

Improve Hay Improve Health  
Improve Performance



Unique hay steamers for dust-free, palatable hay,  
improving equine health, wellbeing and performance.

**HAYGAIN<sup>®</sup>**  
hay steamers

[www.haygain.com](http://www.haygain.com)

**PROGRESS**  
Equine



## Hay is the foundation of a horse's diet...

...but when baled too moist, results in ideal conditions for mould growth. These moulds produce a spore ridden dust which is extremely harmful to the respiratory health of horses. Hay palatability and nutritive value are reduced; the moulds use the nutrients for their own growth and reproduction.

This mouldy dust also affects people, aggravating conditions such as Asthma and Hayfever and when inhaled in large quantities causes "Farmer's Lung".

## The problem - facts!

- More than 1 in 6 horses have performance impairing respiratory diseases.
- 80% of horses stabled for part of the day suffer from airway inflammation.
- 1 in 4 people who professionally work with horses have a respiratory condition.
- It is extremely common for horses that appear to be healthy to actually have a respiratory disease when scoped, reducing their ability to meet your expectations.
- Allergens such as fungal spores found in hay lead to respiratory diseases, including RAO/COPD and IAD/SAD.
- Other hay treatments attempt to tackle the problem of dust inhalation but do not improve the hygiene quality of hay. The nutritional value and lifespan of soaked hay is negatively altered.
- Soaking hay is messy, arduous and the waste water is an environmental hazard.

## The solution - facts!

Using **HAYGAIN® hay steamers** has been repeatedly scientifically proven to eliminate harmful mould and fungal spores, bacteria and dust mites. At the core of each HAYGAIN® hay steamer is the unique distribution manifold system which delivers the steam evenly **into** and **throughout** the hay, ensuring total steam absorption. Fungal spores and bacteria are killed by the steam's heat at the high temperatures reached during the process.

## The result - fact!

A pure, hygienic, dust-free, hydrated hay, resulting in your horse being healthier and being able to maximise its performance.



# HAYGAIN® hay steamers

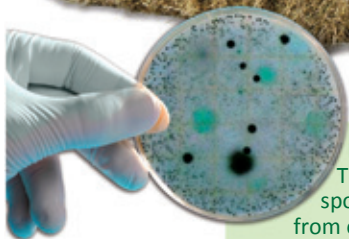
## Scientifically proven...

# HAYGAIN®

hay steamers

HAYGAIN® hay steamers have been extensively researched and tested at the Royal Agricultural College, Cirencester.

This research is published in the EAAP publication No. 128 *'The impact of nutrition on the health and welfare of horses'* and was presented at the 5<sup>th</sup> European Workshop on Equine Nutrition.



**Before HAYGAIN...**  
The number of spore colonies grown from one gram of untreated good quality dry hay on a microbial media was **7.75 million**



**After HAYGAIN...**

**0 detectable spores**



*"Aspergillus is one of the main causes of RAO, EIPH, immune suppression and poor performance in horses. It is also however, heat sensitive and so greatly reduced using HAYGAIN hay steamers."*

The Irish Equine Centre has tested HAYGAIN® on hay known to contain Aspergillus - the most relevant fungal pathogen in hay and has confirmed HAYGAIN's effectiveness in the elimination of this mould.

**Thomas Buckley**  
Head of Microbiology  
Irish Equine Centre



Our commitment to research and development continues with further projects underway internationally. This emphasises HAYGAIN's contribution to the global understanding of how to manage respiratory diseases and improve equine health.



*"I have a 30-year old rescue horse who suffers from COPD.  
Since feeding her HAYGAIN® steamed hay she has stopped*

