

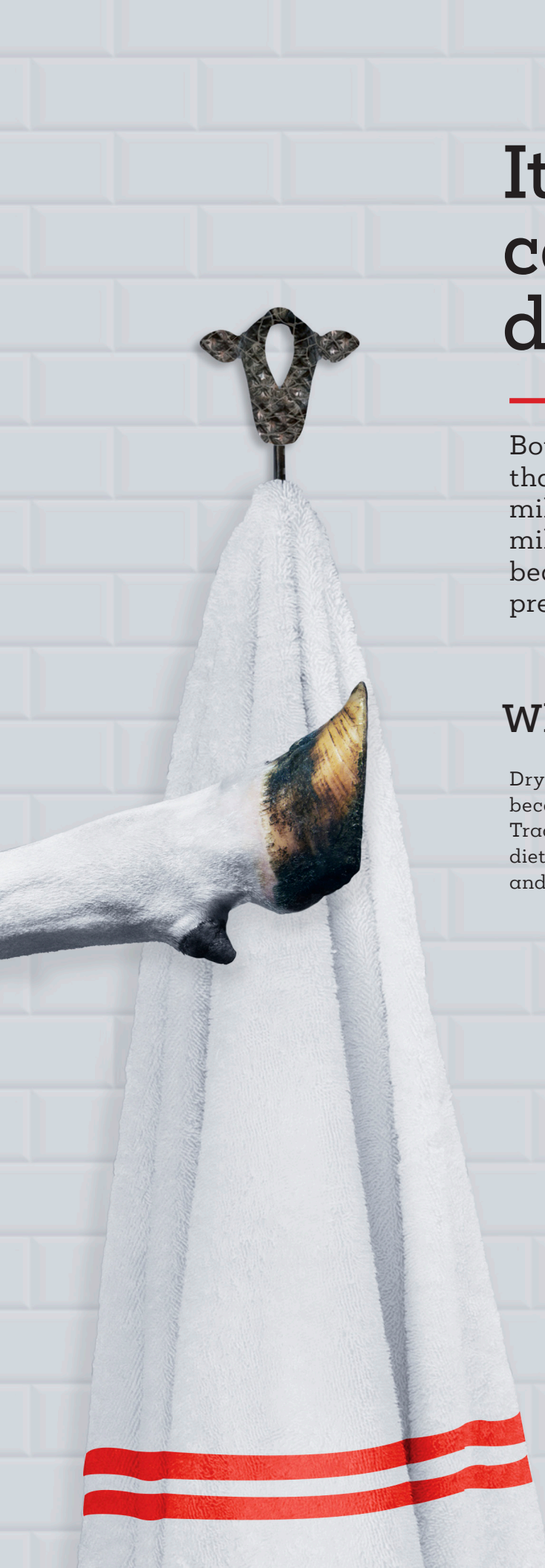


# Every lady deserves to dry off comfortably.

---

Bovikalc® Dry maintains comfort by  
reducing pressure during dry-off.





# It's time to add comfort to your dry-cow protocol.

---

Bovikalc® Dry is an oral mineral supplement that helps maintain cow comfort by reducing milk production at dry-off. The reduction of milk production is beneficial for udder health because it decreases udder engorgement and pressure, which helps reduce discomfort.

## Why is comfort so crucial?

Drying off is the most important phase of the lactation cycle because it prepares the cow and her udder for the next lactation. Traditionally, this has been achieved through manipulation of diet and intermittent milking. However, it is often a stressful and uncomfortable period for dairy cows due to:

- Engorgement caused by accumulation of milk in the udder in the absence of milking
- Increased intramammary pressure, which can cause discomfort and milk leakage, leading to a decrease in lying time and an increased risk of mastitis.

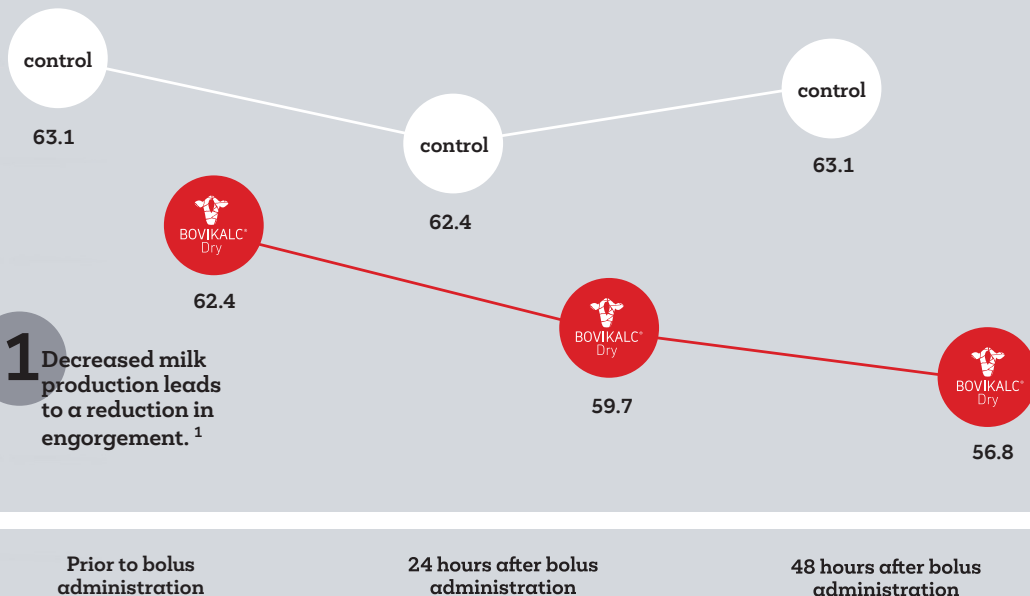
**BOVIKALC DRY** helps maintain cow comfort at dry-off without the implementation of any additional management changes.

