Philomath Research Station is on the western edge of the Willamette Valley's main seed production area. Many cool-season grass species are bred at this location, including turf-type perennial ryegrass (diploid and tetraploid), tall fescue (turf and forage), annual ryegrass (turf and forage), orchardgrass, timothy, fine fescue (strong creeping and hard), red and white clover, crimson clover, stalked radish, and other cereals and cover crops. Researchers also conduct bentgrass and bluegrass trials, and evaluate secondary traits and tolerances (weed, drought, shade and salt).



DLF Alfalfa Breeding

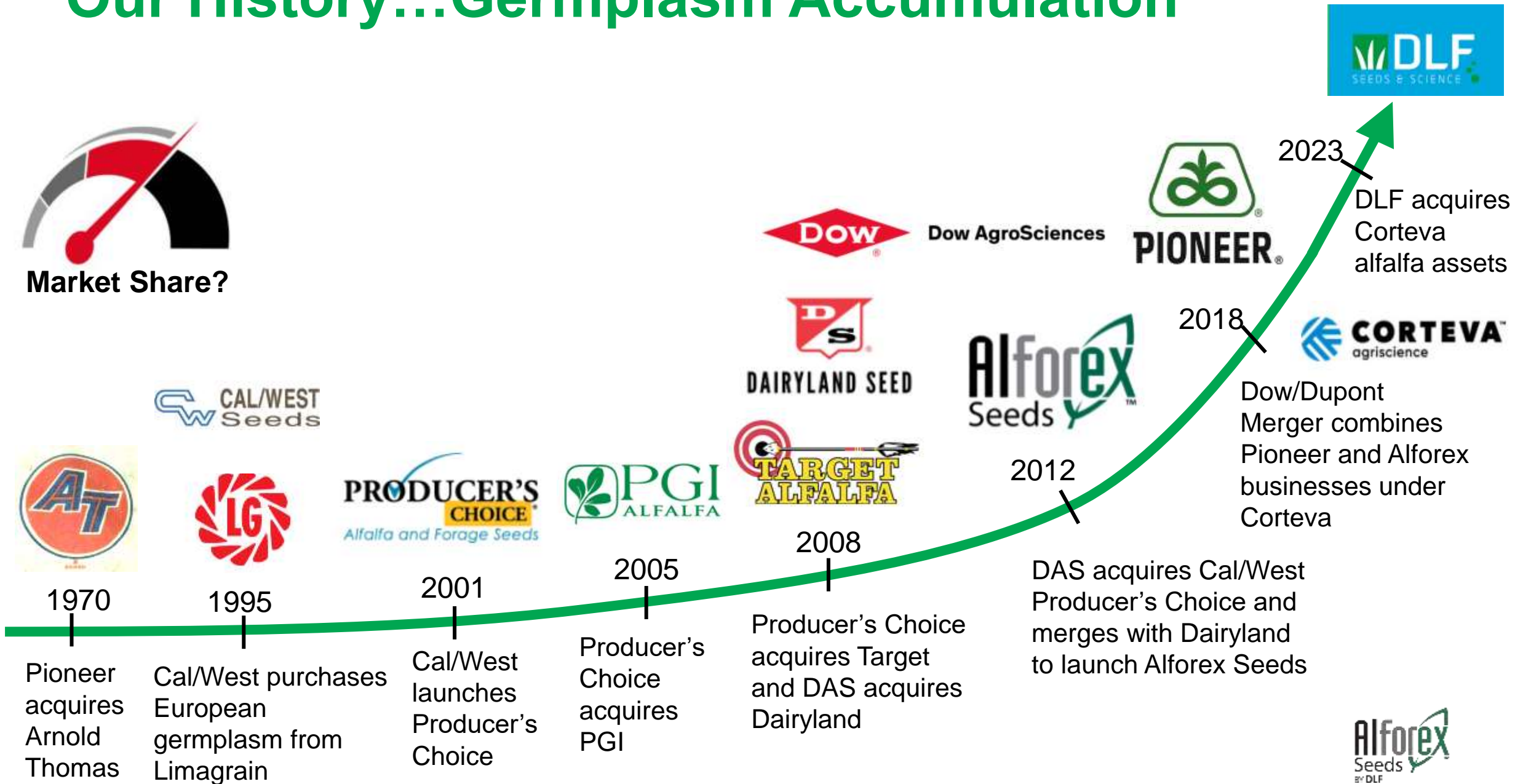
- With the accumulation of alfalfa germplasm over the years, DLF has the largest alfalfa germplasm pools among all alfalfa breeding companies.
- This provides our dealers with products that give their customers not only yield, but also specific disease, insect, abiotic stress traits to maximize on farm profitability.



