- Applicators
- Moisture sensors
- Hay Preservative
- Precision Accessories



Baler's Choice
The Proven
Preservative and
Applicator
Systems for Large
Square Balers







Baling hay or straw is extremely weather dependent. If you leave hay too long before baling, it will lose quality and yield. Baled too early and at moisture levels above 15%, you risk bales heating up and at worst spontaneously combusting. Without preservative, moulds will also develop resulting in dust and a loss of bale quality, with the result that livestock will be more susceptible to respiratory issues and the nutrient value of the forage will be reduced.

The latest Harvest Tec Application Systems allow you to beat the weather and by using Baler's Choice hay preservative, safely bale at moisture levels between 15% and 30% moisture.

# Being able to safely bale at higher moisture levels has many benefits:

- Greener hay will generally have a higher feed value
- Allows you to bale sooner compared to untreated forage
- Being able to start earlier and finish later extends the baling day and can result in greater productivity and profitability from your baler
- Enables you to make the most of your baler and maximise your return on investment
- Allows you to add value to your bales and achieve a premium product

Harvest Tec applicators are in use on balers around the world. Key to the accuracy of the applicators are the highly accurate precision moisture sensors fitted in the bale chamber. These keep you fully informed of the crop moisture content, and are used by the applicator's processor to immediately react automatically to any variations in moisture and alter the application rate accordingly.

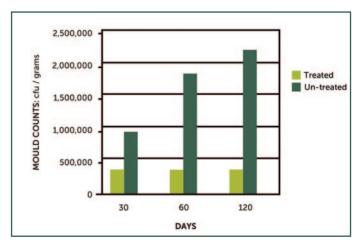
Harvest Tec applicators have been developed to withstand all the demands of modern agriculture while still delivering increased baler output and producing the highest quality hay and straw with the use of Baler's Choice preservative.

#### Mould in hay and straw

The myco-toxins present in a dusty or mouldy bale can be a major challenge to the respiratory system and the cause of illness.

- In humans the most common association would be 'farmer's lung'
- In livestock the spores result in respiratory illness, loss of performance and potentially can lead to abortion

In trials at the University of Wisconsin, hay harvested at 22% moisture was tested after 120 days. In untreated bales, mould counts rose considerably to around 2,250,000 cfu's/gram (colony forming units), while those in the bales treated with propionic acid remained at the same virtually insignificant levels.



Additional trials have also been conducted by a leading agricultural journal in Germany comparing mould and yeast levels in wheat straw bales at 21% moisture after being stored for two months.

CFU's/gram	Untreated		Treated	
	Before	After	Before	After
Mould	75	14,000,000	70	1,300
Yeast	47	11,000,000	40	100

### Maximise your baler output by up to 30%

Baler's Choice Preservative is non-corrosive with a pH of 6.0, so does not corrode machinery and the operator handles a much safer product.

Baler's Choice is between 2—3 times stronger than other hay preservative products on the market and is designed for use specifically with hay and straw. Unlike other products originally designed for grain preservation, it has low volatilty. When applied at the correct application rate, it ensures optimum bale quality and maximum cost effectiveness whilst maximising the baler's output through low application rates.

The Harvest Tec automatic system will continually monitor moisture and apply Baler's Choice correctly, as moisture levels can fluctuate by up to 5% along a 100m swath (research of moisture in swath by Tom McGuire, Cranfield University, UK).

Using Baler's Choice allows the operator to gain on average 30% more output per day, due to starting earlier and finishing later. Even in a good year approximately 20% of the hay is still spoilt or sub-standard due to moisture fluctuations in the crop. Most of the crop may be dry (below 16% moisture) but there will inevitably be some that is not, and it is the damp crop which must be treated to prevent spoilage and hot spots developing in the bale.

Only Baler's Choice is approved for use with a Harvest Tec applicator. Using non-approved products can be corrosive and have a detrimental effect on the baler service life.

