

 **MOORE CONCRETE**



SUREFOOT™

SLIP-RESISTANT SLATS

Surefoot Cows are Confident Cows

50%
more grip than
conventional
slats

Less slips

**Improved
heat
detection**

**Healthier
feet**

Economic
benefit estimated at

£60

per cow
annually



Introduction to MOORE CONCRETE

We at Moore Concrete have been manufacturing high quality slats for over 35 years and have seen the demand grow in recent years.

Moore Concrete Products Ltd was established in 1978 by the company's present owner Mr. Wilbert Moore. The company was a one-man operation supplying concrete cattle slats to the local agricultural market.

In 1984 Moore Concrete took the first of many steps towards becoming a quality precast concrete manufacturer. This first step involved the relocation of the firm's operating facilities to their current site. The company prides itself on providing quality precast solutions and has recently achieved CE mark status.

Moore Concrete boasts a unique combination of modern factory facilities, people skills, design expertise and manufacturing experience.

Benefits of Suspended Flooring

Healthy and Hygienic Flooring Option

- Slats allow slurry to drop into the tank below quickly, keeping feet drier. This reduces the environment which supports bacteria linked to lameness conditions such as digital dermatitis and slurry heel
- Cleaner cows lead to improved hygiene score and lower cell count

Economic Advantages

- Increased nitrate value of undiluted slurry
- Improved foot health - reduced cost of lameness: better production
- Less dependency on straw
- Reduced labour for bedding
- Less scraping required than solid passages
- Animals housed on slats require 50% less space than those on straw yards

What is **SUREFOOT**[™]?

Surefoot is a slip-resistant slat, adding 50% more grip compared to conventional brush finished slats. Advantages of Surefoot slats include:*

- ✓ Improved animal welfare
- ✓ Less slipping and injuries
- ✓ Improved heat detection/Better bulling activity
- ✓ Healthier feet
- ✓ Improved cow confidence
- ✓ Less bullying

*Tested by CTS, 2013

Extensive research and investment in this field has led us to develop the perfect technique to obtain this slip-resistant surface.

Owen Atkinson, Dairy Veterinary Consultancy, conducted studies on our Surefoot Slats. These studies involved 19 herds and over 2,000 cows.



Brush Finish Slat



Surefoot Slat

Surefoot Cows are Confident Cows

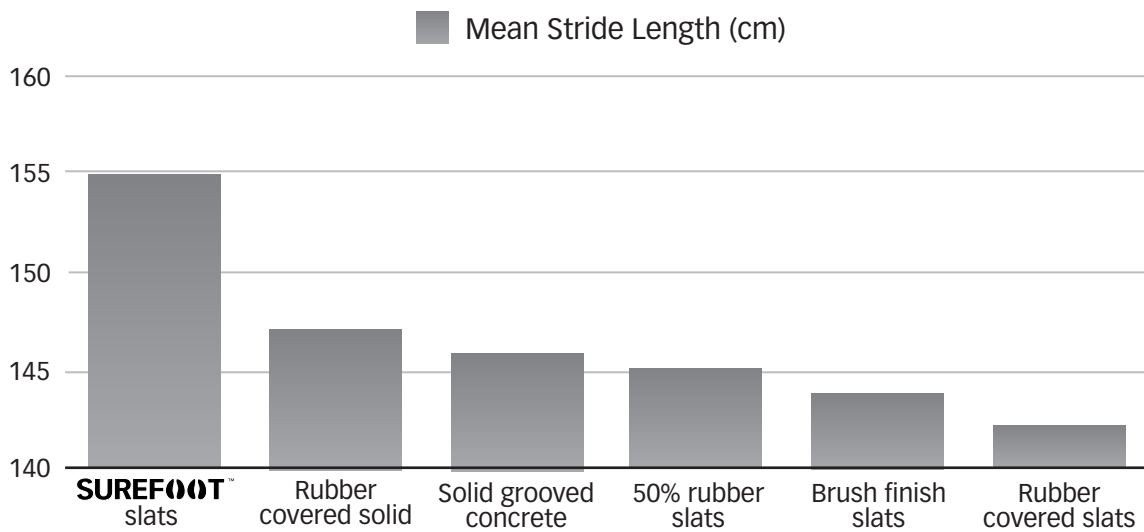
Less Slips

Slipping is a major welfare concern, and injuries from falls can be a significant financial loss to farms.

A UK survey of 233 dairy farms estimated that approximately 2% of cows are prematurely culled each year due to such injuries, at a replacement cost of £1,800 per animal.

In addition, slippery floors reduce bulling behaviour and are likely to reduce natural behaviour, reducing healthy regular eating and lying bouts.

