Hay Fire Detection – Protecting your hay, while the sun shines

# Scoring

Complexity (1 out of 3)

Price (1 out of 3)

Scale (1 out of 3)

Australia’s climate lends itself to droughts and bushfires. For farmers, one of the highest risk locations is the hayshed – a box of tinder waiting to ignite.

While prevention is the best cure for fire, early detection can be the difference between a

blaze that can be controlled with handheld gear, and a potentially deadly blaze.

Hay fire detection is a simple, effective way of indicating fire ignition before they get out

of control.

# How

Hay fires can get out of control quickly, and they can cause catastrophic damage to structures as well as harming livestock.

Early detection is of paramount importance to protecting property and livelihood.

Hay fire sensors detect spikes in temperature or changes to humidity within hay bales – this generally indicates a spark ignition, the most common cause of hay bale fires.

The sensors are inserted deep into bales that are distributed throughout the hay shed. This way, no matter where the fire starts, the heat will be detected within minutes.

Hay fire sensors are useful, and potentially lifesaving, on any property that keeps large numbers of hay bales in dry storage.

When the bale is going to be put out to paddock, the sensor can be removed from the centre and inserted into a new bale in storage. The sensor bales are easily identifiable by the red tag that protrudes from the side.

# Why

* Fire is one of the most dangerous disasters that a farmer can deal with, and any preventative measure is incredibly important.
* Hay fire detectors act faster than smoke alarms, as by the time smoke has reached the saturation point required to trigger an alarm, the blaze may already be too large. Detecting heat from spark ignition gives you valuable time to act and save lives and property.
* The sensors provide real-time data on temperature which can then send SMS alerts to your phone, so that even if you are not monitoring the data on a dashboard you will still be made aware of temperature spikes.

# Benefits

## Safety

* Human life is precious, and early fire detection will keep people safe in the worst case scenario.

## Rapid response

* Integrated SMS alert systems mean you can identify spark ignition and act accordingly.

## Cost effective

* Hay fire sensors are inexpensive and can potentially save tens of thousands of dollars of damage.

# Getting started

1. Obtain temperature and humidity sensors and compatible dashboard software from reputable suppliers.
2. Chisel three holes into select bales in storage.
3. Insert three sensors per bale and attach identifier tags to the outside of the bale.
4. Set up SMS alerts and monitor for temperature spikes.

# More Info

For more information on how you can deploy this technology on farm, give us a call on 136 186 or visit agriculture.vic.gov.au.

Last updated: December 2022