CROPSAVER™ HAY PRESERVATIVE AND APPLICATOR SYSTEMS



FOR BALED HAY

APPLICATORS | MOISTURE SENSORS | AUTOMATIC CONTROLS CONTROL OPTIONS | PRECISION ACCESSORIES











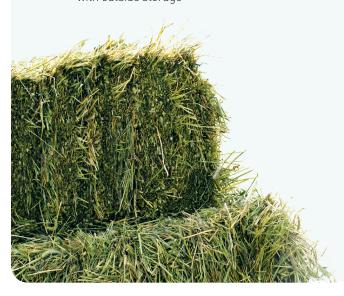
Safe, innovative baling at high moistures.

Maximize the number of acres baled per day with a chemically-buffered form of propionic acid formulated to prevent spoilage of valuable hay crops. New Holland CropSaver™ Hay Preservative is gentle on your baler with a pH of 6.0 that is as neutral as rainwater, yet it is just as effective as straight propionic acid. And, it works on all types of hay, including alfalfa, grass and other crops susceptible to spoilage at higher moistures.



Benefits that go beyond better bale quality:

- ✓ Retains hay's freshness, green color and higher feed value for years
- ✓ Treats hay at moistures up to 30%
- ✓ Works well on all types of hay
- ✓ Won't harm equipment, operators or livestock
- ✓ Won't freeze or lose effectiveness over time with outside storage



Compared to other preservatives, CropSaver:

- ✓ Is easier to apply
- ✓ Gives more consistent coverage
- ✓ Won't clog application equipment

Hay baled at higher moistures can heat and spoil

Untreated Hay Moisture	Damage
16 – 22%	Hay discoloration and odor can occur
23% – 26%	Hay temperatures can climb to 120°F in storage; mold will begin to form and quality drops significantly
Over 27%	Can result in temperatures over 140°F; hay can turn black and combust





COST-EFFECTIVE

Bales treated with CropSaver yield more tonnage and have a higher relative feed value.



SAFE FOR LIVESTOCK

Propionic acid, the main ingredient in CropSaver, is an organic acid occurring naturally in a horse's gastrointestinal tract.

In ruminants, propionic acid is produced by rumen bacteria and is beneficial in the digestive process.



SAFE ON EQUIPMENT

The ingredients in CropSaver will not cause corrosion on your baling equipment.



MAXIMUM PRODUCTIVITY

When paired with approved New Holland applicators at the recommended application rate, CropSaver maximizes hay baling productivity year after year.

CropSaver Hay Preservative ingredients		
Active ingredient Propionic Acid Citric Acid	64.5% 5.0%	
Other ingredients Ammonium Hydroxide, Deionized Water, Sorbitol, Green Dyes	30.5%	
EPA registration #73877-1-74897	Total 100%	

Application rates			
Large square bales			
Hay moisture	Stem moisture	Dew moisture only	
Under 22%	6 lbs/ton	3 lbs/ton	
23% - 26%	10 lbs/ton	8 lbs/ton	
27% - 30%	DO NOT BALE	16 lbs/ton	
Small square and large round bales			
Hay moisture	Stem moisture	Dew moisture only	
Under 22%	4 lbs/ton	2 lbs/ton	
23% - 26%	8 lbs/ton	6 lbs/ton	
27% - 30%	16 lbs/ton	12 lbs/ton	

Not recommended on any hay above 30% moisture.

Available in four sizes for any size baling operation

15-Gallon Drum: Ideal for smaller operations **50-Gallon Drum:** Treats up to 100 tons of hay 200 or 270-Gallon Tote: Ideal for larger square

baler operators









CropSaver Hay Preservative container sizes[†]

Totes	1,800 lbs/200 gal* (818 kg/757 L) 2,380 lbs/270 gal (1,082 kg/1,020 L)	
Drum	rum 450 lbs/50 gal (204 kg/189.3 L)	
Mini drum	120 lbs/15 gal (54 kg/50.5 L)	

^{*} Not available in Canada.

See back page for a list of CropSaver Hay Preservative part numbers.

[†] CropSaver Hay Preservative is not available in California.

Better bales with the right application equipment.

