

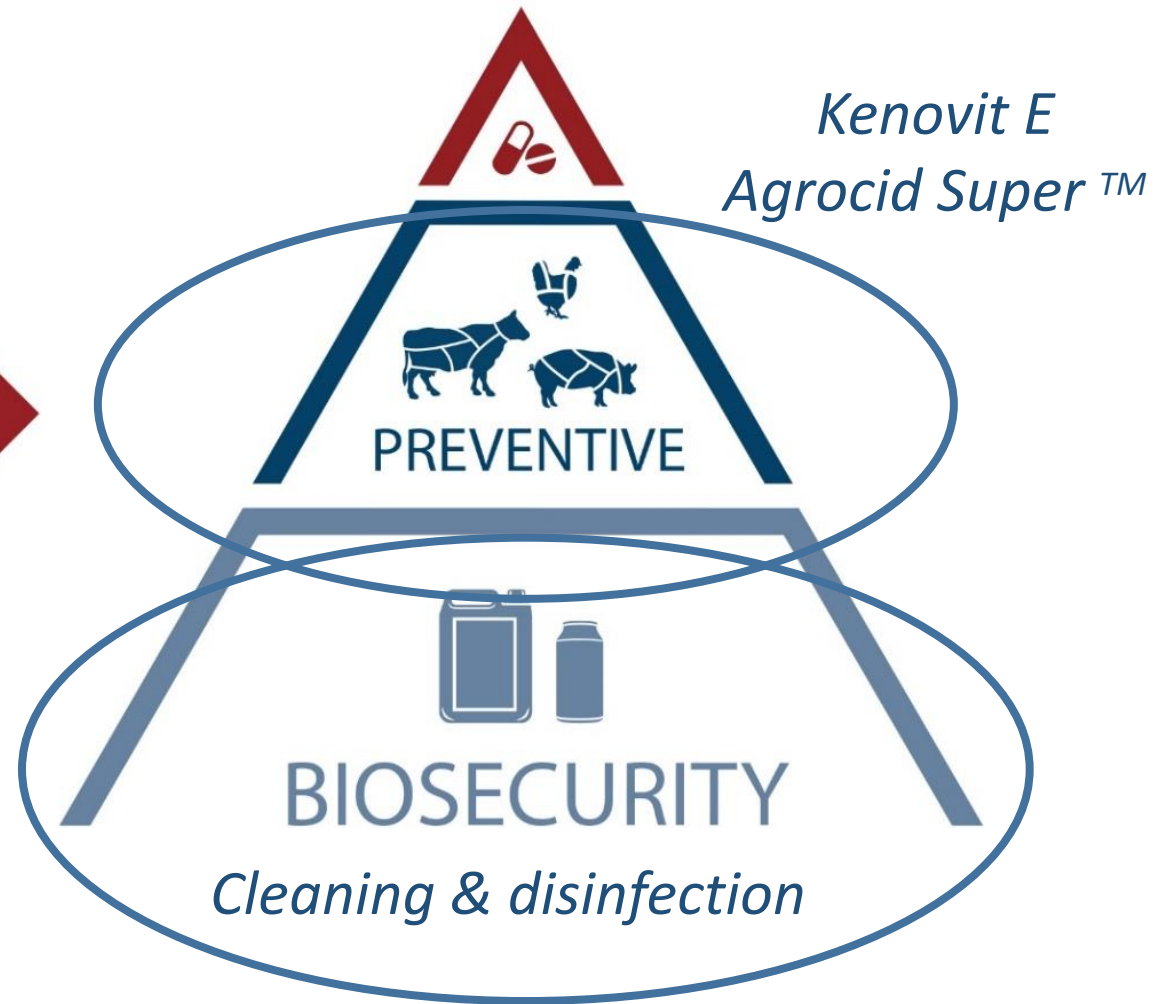