Our History... Germplasm Accumulation



Market Share?



Alfalfa Today

- Breeding Effort Continuum
 - Yield
 - Quality
 - Standability
 - Multiple disease resistance
 - Salt tolerance
 - Drought tolerance
 - Pests-LH, Aphids, SN



X-Force
ELITE ALFALFA PERFORMANCE



Hi-Gest
ALFALFA
TECHNOLOGY

Patents Pending



Alfalfa Tomorrow

- Nex gen Hi-Gest
- X-Force
- Disease resistances
- Pest resistances
- Yield/Quality potential
- Seed Enhancements



La Crosse Seed Portfolio

- Agriculture Industry
 - Alfalfa
 - Forage First 5 Series (Formerly Pioneer)
 - Alforex (Alforex/ Dairyland Genetics)
 - Forage Grasses
 - Forage Legumes
 - Hay and Pasture Mixes
 - Custom Forage Mixes
 - Summer Annuals
 - Seed Inoculants
 - Conservation Seed/Mixes
 - Small Grains



FORAGE FIRST®

BY DLF



SUMMER SELECT™

BY DLF

La Crosse Seed Portfolio

- Cover Crop Industry
 - Cover Crop Seed
 - Cover Crop Mixes
 - Custom Cover Crop Mixes
 - Seed Inoculants
 - Conservation Seed/Mixes



SOIL FIRST®

BY DLF



La Crosse Seed Portfolio

- Conservation Seed Industry
 - Native Grasses
 - Wildflowers/Forbs
 - Conservation Seed Mixes
 - Custom Conservation Seed Mixes
 - NRCS
 - CRP
 - Pollinator



Forages Today

- Breeding Effort Continuum
 - Yield
 - Quality
 - Standability
 - Multiple disease resistance
 - Salt tolerance
 - Drought tolerance
 - Pest resistance and tolerance



Forages Today Plus

- Fiber Energy
- PLUS Festulolium
- Protek novel endophyte
- 4Most Seed Enhancement



Forages Tomorrow

- Fiber Energy
- PLUS Festulolium
- Protek novel endophyte



Thank you!

- Doug Bastian
 - DLF Business Manager
- DLF / La Crosse Seed
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AMERICAN AGCREDIT

