

B.I.O SURF®

Optimizing yours feed moisture
&
Maintaining yours feed quality.



Problem associated with the moisture in feed:-

There are many problems face feed milling belong to moisture % in feed can be summarized into two items:

1-unequel distribution in the feed

- ☒ Poor thermal transduction to the core of the feed
- ☒ Increase energy required for production of the ton feed
- ☒ Increase production cost per 1 ton feed
- ☒ Increase problems of machine obstruction
- ☒ Poor starch gelatinization
- ☒ Triggering mould growth
- ☒ Decrease milling efficiency

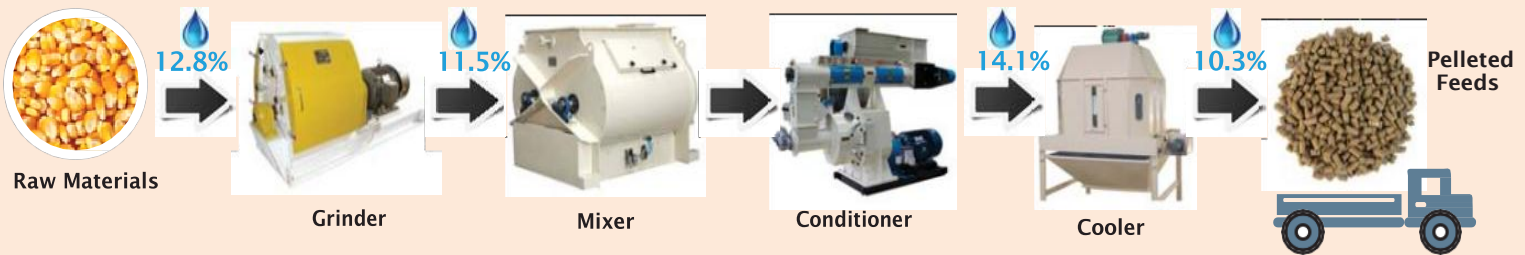
2-Evaporation of moisture during cooling

- ☒ Increase need of the target nutrient to compensate loss of the moisture(over formulation)
- ☒ Decrease pellet durability(decrease PDI)
- ☒ Increase fine particles in the feed.
- ☒ Lead to economic losses

Unequal distribution of moisture leads to poor milling efficiency and lumps formation



Example of feed moisture content change during processing



B.I.O Sruf ® Optimizing feed moisture & Maintaining feed quality

1-Equal distribution of moisture in the feed

- ✔ Perfect thermal transduction to the core of the feed
- ✔ Decrease energy required for production of the ton feed by 12%
- ✔ Decrease production cost per 1 ton feed
- ✔ Decrease production time per ton feed
- ✔ Increasing production capacity.
- ✔ Decrease problems of machine obstruction
- ✔ Excellent gelatinization of the feed
- ✔ Optimize milling efficiency
- ✔ Inhibit mould growth
- ✔ Increase self life of pelleted feed

2-Retain more than 1.5% moisture during cooling

- ✔ No need for over formulation
- ✔ Optimize pellet durability (PDI)
- ✔ Minimize fine particles in the feed .
- ✔ Maximize your profit margin.

Equal distribution of moisture leads to perfect milling & smoothing process of pellet production



Mechanism of action of B.I.O Surf®

1-B.I.O Surf® as surfactant & emulsifier:

- Decrease water surface tension with the aid of comprehensive formula of different surfactants and glycerol that strengthening the reaction forming very stable emulsion of the water and oil.
- Water droplet become encapsulated WITH B.I.O Surf® ensure maximum retention of the moisture with equal distribution.

With B.I.O Surf® surfactant

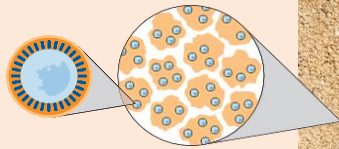
Homogeneous mixture



Homogeneous mixture of liquids evenly distributed and absorbed in the meal

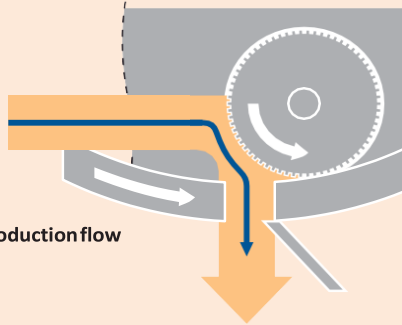


Water in oil



Fully conditioned meal

Smoother production flow



- ✓ Controlled pellet durability,
- ✓ starch gelatinization
- ✓ less fines
- ✓ even distribution of nutrients



Retain more than 1.5% moisture during cooling due to encapsulation



Without B.I.O Surf® surfactant

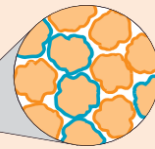
Water and oil separated



Lumps in the meal due to uneven distribution of liquids

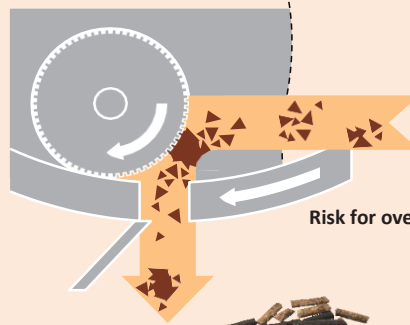


Water and oil added



Partly conditioned meal

Risk for over heating



- ✗ Uncontrolled pellet durability,
- ✗ Poor starch gelatinization
- ✗ More fines feed
- ✗ uneven distribution of nutrients



Surface moisture evaporation during cooling



B.I.O Surf® competitor's analysis:-

Criteria	B.I.O Surf	Competitor 1	Competitor 2	Competitor 3
Suppliers	✓ Biochem	☒ selko	☒ anitox	☒ dex iberica
Distributors	✓ Interpharma	☒ kirovest	☒ ift	☒ Abou-elnaga
SURFACTANT %	✓ (50%)	☒ (20 %)	☒ Less than 18 %	☒ 20 %
Capacity of surfactant	Strong surfactant ✓ Glycerides propionate ✓ Ammonium propionate ✓ Ammonium formate ✓ Glycerol	Depend only ☒ Activated propionate	☒ Artificial resin ☒ Trepene oil (weak surfactant)	☒ Cinnamaldehyde oil (weak surfactant) Has no character of surfactant forming non stable emulsion.
Glycerol	+ ve forming stable emulsions inform of small micelles	☒ -ve	☒ -ve	☒ -ve
Mould inhibitor	✓ +++	☒ ++	☒ ---	☒ +
Antibacterial activity	✓ ++++	☒ Weak	☒ +	☒ Weak

B.I.O Surf® Dosatron :-

B.I.O Surf® is introduced in the feed with the modernist and smallest specific water powered dosing solution pump in the world specialized in the application of B.I.O Surf® into pelted feed for even distribution and mixing.



Ask IPC for your Dosatron !!!!!!!!!

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فاكس: ٠٥٥٢٣٣٨٩٤٦

الموقع الالكتروني: www.interpharma-egy.com