## Impact of BOVIKALC DRY on milk production (lbs)

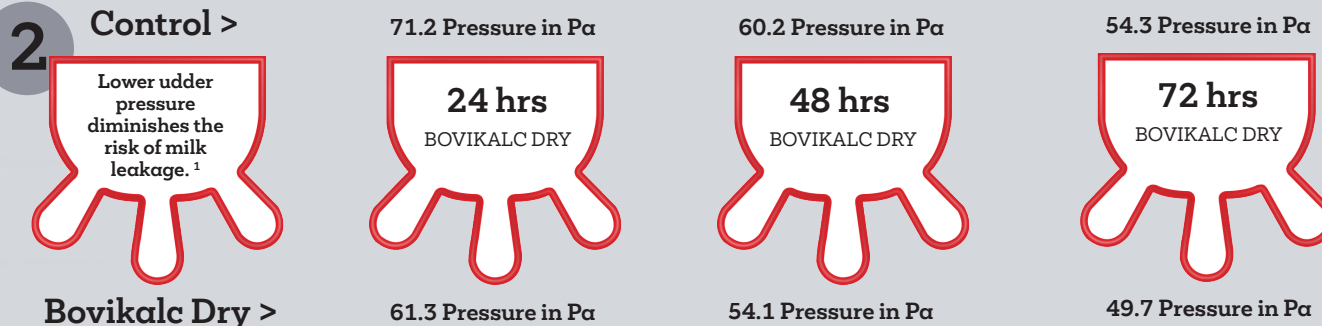
# 3 WAYS

Bovikalc® Dry improves animal well-being during dry-off.

**1** Decreased milk production leads to a reduction in engorgement.<sup>1</sup>



## Evolution of udder pressure after dry-off<sup>1</sup>



## How it works.

BOVIKALC DRY is delivered via two boluses at dry-off. It helps to reduce the amount of milk produced at the time of milking cessation by inducing a slight and temporary metabolic acidosis. The reduction is accomplished via two assumed pathways, each resulting from the metabolic acidosis. The pathways are:

- A reduction of the cow's appetite, which causes reduced feed intake, leading to a decrease in available net energy, which results in reduced milk production.<sup>2</sup>
- A reduction in glucose transport into mammary alveolar cells due to metabolic acidosis, which decreases lactose synthesis and causes a reduction in milk production.<sup>3,4</sup>



**3** Longer lying time promotes a more comfortable dry-off experience.<sup>1</sup>

# Ingredients and mode of action.

---

Bovikalc® Dry is an oral mineral supplement given to dairy cows at dry off.

The product contains calcium chloride, calcium sulfate and ammonium chloride. BOVIKALC DRY reduces milk production at dry-off by inducing a slight and temporary metabolic acidosis.

The direct effect of BOVIKALC DRY is a reduction of dry-matter intake, which results in a reduction of milk production at the time around dry off.<sup>1</sup>

## Usage and administration

The recommended usage of BOVIKALC DRY is the administration of two boluses at once.

The simplest method of delivery involves giving both boluses at the point at which the dry-off process begins. Administration of two boluses at, or eight to 12 hours before, the last milking is the recommended protocol.

<sup>1</sup> Maynou and Elcoso, et al. Effects of oral administration of acidogenic boluses at dry-off on performance and behavior of dairy cattle. *J Dairy Sci* 2018;101:1-12.

<sup>2</sup> Hu and Murphy. Dietary Cation-Anion Difference Effects on Performance and Acid-Base Status of Lactating Dairy Cows: A Meta-Analysis\* *J Dairy Sci* 2004 87(7):2222-2229.

<sup>3</sup> Gunnink, et al. Alkaline pH activates the transport activity of GLUT1 in L929 fibroblast cells. *Biochimie* 2014 (99)189-194.

<sup>4</sup> Zhao and Keating. Expression and Regulation of Glucose Transporters in the Bovine Mammary Gland. *J Dairy Sci* 2007(90)E76-E86.