**EXPERTS IN
AGRICULTURAL FINANCE**

December 2024



American
AgCredit



**YOUR
FUTURE
GROWS
HERE.**

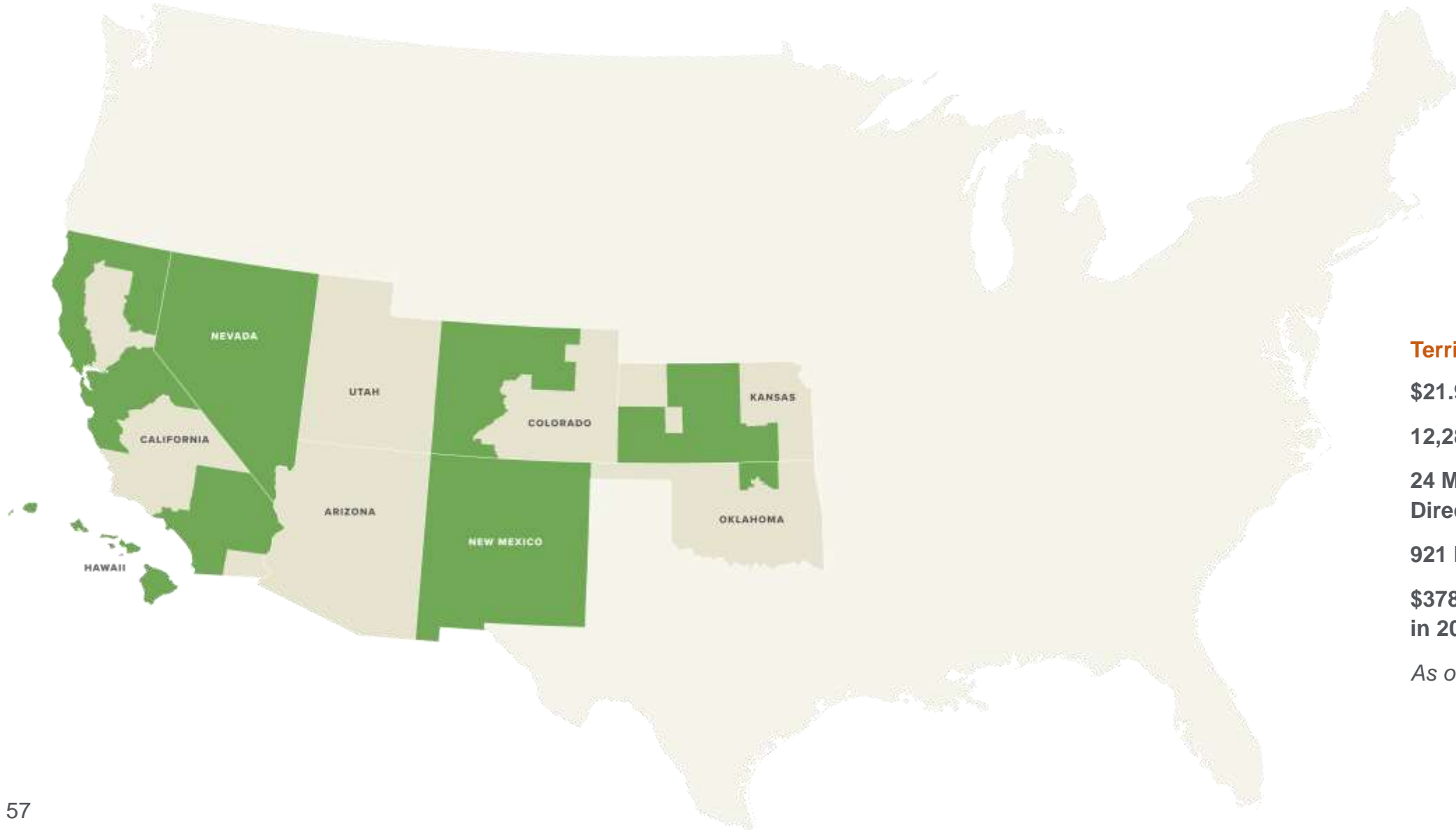
WHO WE ARE

Serving All of Agriculture

We are a leading provider of financing, insurance, treasury management and mission-driven program solutions, each customized to the unique needs of farmers and ranchers.

- We are a **cooperative** that supports agriculture with reliable, consistent credit and financial services for all segments of agriculture.
- We are a proud member of the **Farm Credit System** and the **5th largest association** in the nation in terms of assets.
- We have a **unique funding model** that allows us to structure loans with terms designed to match your operation's needs and cash flow.

AMERICAN AGCREDIT SNAPSHOT



Territory Highlights

\$21.9 Billion Total Assets

12,286 Customers

24 Members Board of Directors

921 Employees

\$378 Million Net Income in 2023

As of 12/31/23

OUR PATRONAGE HISTORY

**1% CASH PATRONAGE RETURNED
EVERY YEAR FOR THE LAST 6 YEARS**



\$215 million paid back to our borrowers for 2023

“

As a customer owner,
you get to share in the
success of the company.
We reward you with an
annual cash patronage
distribution.*

*By sharing our profits, we effectively
reduce the cost of borrowing.*

*contingent on annual board approval

OUR PRODUCT OPTIONS

Our Flexible Lending Programs Ensure We Have a Financial Solution Designed to Help Your Business Grow.

- Real estate purchases
- Vineyard and orchard development
- Packing and storage facilities
- Debt refinancing
- Livestock purchases and feed
- Production and processing equipment purchases
- Building repairs and improvements
- Water development, irrigation projects
- Operating expenses

Loan Solutions Tailored to Your Operation

- Flexible Term Options & Payment Schedules

Equipment and Building Lease Programs

Crop, Livestock, Drought Insurance

Treasury Management

THANK YOU

YOUR FUTURE GROWS HERE.



