# **CHITIKA GROUP**

specialized producer of the additives of poultry and cattle food

















# **CHITIKA BUFFERIN**

# Reliable and affordable buffering

Buffer is a compound that prevents acidosis in consumers consuming high concentrate in the ration. The buffer increases the ratio of acetate to propionate and ultimately improves fiber digestion in the rumen. In general, buffers keep the pH of the rumen in a constant range.

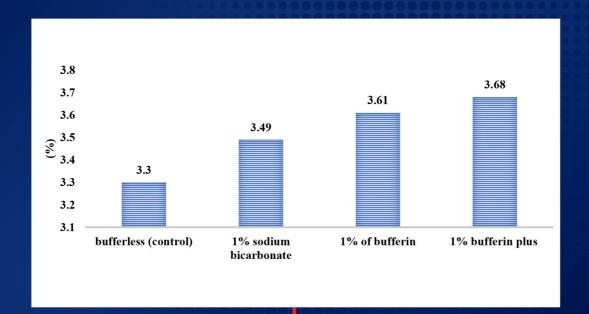
#### Why Chitika Bufferin?

Bufferin Chitika is a safe and affordable buffer that is composed of sodium bicarbonate, potassium chloride, magnesium carbonate, magnesium oxide, magnesium minerals, acid neutralizing compounds, yeast, etc.

#### The most important effects of using Bufferin Chitika

- Maintaining milk production and milk fat during stress
- Increasing fiber digestion as well as increasing organic matter in the
- rumen
- Improving microbial protein production
- Fast and long-term buffering effect
- 100% replacement capability with sodium bicarbonate
- Maintaining palatability of ration
- Prevention of diarrhea and flatulence caused by acidosis

Comparison of the effect of using sodium bicarbonate, bufferin and bufferin plus Chitika on milk fat percentage in medium production Holstein cows.



# **CHITIKA HERBAL BENTOMAX**

# **Multicomponent binder toxin**

This product consists of organic and mineral compounds and has 7 herbal plants. This product has a high ability to absorb fungal toxins such as aflatoxin, ochratoxin, zearalenone, fumensin, deoxynivalenol and T2.

## ■ The most important beneficial effects

- High absorption of polar and non-polar toxins
- Reducing the microbial load of milk
- Reduce abortion
- Increase fertility
- Improving the quality of egg shells
- > Reducing the incidence of infectious diseases and...
- > Increasing the strength of the immune system and improving the effectiveness of vaccination in poultry

## Compounds

Aluminosilicate absorbents, activate carbon, yeast cell wall (betaglucan and mannan) 7 plant compounds.

