

HARVEST
TEC

*Equipment and Products
for Quality Hay.™*

Hay Preservative and Applicator Systems for Hay Balers



Applicators/Moisture Sensors

No matter what baler you use, there is a model of Harvest Tec applicator for your implement. Paired with John Deere's GREEN-GARD hay preservative you'll have the most efficient, advanced, and easy to use application system on the market.

Efficient design with you in mind

Tanks and saddles have been engineered to mount on all John Deere balers so they are easy to reach and fill, yet out of the way.



Large square balers

GREEN-GARD hay preservative is formulated with the large hay producer in mind. Bales produced between 16% and 27% moisture will not heat and will maintain their high quality, smell and appearance when treated with GREEN-GARD.



Round balers

Hay can be baled with GREEN-GARD at moistures up to 30% with a round baler, extending the hours of operation. Although no preservative product can reduce outside weathering, GREEN-GARD can preserve the quality of the inside.



Small square balers

GREEN-GARD enables hay to be baled at moistures up to 30% with small square balers. Get out in the fields early, even on cloudy days, and work later in the evenings when the dew is heavier.

Better bales with the right application equipment

Greener hay with high feed value is the ultimate goal of every smart producer. All it takes is the right application system. Harvest Tec applicators are available for any John Deere baler, and allow the operator to apply preservative efficiently and effectively to match hay conditions. Large or small, our application process means your crops are baled at the highest quality possible, with minimal product waste.

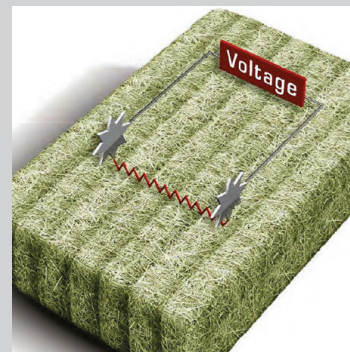


Moisture doesn't stand a chance

Sensors in the automatic applicators accurately sense moisture levels on round, large or small square balers. Using two star wheel moisture sensors which take a reading through the entire bale 100 times every 3 seconds. This results in a moisture reading that is accurate to within one point.

Large Square Balers

700 Series Automatic systems for large square balers are equipped with star wheels that mount on the top of the bale chute. Accurately reads moisture from 8% to 70%.



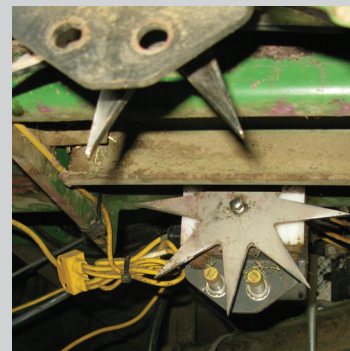
Round Balers

Automatic systems for round balers are equipped with two sensing discs, one mounted on each of the balers sidewalls. Reads moisture from 8% to 60% on 300 and 700 series systems. US Patent 8,860,443



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 8% to 32% on 300 and 700 series systems.

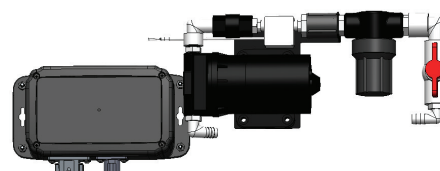


Pumping System & Spray Shields

The 300 and 700 Series Automatic systems have a single pump with dual pulsing solenoids and built in flow meter. As the hay moisture fluctuates, the system adjusts the pumps as needed to apply the right amount of preservative on the go.

The basic electronic applicator consists of a single pump and gauge. The pumping rate is increased or decreased by manually adjusting the control box in the cab.

Consistent preservative coverage throughout the crop is critical. Each baler model has a spray shield designed to fit specifically in the pick-up area, to assure complete and accurate coverage.



Automatic Control

An automatic system creates exceptional bales

The automatic applicators work as you go, applying the right amount of preservative at the right time, based on moisture levels. You can bale faster and complete more tonnage while tracking the volume of preservative used. Application systems are designed specifically for the John Deere large square balers, small square balers, and round balers.



