



Escent[®] L

The optimal solution
for maximum profitability



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Stress is dynamic, complex.

Improved commercial poultry resistance to disease and stress have been successfully achieved through breed selection (genetic improvement), nutritional optimisation as well as the use of feed additives in order to improve performance and health.

Stress remains as the most single important issue faced by any successful poultry operation and plays a detrimental influence on eventual profitability and meat quality.

Birds possess a limited natural resistance and immunity against colonization or infection by potentially pathogenic micro-organisms or other toxic components.



Metabolic disorders and disease symptoms caused by toxins.

Practical and easy applicable dietary or drinking water applications are an important tool to address specific and non-specific stress related situations in modern poultry production.

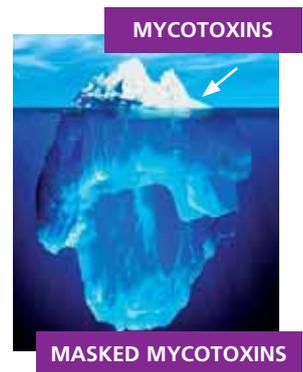
Sources of Stress

1. Multiple Mycotoxins, hidden toxins and undetected endotoxins

Mycotoxins decrease the function of organs such as the liver and kidneys. The liver, the main detoxification organ, needs besides its metabolic functions to clear and detoxify not only mycotoxins present in the feed, but also enterotoxins (toxins produced by bacteria - that are usually not checked for) and many other contaminants.

In nature there are more than 400 types of mycotoxins identified, which are diverse in their chemistry and effects on animals. Analytical techniques for routine analysis have been developed for about 30 mycotoxins.

Sampling for mycotoxins analysis is extremely difficult and an important source of misleading information and errors. Under normal conditions, a multi-toxin contamination is likely, which can have a synergistic effect, increasing the negative impact on animals' performance and health. Mycotoxins may also occur in conjugated or hidden form.

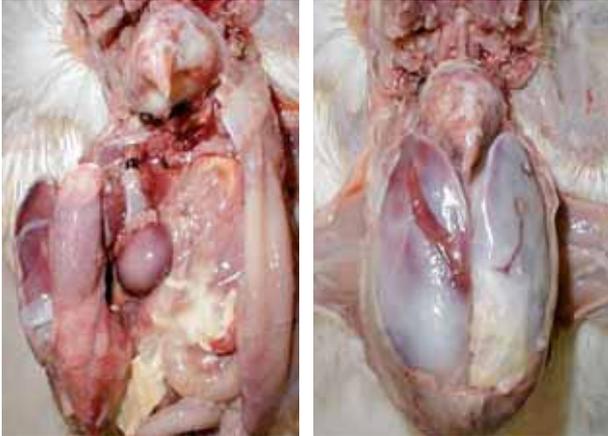


Due to the heterogeneity and complexity of contamination's, prevention should be a key element to reduce economical losses for the poultry producer.



2. Old & Emerging Diseases

Diseases are major concerns within intensive animal production. Mycotoxins have a significant negative impact on the poultry defense mechanism and immune system.



Colibacillosis: Gram negative rods, Septicaemia, Coli granulomatosis (Intestine, mesenterium)



Toxic liver damage hemorrhagic liver syndrome

Very severe kidney and liver toxic damage

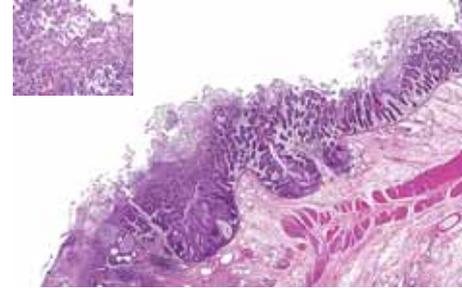
3. Enteric diseases: Bacterial enteritis - dysbacteriosis

The increasing prevalence of subclinical necrotic enteritis and dysbacteriosis are the most significant challenges to modern and antibiotic growth promoters free poultry production.

The **mycotoxin deoxynivalenol predisposes for the development of necrotic enteritis in broilers**. Subclinical necrotic enteritis (NE) is an economically important enteric disease caused by Gram-positive, anaerobic bacterium, *Clostridium perfringens*.