The studies found that there is a 7 fold reduction in culls as a result of cows slipping when they are housed on Surefoot slats.



A study carried out by Queen's University, Belfast demonstrated that Surefoot slats have a more durable finish than standard brush finished slats. This means that the Surefoot surface will withstand wear better than conventional slats.



Laying the floor with lime/slurry mix and taking measurements after walking a cow over the surface

Cows' gait (stride length) was measured on a number of surfaces as shown on the graph (left). The results proved that cows walk more confidently on Surefoot slats by taking longer strides in comparison to the other surfaces.

The studies also found that cows show least underlap on Surefoot slats meaning they are tracking better. Furthermore, 100% of farmers reported that the frequency of slips and skidding on Surefoot slats was lower than on other walking surfaces. In fact, the majority of farmers involved in the studies ranked Surefoot slats second to pasture as a walking surface.

A specific cow grooming behaviour called "caudal licking" was measured and compared to established normals. To display this behaviour, cows lift a hind leg off the ground and twist their bodies. It is taken as a sign of contentment, and will be displayed more frequently on a confident (non-slippery) surface.

A previous study showed caudal licking events, occurred 0.2 times on concrete over a 24 hour period. Cows on the Surefoot slats, average 0.61 caudal lick events, a threefold improvement.



Surefoot Cows are Confident Cows

// I now run the bull with my Holstein Cows, whereas I didn't dare to let the bull in with cows on the previous floor. // John McFadzean, Mauchline, Ayrshire

Improved Heat Detection

The studies found that cows housed on Surefoot Slats have a mean calving interval of 393 days. This is lower than the UK average of 410 days.

Farmers found Surefoot slats to have a range of advantages in this area:

- Positive effect on oestrus activity
- Strength of bulling behaviour/more mounting activity
- Cows are easier to identify for service

“The only change in the shed was the addition of Surefoot slats. Since then the bulling has improved 100%, with cows bulling longer leading to better observed heats and improved timing of AI.”

Gavin Vance, Whithorn, Wigtonshire

Healthier Feet

Slats can aid hoof health by allowing the slurry to drop into the tank below quickly and keeping the animals feet drier.

Surefoot on appearance looks to have an abrasive surface, and to eliminate this concern feet were lifted and examined on a number of farms where cows had been housed for 8 weeks or more. None showed abnormal or excessive wear.

A considerable number of farmers indicated that lameness has significantly improved since their cows were housed on Surefoot Slats.

Farmers also reported that toe lengths were not excessive, indicating a good wear/growth balance.



“The cows are visibly cleaner and we have not observed any excessive wearing of the feet.”

Jane Glover, Uttoxeter, Staffordshire

Economic Benefit

The studies included research on the economic value of Surefoot slats taking in to account the various benefits. AHDB Dairy and CHAWG figures were used to estimate costs.

- 1) Reduced casualties from slips - **£30.96 per cow per year**. (Reduction from 2% to 0.28% per year = 1.72% of £1,800)
- 2) Reduced lameness - **£12.37 per cow per year**. (Reduction of 5% in lameness based on an average of 75 cases per 100 cows per year = 5% of 75 x £330)
- 3) Reduced calving interval - **£16.50 per cow per year**. (Average of 5 days lower calving interval for all cows = 5 x £3.30)

*The cumulative cost benefit of housing cows on Surefoot slats is likely to be in the region of **£59.83 per cow per year** for a typical herd.*

“We feel that the cows are more confident on the Surefoot slats. This is confirmed by the positive bulling activity. With the new found confidence on their footing we are getting great yields. We now have two buildings with Surefoot slats and have plans for a third.”

Richard Roberts, Anglesey, Wales.



“We would definitely say that the cows' confidence has increased since being housed in our new cubicle house with the Surefoot slats. The cows are visibly cleaner and we have not observed any excessive wearing of the feet.”

Jane Glover, Uttoxeter, Staffordshire.

“We opted for Surefoot slats on the entire walking area of our new building and have nothing but positives since first introducing the cows. There is plenty of grip on the slats. When we released the bull into the shed we did not experience any issues, all went to plan.”

William Galloway, Drumblair Farm, Portwilliam, Wigtonshire

“The cows' confidence on the Surefoot slats is much better than on conventional brushed slats which we have in other sheds. You can definitely see this confidence in their gait. Even for myself walking on the slats, I move a lot faster and feel more secure. It is definitely a far superior product. Moore Concrete did an excellent job from start to finish.”

Thomas Steele, Kircubbin, Co. Down



“I am very happy with the Surefoot slats. The cows are confident walking on them, with no cows slipping and their behaviour seems very natural.”

Matthew Rogerson, Lockerbie, Dumfriesshire

SUREFOOT™



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