

Reducing antibiotic use : Case report from a Dutch dairy farm

Josh Onyango, Livestock Health Consultant, Published on 18 August 2017

The outbreak of serious drug-resistant bugs in 2009, which was linked to livestock farming forced the Dutch government to act. Some of the key interventions included the government working with the livestock industry to develop new policies which included a ban on preventative dosing and using antibiotics by prescription only among other measures.

During a visit to the Netherlands in June 2017 by to Innovation for Agriculture, Dutch dairy farmer Arnold van Dee explained how he has applied management practices to help reduce cases of mastitis in his 100 milking dairy herd with significant reduction in antibiotic usage. “A drastic reduction of antibiotics in the treatment of mastitis can be achieved if farmers apply an integrated management approach” Mr van Dee explained.

Dry cow management

The dry period is the most important phase of a dairy cow’s lactation cycle. This period ranges between 6 - 8 weeks where it maintains the balance between lost milk production during the dry period and high production levels achieved in the subsequent lactation. However, the start of lactation has been associated with high disease incidence mainly due to the negative energy balance. Cases of mastitis and other health conditions are also common, amounting to increased antibiotic use. Studies suggest that shortening the drying off period may prove to be beneficial for dairy herd health. Mr. van Dee opted not to dry off cows which was part of a project initiated in 2007 by Wageningen University in the Netherlands. The benefits to his farm has included:

- improved fertility and less metabolic problems due to the fact that cows do not get to negative energy balance.
- reduced build-up of mastitis which occur during the dry period.

However, this has some negatives including the quality of colostrum greatly reduced. This is an issue Mr van Dee has tackled by using colostrum booster during calf feeding.



Photo: Mr van Dee 100 milking dairy herd

Building design

Correct building design is critical in dairy cow housing. The building should be designed in a manner that ensure adequate ventilation to help maintain air quality for improved health and welfare. Mr van Dee explained that previously his livestock had experienced several when they were housed in old buildings. The incidences of health problems have reduced following moving cows to the new barn. The building at his farm has been designed to ensure that cows have enough light, air and space. In addition, Mr van Dee has uses fermented horse manure for cow bedding as research suggest this give protection against causing mastitis pathogens.

Awareness

Creating awareness can also help farmers reduce the use of antibiotics. Mr van Dee explained that he was made aware of the threat of antibiotic resistance by the government in 2007 which made him take action in employing various strategies to cut down on antibiotic use in his dairy herd.

“ Following different management approaches is key to reducing antibiotic use in dairy cattle production” concluded Mr van Dee.

For more information on this article, please contact Josh Onyango, Livestock Health Consultant: josho@i4agri.org.

For general information, please contact Innovation for Agriculture, Arthur Rank Centre, Stoneleigh Park, Warwickshire, CV8 2LZ, E:info@i4agri.org T: 02476 692 470 W: <http://www.innovationforagriculture.org.uk/>