

Improve feather digestibility with CIBENZA IND900 batch process.



Production efficiency is essential to your bottom line. Feed reformulation with feather meal is one way producers can lower costs without losing animal performance. However, high protein digestibility is critical.

The protein matrix of feathers (keratin) is very complex. In order to improve animal utilization of keratin, considerable heat and/or chemical processing must be used to release simple protein units. However, too much heat may reduce protein digestibility and is a costly waste of energy and potential profit. CIBENZA® IND900 feed additive is your solution.

CIBENZA IND900 Reduces the Heat Requirement of Feather Meal Production

By enzymatic action, CIBENZA IND900 accelerates the breakdown of the complex keratin matrix in raw feathers at a lower cooking temperature. In addition, the keratinase activity degrades more peptide bonds which results in a feather meal product with higher nutritional value to animals rather than when heated at higher temperatures.

- CIBENZA IND900 is a heat-stable protease which improves the nutritional value of feather meal.
- CIBENZA IND900 protease is designed for the rendering industry that provides improved digestibility of rendered protein products with less steam and heating costs.

Recommended Batch Process Procedure

1. Load 500 kg raw feathers (50-60% moisture) into batch cooker.
2. Dissolve 1.5 kg CIBENZA IND900 into 10-20 L of water (CIBENZA IND900 Solution).
3. Add CIBENZA IND900 Solution on top of feathers and mix well.



Key Findings

- Improves nutritional value of feather meal by increasing digestibility of rendered protein
- Lowers heat requirements of rendering process
- Supports feather meal profitability and environmental sustainability

4. Load additional 500 kg raw feathers (50-60% moisture) into batch cooker.
5. Incubate at 50°C-60°C for 45 min (CAUTION: do not exceed 60°C during this 45 min stage).
6. Slowly increase temperature to 120°C-125°C and pressure to 1.8-2.0 bar (15-20 min).
7. Hold temperature and pressure constant for 20 min with agitation.
8. Release pressure (15-20 min) and dry feather meal.

Application

A dry powder added to raw feathers before cooking.

Stability

Stable at room temperature and dry storage up to 50°C.

Contact your Novus sales representative directly or call Novus Customer Service at 800.568.0088.

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