Automatic Controls for large square balers

700 Series

The 700 Series Automatic Applicator System for large square balers makes baling quality hay easier and more efficient. Features include:

- ISOBUS compatible
- Records bale information and job records
- Ability to export job records to USB flash drive
- Provides capacity to add on additional features such as moisture dye sprayer, bale weight information, and GPS position of where bale is tied
- Applicator can be controlled through baler ISOBUS, or customer's tablet*

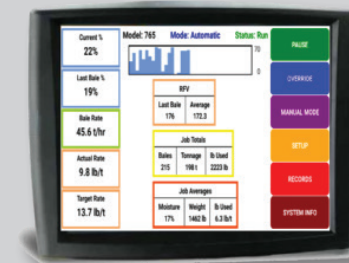
** Requirements to run 700 series thru iPad are 3rd Generation (2012 or newer) with current operating system, plus Harvest Tec Precision Bale App.*

** Requirements to run 700 series thru Samsung tablet are Google Play 5 operating system, plus Harvest Tec Precision Bale App.*



If a baler or tractor is not equipped with an ISOBUS monitor, the operator also has the option of using their own tablet display via charging cable into the ISO Communication Module located in cab of tractor. Any one of these options give the operator complete control and provides information for any baler equipped with the automatic applicator. The baler monitor and tablet display:

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



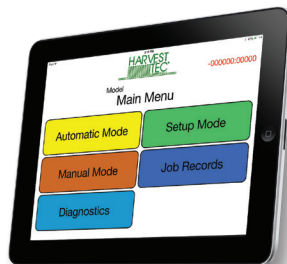
Automatic Controls for round and small square balers

300 Series

The automatic system for round and small square balers. Consisting of a redesigned and compact processor, and a single bypass pump that supplies constant pressure to a pulsing solenoid, it is an improvement in efficiency and response time for applying preservative. The operator has the option of running the applicator through their own iPad* or iPad mini via charging cable 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 and high moisture, date and time, and amount of preservative used.

300 & 700 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



300 & 700 Series Output Range

Small Square applicator: 12 – 348 lb/hr

Round Baler applicator: 16 – 460 lb/hr (up to 700 lb/hr with 2nd solenoid kit)

700 Series

Commercial hay producers enjoy even more features of the 700 series automatic system including:

- Superior sealing Deutch plugs throughout harnesses
- Update applicator settings while in operation
- Reopen existing job record and add to it
- Optional Harvest Tec dedicated monitor or adapter harness to display thru dedicated ISO Virtual Terminal
- Icon-based app is simple to use and free to download from iTunes/Android Play Store (tablet not included)
- Equipped with a single, constant pressure pump
- More reliable baling rate generated from internal star wheel encoder (small square applicators)
- Optional stroke counter for Small Square baler applicator (kit # 700SCK)
- Pulsing solenoid and flowmeter controls the rate of application
- Individual bale details in job records

Control Options

Innovation that works for large balers

Automatic applicators take the guesswork out of baling. They also make it easy and convenient. You have complete control from the tractor with an ISOBUS monitor, or the customer's tablet. Leading-edge technology that works for you.



Automatic Mode

On the main operating screen, moisture readings are averaged every three seconds; baling rate every five seconds. The controller can match application rate for precise application.



Manual Mode

Operator can override automatic features and proceed as needed.

Setup

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

Job Records

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

- Average and high moisture levels
- Bale weight (select balers only)
- Amount of product used
- Date/time
- GPS coordinate of bale position when equipped with optional 780GPS reciever

