Take your large square baling operation to a whole new level of efficiency. New for 2009, New Holland would like to introduce the CropID™ individual bale identification system. This exciting three-part system allows the progressive hay producer to customize their baling operation from start to finish.

**Step 1: Gathering Bale Information**

The Precision Information Processor (PIP) for Automatic Hay Preservative Application

All CropSaver™ automatic hay preservative applicators for large square balers now come with an additional precision information processor (PIP). The PIP stores bale information collected during the baling and preservative application process and uses the information to create a unique profile for every bale made. The CropSaver automatic preservative application process will remain as easy and reliable as it always has been, but the addition of the PIP gives the producer the option to expand the automatic system to include bale identification. Bale identification is made possible by the CropId individual bale identification system which utilizes the information from the PIP to create a readable tag that attaches to every bale made.
Step 2: Applying Bale Information
The CropID™ Tagger

Radio Frequency Identification (RFID) has grown rapidly and has applications ranging from retail merchandise control all the way to automated highway toll collections. The CropID system uses the same technology, for your large square bales. A 16.5" x 16.5" x 30" tagging device mounts on the top of the bale chamber. The CropID tagger holds a roll of 850 vinyl tags that contain a tiny microchip and antenna for receiving and transmitting. As the bale is passing through the chamber, two arms on the tagger reach down and lift the twine just long enough to wrap the RFID tag securely around the twine, applying one tag per bale. As the bale is pushed out of the chamber, it passes under an antenna mounted at the rear of the chamber. The tagger uses a radio frequency transmitter to send specific bale information to the receiver antenna in the tag. This bale information is stored in the tags microchip and includes:

- Bale Identification (ID) Number
- Field Name
- Date and Time Bale Was Made
- Average Moisture of Bale
- High Moisture of Bale
- Amount of CropSaver™ Preservative Applied
- Bale Weight (as input during system set-up)

Step 3. Utilizing Bale Information
The CropID Bale Tag Reader

The uses for tagged bales are numerous, ranging from inventory control to management applications. To view the information on the tags, a CropID RFID tag reader is required. The tag on the bale transmits its information to a receiver in the reader. The reader translates the information from each tag and displays it on the screen. The push button keypad can then be used to navigate bale information, to sort and group bales, accepting or rejecting bales based on the operator’s criteria. All data can be saved to a removable USB drive and downloaded to a computer. The CropID bale tag reader can be used in two different ways, hand-held or loader-mounted.

In hand-held operation, the reader can read bale tag information on one bale at a time from a distance of up to five feet away. The tag does not have to be visible in order to be read.

An attachment can also be purchased allowing the reader to be used on a loader. The attachment kit comes with hardware to mount the CropID reader in the cab so the screen is visible to the loader operator. Included are four antennas with a mounting kit. The additional antennas will allow the operator to read two bales from a distance of up to ten feet. An additional antenna kit can also be purchased that will allow the user to read up to three bales at a time.
### Sample Printout of Bale Records Created From a Stack

<table>
<thead>
<tr>
<th>BALE ID #</th>
<th>FIELD ID #</th>
<th>DATE/TIME</th>
<th>AVG MC%</th>
<th>HI MC%</th>
<th>WEIGHT</th>
<th>PRESERVATIVE (LBS.)</th>
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</thead>
<tbody>
<tr>
<td>2241</td>
<td>EXAMPLE-10</td>
<td>08/22/08 (12:55)</td>
<td>22%</td>
<td>27%</td>
<td>1420</td>
<td>4</td>
</tr>
<tr>
<td>2242</td>
<td>EXAMPLE-10</td>
<td>08/22/08 (12:56)</td>
<td>20%</td>
<td>29%</td>
<td>1420</td>
<td>3</td>
</tr>
<tr>
<td>2243</td>
<td>EXAMPLE-10</td>
<td>08/22/08 (12:57)</td>
<td>24%</td>
<td>30%</td>
<td>1420</td>
<td>5</td>
</tr>
<tr>
<td>2244</td>
<td>EXAMPLE-10</td>
<td>08/22/08 (12:58)</td>
<td>21%</td>
<td>25%</td>
<td>1420</td>
<td>3</td>
</tr>
<tr>
<td>2245</td>
<td>EXAMPLE-10</td>
<td>08/22/08 (12:59)</td>
<td>20%</td>
<td>23%</td>
<td>1420</td>
<td>3</td>
</tr>
<tr>
<td>2246</td>
<td>EXAMPLE-10</td>
<td>08/22/08 (01:00)</td>
<td>19%</td>
<td>23%</td>
<td>1420</td>
<td>3</td>
</tr>
<tr>
<td>2247</td>
<td>EXAMPLE-12</td>
<td>08/22/08 (01:01)</td>
<td>19%</td>
<td>34%</td>
<td>1420</td>
<td>4</td>
</tr>
<tr>
<td>2248</td>
<td>EXAMPLE-12</td>
<td>08/22/08 (01:02)</td>
<td>18%</td>
<td>22%</td>
<td>1420</td>
<td>3</td>
</tr>
<tr>
<td>2249</td>
<td>EXAMPLE-12</td>
<td>08/22/08 (01:03)</td>
<td>21%</td>
<td>24%</td>
<td>1420</td>
<td>3</td>
</tr>
<tr>
<td>JOB TOTAL</td>
<td></td>
<td></td>
<td>23%</td>
<td></td>
<td>12,780</td>
<td>31</td>
</tr>
</tbody>
</table>

### Frequently Asked Questions

1. **How can I order a CropID™ individual bale identification system?** See your local New Holland dealer. The CropSaver and CropID lines are sold through authorized New Holland dealers.

2. **How soon can I get a CropID system?** A limited amount are being released April 1, 2009.

3. **Will the CropID system work on all balers?** The CropID system is designed for large square balers only. It will fit all brands and models of large square balers.

4. **I already have a CropSaver automatic applicator. Will CropID work with my existing applicator?** Yes, but you will need to purchase an upgrade kit. The CropID system needs to plug into the new Precision Information Processor (PIP); all model year 2008 and prior automatic applicators do not have the PIP.

5. **How do I apply the information on the tags to my hay operation?** Every haying operation will use this technology differently, but the main premise is the same. Use the information contained on the tags to create groups of bales based on your specific criteria. Here are a few examples:

   **Example A:** Stacking bales brought in from the field for inventory control. Use the CropID bale reader to help you sort out organic hay, roundup-ready hay or different types of hay. Download the stack information into an Excel spreadsheet to keep track of where each type of hay is located.

   **Example B:** Loading a truck. Give your customers exactly what they want and don’t run the risk of sending them a bad bale. Use the CropID reader to only pull out quality bales. While loading, if you come across a high moisture bale, reject it and keep on loading. After loaded, you can print out the bale information for each bale and give it to your buyer. The buyer may even want a reader so they know how to inventory your bales when they arrive.

   **Example C:** Feeding out bales. Bale quality doesn’t look as good as your seller says it is? Use the CropID reader in hand-held mode and make sure the bale is what your seller says it is.

6. **I produce hay for my own farm and do not sell it. Can tagged bales benefit me?** Yes, know what quality is coming off your fields, keep inventory for feeding and storage as well as field records from rented land.

Contact your local New Holland dealer:
www.newholland.com

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www.harvesttec.com