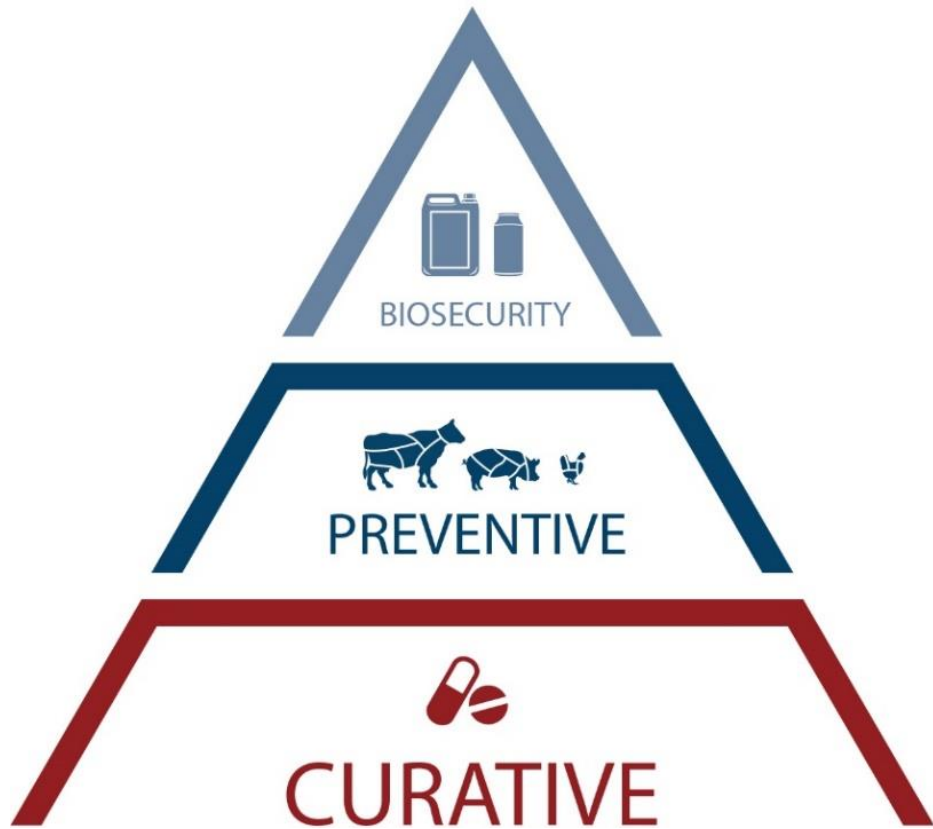
KVA NAIROBI AGM