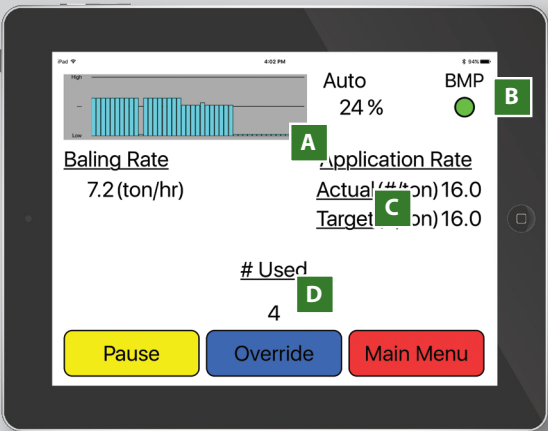
FIELD	AVG MOISTURE	HIGH MOISTURE	PRESERVATIVE	BALE NUMBER	BALE WEIGHT	DATE/TIME BALED
VAN1	7	12	0	5353602299	1200	10 JUN 14 00:42
VAN1	7	11	0.1	5353602300	1200	10 JUN 14 00:43
VAN1	7	10	0	5353602301	1200	10 JUN 14 00:45
VAN1	16	20	2.4	5353602302	1200	10 JUN 14 00:46
VAN1	13	20	1	5353602303	1200	10 JUN 14 00:47
VAN1	13	18	1.6	5353602304	1200	10 JUN 14 00:49
VAN1	11	15	0.1	5353602305	1200	10 JUN 14 00:51
VAN1	8	18	0	5353602306	1200	10 JUN 14 00:52
VAN1	6	11	0	5353602307	1200	10 JUN 14 00:54
VAN1	9	16	0	5353602308	1200	10 JUN 14 00:55
VAN1	10	16	0	5353602309	1200	10 JUN 14 00:57
VAN1	12	16	0.2	5353602310	1200	10 JUN 14 00:58
VAN1	18	28	3.3	5353602311	1200	10 JUN 14 01:00
VAN1	17	22	3.2	5353602312	1200	10 JUN 14 01:01
VAN1	22	28	6	5353602313	1200	10 JUN 14 01:02
VAN1	14	19	1.9	5353602314	1200	10 JUN 14 01:03

You run the show for round or conventional balers

Automatic applicators provide “in-the-field” office management for your baling operations.

300 and 700 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
- Automatically adjust 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



300 & 700 monitors display:

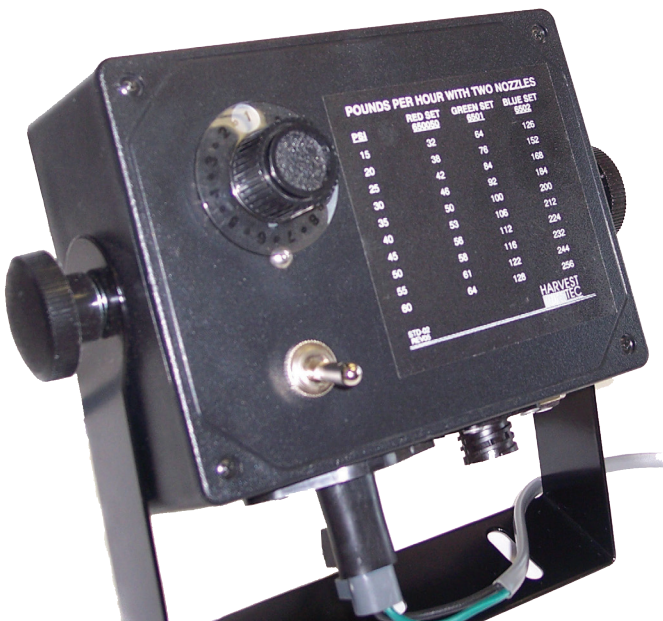
- A. Graph of the last 200 feet of window moisture
- B. Current moisture
- C. Actual and target rate
- D. Preservative used so far

Everyday electronic cab control

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.

