

SuperFeed Specialties

NUTRIA HELLAS PC

...the pure natural power in animal nutrition

- **GPN PLUS[®] + KETOBAN[®]**
...for transition period metabolic disorders
- **MILKFORTE[®]**
...for disgalactiae and postpartum disorders
- **THERMAL ANTISTRESS[®]**
...for heating stress in hot climates
- **MILEARB[®] (MILOS ISLAND EARTH)**
...for general animal hygiene
- **NUTRIA TOXIN BINDERS[®] A,B,C,D**
...for toxicosis prohibition via feed



Increasing human population (estimated to reach 9.6 billion by 2050) and the alteration of nutritional habits of developing countries, are the most important factors affecting food efficiency and safety. In addition, as consumer living standards improve, there is increasing demand for high quality, safe and environmentally friendly animal products.

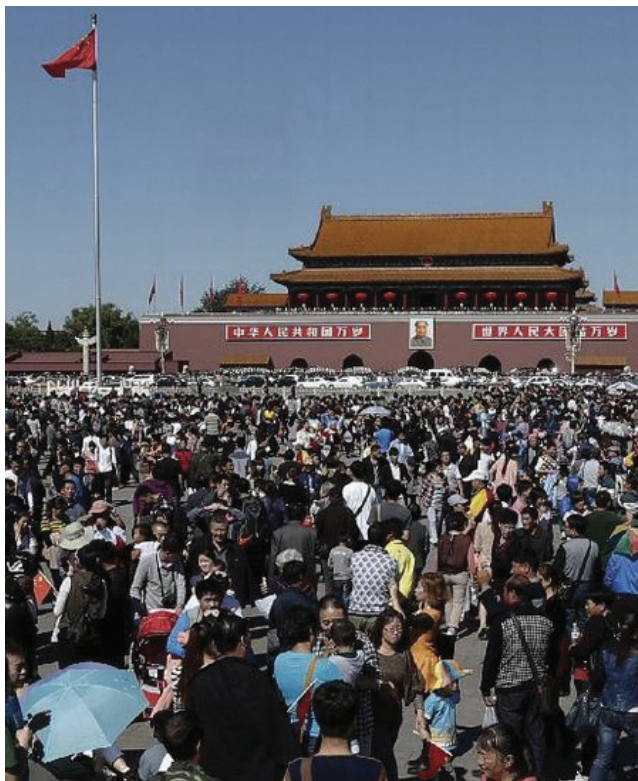
Animal Scientists all over the world, research various ways in order to improve animal production features by genetic, husbandry and nutritional means.

Nowadays, there is a focused target in feed supplements especially since January 2006 (when the last four antibiotics which were used as growth promoting factors were banned in Europe), animal production has to face and fill this gap.

Nutria Hellas launches the **Super Feed Specialties**, a range of products aiming to improve animal production and growth, enhance the feed conversion index, modify the acid-alkaline balance, develop homeostasis, extend the number of lactations, reduce the nitrogen and methane emissions, and protect the animal from diseases via the optimization of microorganism population thus reducing the usage of vaccines.

These products, developed according to the demands of each species (poultry, cattle, pigs, sheep/goats, fish), their physiology and their production stage (growth, pre/post-parturition, egg production, milk production, meat production).

Modern livestock management requires rational techniques and preventative methodology.



G.P.N. Plus®

COMPLEMENTARY FEED FOR TRANSITION AND HEATING STRESS PERIODS

The diseases pregnancy toxaemia and ketosis can cause severe problems in goats, sheep and cows. While the diseases are clinically different and occur during different stages of pregnancy and lactation, the basis of the disorder is essentially the same: a decrease in blood sugar levels and an increase in ketones.

In ruminants, glucose is synthesised mainly from propionic acid (a volatile fatty acid produced in the rumen) and from amino acids. The amount of glucose that is absorbed directly depends on how much dietary carbohydrate escapes rumen fermentation and is digested in the small intestine. This form of glucose uptake varies with different feeds as well as their treatment. Ruminants can use products from rumen fermentation, such as volatile fatty acids, for most of their energy requirements. However, the nervous system, kidneys, mammary gland and foetus have a direct requirement for glucose.

During periods of peak glucose requirement (late pregnancy, early lactation, decreased appetite

caused by prolonged high temperature) problems may arise due to a glucose deficiency. The most important cause of pregnancy toxaemia is a decline in the plane of nutrition during the last six to eight weeks of pregnancy. This places the pregnant female in a difficult situation because the developing foetus imposes an unremitting drain on available maternal nutrients. Pregnancy toxaemia can arise from starvation and an over-fat condition.

