

## SMARTER HYDRATION. SAFER FEED. BETTER PROFITS

At Norel, we have introduced a new product in our feed technological additives range: **HYDRONOR**

### WHAT IS IT?

HYDRONOR is a **water recovery product**, specifically designed to increase the water content of feeds, either pellet or mash form, as well as directly to raw materials.

This provides both **economic and nutritional advantages**. Water losses during feed manufacturing represent a **direct economic loss** for feed producers, while maintaining the correct water content in the final feed offers **additional nutritional benefits**, such as improved **palatability**.

### HOW CAN I USE IT?

The product contains selected ingredients that allow the incorporation extra of up to **2% additional water**. You can premix the extra added water with the product, and after add it to the mixer.

On one hand, **HYDRONOR recovers water lost during grinding**; on the other, **it prevents water loss during cooling**. Avoiding the typical drawbacks associated with excess moisture.



### WHAT ARE THOSE DRAWBACKS?

When water content increases, **fungi and bacteria** can proliferate, since free water provides a favorable medium for their development. Once microbial growth begins, conditions become even more favorable for the growth of molds and bacteria: the **metabolic activity of molds and bacteria generates heat and additional moisture**, further accelerating their proliferation.

### HOW DOES HYDRONOR AVOIDS THESE DRAWBACKS?

HYDRONOR is formulated as an **amphipathic system** (both hydrophilic and lipophilic), carefully selected according to its **HLB value (Hydrophilic-Lipophilic Balance)** for feed applications. This enables higher water incorporation into feed and raw materials **without increasing the fraction of free water** available for microbial growth.

For additional safety, it contains **specific organic acids**, at concentrations high enough to **inhibit the growth of fungi and bacteria**, ensuring feed stability during storage.

### WHICH ADDITIONAL ADVANTAGES HAS THE PRODUCT?

It is a high concentration and **low inclusion** product:

Its concentrated formulation **minimizes inclusion rates**, preserving space in the formula of the feed.

It can be added to both mash and pellet feed, but also to raw materials

**Key synergy with binders:** can and should be used with a pellet binder, such as our product **DUOBIND**, to create synergistic effects and enhance pellet quality

It does not contain ammonium formate in its composition, so **it can be used for all species** in the European Union

**HYDRONOR IS A PRODUCT THAT WILL IMPROVE THE QUALITY OF YOUR FEED OR RAW MATERIAL, WHILE YOU SAVE MONEY.**