

# Dairy Cow Grouping: Is it For Your Farm?



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Dairy farmers are often advised to divide their dairy cow herd into multiple groups. Grouping can be very efficient and beneficial for the herd. However, there are some cases where grouping may not be economical. Farmers must understand the pros and cons of grouping to see if it would be a logical option for their operation.

Farmers can group their cows in nutritional groups and/or management groups. In nutritional groups, cows in each group are fed a separate ration. This type of grouping can be beneficial when trying to meet nutrient requirements of cows in different stages of lactation. A potential downside to nutritional groups is increased labor to manage and execute the feeding program if additional batches of feed must be mixed.

Management groups are similar to nutritional groups, though they do not require extra labor for mixing a separate ration. This type of grouping can separate groups of cows, such as heifers from the mature herd, artificial inseminated cows from bull bred pens, sick cows, pregnant cows, fresh cows, and early lactation cows in the milking string which also allows monitoring of the body condition of cows in the herd. Management groups can potentially decrease competition at the feed bunk and decrease the amount of time cows spend in the holding pen. These groups also require a little extra labor to maintain and manage.

## Requirements for Grouping

Before considering grouping, farmers need to assess their farm to see if it is feasible. To start, farms should have an adequate herd size (typically over 100 cows) for grouping to be economically feasible. Having facilities that can accommodate separate groups is also a major concern. Three major requirements would be:

1. Economic benefit to the dairy
2. Enough labor to supervise groups
3. Enough space and ease of cow movement to accommodate one or more smaller groups

Understanding how to group is also incredibly important for dairy farmers. Knowing why dairy cows are placed into certain groups can help prioritize which groups should be created first. Examining the needs of first lactation heifers, and mature lactating cows (second lactation or greater) will help break down the importance of grouping.

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### **First Lactation Heifers**

If a dairy farmer only had the resources to create two separate groups, they should first consider separating the first lactation heifers from the mature cows in the milking herd. Heifers can either be placed into a management or a nutritional group, though they can likely consume the same ration as the remainder of the milking herd. Heifers are smaller than the mature lactating cows, which makes it difficult for them to compete for bunk space with mature cows. This decreases intake which, in turn, may decrease milk production. When heifers are grouped separately from mature cows, they are able to increase their milk production by up to 2 lbs per day.

### **Fresh Cows**

Fresh cows should be monitored very closely 21 days after calving for metabolic problems and other calving related issues. Having fresh cows in a small separate group can make it easier for dairy farmers to spot problems. Also, feed intake may decrease in fresh cows. Putting them in an area with less competition at the feed bunk would help improve how much feed they consume. Also, separate rations can be fed to these cows incorporating different feed additives and types of starch grains, i.e. dry ground corn versus high moisture corn.

### **Mature Lactating Cows**

Both management and nutritional groups can be beneficial for mature lactating cows.

These groups can be created based on size of the herd or amount of milk that is being produced. It will also reduce the time each cow is in the holding pen (assuming that the number of turns through the parlor stays consistent). Depending on the facilities, this grouping can also decrease competition for feed, and potentially increase milk yield. If a dairy farmer wants to group his cows based on production, a nutritional grouping can be considered. A high producing group can be fed differently than a low producing group.

#### *High Group*

This group includes cows that are producing a large amount of milk. High production cows tend to be in a negative energy balance, meaning they will need to mobilize fat to maintain production. This fat mobilization depends on the dry matter intake of the group, so it is important to ensure the diet is balanced for the higher milk production. A more nutrient dense diet can be fed to a high producing lactation group to meet their high energy demands.

#### *Low Group*

This group will consist of later lactation animals. During this time, cows should redeposit enough body condition or fat stores to prepare for dry off but also prevent cows from accumulating excess body condition. This is particularly important for herds that are experiencing reproductive issues. The low group is back in a positive energy balance, meaning that the cows are able to consume enough energy for the milk being produced, so it will not be difficult to re-establish body stores. It is important to keep in mind that a positive energy balance can cause cows to be over conditioned. This is not desirable, and should be avoided before the start of the dry period. Rations for this group can be formulated to support milk production but prevent excessive body condition. These rations may be referred to by some as a maintenance ration.

## Dry Cows

For dry cows, it would be beneficial if the dairy farmer could create nutritional groups.

The dry period of dairy cows is often overlooked, though it is a very vital time in a cow's productive life. The dry period is when the dairy cow is able to recover from the last lactation and prepare for the next. Poor management and nutrition of dry cows can result in a significant decrease of milk production during the next lactation. Dry cows can be split into two logical groups: far-off dry cows and close-up dry cows.

### *Far-off dry cows:*

This group should include dairy cows that have just been dried off until 21 days before the expected calving date. Far-off dry cows should enter this stage at a body condition score of 3.25, and should maintain this score for the entirety of the dry period. This group should be consuming 2% of their body weight in roughages. If far-off dry cows do receive corn silage, it is important that it is fed in moderation. This can cause cows to increase in body condition when too much energy is fed, which may cause metabolic problems at the start of lactation.

### *Close-up dry cows:*

This group should include cows that are within 21 days of expected calving. This period of time is critical, especially in prevention of post-freshening metabolic disorders. A major problem with close-up dry cows is their decrease in feed intake. It may be wise to consider using feed additives, such as anionic salts, to reduce metabolic problems post-calving. Many metabolic problems are subclinical, meaning that there are no obvious signs of a problem. In some cases, farmers do not detect a problem until it is too late. Prevention of metabolic disorders is more economical than treating metabolic disorders, or potentially losing cows.

In summary, farmers can group their cows for management or nutritional purposes. In order to group, a farmer must have the facilities to accommodate the groups. Each farm should assess if they have enough labor to properly maintain these groups. Some farmers may only have the resources to create two separate groups. If that is the case, dairy farmers should separate first lactation heifers from the milking herd due to its economic benefit. Some farmers may not have enough space or labor to group at all. Though grouping can be very beneficial, it is not for everyone. Farmers must understand all aspects of grouping before implementing it on their dairy.