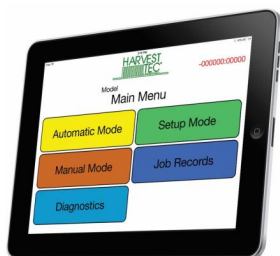


# Hay Preservative and Application Systems for Vermeer Balers



**Equip your Vermeer baler with a hay preservative application system and enjoy the benefits of baling hay at up to 30% moisture without the worry of heating or mold damage.**

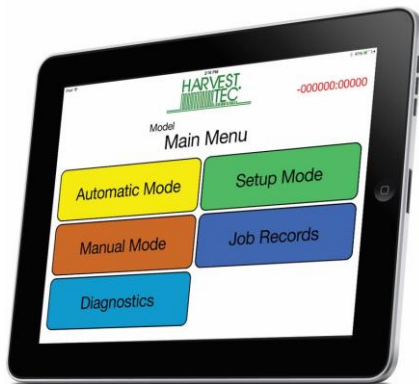


# Choose a Control System

Hay preservative applicators can be ordered with the choice of three different control systems. Select the type of control that best suits your operation. Available control systems are: Automatic, Electronic and Manual.

## Automatic Control System

The automatic control system makes baling high moisture hay easy. It accurately senses moisture up to 60% while the baler is in motion using baler-mounted moisture sensors. The control system's computer uses the moisture readings provided by the moisture sensors and adjusts the preservative application rate every three seconds to match hay conditions. This precision gives the operator the exact amount of preservative required to keep the crop in great condition.



The operator can control the automatic applicator through an iPad or Android tablet for a colorful display in the cab. The Harvest Tec Apps are available for free on the iTunes Store and Google Play Store.

- 300 Series uses the Harvest Tec Hay App – Apple iPad only
- 700 Series uses the Precision Baling App – Android or Apple iPad

The tablet in the cab gives the operator complete control and provides valuable information for all types of balers equipped with an automatic control system. Features include:

**Automatic Mode** – Displays moisture content, baling rate in tons per hour, target and actual application rates and volume of preservative used

**Manual Mode** – Turns pumps on and off, displays moisture content and applies a set rate of preservative

**Setup Mode** – Adjust baling and application rate settings or view and change spray tip selection

**Job Records** – Keep track of up to 63 jobs by date and time, tons baled, product used and highest and average moisture

## Electronic Applicator



The electronic control is a solid state electronic pump control. This control is most often mounted in the cab, but can also be mounted on the fender. The operator, with a turn of the dial, can quickly and easily adjust the rate of preservative applied. Once set, the electronic control will hold the application rate constant.

## Applicator Components

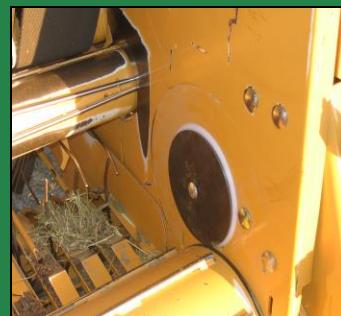
- 25- or 55-gallon (depending on baler model) poly tank and saddle
- 12-volt pumping system
- All plumbing, cables and mounting hardware
- Moisture sensing discs (automatic applicator)

## Moisture Sensors

Accurate moisture readings are given to the Automatic applicator by moisture sensors. Sensor shape, size and mounting position varies by baler type, but all work in the same fashion.

On Vermeer round balers the sensors mount on the balers sidewalls. One sensor is positive and the other is an isolated ground. When the core of the bale is formed and contacts both sensors, a low voltage current passes through the bale, sensing moisture across the entire width of the bale.

Moisture is accurate to within + / – one point.



### Moisture Sensing Discs on Round Balers

Applicators with the automatic control system come with two sensing discs that mount on each side of the baler's sidewalls.

Sense moisture from 6 – 60%  
*Note – not compatible with Vermeer factory installed moisture sensor.*



# Applicator Components

Why wait to bale? Bale earlier, later, longer and without worry with a hay preservative application system on your Vermeer baler. Dense core round bales can be baled at 18% moisture and loose core bales are relatively safe to bale without preservative at under 20% moisture. By using a hay preservative system, you can bale at moistures up to 30% and be assured of consistent quality throughout the entire round bale.