## Reasons why costs can be higher when using weaker products:

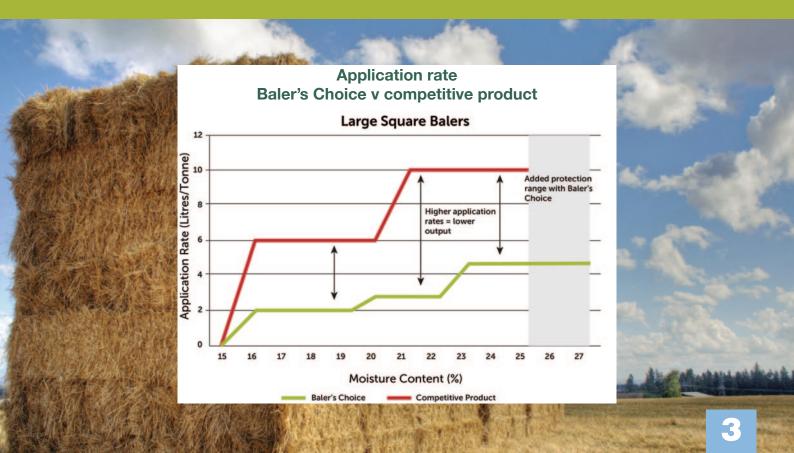
- Baler's Choice allows the baler to be operated at a maximum output of up to 80 tonnes/hour, even at the highest moisture ranges
- Baler's Choice preservative maximises baler output due to higher baling speed with low application rates
- Downtime is reduced using Baler's Choice due to the need to refill the tank less times per day
- Substandard acids and poorly buffered acid based products will corrode the baler and increase cost on wearing parts, such as bearings and pickup cams
- Weaker acids are volatile and evaporate with air contact, while Baler's Choice is stable, remains in the bale and does not evaporate when applied or migrate out of the stored bale

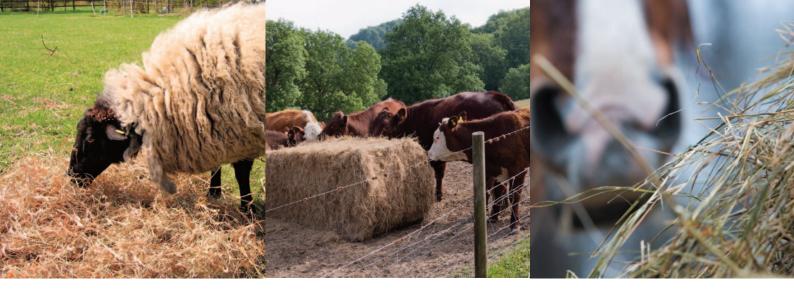


### Model 9212 12V Electric Transfer Pump.

Fransfers Baler's Choice preservative from either a drum or IBC at 18 litres/minute.







Bale Moisture	Large Square baler application rate	
0 - 15%	0 Litres/tonne	
16 - 21%	1.9 Litres/tonne	
22 - 25%	3.8 Litres/tonne	
26 - 30%	7.6 Litres/tonnes	
Above 30%	Do not bale	

#### **Protect your investment for** as little as £1.43/bale\*

See how cost effective Baler's Choice is with our ready reckoner: www.harvesttec.com/roi-calculator





**Treated** 

Hay baled at moistures between 16% and 22% will heat sufficiently to cause discolouration and lose its fresh smell. A low level of Baler's Choice will avoid this.





Untreated, hay baled at between 23% and 26% will reach temperatures of up to 50°C when stored. Mould will develop and quality drops considerably. When treated with Baler's Choice the bale will remain cool and bale colour is



**Treated** 





When baled at over 27%, bales can reach temperatures of over 60°C, the hay will turn black and may combust when untreated. Baler's Choice continues to work at moistures of up to 30% if applied at the correct rate.

Untreated

**Treated** 

<sup>\*</sup> Based on a 80x90 bale size

# **Automatic 700 Series Applicator for Large Square Balers**

The Automatic 700 Series Applicator: Using side-to-side moisture reading technology, the automatic applicator reads crop moisture across the width of the bale near the front of the chamber via moisture sensing dual star wheel sensors. The sensor will read crop moisture from 5% up to 70% for those customers that make high moisture bales as well as dry bales.