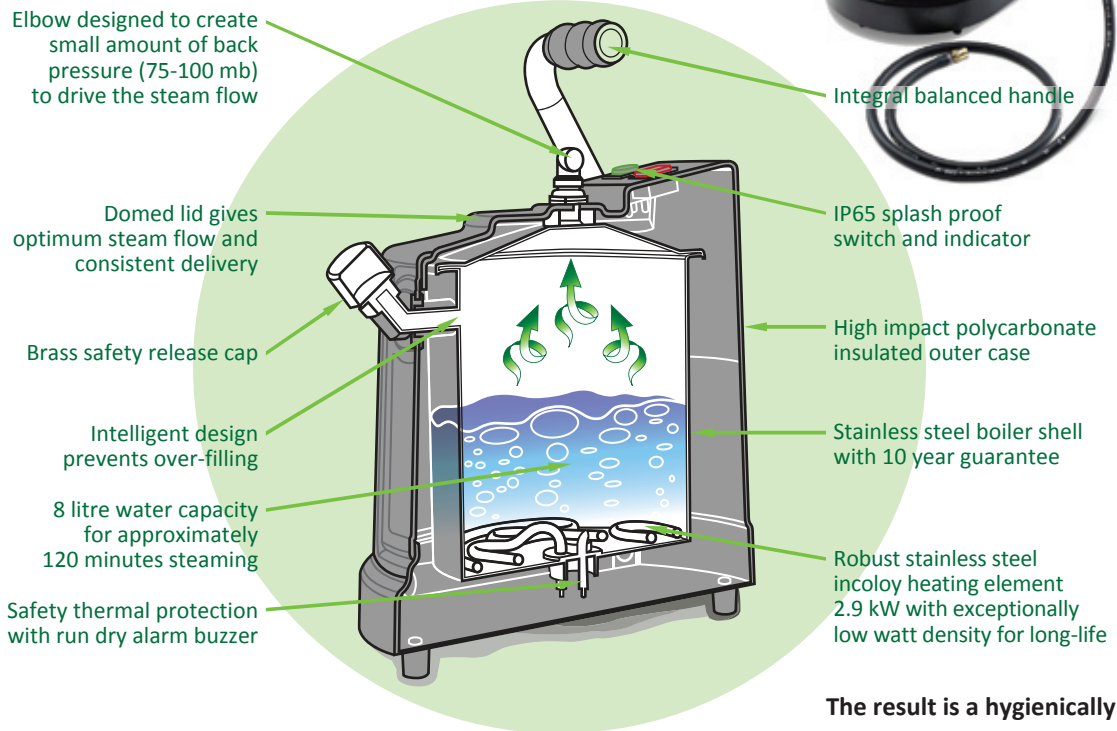
## Why HAYGAIN?

The HAYGAIN® method is unique and consists of a **patented manifold system**, proven to introduce the steam in the most effective manner, a specially designed, double **insulated container** and a built for purpose **steam generator**.

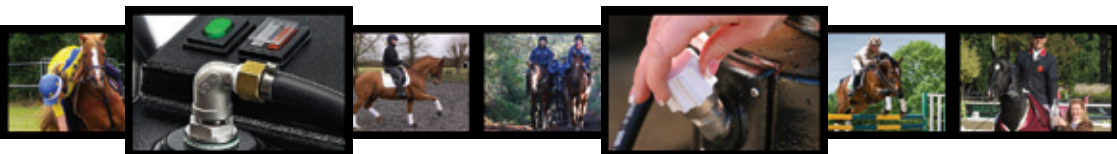
**HAYGAIN® hay steamers** are designed and manufactured in the U.K., supported by unparalleled after-sales service and come with a two year guarantee.