#### Dosage

cow 8 gr per day

Early lactation period of cows12-18 gr per day

Middle and late lactation period of cows 18-35 gr per day

calf rearing 10-25 gr per day

poultry 0.5-3 kg per ton of diet

Heifer12-18 gr per day

Horse 30 gr per day

Colt15 gr per day

Sheep and goats 5-10 gr per day

Aquatic 1-3 kg per ton of diet





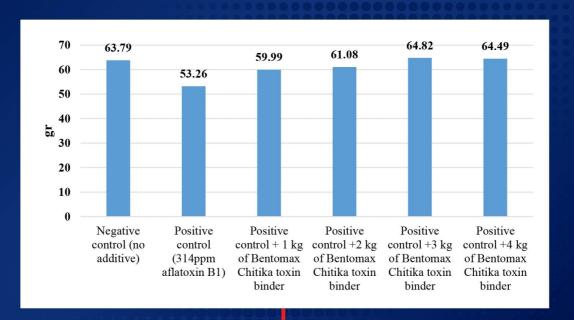
# **BENTOMAX CHITIKA**

## **Multicomponent and mighty Toxin Binder**

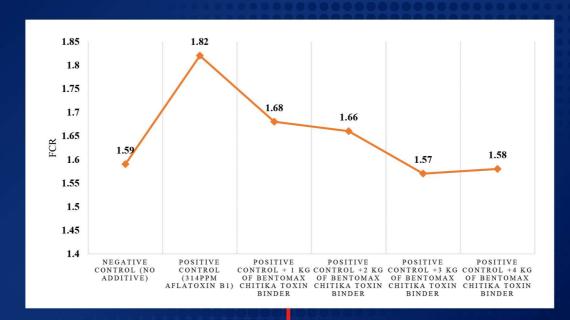
It contains organic and mineral compositions and has a wonderful feature in absorbing fungal poisons such as Aflatoxin, Ochratoxin, Zearalenone, Fumonisin, Deoxynivalenol, T2, etc. It also causes high absorption of polar and non-polar toxins, a decrease of remaining fungal poisons in egg and meat of hen, an increase in gestation and chicken breeding in mother herds, production improvement of laying hen herds, enhancement in eggshell quality, reinforcement of immune system and better effect of vaccination in poultry, protecting the liver against destructive impacts of fungal poisons, decrease of Aflatoxin concentration of milk and enhancing the quality of milk, a percentage decrease of miscarriage and bearing problems related to dairy cows, and decrease of infection to infectious diseases



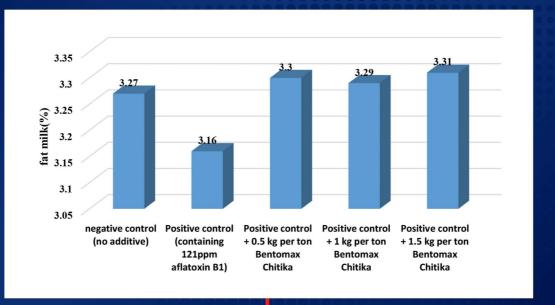
# effect of different levels Bentomax toxinbinder on Average daily gain in broilers under aflatoxin B1 stress



The effects of adding different levels of Bentomax Chitika toxin binder on the feed conversion ratio of broiler chickens under aflatoxin B1 stress.



The effect of using Bentomax Chitika toxin binder on milk fat percentage in high-producing Holstein cows under aflatoxin B1 stress.



# **CHITIKA CHITACELL**

# Special live yeast for livestock and poultry

Chitacell Chitika consists of living cells of Saccharomyces cerevisiae, which increases the rate of oxygen consumption in the rumen and creates anaerobic fermentation conditions, which increases the population of cellulolytic bacteria. It also prevents the rapid increase of lactate and the occurrence of acidosis in the rumen by competing with lactic acid producing bacteria in the consumption of sugars. This mechanism increases rumen ph, increases fiber digestibility and acetate production in the rumen, and ultimately improves livestock and poultry performance.

#### Produced from

- > Live cells of Saccharomyces cerevisiae
- Contains 1010 cfu/gr live cells

### Application

- Help to Rumen development of calves Beef
- Improving fermentation and increasing rumen microbial activity
- > Improving fiber digestion and increasing milk and milk fat production
- Decrease acidosis

### Consumption

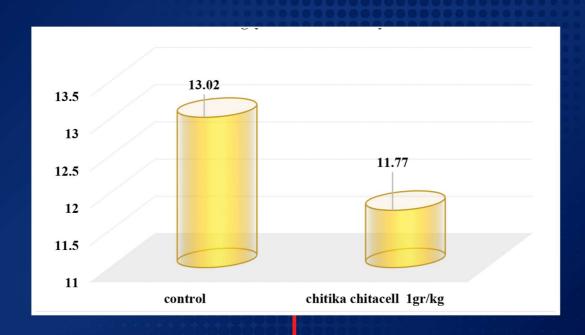
Dairy cows: 5 to 10 grams per day Dry period dairy cows and post calving

Infant calf: 2 to 3 grams daily

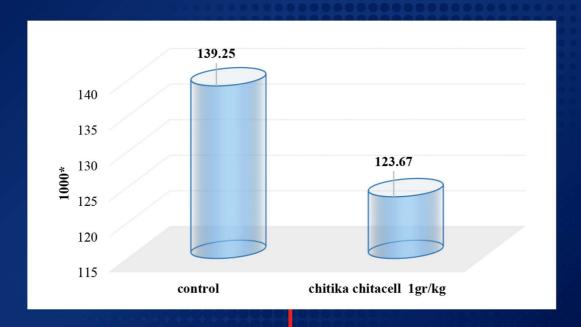
Calf fattening: 3 to 5 grams per day Sheep and goat: 2 to 4 grams daily Poultry: 500-250 grams per ton of feed



