

Student 1.

Livestock Behaviour.

Livestock behaviour greatly effects production on commercial dairy farms. This is mainly due to the stress levels of the cows as they are greatly affected by this. The two main management practices to improve the stress and behaviour of the stock: one splitting a large herd of 800 into smaller herds of 400, and two the farmer quietly herding the stock. Both these management practices greatly affect the cow's behaviour and stress levels.

The first management practice of splitting a larger herd of 800 down to two smaller herds of 400 has a great positive impact on how the cows behave and does lower their stress levels.

This is done by splitting a larger herd into two equal sized groups, some farmers tend to split the herd into skinny and fat mobs to control their conditions easily. But this way of splitting this doesn't tend to work for both mobs as the skinny mob would be mostly full of the submissive cows as this is why they are skinny as they have been eating less due to bullying. Therefore the fat mob would be full of cows higher up the hierachal social order, meaning these cows would still be very stressed as they would still be fighting and bullying each other as there is so many bossy cows in this herd, any submissive cow in this herd would be bullied more than in the big 800 herd as there are less submissive cows for the others to bully as well. So the farmer should try to split the herds up as equally as they can. For example the farmer could draft half of each row into separate herds as the bossy cows tend to get milked first as they go out to the pasture first so they are most always at the front [4].

This management practice impacts the cows both in the cow shed and paddock. This is due to less bullying and challenging amongst the herd in the paddock. This management practice reduces the cow's stress as when they are in the paddock the cows are more at rest and are not bullying the others as much for food, space and water, which can really stress the cows out if they are constantly moving around. In the larger herd of 800 the cows would be a lot more stressed out due to the constant bullying which can result in cows not producing a good quantity and quality of milk and not letting their milk down especially the younger cows which sometimes have trouble letting their milk down [3] already this is why some farmer use a hormone as a temporary fix for particular cows. This all results in a loss of profit for the farmer as there is less milk than there could be. Another loss of profit is the chance of cows slipping or not getting pregnant due to lack of condition or stress. As if a cow is too stressed the body will abort the pregnancy as the cow is not fit to have a calf [5, 6]. In the smaller herd of 400 the farmer can watch for symptoms of sickness, lameness, empty cows etc in the smaller herd easier than in the larger herd. This increased the profit of the farm as sick cows can be helped earlier therefore having a greater chance for a better recovery. Stressed cows also so tend to excrete more runny faeces which means that they are not digesting their food as well as they could be, which would result in lower condition rates (as well as the calf's condition if the cow is in calf) and less milk production [3, 4, 5].

Splitting the larger herd into smaller herds also helps the cows stress in the cow shed as they are not having to stand cramped in the yard for such a long period of time, which increases

their stress level as first of all they don't like being cramped in a confined space but second of all bullying does go on a lot in the yard and the longer they are in there the more irritated they get and the more bullying and shoving that goes on which not only effects the cow getting bullied but all the cows that is had to push past to get away. In the summer having too many cows in the yard is worse as they get really hot and bothered as most cowsheds don't have shade from the sun and are sheltered from the breeze. The cows are most irritated by flies all this make the cows a lot more stressed and irritated which results in a more stress full milking for both the farmer and cows. As the cows tend to urinate and excrete faeces more often than normal and they do tend to kick their cups off and rush the gate which can be a safety hazard for the farmer. This all results as loss of profit as less milk both in quantity and quality is supplied, as well as the possible cost of damage to equipment. There would be a lot of faeces and muck to hose out which takes longer wastes water, power and time as well as it may clog up the sand trap quicker which on most farms takes a lot of time and money. This could all be avoided by splitting the herd into two smaller herds and milking them separately this cuts time and amount of cows waiting in half in increases the profit and again makes it easier for the farmer to spot sickness lameness etc. The less time the cows spend in the shed results in higher milk production as the spend more relaxing producing milk in the paddock, which makes the cows overall more relaxed [3, 4, 5].

This management practice has been used as it has observed in the larger herds they tend to fight, be more stressed and produce lower milk production average per cow than cows in smaller herds this is why this management practice is so widely used and successful. This management practice considers the outcomes of the observed livestock behaviour of bullying and the hierarchal order amongst cows in larger smaller herds.

I consider the management practice of splitting a larger herd of 800 into two smaller herds of 400 to be most rewarding management practice of the two to both the livestock and their behaviour and the farms profits as these come hand in hand. I believe that splitting a larger herd into two smaller herds is more important for the herd's behaviour and stress levels than the farmer quietly herding the stock, as the cows spend every hour of the day in the herd and only a restricted amount of time with the farmer as well. However, I would recommend for a farmer to use both of these behavioural techniques. Since the cows are always in the herd it would be most important to reduce as much bullying and stress in the herd as possible. Splitting a larger herd into two smaller herds does just that, reduces a high amount of the cows stress. Since the farmer only interacts with the cows for such a limited time the stress he might cause is nowhere like it would be for the cows in a large herd compared with the cows being in two smaller herds. The farmer herding the stock quietly does not really improve the cows stress as they can have a calm milking and walk to milking but again, this is for only a short period of time compared to the time the cow spend with the herd [1]. So therefore I conclude that the management practice of splitting a larger herd of 800 into two smaller herds of 400 is more effective than the management practice of herding the cows quietly. This therefore means that the cows would be less stressful in the smaller herd resulting in many benefits such as higher immunity in the cows, higher milk production, better conditioned cows and therefore higher profit for the farm [2].