The *Fusarium* mycotoxin deoxynivalenol (DON) is a common feed contaminant and may damage intestinal epithelial cells and/or their intercellular junctions, subsequently inducing protein leakage (Girish and Smith, 2008) and may thus predispose to the development of NE.



4. Oxidative stress

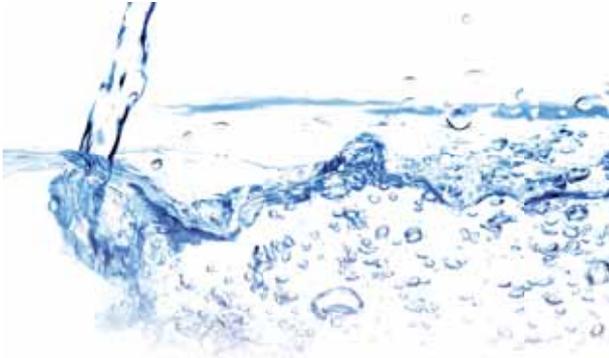
Considering that mycotoxins are among the stress factors that have a negative effect on pro & antioxidant balance in the body and especially in the cell, reactive oxygen species can get out of balance. This may lead to a situation whereby **the bird is no longer able to quickly detoxify these products, leading to oxidative stress**.



'Blue chicken' - bad bleeding, blood oversaturation with methemoglobin, hemorrhages on the skin

Such a wide spectrum of challenges requires a **combined approach to maintain and improve the overall production condition**.





SOLUTION via the drinking water

Chickens suffering from disease disorders will first reduce feed intake while they maintain water consumption. Significant reduction in appetite and feed intake has severe consequence on the overall condition of the bird. Insufficient nutrient supply in general, and essential nutrient uptake in particular will quickly lead to an impaired overall condition. An irregular supply of nutrients to the intestinal tract will also influence negatively the micro-flora, intestinal integrity and over all poultry performance.

Drinking water however offers a perfect medium for the application of supplements to overcome periods of stress, to recover faster from disease and to limit periods of reduced feed intake to a minimum. Even in case of urgency, there is no need to postpone a treatment because of feed re-formulations. As such a treatment via drinking water can be started immediately.

Application of additives via drinking water is a very practical and straight forward approach in farm management. The product and application can be set for 100% in function of the farmer's observation. He has finally the master's eye and is responsible to achieve the best performance and profitability.



A drinking water treatment is a flexible approach in terms of timing and application.

ESCENT® L

Specially designed product for drinking water application, which is synonym for flexibility, efficiency and profitability, and a very wide action radius. ESCENT® L reduces & overcomes stress-induced health problems related to the following product features:

- Diuretic effect
- Liver tonic, enhancing excretion of harmful metabolites
- Detoxifier power
- Immune response support
- Water intake improver

ESCENT® L is an innovative liquid anti-stress, mycotoxins control and animal revitalization solution, combining yeast extracts, Yeast fermentation products (*Saccharomyces cerevisiae*) with bio-active contents, chelators, energy sources, minerals, botanicals and organic acids. It ensures a critical supply of nutrients and supportive molecules to counteract the negative impact of feed refusal on metabolism and micro-flora.



Botanicals will contribute to optimize metabolic processes while yeast extracts are known to support the animal's immune function.

ESCENT® L Bio-toxicosis Treatment & Prevention tool adresses toxins, endotoxins and hidden toxins challenges when feed treatment are too late or not practical.



ESCENT® L benefits:

- Provides fermentation extract wich is know for its wide range of highly beneficial an **readily bio-available nutrients** (Vitamins, minerals, amino acids, energy)
- Provides excellent media for **beneficial bacterial growth**
- Vitalize damaged organs like **liver and kidneys**
- Maintains **lower pH** in the guts (acidification)
- Helps **exacerbating proper fermentation** and thus eliminates toxins of the guts mal-fermentation
- Detoxifies Mycotoxins by Biotransformation and Caption (wide spectrum & highly efficient in acid media)
- **Reduces immune suppression**
- Enhance animal **disease resistance** and defense system
- Reduces negative effect of **oxidative stress**
- **Reduces convalescence**
- **Improves overall performance** under healthy or diseased conditions in terms of FCR, homogeneity and production index

While being safe for the user, the animal, the equipment and the environment, ESCENT® L is non-corrosive, organic, bio-degradable, stable and water soluble suspension. This liquid application is ideal in situations in which stressed animals reduce their feed intake but continue drinking.