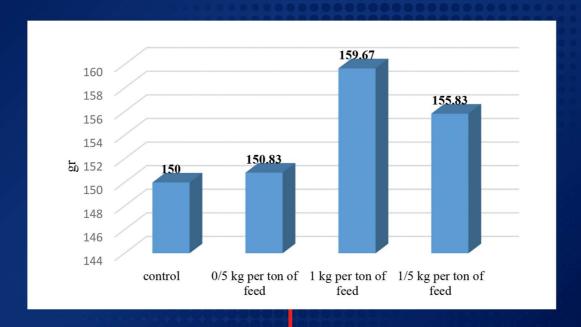
# Effects of using commercial yeast (Chitacell chitika) on Blood Triglycerides in dairy cows



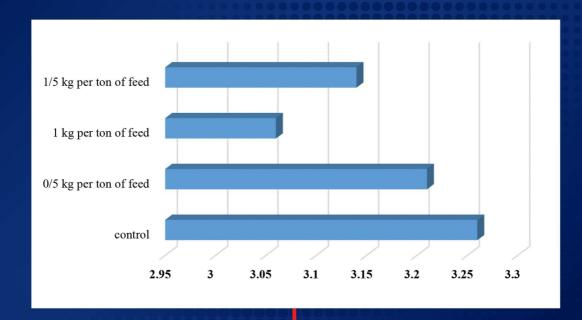
# Effects of using commercial yeast (Chitacell chitika) on Somatic cells in dairy cows



the effect of chitacell yeast of Weight gain in Japenese quail



# the effect of chitacell yeast of feed convertion ratio in Japanese quail







#### Key benefits of Ultima Chitika acidifier in poultry nutrition

- > As an anti-microbial agent
- > Improved nutrient digestibility
- > Improving GIT and its health
- > Improved broiler performance
- > Improved layer performance
- > Reducing ammonia production by modifying microbial flora
- > Increase and stimulate feed consumption
- > Increase intestinal immunity against infections
- > Reduction of diseases and deaths
- > Easy to use due to the physical solid and powder form
- Improving the growth of intestinal villi and as a result improving
- > digestion and absorption

# **ACIDIFIERS**

Acidifiers are additives that reduce the pH of feed and the digestive system and prevent the growth and persistence of pathogens in the digestive system. The reduction of pathogens reduces the microbial competition of beneficial bacteria for access to nutrients, and as a result, increases the growth rate and improves the feed efficiency. Acidifiers prevent mold by reducing the acidity of feed.the organic acids (acidifiers) play an important role in the gut health animals, and also improve nutrient digestibility. Organic acids are natural components in several feeds, are produced during the Different metabolism and are often used in feed acidification

In contrast, the inorganic acidifiers, particularly hydrochloric acid, sulphuric acid and phosphoric acid are under used, even though they are cheaper than organic acids.

Because the antimicrobial effects of organic acids have been stabilized in controlling the population of pathogenic bacteria.

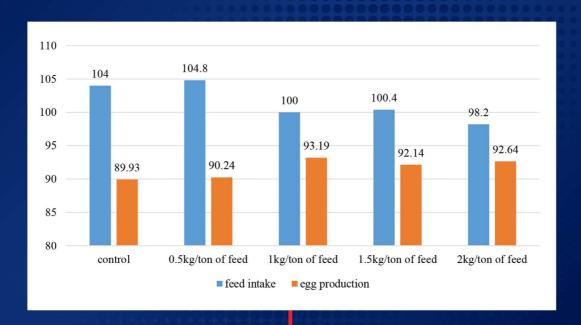
### Dosage

Broiler chickens and laying Hen

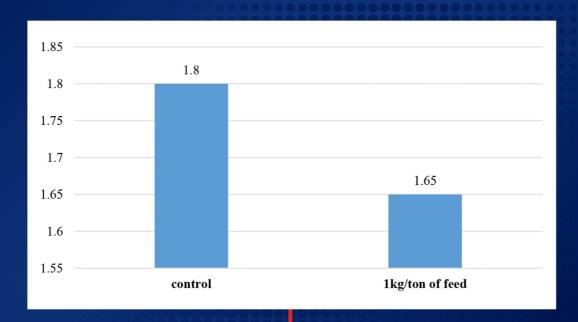
In prevention conditions, 1 kg per ton of feed