American
AgCredit



Harvest Tec

EST. 1976

Hydrobale Dew Simulators

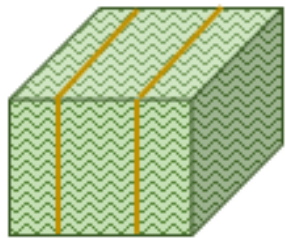
NEW Technology HydroBale Dew Simulator



▶ Ideal Moisture



▶ Control your Time



▶ Increased Bale Value



HydroBale Features

Two diesel fired water heaters raise water temp to 240° F

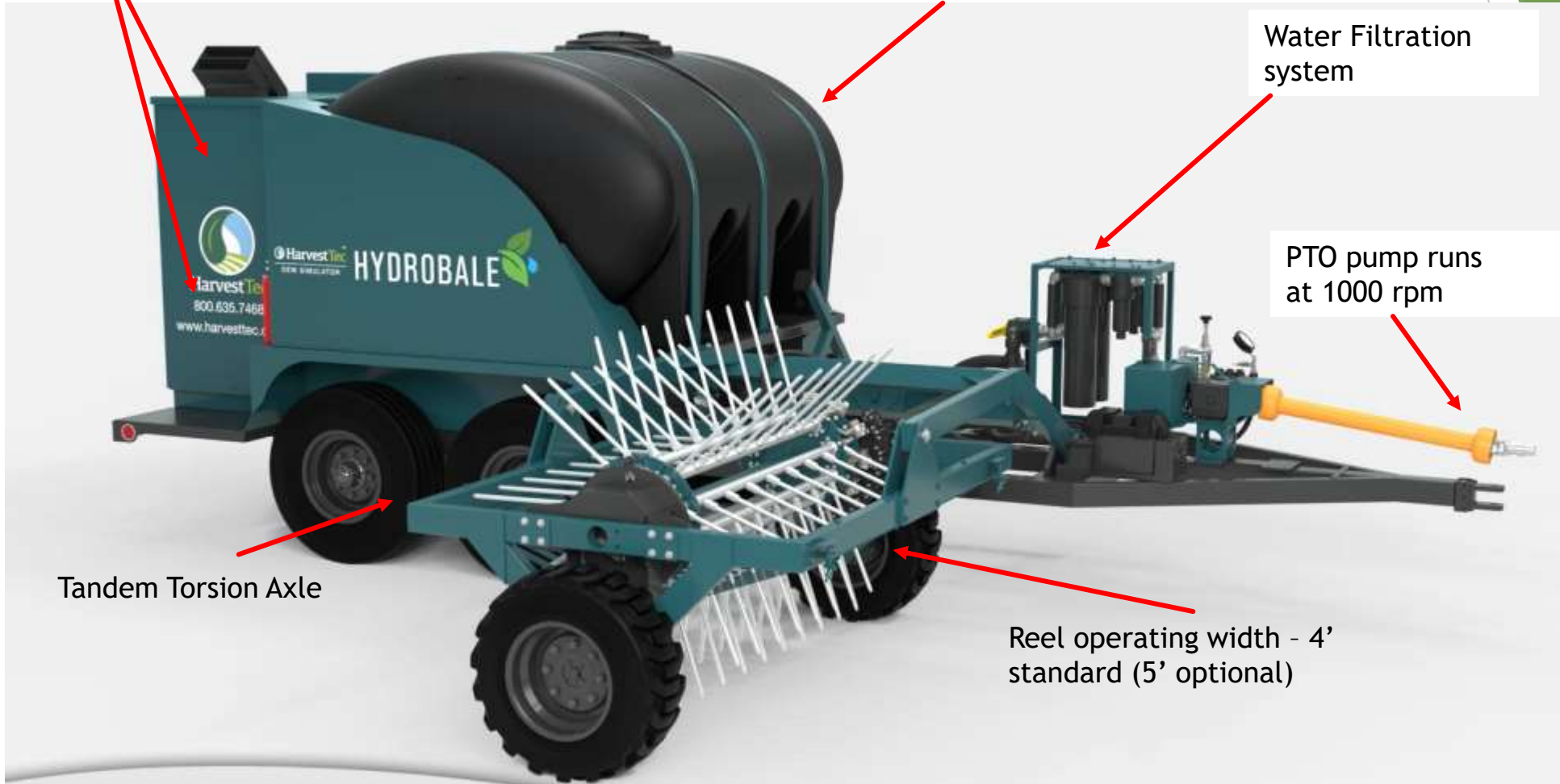
1000 Gallon Water Tank

Water Filtration system

PTO pump runs at 1000 rpm

Tandem Torsion Axle

Reel operating width - 4' standard (5' optional)



