



Bio Eko Humat Feed Additive

for dairy cows consumption



CHALLENGES



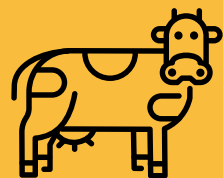
One of the most important and challenging tasks in dairy production is to improve the efficiency of feed utilization and, on this basis, strive to achieve the fullest possible realization of the cows' genetically determined potential in order to increase their productivity.

For producers, this means improving the efficiency of raising and maintaining dairy cows, to ensure maximum milk yield and increase the number of lactations, as well as to improve the quality of the milk obtained.

CHALLENGES FACING PRODUCTION

HERD PRESERVATION

Extending the number of lactations while preserving high milk yield and quality



FEED CONVERSION

The feed-to-milk ratio represents the amount of feed consumed in relation to the milk produced per cow each day.

Achieving less than **45 kg** of feed per cow per day for 30-32 liters of milk demonstrates optimal herd performance and management.



BALANCED FEEDING

Achieving high animal productivity while keeping labor and material.

Striking the right balance between performance and efficiency



CHALLENGES FACING PRODUCTION

INCREASE IN MILK YIELD

The average daily milk yield per head, after one month of using the feed additive, increases by **1.7** to **2.4** liters.



MILK QUALITY

Managing key indicators of milk quality — **biological value** (proteins, fats, and lactose) and **ecological purity** (SOMO content and somatic cell count) — is essential for maintaining product consistency and consumer trust.



FACTORS AFFECTING PRODUCTIVITY



- Heat stress during seasonal climate transitions, such as spring to summer and summer to autumn.
- Liver protection from damage, strong antioxidant activity, and protection of cells against lipid peroxidation and the synthesis of toxic free radicals.
- Immunity, or the resistance of dairy cows to adverse environmental factors such as mycotoxins, microbes, and viruses.
- Regulation of intestinal microflora composition by reducing the presence of pathogenic microorganisms that produce toxins and compete with the normal physiological microflora.
- Activation of the functional activity of the digestive and hormonal systems.
- Metabolism efficiency, meaning high digestibility and absorption of feed nutrients.
- Digestion.



INTESTINAL DISORDERS - THE MAJOR CAUSES OF REDUCED PRODUCTIVITY IN DAIRY COWS

Prolonged inflammation leads to decreased in herd productivity, changes in feed intake, digestion, absorption, and utilization of nutrients by the animals.

70%

Of immune responses in the body occur in the digestive tract, which makes its role decisive in maintaining self-regulation and the health of dairy cows.

35%

Of a dairy cow's energy reserves are consumed by processes taking place in an organism affected by enteritis. The losses are characterized by reduced feed intake, low sorption capacity of mycotoxins and their elimination from the body, and decreased milk yields.

PROVEN RESULTS FROM USING ECO HUMATE

- I The number of lactations increases
- II Milk yield and its fat content increase
- III The resistance of dairy cows to adverse environmental effects and stress improves, easing seasonal climatic transitions
- IV Feed conversion decreases
- V Inflammatory processes in the gastrointestinal tract are eliminated



PROVEN RESULTS FROM USING ECO HUMATE

- vi Digestion is activated
- vii Milk quality improves
- viii Metabolism in the body improves
- ix Negative effects of mycotoxicoses are reduced
- x The immune response of dairy cows to vaccinations develops better
- xi The economic efficiency of milk production increases



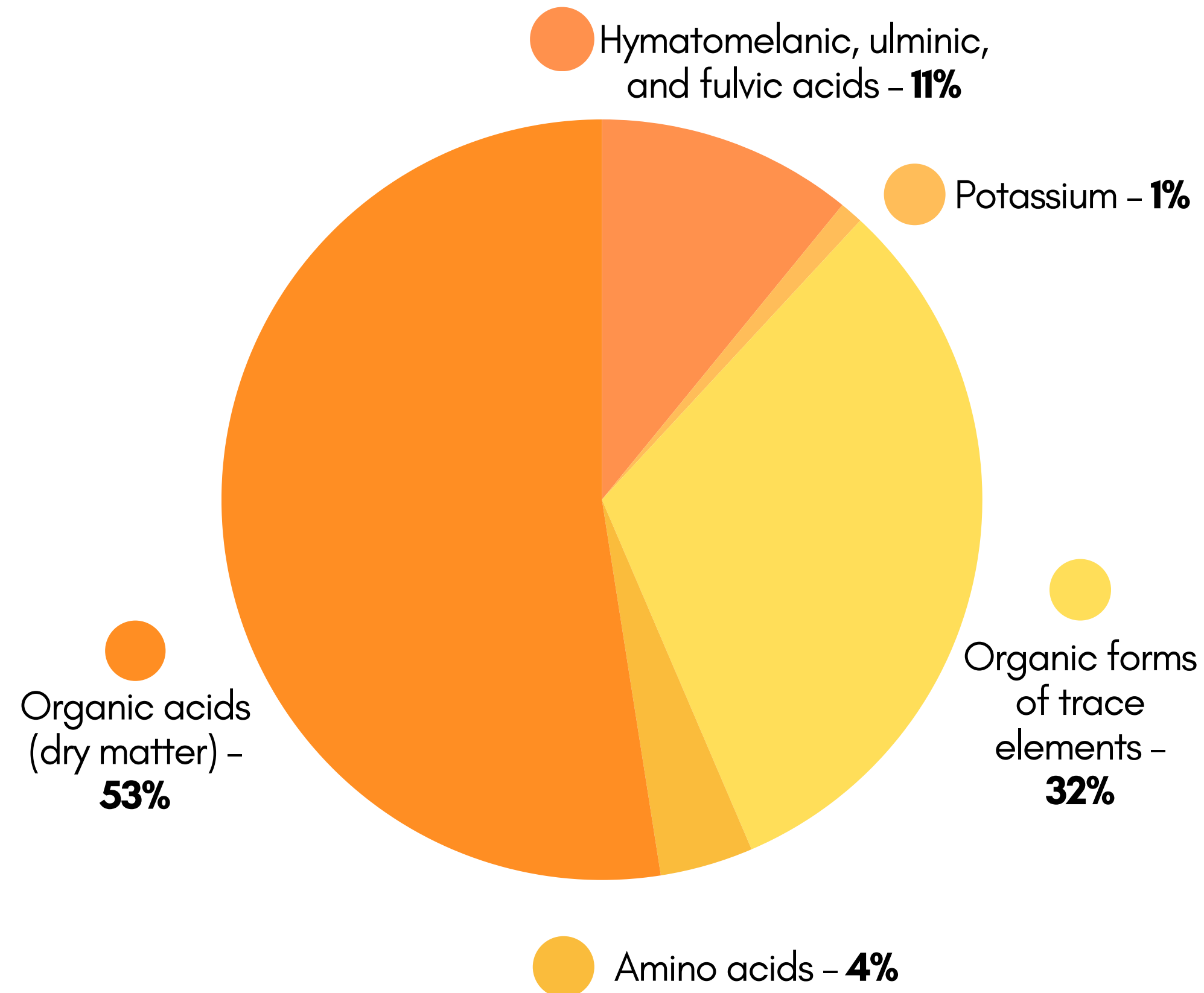
Absolutely safe for CATTLE, HUMANS, and the ENVIROMENT