New Holland automatic applicator moisture sensors accurately "read" moisture percentages in real time, adjusting every three seconds to match hay conditions. Large or small, our application process means your crops are baled at the highest quality possible, with minimal product waste.

Large square balers

Automatic systems for large square balers are equipped with star wheels that mount on the top of the bale chute. Accurately reads moisture from 6% to 70%.



Round balers

Automatic systems for round balers are equipped with two sensing discs, one mounted on each of the baler's sidewalls. Reads moisture from 6% to 60% on 300 and 600-Series Systems.



Small square balers

Sensors for the automatic system on small square balers consist of two star wheels that mount on the bottom of the bale chute. Reads moisture from 6% to 32% on 300 and 600-Series Systems.





Efficient design with you in mind

Tanks and saddles are easy to install, operate, and service. Designed to be mounted out of the way of other baler operations for added safety.



No matter what baler you use, there is a New Holland CropSaver applicator for your implement.

Moisture doesn't stand a chance.

Sensors in the applicators accurately sense moisture levels on round, large or small square balers. A positive sensor is mounted on one side with an isolated ground mount on the other side. When the bale makes contact, a current passes through it, measuring moisture from one side to the other. This results in a moisture reading that is accurate to within one point.

700 Series Automatic Applicator for large square balers

Using side-to-side moisture reading technology, the 700 Series Automatic Applicator reads crop moisture across the width of the bale near the front of the chamber via moisture sensing dual star wheel sensors.

This process accurately reads crop moisture from 6% up to 70%.

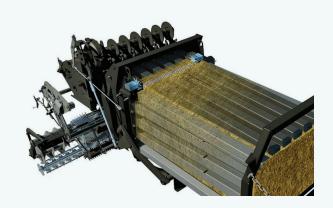
See page 15 and back page for a list of applicator, preservative and accessories part numbers.

CropEWS™ Microwave Moisture Option for large square balers

When using with preservative applicators, the Microwave Moisture Sensor Option:

- Mounts closer to the pickup head where preservative is applied
- Reads moisture across individual flakes through the pre-compression chamber, eliminating lag time
- Displays moisture through baler ISOBUS or tablet
- Is available as an upgrade option to all 700 series applicators
- Works with all brands of large square balers







Pre-compression chamber mounting location



Microwave sensors mounted on the rear of bale chamber



Automatic controls

FOR ROUND AND SMALL SQUARE BALERS.

300-Series

The automatic system for round and small square balers consists of a compact processor, and a single bypass pump that supplies constant pressure to a pulsing solenoid. This efficient design allows a fast response time for applying preservative. The 300 series system is controlled through an iPad via a wired connection for a clear, colorful display.

The automatic system is able to store up to 60 job records by field name with total tons baled, average high moisture, date and time, and amount of preservative used.

600-Series

The 600-Series Automatic Applicator System for round and small square balers makes baling hay and keeping track of bales virtually effortless. The 3-pump system continuously monitors moisture readings and automatically adjusts application rates. The system on small square balers has a built-in stroke counter to help the operator create a more consistent bale by monitoring the number of flakes per bale. The system on round balers has an additional sensor on the bale door to identify individual bales and provide a more accurate tonnage reading. The 600 series system controlled through and iPad via a wired connection for a clear colorful display*. The 600 series can also display on a dedicated ISO Virtual Terminal.

300 & 600-Series monitors display:

- Moisture content
- Speed of baling (tonnage)
- Volume of preservative used per bale
- Target application rate and actual application rate
- Total tons baled





LARGE SQUARE BALERS.

700-Series

The new 700-Series Applicator is an improvement over previous model applicators with these key designs:

- Single bypass pump supplies constant pressure to pulsating solenoid valves for improved response time to changes in moisture
- Improved flowmeter works on a range of products
- Display applicator readings on dedicated Virtual Terminal, Apple tablet, or Android tablet
- Free Precision Baling app is available on Apple iTunes* or Google Play** store for approved tablets

^{*}Requirements to run Apple iPad are 3rd Generation (2012) or newer, running the current iOS operating system.

^{**}Requirements to run Android are Google Play, 5th Generation, plus the Precision Baling App.