In disease conditions, 2-3 kg per ton of feed

The effect of different levels of acidifier Acichick on egg production and feed intake in laying hens at the age of 34 to 42 weeks



The effect of acidifier Acichick feed conversion ratio in laying hens at the age of 34 to 42 weeks



# **CARBO ACTIVE**

# Activated carbon for livestock and poultry feed

Activated carbon has high absorption properties. Its most important feature is creating a very high surface area with a very small volume. Due to having two positive and negative poles, this product creates an unbreakable bond with Mycotoxin and encapsulates them and removes them. The structure of activated carbon is such that it does not form a bond with vitamins and minerals.

#### Attributes

- > High absorption toxin
- > Encapsulated toxin and eliminate
- > Creating high surface area
- Affordable

### Application

- Detoxification
- > Improve feed efficiency
- > Reduces mortality
- > Improve egg shell

### consumption

0.5 to 1 kg per ton of feed Poultry: 0.5 kg per ton of feed







## Magnesium oxide for animal feed

Magnesiumx Chitica is an alkaline compound that stimulates feed consumption, increases the digestibility of dry matter, provides the required magnesium and prevents the occurrence of grass tetany in livestock. Due to the multi-stage processing, it has minimum heavy elements and it can be replaced by a part of Sodium Bicarbonate.

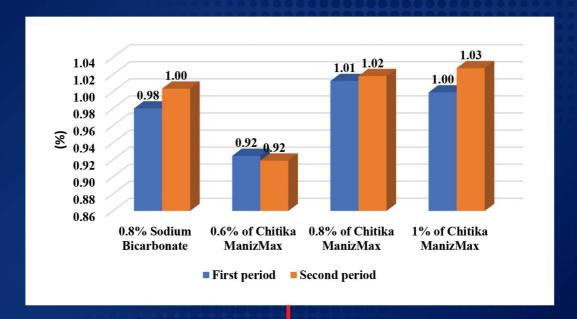
## Application

- > Alternative to sodium bicarbonate
- Maintaining rumen in the optimal range (6.2-6.8)
- >Better digestion of fiber
- > Reduce production costs

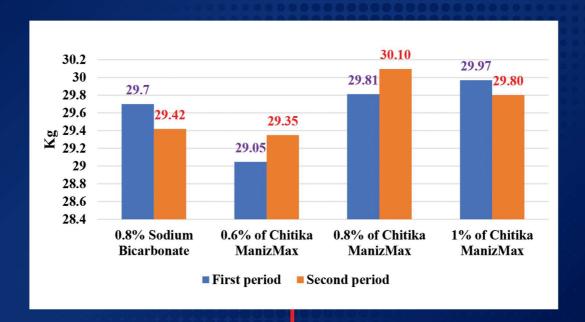
# Consumption

4 to 8 kg per ton of feed.

Comparison of the effect of using processed magnesium oxide (Manizmax Chitika) and sodium bicarbonate on milk fat percentage in medium production Holstein cows



Comparison of the effect of using processed magnesium oxide (Manizmax Chitika) and sodium bicarbonate on milk production in medium production Holstein cows



# **FITOMIX CHITIKA**

The 3% Fito mix Chitika concentrate is formulated in such a way that it can meet the mineral and vitamin needs of laying hens. Among the salient points of this concentrate is the consideration of cation and anion balance. This concentrate contains multi-enzyme, heat-resistant phytase pellet, prebiotic, acidifier and antifungal.

#### For 3 steps

A: One day old up to 5% of production

B: 5 to 85% of production

C: 85% production until the end of the period

#### ■ The main effects

- Providing the bird's complete need for micronutrients
- > Reducing egg losses
- > Continuation of peak production

### Use cases Pullet and layer hen

	Unit	Α	В	C
Metabolisable energy	Kcal/kg	2100	2200	2000
Crude protein	%	16	2.6	16.1
Digestible lysine	%	2.4	2.4	2.4
digestible methionine	%	19.11	25.38	22.34
Methionine + digestible cysteine	%	6.18	12.40	11.16
digestible threonine	%	4.29	4.29	4.29
Ca	%	8.6	6.88	5.69
Available P	%	1.4	1.76	2.32



# **CHITIKA POWER PRO**

Maintaining the microbial balance of the digestive system for the benefit of livestock and poultry can greatly help in performance and health. With the industrialization of livestock and poultry breeding and increasing density and management challenges and epidemics of diseases, the microbial balance of the intestine loses its balance and pathogens take control of the intestine.