ESCENT®L use & application:

Treatment can be started for all clinical cases of mycotoxicosis and the prevention thereof, as well as in circumstances of stress, severe disease conditions, immune-suppression or whenever animal performance is reduced.

Condition	Dose	Period
Prevention and continuous use	0,25-0,50 ml/l	during 4-7 days
Treatment (stress conditions)	0,50-1,00 ml/l	during 5-7 days



Competitor's product
unstable, inhomogeneous,
ingredients separating, inefficient



ESCENT® L
Very stable homogeneous liquid.
No sedimentation, max. efficiency



Packaging available (0,5 - 1 l)

ESCENT® L testimonials:

Middle East countries

1. Under Clinical mycotoxicosis due to high ochratoxins contamination, high mortality, stunted growth, mouth lesions were observed prior to treatment with **ESCENT® L**:

Once **ESCENT® L** was added in the drinking water at a dose of 1ml per 1l of water, the following signs were recorded:

- More viable within 12 hours
- Water and feed consumption to normal within 24h
- Mortality reduced to normal within 48h

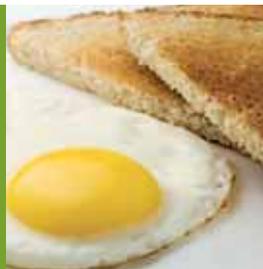
2. Selected poultry producers on trial with **ESCENT® L** noticed the following improvements when treating for a few days with **ESCENT® L** at 1ml/1l after normal disease treatment:

- Regain health parameters faster
- No new case development
- Recovery of organ activity
- Lower medication



South East Asia

In the presence of intense heat stress, with analyzed levels of endotoxins and mycotoxins and observed liver damages, feed intake and performance were maintained regardless of the overall stress created.



ESCENT®L TRIALS summary

Broilers

Trial size (# animals)	Observed abnormalities	Application	Observation
20 000	No specific issues	1 ml/l, day 2 - day 5	At 28 days, improved FCR and LW advanced for 2 days
28 000	Daily mortality higher than normal (0,625%)	1 ml/l, day 6 - day 11	Daily mortality 0,01%
60 000	No specific issues	20 ml/2000 heads for 4 days	Lower mortality, better FCR compared to historical data
175 000	Wet droppings during feed transitions (mash to crumble and crumble to pellet)	1 ml/l during 2-3 days	Improved manure quality, no wet droppings.

Trial size (# animals)	Observed abnormalities	Application	Observation
2 000 (Lhoman breed)	Heat stress (38°C during the day) & 80% humidity	1ml/day (from day 1 to day 7 & from day 12 to 15)	
At day 7	<ul style="list-style-type: none"> • Low vitality • Stiff and sticky feathers • Soft feces 		<ul style="list-style-type: none"> • 10 g more body weight per bird
At day 15	<ul style="list-style-type: none"> • Severe chronic respiratory disease • Low vitality • E. Coli diarrhea • Increased mortality • Additional treatment of extra vit C, Antibiotics and Sorbitol 		<ul style="list-style-type: none"> • Moderate chronic respiratory disease • Vital animals • Normal mortality levels • NO need for extra Vitamin C, sorbitol levels
At day 20 (move to bigger house)	<ul style="list-style-type: none"> • Additional treatment of Vitamin C, Sorbitol and antibiotics • Mortality: 300 birds 		<ul style="list-style-type: none"> • Only antibiotic treatment needed as control (no addition of Vitamin C & Sorbitol) • Mortality: 60 birds (240 birds less than control) • Live weight: +100 g versus control.

Layers/Breeders

Trial size (# animals)	Observed abnormalities	Application	Observation
20 000 layers	Egg prolapse	1 ml/l for 3 days	Significant improvement of egg prolapse
54 000 breeders	No specific issues	0,5 - 1 ml/l in growing breeders	Reduced mortality



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