CropRFV[™] System for Large Square Balers

The CropRFV System is a breakthrough concept, allowing the hay producer to view, record, and track the Relative Feed Value (RFV) for each bale that they produce. The CropRFV System is advanced software that is downloaded to your CropSaver Applicator or 700BB Moisture System, tied into the scale kit on the baler, and able to give the operator everything needed to manage those variations in quality.

How does it work?

The system is based on the principle that most of the feed value is in the leaves of the plant. That means the higher the leaf content, the higher the density and quality of the bale.

System process:

- 1. Hay grower takes a sample of hay just before or after its cut
- 2. The sample is sent to a lab
- 3. The sample value is entered into the 700 Series System when it's time to bale
- **4.** As the baler operates:
 - The star wheel sensors take accurate moisture readings
 - The scale measures the weight
 - The system calculates the dry matter density and RFV for each bale
- 5. The RFV is displayed on the baler screen as the baler is running and stored into the downloadable job records

Requirements to measure Relative Feed Value (RFV):

- Complete 700 Series Applicator or 700BB, 700BBHD Moisture Only System
- New Holland Chute Scale

Accountability

As the RFV is calculated and compiled to the job record, it is important to identify how the values of quality can impact the hay production process. The advantage of identifying RFV is significant, especially for dairy producers, as sorting and feeding hay according to quality allows for accurate ration adjustments, keeping milk production consistent.

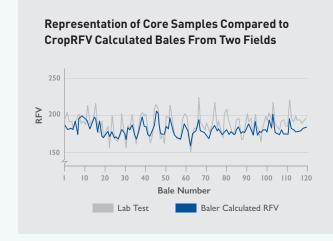
Using the CropRFV technology, the dairyman can get just that – the potential cost savings by feeding what the cow needs, increasing their bottom line.

Producers or brokers involved with selling hay, having the ability to sort, stack, and ship by RFV can greatly improve their ability to make sure that each customer gets the quality level of hay that they expect.

Accuracy

The CropRFV System is a break from the norm in the way that hay is tested, as it can be a substitute for the conventional coring of bales to determine feed value, which has been the standard for many years. The CropRFV System studies have been conducted on multiple farms across multiple states, each showing the accuracy of the system.

Additional studies can be found at www.harvesttec.com/relative-feed-value





On one field, we split the core samples from 50 bales and sent them to two different labs. The RFV levels came back from the two labs 4% apart, which isn't bad. The CropRFVcalculated values were right in the middle, only 2% difference from either lab.

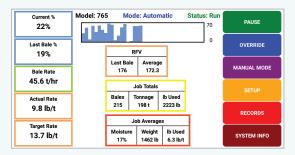
- Don Leonard, Brush, Colorado

Innovation that works for large balers.

Automatic applicators take the guesswork out of baling hay by sensing moisture content and adjusting preservative application rates on the go. You have complete control from the tractor with the baler's IntelliView™ monitor, customer's tablet or the new dedicated virtual terminal. New, simple operating design allows for on-the-go information and quick adjustments all on one screen!

Automatic mode

The 700 system accurately senses moisture on-the-go and adjusts the application of preservative every three seconds to match hay conditions.



Manual mode

Operator can override automatic features and proceed as needed and apply a consistent rate of preservative.

Setup

Adjust moisture points or set rate per ton. Weights for balers not equipped with scale can be estimated.

See page 15 for a list of applicator part numbers.



Job records

Knowledge is power. Detailed job records, as shown below, help you stay efficient.

- Average and high moisture levels
- Bale weight (if equipped with roller chute scale)
- Amount of product used
- Date/time
- GPS position of bale (if equipped)





Round or conventional balers, you're in control.

Automatic applicators provide "in-the-field" officemanagement for your baling operations.

300 and 600 monitors

- Control the automatic application of preservative
- Allow moisture to be read continuously by sensors, fed to the processor and displayed
- Measure speed of baling, the amount of preservative used and the average moisture of the last bale
- Display moisture as it changes, 200 feet at a time
- Applicator automatically adjusts the rate of preservative application every three seconds when in automatic mode. Actual rate of application is read by a flow meter and displayed on the screen as "actual" and compared to the set "target" rate
- Adjusts for speed of baling on both automatic systems on conventional square balers

Everyday electronic cab control

Designed for small-scale operations, an electronic control applicator is available on all baler models and sizes. The dial on the control box can be adjusted for correct preservative output. Electronic components in the cab control box hold the application rate constant.