REDUCTION OF ANTIBIOTIC USAGE THROUGH ACIDIFICATION
IN POULTRY



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WORK

CID LINES®



Prevention

Improve the resilience of the animals

Manage inflammatory reactions

Cope with

daily stress of life
external threats





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How?

Reduce external risk

Biosecurity

Healthy feed and drinking water

Support the intestinal tract

Give energy to the gut

Double function:

efficient digestion

protect against pathogens

A robust microbiome is the key!

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Wat is the microbiome?

= a community of micro-organisms (bacteria, fungi, viruses, ...)
living in a certain environment

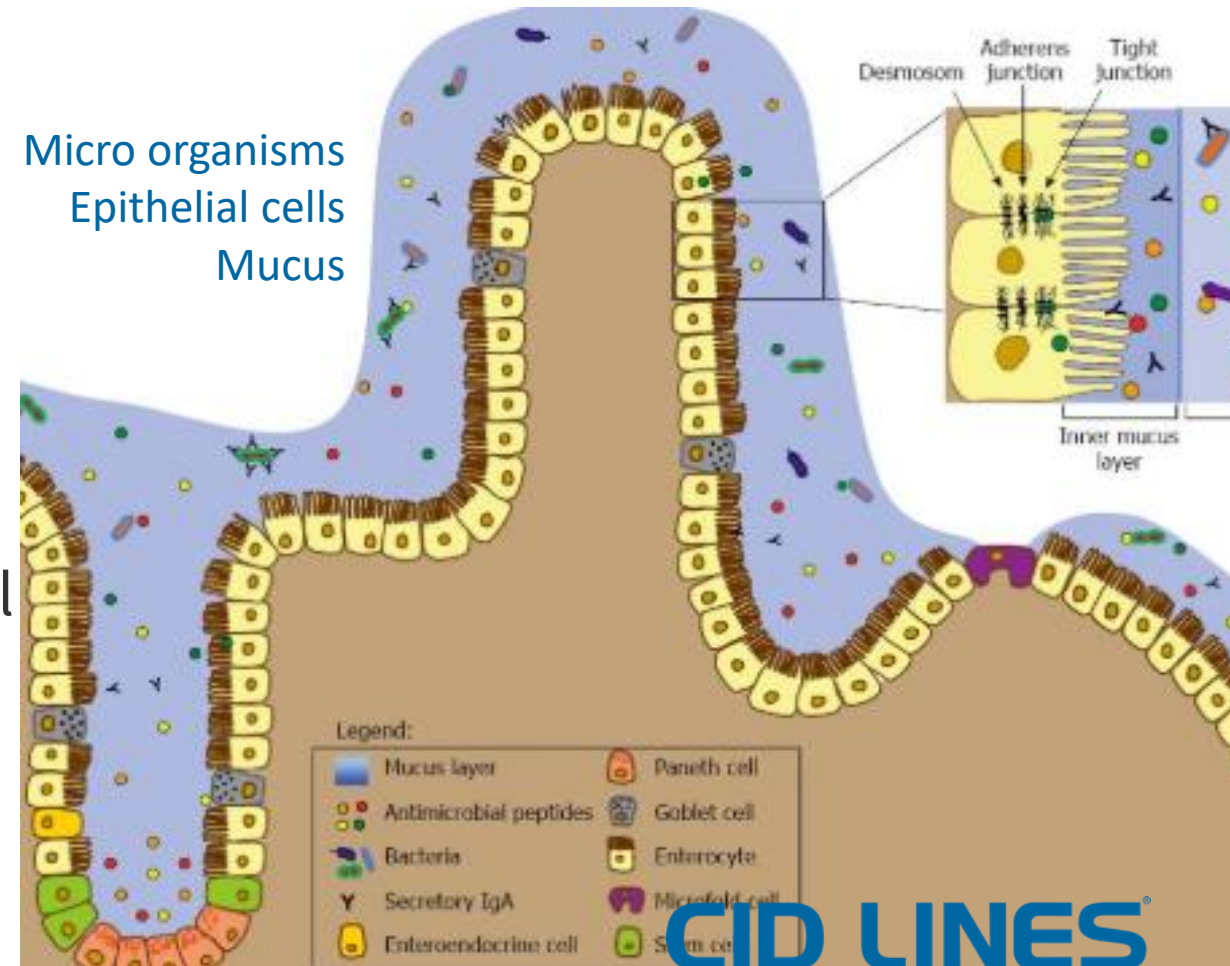
These micro-organisms form a community,
that communicates with the host and with each other
Huge impact on the growth and development of the host

How to create a robust microbiome?