Over-fat - Over-fat pregnant females are usually found in a small enclosure and get very little exercise. Their appetite may be reduced, they become lazy and excessive fat breakdown begins in an attempt to maintain blood glucose levels. This can result in abnormally high levels of ketones. Another problem is fatty degeneration of the liver. The confrontation of these problems demands the supply to the ill animals of nutritious mixture full of energy of instant use like propylene glycol, propionate acid or salts, glycerin. **That is main reason for the production and use of GPN PLUS.**

Ingredients: Glycerin, calcium propionate, propylene glycol, a premix of vitamins

Analysis: Humidity 24%, Ash 7% Calcium 2%

Additives per kg of feed: Vitamin E (E307) 5.000 mg, Vitamin B12 Cyanocobalamin 0mg, Nicotinic acid PP3 10.000mg

Dosage and administration:

Dairy cows: 3 weeks before up to 4 weeks after parturition either 200ml per head per day incorporated to TMR or 3+3 drenches of 0,7 litre each before and after calving (one just after calving, diluted in 15-20liters warmed water, and the others one per week)

Sheep and goats: 3 weeks before up to 4 weeks after parturition either 40ml per head per day incorporated to TMR or 3+3 drenches of 100ml each before and after parturition (one per week).

Fattening calves and lambs: 0.03% of their body weight

Packaging: 0,34lt - 1lt - 5lt - 25lt - 200lt

- Protection against ketosis and toxemia.
- Reconstruction of the breast tissue.
- Improve texture and palatability of feed.
- Increased lipoprotein in milk.
- Increased intake and use of micronutrients of rations.
- Protection of the liver and its functions.
- Quick afterbirth recovery.
- Increased water consumption and milk yield
- Increased average daily growth
- Preventing fungal growth and

MILK FORTE®

Ruminant diet in dry period must be very rational and effective, otherwise at early lactation huge financial cost may be caused. Ketosis, toxæmia, acidosis and milk fever are the most frequently diseases in this period.

Nutria Hellas PC extends their series of Super Feed Specialties (SFS) with a new and innovative product, the MILK FORTE which targets to restore the suffering animal from transition period and increase their production potential.

MILK FORTE pioneering formula focus on supplementation with protein of highest biological value, and polyphenols via flaxseed meal, in further provision with nitrogen of rumen microorganism from urea, to improve the immune response, and rumen protected choline is able to balance the fat metabolism, to supply the organism with methyl groups, and last but not least, choline constitutes precursor compound for many substances. In addition, the supplementation with propionate calcium contribute to prevention of milk fever.

The results of MILK FORTE is the increase of milk yield and the enhancement of milk protein and fat yield, the prevention of clinical/sub-clinical ketosis and fatty liver, adequacy of methio-

nine which is not used in de novo synthesis of choline, the regulation of acid-alkali balance in rumen in order to avoid acidosis, increase the feed conversion index, the daily average gain and the meat quality. Finally, MILK FORTE contain the essential vitamins and minerals that the animals require.

Administration instructions: **Dairy cows:** 150 up to 500 g /head/day, 20 days before parturition throughout the duration when milk production exceeds 30 liters per head/day. Sheep and Goats: 30-70 g/head/day 20 days before parturition throughout the duration when milk production exceeds 2 and 3 liters per head/day accordingly.

THE PRODUCTS CONTAIN UREA: THE AMOUNT MUST BE TAKEN INTO ACCOUNT WHEN OTHER SOURCES OF INORGANIC NITROGEN IS FED

NOT TO BE FED TO CALVES AGED LESS THAN 5 MONTHS AND LAMPS AND KIDDOS LESS THAN 3 MONTHS

For further details about this product read the full guide.



THERMAL ANTISTRESS®

NOUTRIA HELLAS as serving the objective of efficient operation, in conjunction with the innovative, scientifically advanced and vital services to the clients of breeders, agronomists and livestock supplies traffickers, presents its new product **THERMAL ANTISTRESS®** as a feed supplement in order to face the heat side effects in dairy ruminants.

HEAT PROTECTANT is a new formula based on potassium homeostasis, balance the pH of the rumen, and increasing the energy content of the diet in order to minimize the negative impact of ruminants in high and extreme temperatures during the summer months.

It contains high bioavailability potassium carbonate, bioactive yeast (*Saccharomyces cerevisiae*), calcium propionate, high quality protected vegetable fat rich in palmitic acid and essential oils.

A scientific view

The cows export from the thermoneutral zone where mercury pass the 22°C and humidity of 45% and enters a heat stress condition. Even after 26°C is obvious the fall of consumed quantity of dry matter and as a result of this, milk production also decreased.

Table 1. THI index and heat stress

Relative humidity (%)		20	30	40	50	60	70	80	90	100	
22	66	66	67	68	69	69	70	71	72		No heat stress
24	68	69	70	70	71	72	73	74	75		Minor heat stress
26	70	71	72	73	74	75	77	78	79		
28	72	73	74	76	77	78	80	81	82		
30	74	75	77	78	80	81	83	84	86		High heat stress
32	76	77	79	81	83	84	86	88	90		
34	78	80	82	84	85	87	89	91	93		Lethal thermal stress
36	80	82	84	86	88	90	93	95	97		
38	82	84	86	89	91	93	96	98	100		
40	84	86	89	91	94	96	99	101	104	(NADIS)	

All data refer to humidity over 45%.