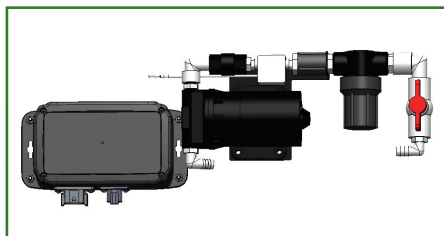
This unit is included for:

- 25 and 55-gallon applicators with electronic control
- 110 and 100-gallon applicators with electronic control for large square balers



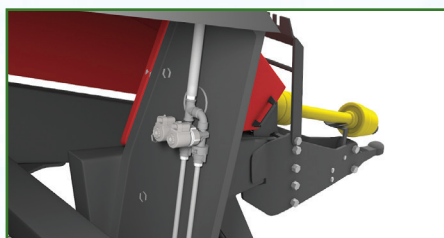
COMPARISON OF APPLICATOR CONTROLS			
	Electronic	300 Series Automatic	700 Series Automatic
Single Pump	X	X	X
Control Box with Adjustable Dial	X		
iPad option		X	X
Android option			X
Built-in Flowmeter		X	X
Automatic Application		X	X
Moisture Sensing Capability		X	X
Job Record by Field		X	X
Job Records by Individual Bales			X
Calculates Baling Rate		X	X
USB Port to Download Records			X
Hay Indicator Compatible	X	X	X
Optional Stroke Counter on Small Square Baler			X
Moisture Dye Marker			X

Components of 700 Series Applicator



1 Pump Plate

Mounted on preservative tank; includes bypass pump and flow meter



2 Dual Pulsing Solenoids

Accurately controls rate of preservative with a range from 24 lb/hr up to 700 lb/hr



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



4 Optional GPS Antenna

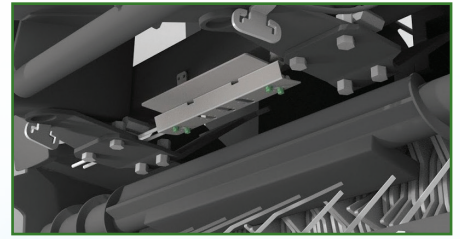
Records position of bale and adds it to job record





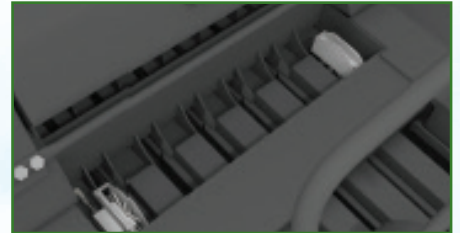
Display (not included)

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



5 Spray Shield/Tips

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



6 Dual Star Wheels

Sends low voltage signal to accurately sense moisture at the front of the bale chamber. Built in encoder provides baling rate.



7 Optional Hay Indicator (crop-eyes) End of Row Shut-Off Sensor

Automatically turns applicator on/off when enter/exiting windrow

Small Square & Round Baler

Precision Moisture Only Sensor

The most efficient, cost-effective moisture monitor with accurate readings, the H2O Precision Moisture Sensor from Harvest Tec is the answer.

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

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 long-term use with minimal wear
- Simple to use App is free to download from the iTunes or Android Play Store
- Only on-baler moisture sensor for round balers to read up to 60% with reliable accuracy

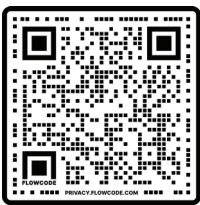


Small Square Baler (kit # 201SS)