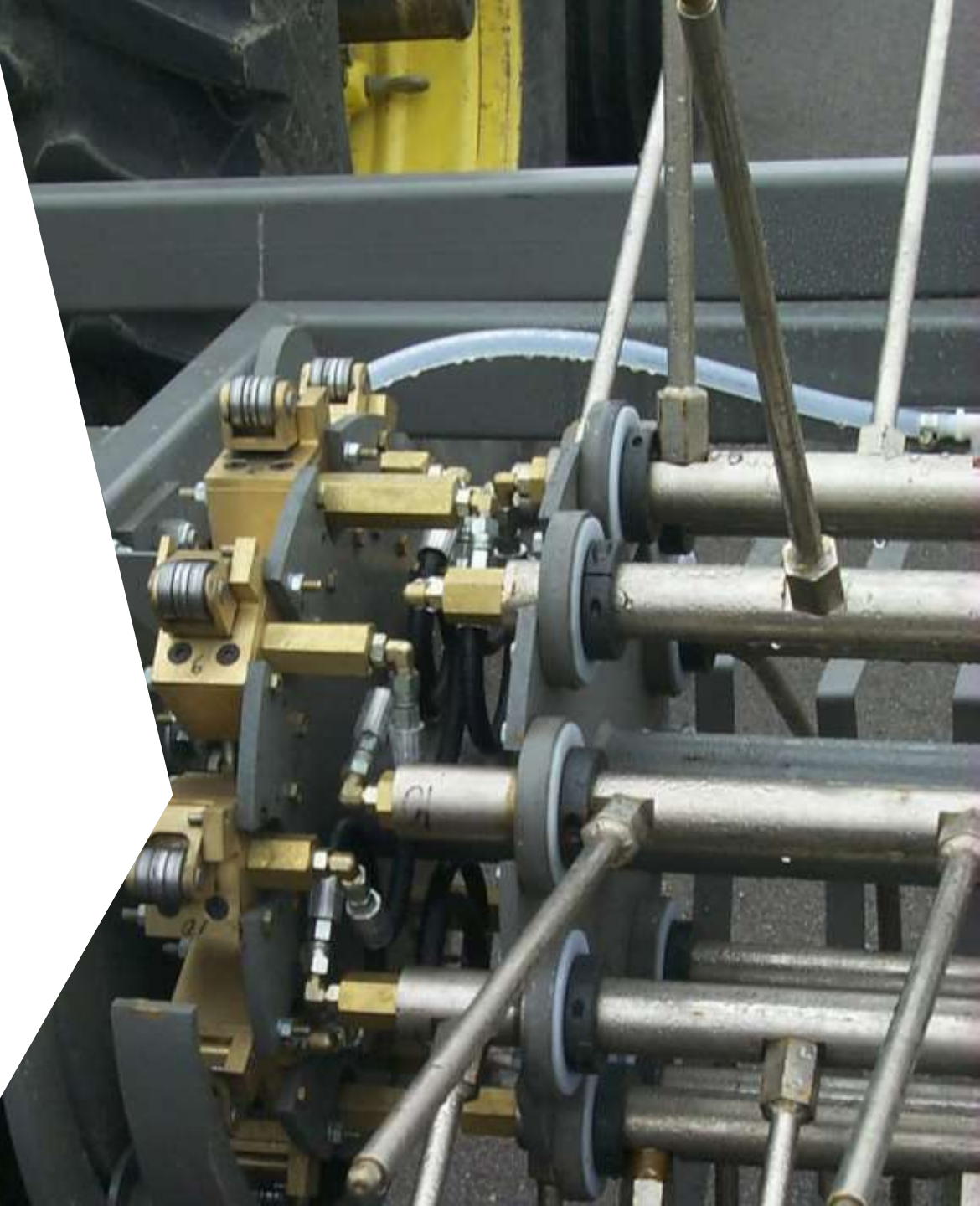
How the Dew Simulator Works

- Runs as a separate pass ahead of baling
- In periods of low evaporation (such as evening, nighttime and early morning), the interval between simulating and baling can be 5 to 20 minutes
- In periods of high evaporation (such as early evening and later morning), the interval between simulating and baling can be within seconds
- Water is heated and maintains a target temperature of 240°F with system integrated flow meter and temperature sensors



