



Winning the battle against white mould

When it comes to the production of silage bales, white mould is a very real and ever-present threat. Thankfully however, avoiding this unwanted fungal growth and protecting your fodder from the risk of spoilage is a relatively straightforward task. All that's really required is that you adhere to a few simple steps.

The causes of white mould

In order to understand the solutions to white mould perhaps the best place to start is by understanding the problem's causes. As any expert will tell you, white mould usually appears when the conditions under which you are producing silage are not quite right.

To produce high quality silage, a number of factors have to be considered, including the dry matter content and quality of the crop being baled, and your choice of balewrap, which can influence the seal achieved around the bale.

These factors are instrumental in creating a micro-environment within the bale. Get this micro-environment right and the lactic acid producing bacteria responsible for the fermentation process and, in turn, a good quality fodder will flourish. Get it wrong and the fermentation process will be hindered and white mould can develop.

Choose a better bale wrap

As obvious as it might sound, your choice of bale wrap can have a major influence on whether white mould can take hold in a bale or not. White mould needs air to grow and for this reason it is always worth looking for a wrap that seals particularly well and thereby forms a more effective air barrier. One such wrap is Polybale.

Since its launch, Polybale - a pioneering multi-layer balewrap - has become firmly established with contractors and farmers alike. Trouble-free wrapping on both round and square bales, consistent quality and unrivalled performance has led to its widespread use across Europe and beyond.

High stretch strength and tear resistance are vital, particularly on high-speed, square bale and combination bale wrappers. Such qualities are built into Polybale to ensure effective bale wrapping.

Although modern machinery is designed to handle bales extremely carefully, many films currently available in the marketplace can be prone to puncturing. With this in mind, Polybale has been specifically formulated to provide outstanding puncture resistance.

One of the main functions of a successful balewrap film is that it should provide an effective air barrier and prevent leakage of any silage juices. Polybale's unique tack characteristics provide instant adherence of film layers and deliver a secondary tack that produces a superb bond between layers during storage. This same high tack also helps to eliminate long tails by ensuring that cut ends adhere quickly to the bale.

www.polybale.com

polybale



Polybale is suitable for any type of crop and can be used for round and square bales. It also benefits from in-built UV protection.

Despite Polybale's impressive credentials, it alone is not enough to eliminate white mould growth. There are other factors still to be considered.

The importance of dry matter levels

The importance of the dry matter content of the crop being baled cannot be overestimated. To prevent white mould and produce good quality silage, the moisture level within the grass must be within a range favoured by the lactic acid producing bacteria responsible for the fermentation process.

If the grass is too dry and/or over mature and stemmy, the risk of mould growth increases due to insufficient or non-existent fermentation.

As a rule of thumb, you should aim for a figure of 30-50% dry matter (DM) for silage, whilst for haylage the figure rises to 50-60% DM. As DM levels increase from 60% towards that of hay (around 85%), so in turn do the risks of mould growth due to poor fermentation. It is therefore advisable to limit dry matter to a maximum of 60%.

The dangers of air intrusion

Alongside all the other influencing factors, the choice of a high quality balewrap and its correct application will help prevent mould growth by preventing the ingress of air into the bale. It is essential, therefore, in creating an air barrier, to apply sufficient layers of balewrap.

For DM levels up to 50%, all areas of the bale must be covered with an absolute minimum of 4 layers of wrap. If the DM is higher, the number of layers should be increased to at least 6.

Indeed, current thinking now seems to support the idea of using at least 6 layers irrespective of the DM level; a notion that has been given credibility thanks to trial work conducted by IGER (The Institute of Grassland and Environmental Research) during 2005.

During this research, IGER found that applying 6 layers of black film to conventional silage bales significantly reduced the incidence of moulds in the bales compared with applying just 4 layers, and produced marked economic benefits.

And finally...

By and large, the most common cause of white mould is poor practice. Whenever it appears, most people are too quick to blame the wrap – perhaps because it is the most visible part of the process (unlike the less tangible elements of bacteria and air). The wrap however is merely a tool and like any tool it needs to be used correctly to deliver the best results. Part of this correct usage entails ensuring all the other basics have been satisfactorily considered and taken care of.

Ultimately when it comes to bale wrapping and the production of quality silage devoid of white mould one old maxim seems to ring true - that you need to start right to end right.

Contact us

For more information on Polybale please visit www.polybale.com

bpl.agri

Worcester Rd, Leominster, Herefordshire, HR6 0QA

Tel: +44 (0)1568 617 220

Freefone (UK only): 0800 0320 640

Fax: +44 (0)1568 611 435

Email: sales@bpiagri.com

Website: www.bpiagri.com

www.polybale.com

polybale