

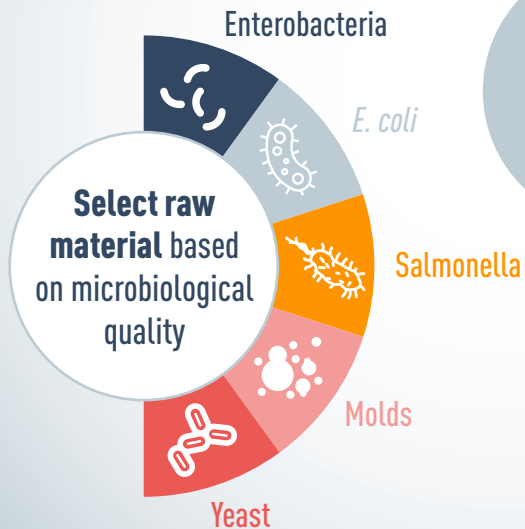


# Look after gut health

## Prevention in gut health



**Prevention is better than cure**



**Water quality**  
(see Nutricube about it)



**Biosecurity**  
control of pest reduces the microbiological challenge at farm



# Feed tips for gut health

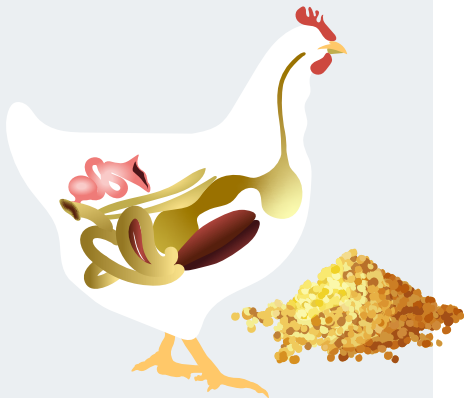


## Improve gut motility.

By using coarse particle size of feed. It increases the activity and development of the gizzard besides reducing pH.



## Additives Tools



**Acidifiers:** Efficient products to sanitizes feed. Less effective to sanitize the gut microbiota.

**Prebiotics:** Improve development of benefic flora. Stimulate immune response.

**Probiotics:** Beneficial bacteria that compete and reduce pathogens. Reduce inflammation and improve gut mucosal integrity. Immune modulator.

**Essential Oils:** Anti-inflammatory effects. Good source of energy to the enterocyte.

**Enzymes:** Improve the digestion and reduce the available nutrients to the last part of the gut.

**Antibiotics:** don't use it continuously as they have a risk of creating resistances. Use them in case of disease.



# The Virtuous circle

## Coarsely Ground Grain

### Advantage in the Gut Architecture

Grain of feed in cross  
particle size



Better develop of Gizzard  
and Longer intestinal tract



Longer microvillus and  
deeper crypts

### Advantage in the Metabolic Digestion

Longer time to grind grain in the  
gizzard



Lower pH of Microbiota at the  
entrance to small intestine (pH<3,00)



Better nutrient and water absorption



Lower develop of inflammatory  
prosses, saving energy

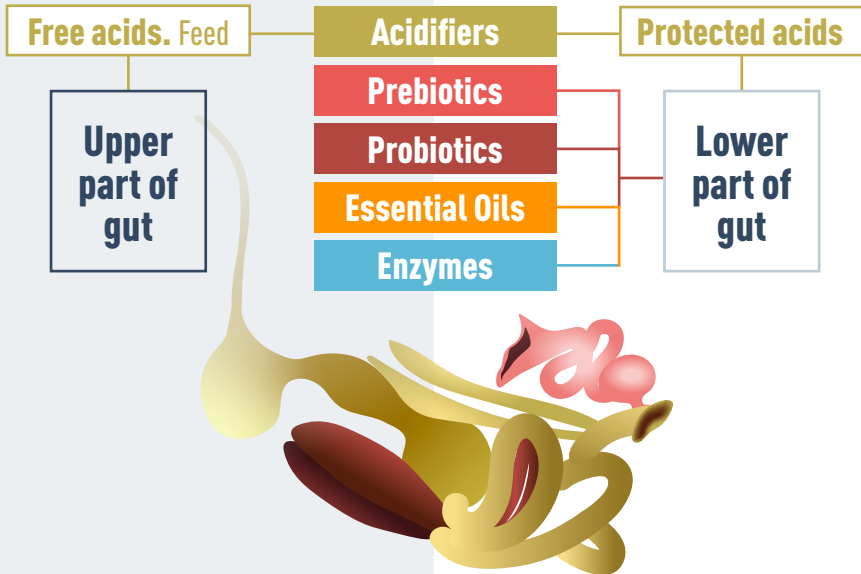


**Better Nutrient Absorption Result in:**  
Better Peak Production, more total Eggs,  
Biggest Eggs and Better EggShell quality



# Point of action of the tools

Create your action plan  
based on located activity





# Could you Thumb Up these 5 Goals

**Make regular posting sessions** including an evaluation of the gut health.

**Check water intake** increases.



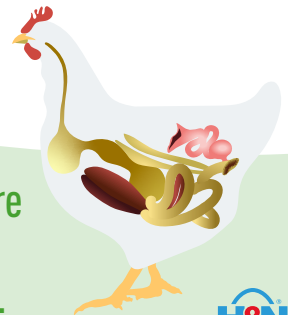
**Review the raw material** and feed microbiological results.

**Check the moisture** of the manure regularly.

**Use a prevention plan** for gut health in feed mill and feed.



**Remember for each million hens**, there are more than one thousand kilometer of intestinal gut working on feed conversion.



# Bibliography



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