Create a good environment for favourable bacteria and support multiplication

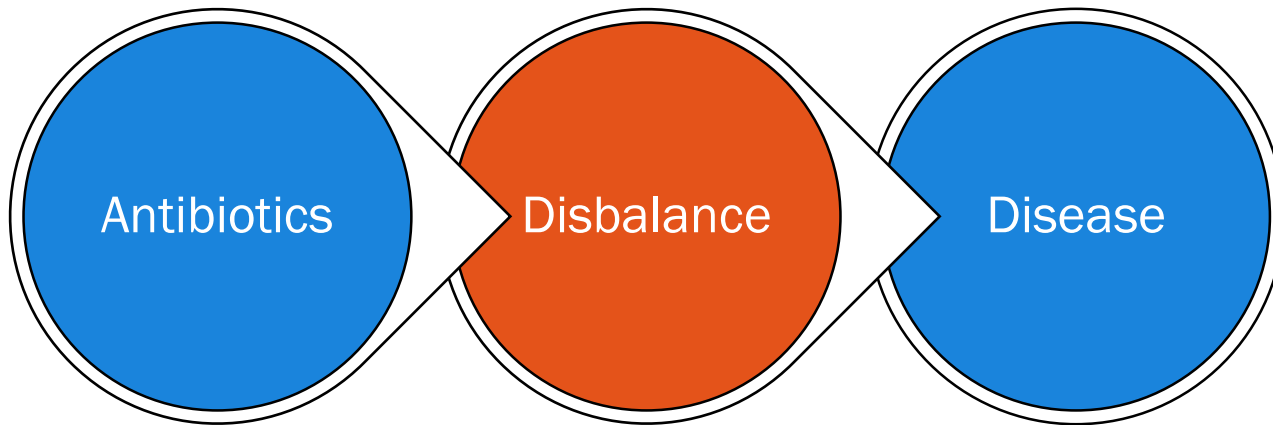
Decrease indigestible substrates as potential feed for unfavourable bacteria.

Animal's gut microbiota is a crucial part of all management practices.



Antibiotics and the microbiome

Antibiotics will



Disturb the gut flora

Decrease the microbial diversity

Create new opportunities for pathogenic bacteria

Especially when antibiotics are used at young age, they have a huge consequence on the further development of the animals

How can we shape the microbiome of our animals via the drinking water?



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| | Organic acids | Butyric acid | Essential oils | Trace elements | Vitamins |
|--------------------------------|---------------|-----------------|----------------|----------------|---------------|
| Agrocid super | Acidification | | | | |
| Agrocid super essential | Acidification | | Anti microbial | | |
| Agrocid super oligo | Acidification | | | Cu – Zn | |
| Agrocid super complete | Acidification | Gut development | Anti microbial | | |
| <u>Kenovit E</u> | | | Anti microbial | Selenium | Immune system |



Acidification

To improve the **taste of the water**

to increase the water intake of the animals

To **prevent the growth of micro organisms**

in the drinking water lines (reduce the risk of pathogens)

in the intestinal tract

To **improve the digestion** of the feed



Why organic acids?

