Technical leaflet

Concentrate feeder made out of a waste container

1 Description of the innovation

The Agrargesellschaft Emster Land mbH is situated in the East part of Germany. The farm is managed with a low-input strategy and a full pasture system.

In order to save costs for the construction and maintenance of a milking house, the 900 dairy cows are milked in the open air. Milking is done with a 24 space fish bone milking parlour. While milking, the cows are attracted and fed with concentrate. During milking, the cows are fed with concentrated feed twice a day.

The concentrate is fed by a standard waste container which rolls in front of the cows and spreads out the concentrate. There are rails on which the container moves for- and backwards. The hole unit, including waste container and it´s frame is pulled with strong ropes. To fill in concentrate, they use the front loader and the bucket. When it rains, the lid is closed to protect the concentrate from moisture.

The farmer adopted this innovation with the main objective to optimise and facilitate the feeding of concentrated feed. With the old technique, someone was busy the hole time while milking to distribute concentrated feed by hand.

2 Results obtained with the adoption of the innovation

With the help of this feeding concept, the feeding of concentrated feed could be simplified and the intake of concentrate increased too. Prior to container feeding, the concentrated feed had to be laboriously filled into the feed trough by hand for each passage. Due to the height of the feed trough, this was no easy job. While the waste bin automatically moves back and forth, other work can be done.

The cows enter the milking parlour more motivated because they are attracted by the concentrate. However, because of the numerous cows and the higher consumption of concentrated feed, the container must be refilled more often during milking time. This happens with the farm loader. However, the innovation with the waste bin is more time -saving than it was before.

Since the farm keeps its cows on the pasture all the time, the intake of concentrated feed in the milking parlour is an important factor to balance the ration of dairy cows. During the grazing months, there is no additional fodder for the cows than the fresh grass from the pasture. There is no further concentrate station available for further concentrate feeding like it is common with conventional stable keeping. The intake of concentrated feed cannot be controlled as strictly as would be possible with a concentrated feed station. Thus more concentrated feed can be fed in less time. A better milk yield can be expected, with higher consumption increasing concentrate costs. This example shows that optimization does not necessarily have to cost a lot of money.

Advantages

- Low costs
- Less physical labour
- Higher intake of concentrate feed
- Semi-automatic feeding
- Balanced ration
- Higher milk yield
- Up-cycling aspect

Disadvantages

- Needs to be filled up often
- Higher cost because of more concentrate feed use.
- No strict intake control