- Available with a 25 or 55 gallon tank for round and small square balers
- 110 & 115 gallon tanks on large square systems (baler dependent)
- · Conveniently mounted in the cab of tractor or fender
- Upgradeable to an automatic applicator system



300 & 600 monitors display: Graph of the last Actual and 200 feet of window target rate moisture

Preservative

used

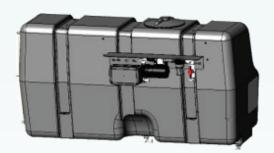
Current moisture

and moisture

of last bale

Comparison of applicator controls			
	Electronic Applicator	300-Series Automatic	600-Series Automatic
Single Pump System	Χ	Х	
3-Pump Manifold			X
Control Box with Adjustable Dial	Χ		
iPad® Display		Х	Х
ISOBUS Display			Х
Built-in Flowmeter		Χ	X
Automatic Application		X	X
Moisture Sensing Capability		Х	X
Job Record by Field		Х	X
Job Records by Individual Bales			Х
Calculates Baling Rate		Χ	X
Export Records to iPad			Х
Hay Indicator Compatible	Х	X	X
Stroke Counter on Small Square Baler			Х
Dye Sprayer Kit Compatible: Small Square Baler			Х

Components of 700 Series Applicator



1 Pump Plate

Mounted on preservative tank includes bypass pump and flow meter





3 Optional Microwave **Moisture Sensors**

Positioned at back of bale chamber (shown) for artificial moisture applications. Additionally, can be positioned in pre-compression chamber for improved preservative placement in bale







Display (not included)

Improved functionality for ease of operation; integrates through the baler virtual terminal



5 Spray Shield/Tips

Hay preservative applied at baler pickup on loose windrow as fed into the baler



Make better hay with precision products.

From high-quality products like New Holland CropSaver™ Hay Preservative to worry-free automatic applicators with moisture sensors, to GPS and yield mapping, bale scales, proficient pumping systems and spray shields, Harvest Tec and New Holland help you work to get the job done.



Bale Identification

Moisture Dye Sprayer Kit

The New Holland Model HT740DMDS Dye Sprayer Kit

A simple and effective way to mark wet areas on balesallowing for a quick and easy reference to better manage bales for feeding, sorting, inventory or storage.

- Compatible with any 700-Series Automatic Applicator and 700 Moisture (only kit) on large square balers
- Easy to fill and service
- One tank of dye mix [Part No. HT0800DS] lasts through a full tank of CropSaver Hay Preservative
- Adjustable from 6% to 70% on large and small square balers

RFV Dye Spraying Kit

An economical alternative to identifying RFV values on the bale. Consisting of a 3-gallon tank, and 3 pumps and spray nozzles, the operator inputs the RFV ranges into the CropRFV system that they want to identify. The kit sprays each bale with one, two, or three stripes of food-grade dye, showing the operator the RFV range of that bale for easy identification and sorting.

RFV Dye Marker: Part No. HT745RFVDS





Bale Weighing/Scale Interface

If your large square baler has a dealer-installed scale kit from New Holland, the new 700-Series Automatic Applicator System will:

- Interface with the scale controls on the baler
- Adjust the preservative output for more accurate application based on weight
- Add actual bale weight to the job record

BigBaler 330 Scale Kit: Part No. 84427553 BigBaler 340 Scale Kit: Part No. 84427554





Model 9212 (12-Volt) and Model 9215 (110-Volt): **Electric Transfer Pumps**

New Holland Part No. HT9212DS (12-Volt), New Holland Part No. HT9215DS (110-Volt): These standard output models will transfer preservative at a rate of four gallons

per minute.



Model 9213: Hand **Transfer Pump**

New Holland Part No. HT9213DS:

Inexpensive, this hand transfer pump is ideal for transferring small amounts of preservative easily.