A heat stress situation, because of disruption of homeostasis of the organism, brings many problems:

1. The rate of breathing and breathlessness increase, so the maintenance requirements of animal increase by 10% and more free radicals generate due to increased respiration rate (ROS), causing in oxidative stress.
2. The rumination time is reduced (reduce in rate of exploitation)
3. Potassium in blood is reduced
4. The reduced dry matter intake is done against in the forage (when it is possible), therefore the ratio of forage to concentrate is altered and the buffering capacity of the rumen with a possible extension acidosis.
5. The increased body temperature of cows is deterrent to sit the animals at rest positions and pro-

longed standing overwhelmingly increases lameness rate (hobble).

6. In cows, which are in the first phase of lactation, dry matter intake is reduced and in connection with the negative energy balance, ketosis is a possible outcome.

7. Taking into account the above, a US survey, which conducted in Ohio in 2003, points out that the economic consequences of heat stress at EUR 142 /cow /year even in stalflikes facilities with adequate ventilation.

HEAT PROTECTANT:

1. Control the homeostasis of potassium
2. It is able to balance the rumen pH, as a result the feed conversion index increased even if the dry matter intake decreased.
3. Increase the energy content of feed with high quality and digestability plant fat, which convert directly in energy, so decrease the potential of ketosis
4. As heat stress side effect decreased, the above product μειώνοντας τις επιπτώσεις του θερμικού στρες ensure adherence to dairy production or deposition of body weight

HEAT PROTECTANT administered in an amount of 100-250 grams / head / day for dairy cows and 30-80 grams / head / day in dairy goats.

CAUTION: Not recommended for use in cows in the dry period.

Available in 25 kg bags

MILEARB® (MILOS ISLAND EARTH)

The Lower Pleistocene bentonite deposits of Eastern Milos, Greece have been formed at the expense of volcaniclastic rocks under submarine conditions. Systematic variation of the major chemical elements reveals that the deposits were formed from different precursors which were erupted from different volcanic centers belonging to at least two separate volcanic provinces. The volcanic eruptions were probably sub-aqueous. The major authigenic phases are smectite, K-feldspar, opal-CT and the zeolites mordenite and clinoptilolite. Hydrothermal alteration has modified both the mineralogical characteristics and the properties of bentonites. Alteration of the parent rocks to bentonites was favoured by high water: wall rock ratios and fluid flow and is associated with leaching and subsequent removal of Na, K and Ca.



Such a product mixed with mold inhibiting agents and dust regulator has ideal characteristics for solving a lot of problems related with general animal hygiene as:

- Drying the just born animals saving them from sub thermal conditions
- Drying the wet litter in poultry houses and lowering the rhythm of coccidian population increase.
- Drying the wet cow and calves beds
- Minimizing the growth of fungi and bacteria population in the stables
- Relieving the dairy animals in waiting corridors to milking parlors
- Minimizing the odors in stables adsorbing them
- Minimizing the respiratory problems by the adsorption of ammonia



NUTRIA MYCOTOXIN BINDERS® A,B,C,D

NUTRIA'S mycotoxin binders is a line of products ideal for meeting the needs of every farmer, or feed raw material trader, or feed processor. Designed to ban over the 95% of all the existing, in the product to be mixed, mycotoxins, at the moment of incorporation, and additionally to encumber the growth of new toxin production sources.

The line is consisting of:

NUTRIA MYCOTOXIN BINDER A, is a blend of activated aluminosilicates mixed with yeast cell walls and organic acid.

NUTRIA MYCOTOXIN BINDER B, is a blend of activated aluminosilicates mixed with yeast cell walls and organic acid plus a significant percentage of Diatomaceous earth.

NUTRIA MYCOTOX C is a MULTI action mycotoxin binder which is the only one in using bentonite, diatomaceous, organic acids, glucomannans and enzyme in a unit polydynamic blend, the most effective mycotoxin binding blend available.

This provides a very wide spectrum of mycotoxin control. This multi action activity is crucial in preventing performance losses whatever the mycotoxin present in the feed.

NUTRIA MYCOTOXIN BINDER D, is a blend of activated aluminosilicates mixed with yeast cell walls, organic acid and phytase as enzymatic biotransformator.

(For detailed information in the specialized leaflet for binders)



ACTIVITY FIELDS

Contribution in to animal protein production from feed raw material supply to industries and farms,

...till to the meal preparation in professional premises.

- Feed supplements production for all productive, working & sporting animals, poultry & aquacultures.
- Water soluble premixes and liquid mixtures for same sectors.
- Milk replacers production for all young animals.
- Feed raw materials distribution.
- Detergents and Disinfectants production & distribution in the Balkan peninsula with collaboration & the supervision of the trade mark owner EVANS VANODINE INTER'NAL PLC



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