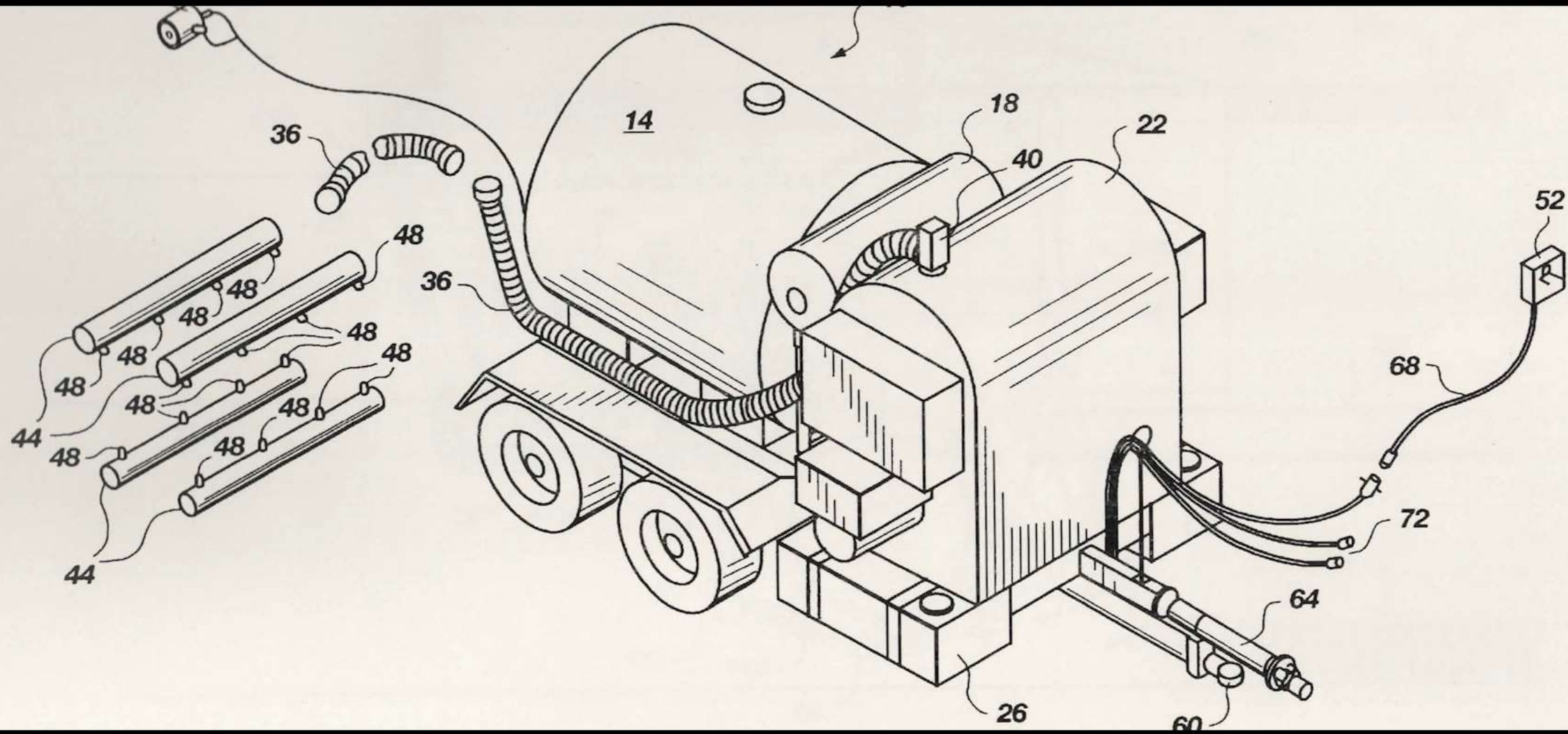
How the Dew Simulator Works

- ▶ 65 tine 4 ft wide (85 tine option 5) cammed reel enters and exits the windrow
- ▶ Tines enter the windrow vertically, with no crop disturbance
- ▶ Valve actuated tine rows only apply high pressure mist when inside the windrow
- ▶ Valve actuators are adjustable for varying windrow conditions can be turned off for windrows with bottom moisture





STAHELWEST



Our Stronger Future

**Senninger**[®]

For over 60 years, Senninger has been the proud provider of agricultural irrigation products to farmers and irrigation professionals worldwide.

To further strengthen our company, Senninger Irrigation now proudly carries the family name of our parent company.