Model 9214: 12-Volt **High Output Electric Transfer Pump**

New Holland Part No. HT9214DS:

For a rapid transfer rate of 14 gallons per minute, this pump will get the job done quickly.



Model FX2000: Delmhorst **Moisture Tester**

New Holland Part No. HTFX2000DS:

Hand-probe and pad style moisture tester that digitally measures moisture levels in the bales. windrow and chamber.



Model 474A & 474C: Hay Indicator Kit

The kit consists of two eyes that mount on the baler's pickup head. The eye kit senses when crop is passing through and automatically starts and stops preservative application.

HT474ADS Kit: Electronic, 300 & 600

series applicators

HT474CDS Kit: 700 Series Only



NH 162 GPS Receiver: **GPS and Yield Mapping**

New Holland Part No. 87491753

Incorporating the NH 162 GPS receiver into the 700-Series Automatic Applicator allows you to create yield maps of crop data that can be used for planning future yields.

On Baler Economy Moisture Sensors

Introducing the most efficient, cost-effective moisture monitor with accurate readings, the new H_2O Precision Moisture Sensor from Harvest Tec is the answer.

Using the patented** side-to-side moisture reading technology, the kit reads crop moisture across the width of the bale in the chamber via moisture sensing discs for round balers, or dual star wheel sensors for large and small square balers. The sensor will read crop moisture from 5% up to 60% on round, 70% on large square balers, and 33% for small square balers, for those customers that make high moisture bales as well as dry bales.

Features of the new hardwire display include:

- Security of a hardwired solution
- Built-in tablet/smartphone charging capabilities
- New alternating moisture readings allows for even greater moisture accuracy when moisture readings alternate between discs or star wheels

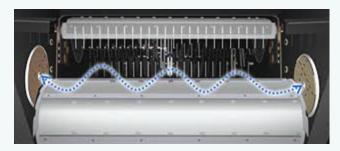


The moisture sensor uses the operator's Apple or Android* smart phone or tablet as the monitor. The H_2O control is mounted in the cab and connects via the charging cable to your device, along with the free H₂O app from Harvest Tec.

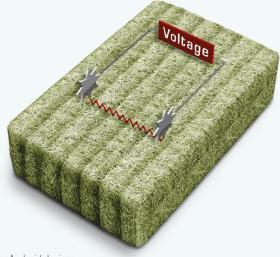
Note: H₂O kit includes wired integration control module.

Precision Moisture Sensor features and benefits:

- Displays instantaneous moisture
- Add on kit is available to provide last bale average moisture (required for fixed chamber round balers)
- Rugged disc plates and star wheels are designed for longterm use with minimal wear
- Icon-based app is simple to use and free to download from the iTunes Store or Android Play Store
- Only on-baler moisture sensor to read up to 60% with reliable accuracy for round balers



The H₂O moisture sensor has two star wheels or discs in the bale chamber that read across the width of the bale, taking five readings of resistance per second, giving the operator complete visibility of crop conditions.



^{*}Requirements to run H_2O app and current IOS, or later for Apple devices, and Android 5 for Android devices

^{**}Patent No. 8,860,443

Applicator Part Numbers

Large Square Balers

Baler	Part No.		
Automatic Applicator Kits			
BB230	HT7964532CDS		
BB330(+) Standard/Packer	HT7964533CDS		
BB330(+) Roto Cut	HT7964635CDS		
BB340(+) Standard/Packer	HT7964534CDS		
BB340(+) Roto Cut	HT7964636CDS		
BB340, 1290 High Density	HT7954636CDS		
590,595,BB940,BB940A,BB960,BB960A, BB9060,BB9080(Pre-2011) Standard/Packer	HT7964495CDS		
590,595,BB940,BB940A,BB960,BB960A, BB9060,BB9080(Pre-2011) Roto Cut	HT7964497CDS		
BB9080 Standard/Packer (2011 or newer)	HT7964528CDS		
BB9080 Roto Cut (2011 or newer)	HT7964529CDS		