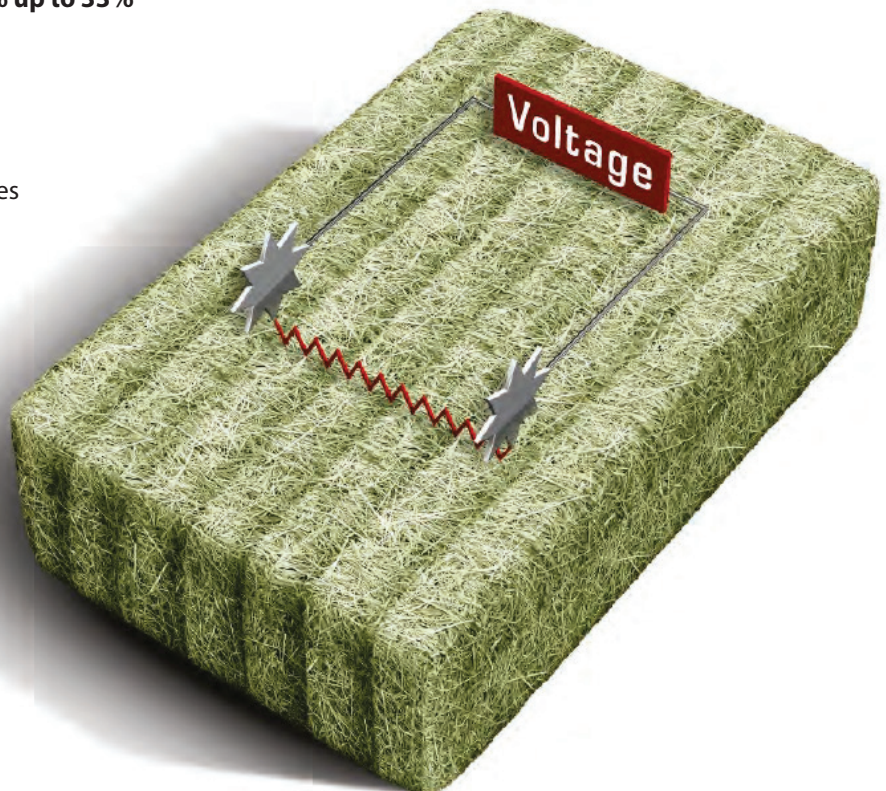
Two star wheels are mounted in the bale chute. The H2O System will **read crop moisture levels from 5% up to 33%** on small square balers.

Features Of The Hardwire Display Include

- Security of a hardwired solution
- Built-in tablet/smartphone charging capabilities
- Cellular data plan not required



Watch a video -
Scan the QR code for an
overview of the H2O moisture
sensor for small square balers.



Round Baler (kit # 201RB)

The H2O System includes two sensing discs, one mounted on each side of the baler's sidewalls inside the bale chamber read crop moisture side-to-side from 5% up to 60% for round balers.

Features Of The Hardwire Display Include

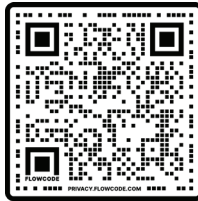
- Security of a hardwired solution
- Built-in tablet/smartphone charging capabilities
- Cellular data plan not required



Small Square & Round Baler

Dye Marker (kit # 200DM)

With the H2O Dye Marker added to the H2O Moisture Sensor, any bale above a set moisture level is marked with a red, food-grade stripe. The bale is marked as it leaves the chamber, allowing the operator to easily identify those bales that are above their own moisture threshold. Operators can also manually mark bales with the push of a button.



Watch a video -
Scan the QR code for an
overview of the H2O moisture
sensor for round balers.





**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. GREEN-GARD hay preservative from John Deere 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 decay at higher moistures.

Better bale quality

Hay baled at higher moistures can heat and spoil. GREEN-GARD hay preservative will treat hay with up to 30% moisture.

HAY MOISTURE	DAMAGE
16% - 22%	Hay discoloration and odor can occur
23% - 26%	Hay temperature 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

**GREEN-GARD is the only
hay preservative that is
endorsed by John Deere.**

**Calculate the
GREEN-GARD Benefits:**

- Greener hay with higher feed value
- No more waiting on the weather. Bale when you're ready at moistures up to 30%.
- Works well on all types of hay.
- Non-corrosive formula won't harm the baling equipment, operators or livestock.
- Store treated hay for years. It will look and feed as fresh as when it was first baled.
- Store product outside. GREEN-GARD won't freeze or lose effectiveness over time.
- When compared to other preservatives, GREEN-GARD is smarter:
 - Easier to apply
 - Gives more consistent coverage
 - Won't clog application equipment

**GREEN-GARD™ is a trademark
owned by Deere & Company**

GREEN-GARD is available in four sizes for any size baling operation.

