

TRIAL CONFIRMS THE VALUE OF FEEDING SHINE ONCE-A-DAY

A calf feeding trial has revealed that encouraging calves to consume more dry feed at an early age by rearing them on a once-a-day milk replacer improves their growth and health both before and after weaning.

INRA, the French animal research body, compared a control group of calves fed cow's milk via computerised feeders and those bucket-fed a combination of cow's milk and Shine Once-a-Day.

The control group received an additional 21kg of milk solids but consumed far less concentrates. At weaning and at 14 weeks, they were the same weight as the calves fed the combination of Shine and cow's milk.

The Shine group were consuming between 540-720g of milk solids per day in four litres of liquid and had far greater rumen development compared to the control group which consumed 1080g in nine litres of liquid. The control group took longer to wean as they were not eating enough dry feed.

According to Tom Warren of Bonanza Calf Nutrition, which manufactures Shine, the trial showed the benefits of getting dry feed into calves at an early age.

"It may surprise people but microbial protein produced in the rumen from dry feed consumed by the calf has the same feed value as skim milk powder and this is why overfeeding milk, particularly after the calf is four weeks of age, is not cost effective," says Mr Warren.

As 80-90% of the protein required for growth and milk production comes from microbial protein, getting the rumen started is a key part of any rearing process, he adds. "The UK feed industry has been at the forefront of producing highly palatable and digestible rations for the young calf. As with all feeds, particularly calf feeds, select on the basis of ingredients used and physical appearance and not on chemical analysis."

To get good intakes of dry feed, calves need water - and plenty of it. A calf at four to five weeks of age will drink four litres of water of more each day and 10 litres after weaning. Mr Warren says some farmers overlook the water needs of calves because the animals don't have access to proper drinkers and the water has to be carried to them; others believe that if calves have free access to water it will cause them to scour. But limiting access to water will reduce dry feed intake by 60% and cut growth rates by 30% - comparable to the same reduction in performance that might be expected from a bad outbreak of scour or pneumonia.

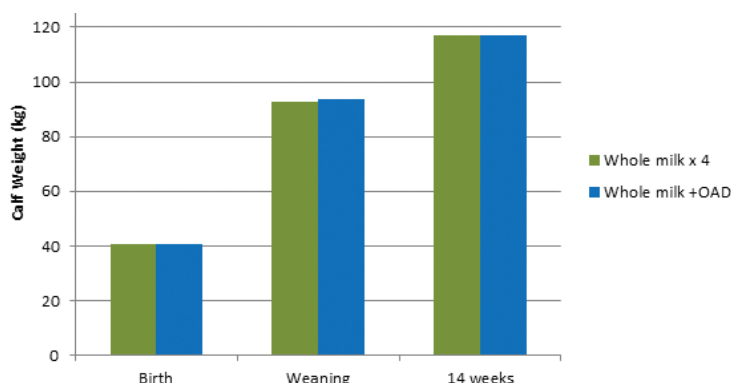
"Many farms use a proportion of waste milk at the start of the calving period and there is no doubt that feeding colostrum or transition milk for the first seven days helps to reduce disease levels, especially when calves are kept in small groups and watched closely," Mr Warren explains.

Feeding Shine with cow's milk will help extend this resource and will reduce the volume of liquid calves have to consume each day. This will encourage dry feed intake and will reduce rearing costs without compromising calf performance. It also allows more time for calf husbandry and care.

Mr Warren says saving the equivalent of 170 litres of milk per calf reared - worth £50/calf - is a more sustainable system both environmentally and financially.

"Feeding milk replacer exclusively from seven days of age reduces weaning age, labour and costs even further for a more sustainable future for all concerned," he says.

3: Calf Performance



4: Economics



Whole Milk fed 4 times/day



Whole Milk fed 4 times/day



1: Effect on milk feeding frequency on rumen development

Rumen papillae	Once-a-day milk + adlib dry feed	Twice-a-day milk+ adlib dry feed
Density of papillae(n/cm ³)	84.8	64.7
Absorbing surface (cm ³ /mm ²)	98.1	62.4

2: Calf Trial

Number of calves	17	17
Weaning age (days)	77	70
Volume of milk used (litres)	450	205
Milk replacer used (kgs)		10.3
Milk Solids (kgs)	58	37

Milk Replacer		10kg x £2.15 = £21.50
Whole Milk	450L x £0.32/L £124.8	205L x £0.32/L £66.40
Concentrate	41kg x £0.30/kg £12.30	58kg x £0.30/kg £17.40
Total Cost	£137.10	£85.30