#### Pump Plate

Mounted on preservative tank includes bypass pump and flow meter



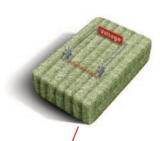
#### Optional Moisture Dye Marker

Highlights high moisture bales allowing operator to sort and store only bales within their preferred moisture range



#### Dual star wheels

Sends low voltage signal to accurately sense moisture at front of bale chamber



Display (not included) Improved functionality for ease of operation. Integrate into baler display (most ISOBUS controlled balers) or utilize stand alone tablet with Precision Baling App







Optional GPS antenna Records position of the bale and writes that to the job record



End of Row Shut Off Eye Automatically turns applicator on/off when enter/exiting the swath. Standard equipment with 700 series complete applicators sold in UK/EU



Custom Spray Shield/Tips Positioned above the pickup to apply hay preservative to the crop as it is fed into the



**Dual pulsing solenoids** Accurately controls rate of preservative with a range from 10 L/hr up to 300 L/hr



Watch a video -Scan the QR code to watch how the 700 Series Automatic Applicator works

# 700 Series Automatic Applicator Accessories

#### **Optional Dye Marker**

With the optional moisture Dye Marker for the 700 Series, 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.

Mixed with water, each package is enough to make up 11 litres of Dye.

Part #s: 030-740DM - Dye Marker kit 009-0800 - refillable red dye



#### **GPS and Yield Mapping**

Take your productivity to the highest level with the additional GPS package for your large square baler. Incorporate the GPS kit into your Harvest Tec 700 Series system and record bale position in your job records. With this technology, the producer has the knowledge needed to maximize productivity and plan for future yields.

Part # 030-780GPS



### **Field Ready Display**

Easily plug and play a dedicated display kit to all 700 Series applicators and moisture sensors. Kit includes Android tablet, case, RAM mount, and both Precision Baling App and H2O App by Harvest Tec.

Part # 030-1670DK



## Basic Electronic Applicator for Large Square Balers



#### **Electronic Applicators**

Economic option for lower acreage operations. The electronic cab control is a solid state electronic pump control mounted in the cab or on the fender. Application rate is quickly and easily adjusted from the operator's seat. Once set, the electronic control will hold the application rate constant.

#### Electronic applicators include:

- Controller
- Tank
- Pressure Gauge
- Custom Spray Shield

#### **Crop Eyes**

The End of Row Shut Off Eye automatically turns the applicator on or off as you enter or exit the swath. This ensures that Baler's Choice preservative is only applied when hay or straw is flowing through the baler, so avoiding any wastage.

Crop Eyes are standard for 700 Series applicators and are an optional accessory for all Electronic Applicators.

Part # 030-0474A

#### **Moisture Meter**

For operators looking for a stand alone on-baler moisture sensor to provide real time moisture readings in order to manually adjust the Electronic Applicator rate of application, please see the Precision Moisture Only Sensor Kit section





# Precision Moisture Only Sensor Kits

#### 77E - Microwave Moisture Sensor

The stand-alone 77E Microwave Moisture Sensor accurately reads bale moisture from 4% to 40% by taking readings from across the width of the bale using two sensors positioned in the back of the chamber. The moisture reading can be displayed either on an IsoBus compatible display or using an Apple\* or Android\*\* tablet with the free Harvest Tec Precision Baling App.

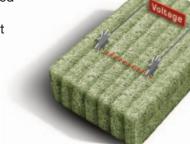
Optional accessory to 77E Microwave: 030-740DM - Dye Marker kit 009-0800 - refillable red dye



#### 700 Series - Dual Star Wheel

The 700 Series base moisture sensor includes dual star wheels that are mounted immediately behind the knotters. Most balers allow for ISOBUS integration for single in cab display. Alternatively, operator may use Apple\* or Android\*\* tablet with free precision baling app. Contact your dealer for baler specific kits.

Optional accessory to 700 Series base moisture sensor: 030-740DM - Dye Marker kit 009-0800 - refillable red dye Note - can be upgraded to 700 Series fully automatic applicator



#### HT200A2 - Dual Star Wheel

Specific to all 2023 and newer Massey Ferguson and Fendt large square baler models with factory harness provisions. Provides instantaneous and bale average moisture readings within baler display. Kit includes moisture module and dual star wheels.

Optional Moisture Dye Marker Accessory Part # HT238DM

#### 201LS - Dual Star Wheels

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

The stand alone 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
- Rugged star wheels are designed for long-term use with minimal wear
- Cannot be upgraded to fully Automatic Applicator
- Commonly equipped to older, non ISOBUS balers as an economy moisture sensor

Optional accessory to 201LS H2O moisture sensor: 200DM - Dye Marker kit 009-0800 - refillable red dye



\*Apple iPad: Requires 3rd Generation (2012) or newer, running the current iOS operating system.

\*\* Android: Requires Google Play, 5th Generation, plus the Precision Baling App.