## How HAYGAIN® works - HG-PB Steam Generator



**The result is a hygienically the fussiest of eaters.**





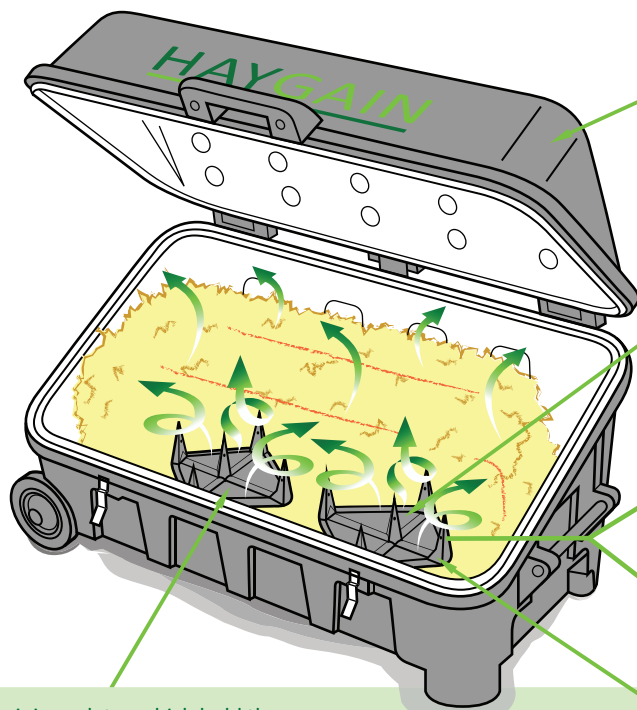
*coughing... it's as simple as that!"*

# HAYGAIN<sup>®</sup>

## hay steamers

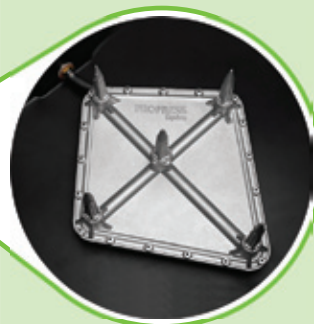


## How HAYGAIN<sup>®</sup> works - insulated steam chest with patented method



Double insulated steam chest traps the steam until the container is completely filled, raising and maintaining the necessary high temperatures to kill fungal spores and bacteria found in hay.

Deltoid configuration of the manifolds pushes steam **into** the hay distributing it evenly throughout.



Aluminium plates which hold the spikes accumulate more heat under the bale to assist with raising the temperature inside the hay chest thus optimizing its efficiency.

Thermal efficiency results in minimal condensation and fit for purpose design makes HAYGAIN<sup>®</sup> easy to clean and maintain.

Perforated spikes force steam from the centre of the hay outwards ensuring total steam absorption.

clean, sweet smelling, re-hydrated, palatable forage which is easy to handle and encourages even



*“Respiratory disease is costly both in terms of treatment, loss of  
It is better to prevent rather than*

## Your horses respiratory system revealed

lower airway upper airway

Unlike humans, horses can only breathe through their nose. Every inhalation breathes in airborne particles including ‘dust’ from hay.

The **nasal passages** provide the first line of defence against such irritants; larger particles are trapped and exhaled.

The next line of defence is in the **trachea** where tiny finger-like projections called **cilia** are found; smaller particles are trapped and moved back up the airway.

Mould and fungal spores are  $<5\mu\text{m}$  in diameter and pass right down into the lungs where the last line of defence is in the **alveoli**.

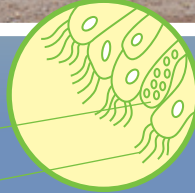
Tiny cells called Macrophages perform a cleaning function to attempt to deal with the bacteria and spores but they are already compromising the health of the horse.

*“A healthy horse should never cough.”*



Images courtesy of Gillian Higgins, Horses Inside Out © 2011

mucus  
secreting cell  
cilia



alveoli

*“Even good quality hay contains dust, comprising of bacterial endotoxins, mould and fungal spores, forage mites, pollen and other ‘organic dust’. It is crucial to reduce or eliminate these potential allergens to ensure a healthy respiratory system.*

*Steaming hay has been proven as an effective treatment for eliminating allergens that can be inhaled from hay. However, if you do not steam the hay properly you risk increased mould and bacterial growth in both the hay and the steaming chamber. HAYGAIN® is the only method of steaming where I am confident the hay is steamed thoroughly and reaches the required temperatures to improve the hygiene quality of hay with no detrimental effects.”*



**Dr David Marlin PhD**

Equine Exercise Physiologist, Scientist & Author

*performance and training time wasted.  
treat once your horse has the disease."*

## Product choice

**HAYGAIN®**  
hay steamers

### HAYGAIN® HG-600

New in the range (replacing the earlier HG500).  
Accommodates half a bale or equivalent in loose hay/hay nets.  
HG-PB steam generator 2.9 kW.  
Steam cycle from cold approximately 40 mins.  
Dimensions: L x 720mm D x 690mm H x 700mm

### HAYGAIN® HG-1000

The original HAYGAIN.  
Accommodates fully strung bale (incl HD Canadian)  
or equivalent in loose hay/hay nets.  
Sloping profile and hydraulic assisted lid makes loading  
the bale very easy with minimum lifting involved.  
HG-PB steam generator 2.9 kW.  
Steam cycle from cold approximately 50 - 60 mins.  
Dimensions: L x 1435mm D x 865mm H x 730mm

