

QUALITY SILAGE SYSTEMS

Silostop is a proven silage covering system. Using polyamide film it creates an oxygen barrier which is up to 20 times more effective than conventional black/white (Panda) polyethylene film.

The impact is felt directly on your bottom line as it significantly reduces the level of aerobic spoilage in the top layers of stored silage, resulting in less dry matter loss with the flow on effect of increased rumen health due to the improved quality of stored silage.

According to Australian distributor Quality Silage Systems (QSS), polyamide film was developed to contain the gases used to sterilise soils. On the silage stack it prevents oxygen transfer and therefore substantially reduces the level of aerobic spoilage in the top 900mm of stored silage.

“Silostop limits the growth of fungi that need oxygen to respire. By reducing spoilage it reduces dry matter losses and significantly increases rumen health to impact directly on your bottom line,” says QSS managing director Ken Rich.

Dr John Wilkinson is a lecturer in animal welfare and manage-

ment at the University of Nottingham in the UK. He is a strong advocate of polyamide technology. He says while polyamide is better than polyethylene film at preventing oxygen transfer, it is more susceptible to deterioration when exposed to UV light. Therefore polyamide is applied to silage stacks either as the middle layer co-extruded between layers of UV-stabilised black and

white plastic or it is laid down on the silage stack and then covered with a UV resistant woven mat.

“Tests show Silostop has the potential to reduce the level of Dry Matter during ensiling compared with single or double layers of conventional polyethylene film,” John Wilkinson says.

“It also eliminates surface moulds on the top layer of pit silage. We find that in big feed lots and dairy farms, drivers are often reluctant to get out of the loader seat to remove this contaminated layer. When it is fed to animals, the mycotoxins have a negative effect on their health and performance.”

Ken Rich says the two options QSS provides are Silostop 1-Step and Silostop 2-Step. 1-Step involves covering the silage surface with a co-extruded 125um plastic film, meaning the OB technology is incorporated into the conventional UV-stabilised black/white plastic as one sheet. It can be weighed down and sealed using either gravel sacks (suggest a minimum 3m-5m grid pattern) or tyres.

2-Step involves using the 45um OB film and overlaying this with

a UV-stable woven mat cover, securely held in place using either gravel sacks or tyres. These UV stable mat covers are reusable and provide superior protection to the polyamide film. They provide greater surface protection from damage by hail, birds and animals.

“We suggest using sausage-shaped gravel filled sacks as a more efficient alternative to tyres,” Ken Rich says. “The sacks contain 15kg of 10mm “pea” gravel and when placed end to end in a 3m to 5m grid pattern they provide a strong and effective anchor for the oxygen barrier film. Maintaining the integrity of the seal is critical for restricting oxygen from entering the silage mass. Gravel sacks provide a better seal as they are flexible enough to fit the contours of the silage surface, and fit snugly along pit walls.

Using gravel sacks requires less labour and less weights are needed to secure the film. This technique does significantly less damage to the cover compared to throwing tyres, and gravel sacks are also safer and easier to store.

For further contact Ken Rich 07 5451 0125 or visit agrig8@silage.net. **AC**

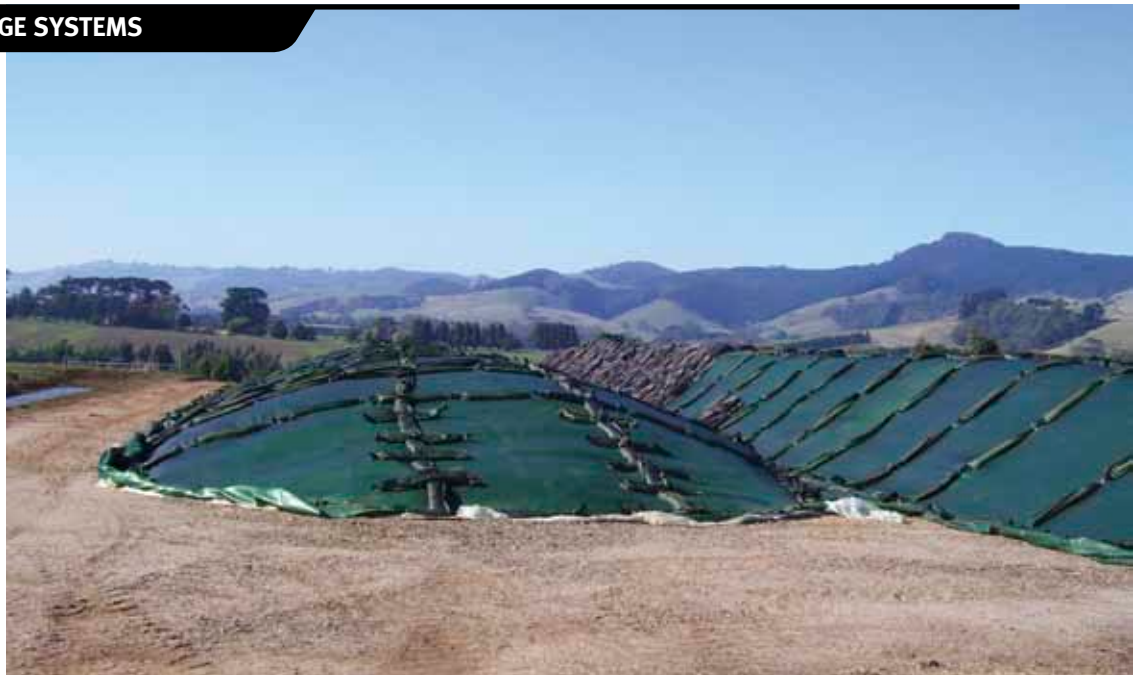


Table 1: OXYGEN TRANSFER RATE

(Test carried out by Michigan State University)

Sample	Thickness	Oxygen Transfer Rate cm ³ /m ² /24hr
Regular bunker cover	125	1811
Silostop film	45	65