ORGANIC ACIDS

Formic, lactic, acetic, propionic,

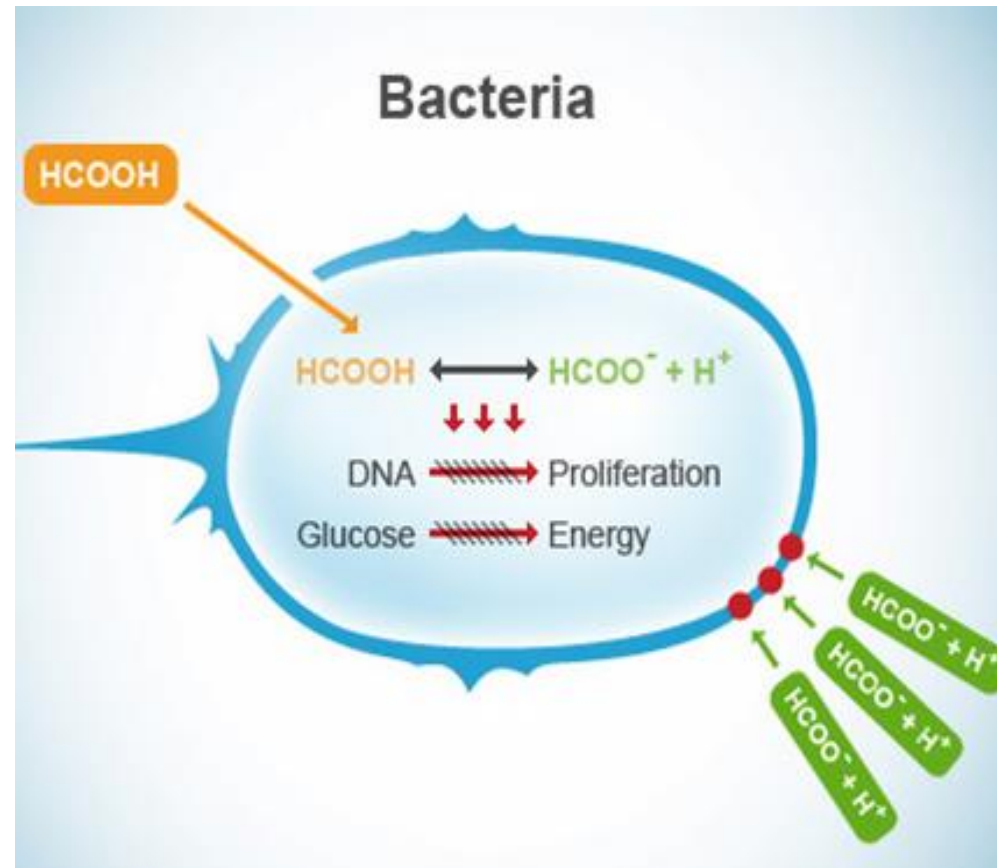
Easy acceptance by the animals

Provide energy and have a positive impact on ADG

Less corrosive

Organic acids: Antibacterial activity

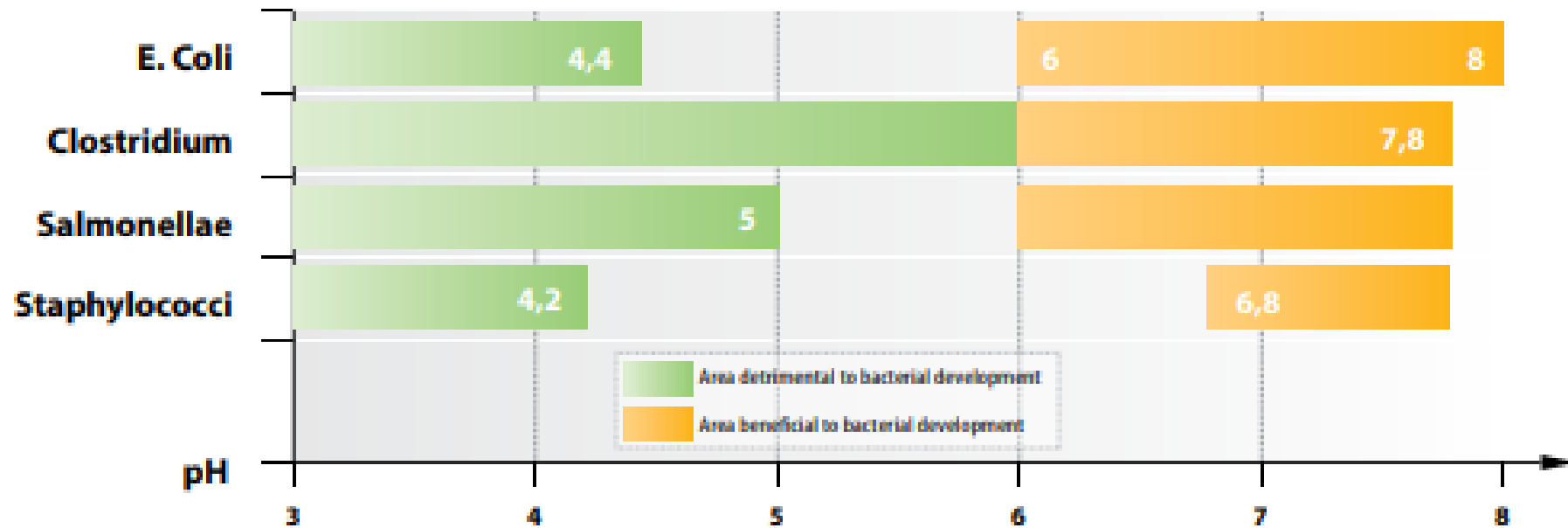
Undissociated organic acids
can penetrate into the bacteria and kill it