GREEN-GARD HAY PRESERVATIVE CONTAINER SIZES	
Totes	1,800 lbs/200 gal* (818 kg/757 L) 2,380 lbs/270 gal (1,082 kg/1020 L)
Drum	450 lbs/50 gal** (204 kg/189.3 L)
Mini Drum	120 lbs/15 gal** (54 kg/50.5 L)

* Not available in Canada

** Not available in California

- 200 or 270-gallon tote goes a long way and is preferred by large square baler operators.
- 50-gallon drum is enough for any size baler and will treat up to 100 tons of hay.
- Easy-to-store 15-gallon drum works well for smaller operations.



Safe, cost-effective and smart

Bales treated with GREEN-GARD yield more tonnage, have a higher relative feed value and are safer for all livestock. Propionic acid, the main ingredient in GREEN-GARD, is an organic acid occurring naturally in a horse's gastrointestinal tract. In ruminants, propionic acid is produced by rumen bacteria, so it is beneficial in the digestive process.

Practical application

Gentle and effective, the ingredients in GREEN-GARD will not cause corrosion on your baling equipment. When paired with approved John Deere applicators at the recommended application rate, you can be assured of maximizing your hay baling productivity year after year with GREEN-GARD.

GREEN-GARD™

GREEN-GARD HAY PRESERVATIVE INGREDIENTS

Active Ingredient

Propionic Acid	64.5%
Citric Acid	5.0%

Other Ingredients

Ammonium Hydroxide, Deionized Water, Sorbitol, Green Dyes	30.5%
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EPA Registration #73877-1-39376	Total 100%
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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.

Accessories

Make better hay with precision products

From high-quality products like GREEN-GARD hay preservative to worry free automatic applicators with moisture sensors, to GPS and Field Mapping, proficient pumping systems and integrated displays, Harvest Tec and John Deere help you work smarter to get the job done.

Moisture Dye Sprayer Kit (kit # 740DM)

The Dye Sprayer Kit is a simple and effective way to mark wet bales. Compatible with any 700 series Automatic Applicator, the three-gallon system is mounted near the bale chamber with the spray tips on the side or top of the bale chamber. Easy to fill and service, one tank of dye mix (part number 009-0800) can last through a full tank of GREEN-GARD hay preservative and is adjusted to mark bales at the operator's predetermined moisture threshold.

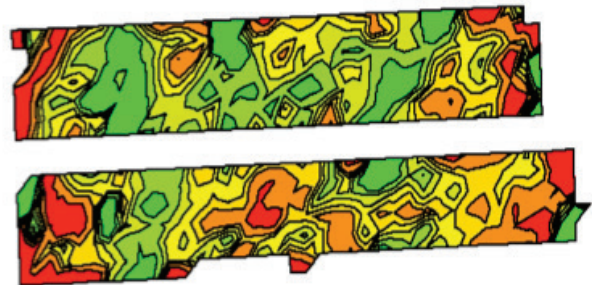
While working, if the high moisture alarm sounds on the display, the system sprays a food-grade, red-colored dye that visibly marks the bale, allowing for a quick and easy reference to better manage bales for feeding, sorting, inventory or storage.



GPS and yield mapping

An additional GPS package for your baler is available to take your productivity to the highest level. By incorporating the 780GPS receiver from Harvest Tec into the 700 Series Automatic Applicator, the system will record the coordinates of the exact location the bale was tied off in the field to the job record.

Using this technology, the producer now has the ability to create yield maps for their crops, which will allow them to gain the knowledge needed to maximize productivity and plan for future yields.





Electric Transfer Pumps

These standard output models will transfer preservative at a rate of four gallons per minute.



Hand Transfer Pump

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



Electric Transfer Pump

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



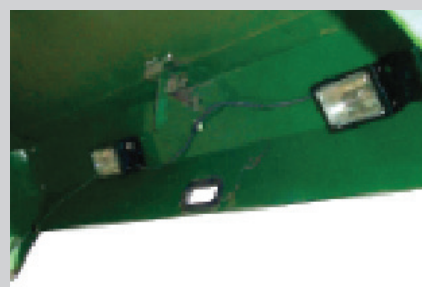
Moisture tester

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



Hay indicator kit

A great addition to your GREEN-GARD Automatic Crop Preservative System. 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.