Hay Preservative Application Systems Available for Vermeer Round Balers							
Control Choices	700 Series Automatic (Multiple Display Options)		300 Series Automatic (Requires iPad for display)		Electronic		Manual
Tank Size	25 Gal.	55 Gal.	25 Gal.	55 Gal.	25 Gal.	55 Gal.	25 Gal.
Vermeer Baler Model							
404, 504 Series 1 PRO		7494523C		3494523C		4484523	
504, 604 Series 2 PRO	731		331		431		
504 Gen 3, 604 Series 3 PRO		7494543C		3494543C		4484543	
504, 505 J, K, M, N, 504R, Rebel and XL Series			3464484C		4414484		4394484
604M, 605M, 604N, 605N		7494505C		3494505C		4484505	
604R Premium		7494549C	3494549C		4484549		
ZR5 Self-Propelled Baler		735Z	335Z		445Z		

## Accessories



The **Hay Indicator** kit is a great addition for your applicator system. The eyes sense when crop is passing through and automatically start or stop preservative application. Kit 474A for 300 Series and Electronic applicators; 474C for 700 Series



### iPad Display Kit (030-4670DK)

For customers that want an iPad Mini with Apps pre-loaded and ready to go with a mounting bracket and protective case.

### 700 Series Accessory Options:

iPad Display Kit (030-4670DK)  
Android Display Kit (030-1670DK)  
HT VT Display Kit (030-7670DK)  
Moisture Dye Marker (030-740DM)



**Model 9214** (top)  
12-volt high output electric transfer pump will pump up to 14-gallons per minute.



**Model 9212** (middle)  
12-volt standard electric transfer pump will pump up to 4-gallons per minute.



**Model 9213** (bottom)  
Hand Transfer Pump works well for transferring small amounts of preservative easily.

# Hay Preservative

## Two key ingredients help make higher quality hay:

**Propionic Acid:** The number one ingredient used to control spoilage in hay. The level of propionic acid in Baler's Choice is one of the highest on the market. Yet, it is one of the safest because it has been chemically buffered. With a pH of 6.0, it is as neutral as rainwater and won't harm you or your baler.

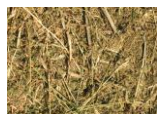
**Citric Acid:** For many years, citric acid has been used in human foods to retain the color and smell. It does exactly the same thing for your hay. Hay baled with citric acid will retain its natural green color and will smell fresh after storage.



**Baler's Choice**

### UNTREATED

### TREATED



16% -22% Moisture Level



23% 26% Moisture Level



27% 30% Moisture Level

Hay baled at moistures between 16% and 22% will heat enough to cause discoloration and will lose its fresh smell. Applying a low level of Baler's Choice will retain the hay's natural green color and fresh smell.

Without Baler's Choice, hay baled at moistures between 23% and 26% can reach temperatures of over 120° F in storage. Mold will begin to form and hay quality will drop significantly. The same hay baled and treated with a mid-range application of Baler's Choice will stay cool and will come out of the stack the same color it went in.

Baling at moistures over 27% without a preservative can result in bales heating to over 140° F. At such high temperatures the hay will turn black and may even combust. Baler's Choice will work treating hay up to 30% moisture when applied at the correct application rate.

## Hay Treated with Baler's Choice Hay Preservative is safe to feed to all livestock

Propionic acid, the main ingredient in Baler's Choice, is an organic acid occurring naturally in horse's gastrointestinal tract and in ruminants is produced by rumen bacteria. Bales treated with Baler's Choice yield more and have a higher relative feed value and are safe to feed to any type of livestock.

More and more horse owners are choosing to feed their horses hay treated with Baler's Choice because of the improved bale quality. Untreated hay can mold and spoil causing a loss of dry matter, creating dust and even spores that are harmful to the animal's health.



EPA registered Baler's Choice is available in three sizes convenient for any users baling operation:

Size	Preservative Amount*
13 gallons / 49.2 L	120 lb / 54.4 kg
50 gallons / 189.3 L	450 lb / 204.1 kg
200 gallons / 757.1 L	1,800 lb / 816.5 kg
270 gallons / 1000 L	2,380 lb / 1080 kg

\*Preservative is sold per pound, not per gallon. 1 Gallon = 8.33 lb/ 4 kg

### Application Rate Chart

Baler Type	Moisture	Stem Moisture	Dew Moisture
Round	16% - 22%	4 lb/ton	2 lb/ton
	23% - 26%	8 lb/ton	6 lb/ton
	27% - 30%	16 lb/ton	16 lb/ton
Large Square	16% - 22%	6 lb/ton	3 lb/ton
	23% - 26%	10 lb/ton	8 lb/ton
	27% - 30%	DO NOT BALE	16 lb/ton
Small Square	16% - 22%	4 lb/ton	2 lb/ton
	23% - 26%	8 lb/ton	6 lb/ton
	27% - 30%	16 lb/ton	16 lb/ton