Dissociated organic acids
can't enter the bacterial cells

Organic acids: Antibacterial activity

- Control of the pathogenic flora



Organic acids: effects in the digestive tract

Lower pH in stomach

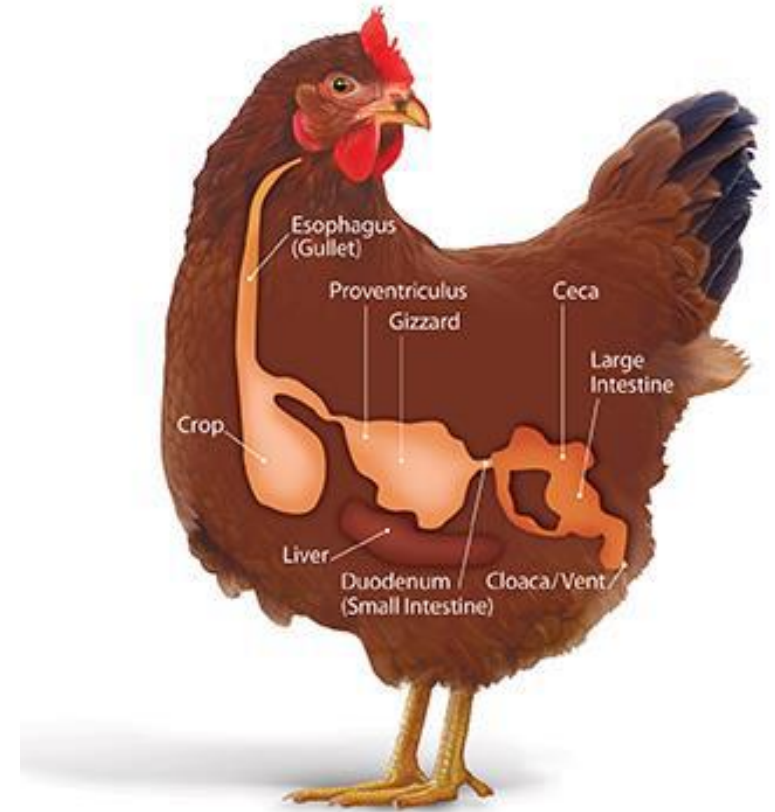
increased protein digestibility

less undigested feed in the intestine

reduced risk of bacterial overgrowth in the gut

Better zootechnical performance

feed conversion and weight gain



Butyric acid

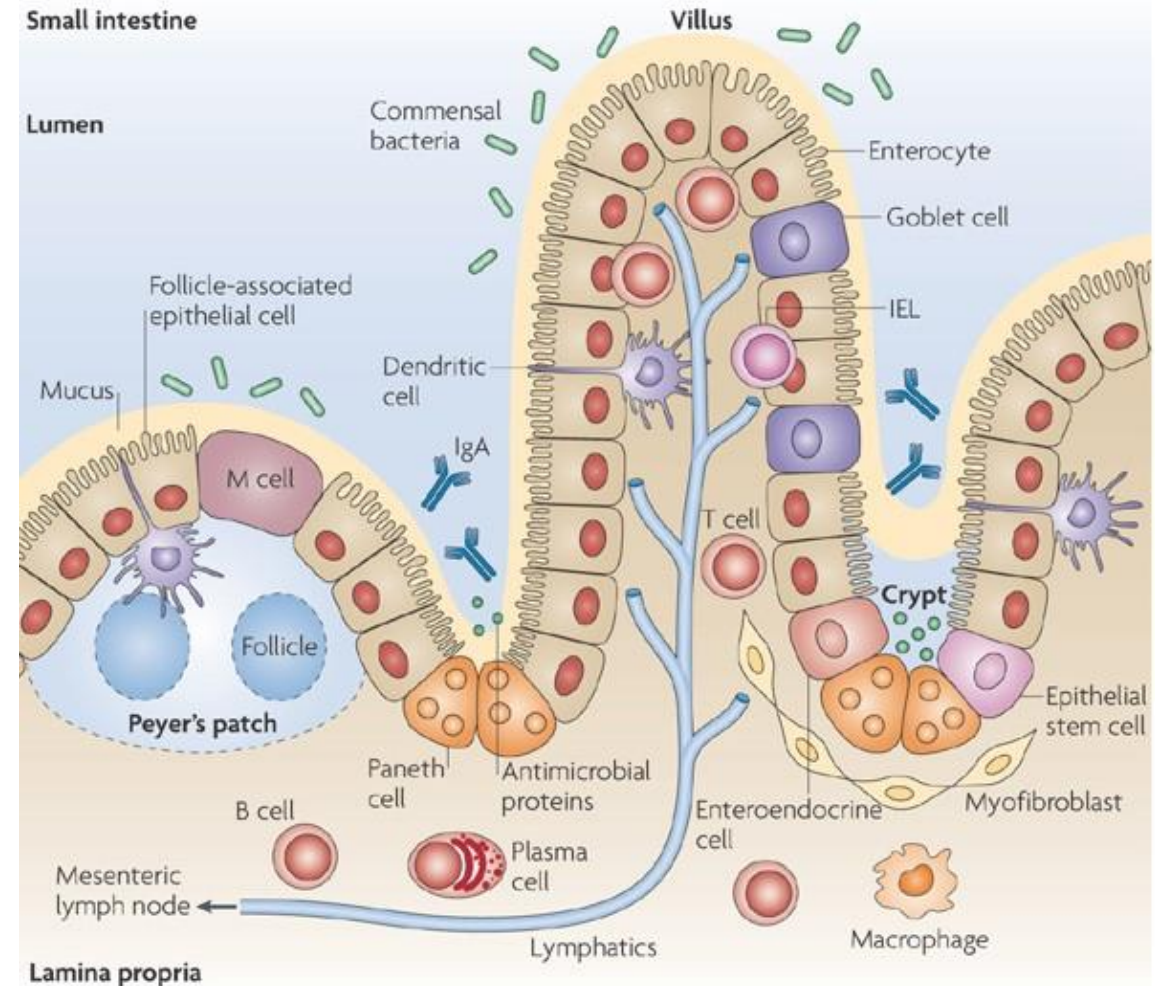
Special organic acid for gut health

Naturally produced in a healthy microflora

Small intestine: increase villi height, crypt depth

Improves the barrier function of the gut

Faster repair of intestinal damage



Keno™ vit E

Shaping the gut of your animals



CID LINES

Essential oils



Direct antibacterial effect

Positive impact on digestive system

Synergistic effect between essential oils and organic acids

Cell wall damaging effect of the essential oil helps the organic acids to penetrate the bacterial cell wall



Activity in the animal:

organic acids start working already early in the digestive tract

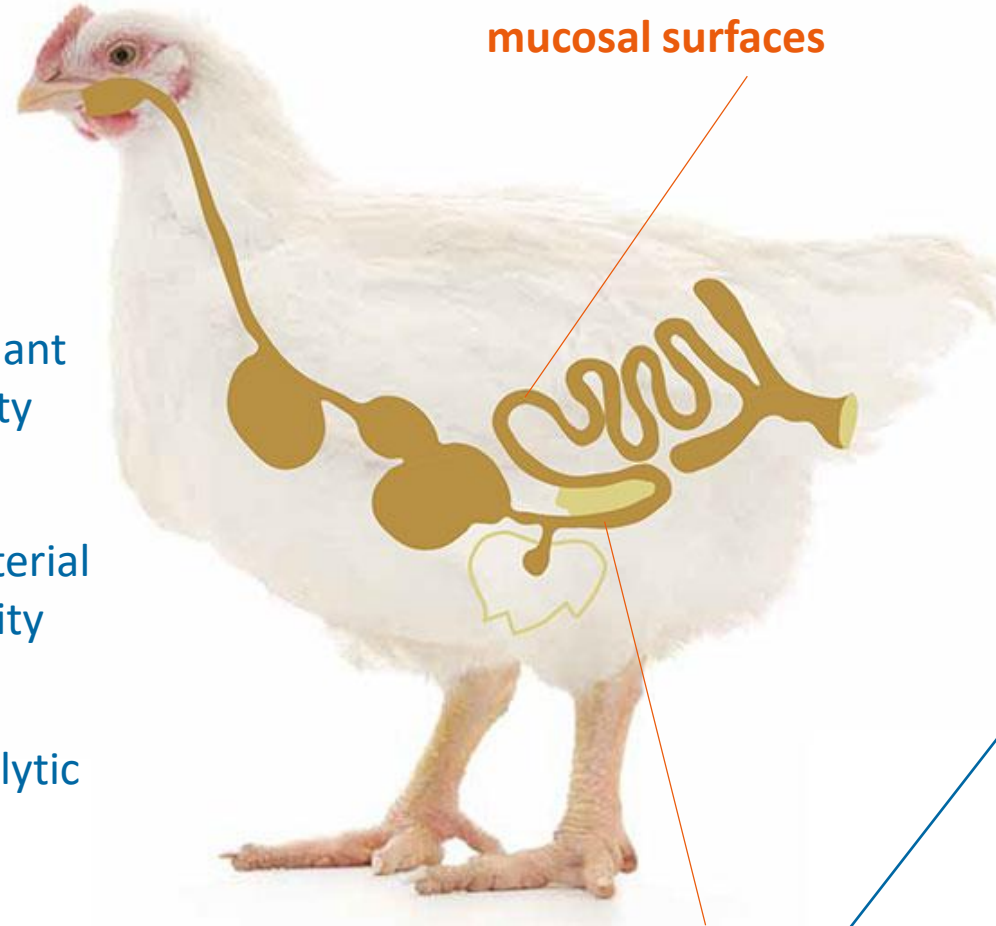
essential oils work further down the tract

Composition

Kenovit E is a mixture of essential oils, based on:



- Eucalyptus oil
- Mint oil
- Caraway oil
- Tea Tree oil
- Anis oil
- Oregano oil
- Cinnamon oil
- Selenium
- Vitamine E



Beneficial effects on the **internal microbiome and mucosal surfaces**

SYNBIOTIC

Feed intake and AWG ↑
FCR ↑
Supporting intestinal and respiratory functions

SYNBIOTIC

Beneficial effects on the **intestinal secretory functions**
increasing **feed digestibility**

- antioxidant activity
- antibacterial activity
- spasmolytic
- digestive



KENO™ VIT E

No killing – but **shaping** the intestinal microbiome

Essential oils ≠ antibiotics

too weak to kill bacteria in achievable concentrations

Essential oils work ‘as antimicrobial growth promoters’

reduction of the pathogen load by promoting the (competitive) intestinal flora



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KENO™ VIT E IS UNIQUE

daily dose ≈ therapeutic/pharmacological dose



Recommended in
veterinary medicine
in treatment of
gastro-intestinal or
respiratory disorders



Promotion of **secretions**
(intestines – lung)
and **secretolysis** (lung)

CID LINES®



Application in poultry

Dosage

50 – 100 ml / 1000L in drinking water

GIVE YOUR BIRDS A GOOD START WITHOUT ANY ANTIBIOTICS

Continuous first 7 days of the production cycle, in combination with acids

RESPIRATORY PROBLEMS

Start when first symptoms of coughing, 4 - 5 days in drinking water

WHEN THE BIRDS STOP EATING

Start when feed intake drops, 4 - 5 days in drinking water

AROUND VACCINATION

To support the birds in post-vaccinal reactions

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