Hunter[®]

Agricultural Irrigation

Investing in your future



Expanding operations and warehouse capacity to serve you even better

Hunter[®] | *Agricultural Irrigation*

Senninger[®] Products

Low Pressure – High Performance™



**Less Energy
Consumption**



**Reduced
Wear-and-Tear**



**Better Irrigation
Efficiency**

UP3[®] Nozzle Applicators



i-Wob[®]2

Dynamic Drive



Super Spray[®]



LDN[®]



Xi-Wob[™]



Xcel-Wobbler[™] TOP

i-Wob®2

Tougher and Stronger

1 Shroud protects the sprinkler's wear surfaces

2 Improved wear surfaces for longevity



3 Built-in nozzle carrier



4 Enhanced tripod



5 Backed by a 3-year warranty

Pressure Regulators



PRL

0.5 to 8 gpm
(114 to 1817 L/hr)
6 to 40 psi
(0.41 to 2.76 bar)
Max inlet pressure
120 psi (8.27 bar)



PSR2

0.5 to 15 gpm
(114 to 3407 L/hr)
6 to 50 psi
(0.41 to 3.45 bar)
Max inlet pressure
130 psi (8.9 bar)



PRM-MF

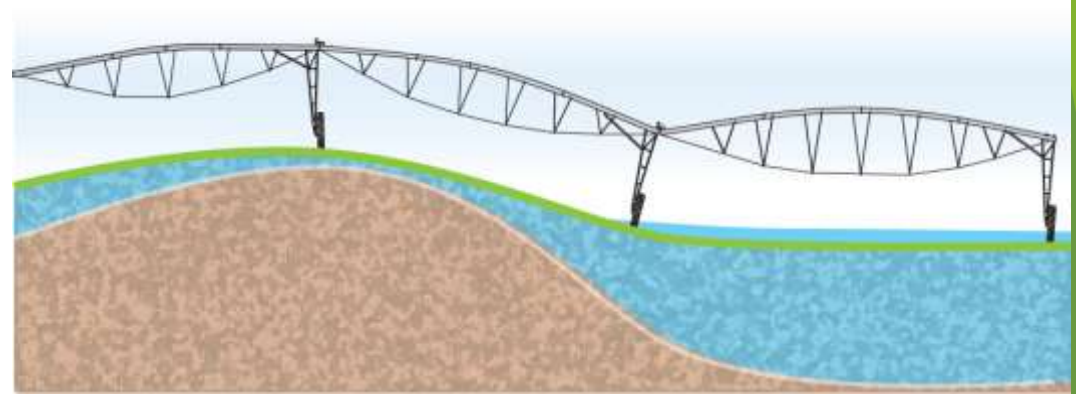
2 to 20 gpm
(454 to 4542 L/hr)
6 to 60 psi
(0.41 to 4.14 bar)
Max inlet pressure
140 psi (9.65 bar)

Pressure-tested to ensure quality and performance

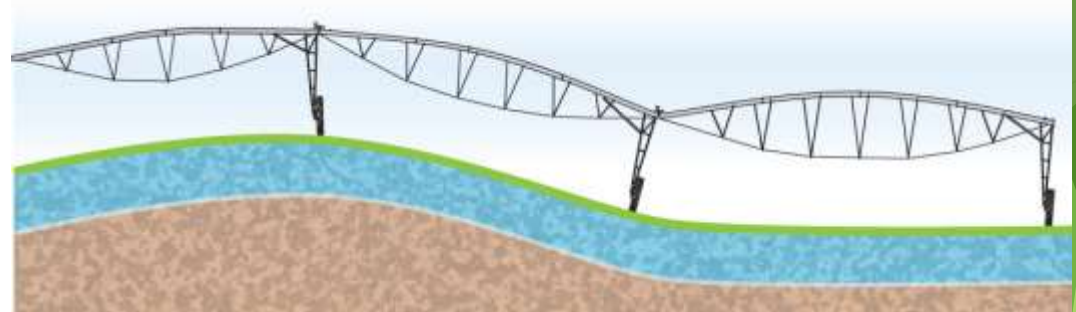
Pressure Regulators

- ▶ Pressure is related to gravity. More pressure is needed to move water uphill. When water moves downhill, more pressure is available.
- ▶ Every 2.31 ft (0.7 m) of elevation change will result in a 1 psi (0.07 bar) pressure change.
- ▶ Lower design pressures allow less elevation change before pressure regulators are recommended.

Water Application Without Pressure Regulators



Water Application With Pressure Regulators



Pressure Regulators

The PSR-2 provides a smooth slide-like surface. This smooth flow path is especially helpful for systems pumping surface water with fibrous material.



Thank you



Question?

Scan to learn more