Baler	Part No.		
Electronic Applicator Kits			
BB230	HT4914532DS		
BB330(+) Standard/Packer	HT4914533DS		
BB330(+) Roto Cut	HT4914535DS		
BB340(+) Standard/Packer	HT4914534DS		
BB340(+) Roto Cut	HT4914536DS		
BB340, 1290 High Density	HT4904536DS		
590,595,BB940,BB940A,BB960,BB960A, BB9060,BB9080(Pre-2011) Standard/Packer	HT4914495DS		
590,595,BB940,BB940A,BB960,BB960A, BB9060,BB9080(Pre-2011) Roto Cut	HT4914495DS		
BB9080 Standard/Packer (2011 or newer)	HT4914528DS		
BB9080 Roto Cut (2011 or newer)	HT4914529DS		

Round Balers

Baler	300 Series Part No.	600 Series Part No.
Automatic Applicator Kits (Requir	es iPad as display)	
Rollbelt 450,460,550,560,565	HT347CDS	HT647CDS
Premium Series	HT347PDS	HT647PDS
BR7060,7070,BR740,740A, 750,750A	HT34725DS	HT64725DS
BR7080,7090,BR770,770A, 780,780A	HT34755DS	HT64755DS
544,548,564,630,634,638	HT3464484CDS	-
640,644,648,650,658,660, 664,668,678,688	HT3464486CDS	-
Electronic Applicator Kits		
Rollbelt 450,460,550,560,565	HT442CDS	-
Premium Series	HT442PDS	-
BR7060,7070,BR740,740A, 750,750A	HT44225DS	-
BR7080,7090,BR770,770A, 780,780A	HT44255DS	-
544,548,564,630,634,638	HT4414484DS	-
640,644,648,650,658,660,664, 668,678,688	HT4414486DS	-

Small Square Balers

Baler	300 Series Part No. (25 Gal Tank)	300 Series Part No. (55 Gal Tank)	600 Series Part No. (55 Gal Tank)
Automatic Applic	ator Kits (Requires	s iPad as display)	
200,300 Series, 565, BC5050	HT3454409CDS	-	-
570,575,580, BC5060, BC5070, BC5080	HT3454415CDS	HT3514415CDS	HT6514415BDS
585,BB900	-	HT3504507CDS	HT6504507BDS
Electronic Applic	ator Kits		
200,300 Series, 565, BC5050	HT4414409DS	-	-
570,575,580, BC5060, BC5070, BC5080	HT4414415DS	HT4404415DS	-
585,BB900	-	HT4484507DS	-

Accessories Part Numbers

CropSaver™ Preservative Part Numbers*†

Part No.	Description
HT0903DS	15-gal Drum of CropSaver (120 lbs)
HT0904DS	50-gal Drum of CropSaver (450 lbs)
HT0904PQDS	Pallet of 50-gal Drums of CropSaver (4/pallet)
HT0908DS	200-gal Tote of CropSaver (1,800 lbs) US Only
HT0909DS	270-gal Tote of CropSaver (2,380 lbs)

^{*} Note: In Canada, please add a "C" before the "DS" part number suffix. † CropSaver Hay Preservative not available in California.

Microwave Moisture Kit Part Numbers

Large Square Balers Only

3 1	,
Part No.	Description
Back of Bale Chan	nber
HT771MWMDS	Microwave Moisture Chute Upgrade Kit - Requires 700 Series Base Kit
Pre-Compression	n Chamber
HT770MWMDS	Microwave Moisture Pre-Compression Chamber Upgrade Kit - Requires 700 Series Base Kit

Optional Display Part Numbers

Part No.	Description	
HT1670DKDS	700 Series Applicator Android Tablet Kit	
HT7670DKDS	700 Series Applicator VT Monitor Kit	
HT4670DKDS	Universal iPad Mini display (iPad mini 4 w/ Hay App, mount and charger) for 300, 400 & 600 series	
Moisture Only Kits		
HT700BBDS	Moisture Only Kit for BigBaler (display not included). Integrates through baler display.	
HT201SSDS*	Precision Moisture on Kit Small Square Balers	
HT201RBCDS*	Precision Moisture on Kit Roll Belt Round Balers	
HT200FCADS	End of bale sensor kit provides bale avg moisture. For use with 201 kits. Required for fixed chamber round balers.	

^{*} Requires phone / tablet as display











www.mycnhistore.com/cropsaver

www.harvesttec.com