Surface Wrap Light Kit

Load net wrap into the compartment of your Round Baler at night with convenient compartment lighting. Two low-profile work lights mount inside the compartment and wired into the baler.

Part Numbers

Automatic Applicators

LARGE SQUARE BALERS	
796J4525C*	110-gallon auto applicator for JD L330, L340 balers
ROUND BALERS	
3464483C*	25-gallon auto applicator for JD 5, 6 & 7 series round balers
3464516C*	25-gallon auto applicator for JD 8, 9, 0, & 1 series [M models] round balers
3464546C*	25-gallon auto applicator for JD 0 series w HC2 pickup & 1 series [R models] round balers
3494503C*	55-gallon auto applicator for JD 582 round balers
3494504C*	55-gallon auto applicator for JD 5, 6 & 7 series round balers
3494517C*	55-gallon auto applicator for JD 8, 9, 0, & 1 series [M models] round balers
3494547C*	55-gallon auto applicator for JD 0 series w HC2 pickup & 1 series [R models] round balers
7494517C*	55-gallon commercial auto applicator for JD 8, 9, 0, & 1 series [M models] round balers
7494547C*	55-gallon commercial auto applicator for JD 0 series w HC2 pickup & 1 series [R models] round balers
SMALL SQUARE BALERS	
3454410B*	25-gallon auto applicator for John Deere small square balers
7454410C*	25-gallon commercial auto applicator for JD small square balers

*Does not include display. See display options in Accessories section below.

Electronic Control Applicators

LARGE SQUARE BALERS	
491J4525	110-gallon hay preservative applicator for JD L330, L340, L331, L341, L341R balers
ROUND BALERS	
4414483	25-gallon hay preservative applicator for JD 5, 6 & 7 series round balers
4414516	25-gallon hay preservative applicator for JD 8, 9, 0, & 1 series [M models] round balers
4414546	25-gallon hay preservative applicator for JD 0 series w HC2 pickup & 1 series [R models] round balers
4484503	55-gallon hay preservative applicator for JD 582 round balers
4484504	55-gallon hay preservative applicator for JD 5, 6 & 7 series round balers
4484517	55-gallon hay preservative applicator for JD 8, 9, 0, & 1 series [M models] round balers
4484547	55-gallon hay preservative applicator for JD 0 series w HC2 pickup & 1 series [R models] round balers
SMALL SQUARE BALERS	
4414410	25-gallon hay preservative applicator for JD small square balers

Applicators for self-propelled forage harvesters

676 90-gallon applicator for John Deere 7000 series self-propelled forage harvesters

Accessories

474A	Hay Indicator Kit - 300 & Electronic Applicators Only
474C	Hay indicator kit - 700 Series Auto Applicators Only
9212	12-Volt electric transfer pump (4-gallons per minute)
9215	110-Volt electric transfer pump (4-gallons per minute)
488	Light kit for surface wrap compartment
490	Light kit for surface wrap compartment on 0 Series round balers
FX2000	Moisture tester. Combination hand-held & in chamber
1670DK	Field Ready Android Display for 700 Series (Android tablet with Precision Bale App, RAM mount, and charger)
4670DK	Field ready iPad Mini display for 300 and 700 series (iPad Mini 4 with Hay App & Precision Baling App, RAM Mount, and charger)
740DM	Moisture dye marker for 700 series system

Hay Preservative

AFH216669	120 Lb.** (13-gallon)
AFH216677 (Canada)	Drum of GREEN-GARD
AFH216670	450 lb.** (50-gallon)
AFH216678 (Canada)	Drum of GREEN-GARD
AFH216672	1800 Lb.* (200-gallon)
	Tote of GREEN-GARD
AFH216673	2380 Lb. (270-gallon)
AFH216680 (Canada)	Tote of GREEN-GARD

*Not available in Canada

**Not available in California

**CONTACT YOUR LOCAL
JOHN DEERE DEALER
TO ORDER!**



*Equipment and Products
for Quality Hay.™*

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