➤ Eco Humate is a feed additive that has no carcinogenic, allergenic, anaphylactoid, teratogenic, or embryotoxic properties.

➤ It is also classified as an eco-friendly, natural feed additive for young and adult turkies

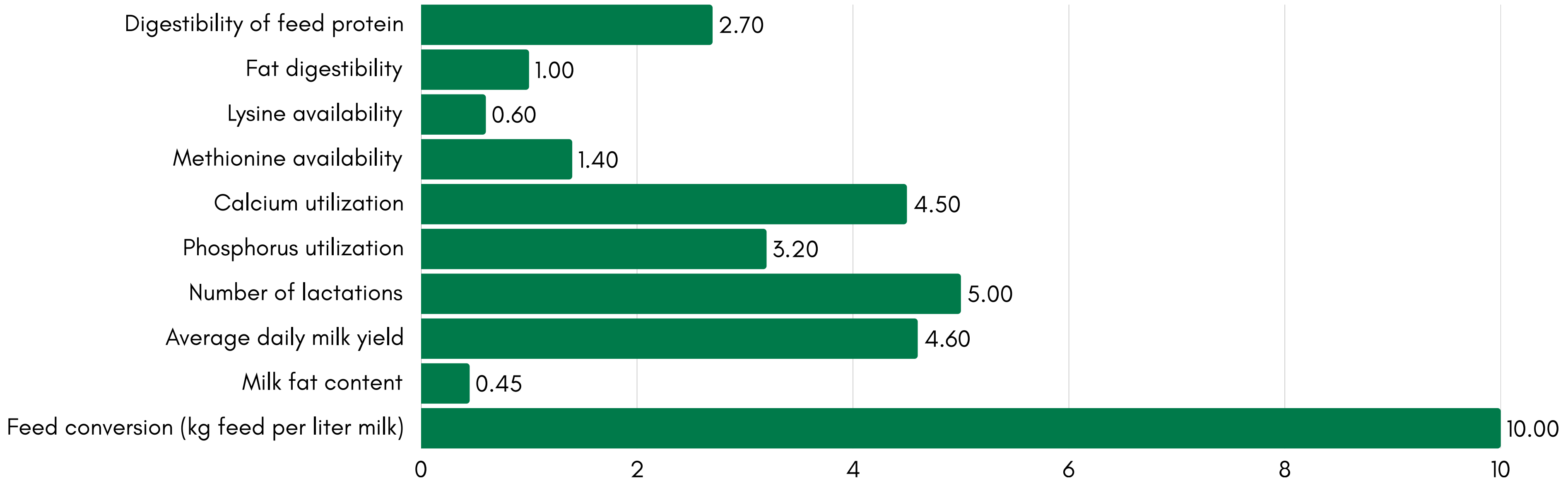
➤ Making it harmless for both animals and humans, providing significant advantages compared to conventional medicinal products.

COMPOSITION (IN DRY MATTER):



PRODUCTIVITY GAINS (%) IN DAIRY COWS WITH ECO HUMATE

● Improvement (%)



experiment description

- **Two groups of dairy cows were selected:** experimental and control
- **Number of animals:** 32 cows in the experimental group and 35 cows in the control group
- **Duration of the study:** 30 days
- **Feeding:** both groups received the same diet
- **Housing conditions:** same barn for both groups
- **Experimental group:** received the feed additive "Eco Humate"

studied parameters

- **Milk yield in both groups** (at the beginning and end of the experiment)
- **Milk fat content** (at the beginning and end of the experiment)
- **Milk protein content** (at the beginning and end of the experiment)
- **Milk urea content** (at the beginning and end of the experiment)
- **Complete blood count:** 22 parameters (at the beginning and end of the experiment; samples taken from 10 cows per group)

RESULTS

+ 8%

Average milk yield increased or 2.6 liters per day

+ 5.2%

Milk fat content increased or 0.2% in absolute terms

+ 4.6%

Protein content increased or 0.17% in absolute terms

- 9.2%

Feed conversion decreased

+ 3.5%

Production profitability increased