### HAYGAIN® HG-GO

Ideal to take to shows and for yards with no electricity.  
200 litre hay capacity.  
Insulated, multi-layer construction.  
Non-rip, food grade, marine material; non PVC.  
Ultrasonically welded seams.  
3.5 litre capacity steam generator, 1.5 kW (7 amps).  
Steam cycle from cold approximately 50 mins.  
Dimensions: 600mm diameter x 700mm H (closed)



**HG-Bale bags are ideal to carry  
your steamed hay.  
Ask about HAYGAIN®  
products & accessories...  
+44 (0)333 200 5233**



\*EU Only | E&OE

Patented manifold system  
Double skinned, thermally insulated  
Energy saving  
Robust construction  
All brass or stainless steel fittings  
Weatherproof & UV protected  
Rounded profile for equine safety  
Stainless steel boiler  
2.9 kW 8 litre steam generator  
1.5 kW 3.5 litre steam generator  
2 year guarantee\*

	HG-1000	HG-600	HG-GO
Patented manifold system	✓	✓	✓
Double skinned, thermally insulated	✓	✓	✓
Energy saving	✓	✓	✓
Robust construction	✓	✓	✓
All brass or stainless steel fittings	✓	✓	✓
Weatherproof & UV protected	✓	✓	✓
Rounded profile for equine safety	✓	✓	✓
Stainless steel boiler	✓	✓	✓
2.9 kW 8 litre steam generator	✓	✓	N/A
1.5 kW 3.5 litre steam generator	N/A	N/A	✓
2 year guarantee*	✓	✓	✓

# Steaming HAY to GAIN the competitive edge...

## Case Study: Bev Hoddinott and Hudson - 8 year old Welsh section D

In June 2009, Hudson was not himself. His Riding Club nickname is 'The Speedy Hamster', but this was not the case. He was lethargic, lacked stamina and interest, wanted to stay in his stable and was nostril flaring even when ridden quietly. He was not coughing and had no nasal discharge.

Initial blood tests indicated a possible virus/anaemia so he was rested and medicated. There was no improvement following this so he was referred to Richard Hepburn at The Willesley Equine Clinic for an endoscopy on July 7th. The results showed marked airway hyperaemia and oedema, grade 4 airway mucus accumulation and 53% neutrophils, normal being <5%.

Hudson commenced inhaler therapy and a strict management routine to limit his exposure to dust. Over the next few months repeat endoscopes showed slight improvements but he was still not right in his wind and energy levels.

I had seen the Haygain hay steamer advertised and browsed the website. At Badminton Horse Trials I visited their stand and was offered a model to try. When Hudson was rescoped after the HAYGAIN trial his neutrophils were 5%.

He is now back doing Hunter Trials and drag hunting in true Speedy Hamster style!

"Hudson's IAD was being treated with inhaled medications, however it was not possible to adequately modify his environment, so he was requiring daily therapy to remain clinically normal. The addition of the Haygain has enabled us to dramatically reduce his inhaled steroid dosage, and lead to the greatest improvement in his airway neutrophil count, the most accurate indicator of airway health during periodic routine endoscopy."

**Richard Hepburn, MRCVS, RCVS, The Willesley Equine Clinic**



## Debbie Gresham, Show Jumper

"We have a 21 horse Competition Livery Yard; Grand Prix and BSJA Affiliated. We have had our HAYGAIN HG-1000 hay steamer for over a year now, having had another hay steamer before, which was completely different: HAYGAIN is exceptionally straightforward and very strong; it definitely benefits the horses and there's no mess compared to soaking. HAYGAIN is fantastic!"

## Timothy Gayler, BVet Med Cert ESM MRCVS, Peasebrook Equine Clinic

"Most of our in-patients are on box rest or in light exercise so it is vital we can provide them with clean palatable fibre that will not make them too lively. Increasing the moisture intake via steamed hay is another important advantage, helping to prevent the risk of large intestinal impaction. Sick horses are often reluctant to eat and so the enhanced palatability of steamed hay is very helpful. The HAYGAIN steamer has been a very successful addition to our clinic"



## Richard Hannon, Racehorse Trainer

"They are a great idea, work very well and take the fungal dust problem away completely. I've got six HAYGAIN units; three in each yard. I get the service and the horses find even the top quality hay I feed more palatable, they really do eat it well so there is little wastage. They look really good on it so I'm very happy with HAYGAIN!"

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Equine

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