#### CHITIKA POWER PRO Combination of Nine different strains

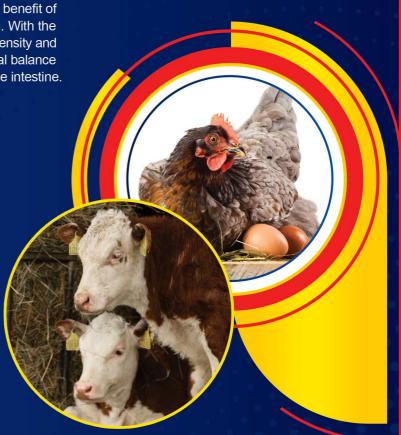
- > B subtilis
- Licheniformis
- > Pediococcus acidilactici
- Lactobacillus casei
- ▶ E. faecium
- L. plantarum
- L. acidophilus
- > L. rhamnosus
- > S. cerevisiae

#### **APPLICATION**

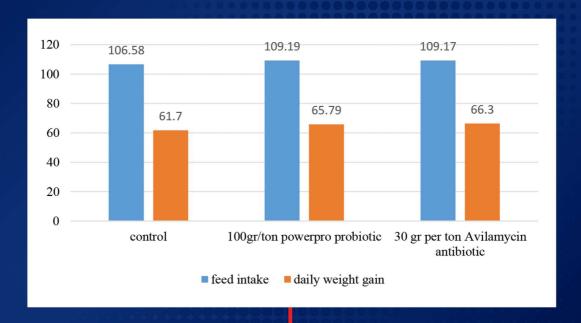
- > Increase body weight gain
- > Optimize feed conversion
- Decrease mortality
- > Increase natural immune response
- > Improve digestive health
- > Helps establish and maintain healthy intestinal microorganism population
- > Ideal for Animals stressed from diet changes or antibiotic treatment

#### Dosage

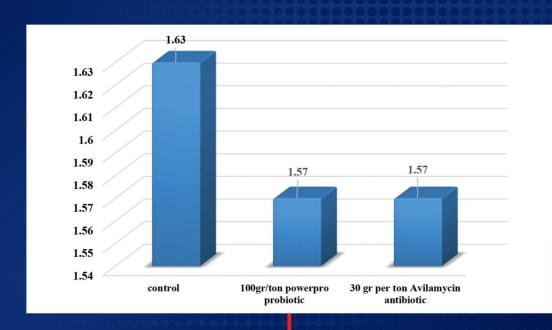
livestock, 100 to 150 grams per ton of feed Poultry: 100 to 120 grams per ton of feed Aquatic: 150 grams per ton of feed



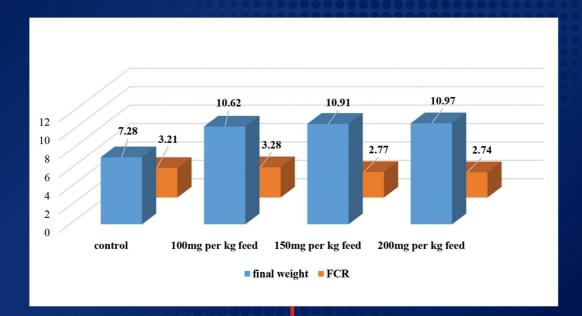
Comparison of the effects of Powerpro Chitica probiotic and Avilamycin antibiotic on daily weight gain and feed intake in broiler chickens.



Comparison of the effects of Powerpro Chitica probiotic and Avilamycin antibiotic onfeed convertion ratio in broiler chickens



The effect of different levels of Powerpro Chitica probiotic on feed conversion ratio and final weight on Whiteleg shrimp (L.vannamei)



#### Produced from

- > The best grades of minerals and vitamins
- > Multienzyme
- > Heat resistant phytase
- > Prebiotic
- > Organic acid
- > Antifungal

#### The main effects

- Increase digestibility
- > Decrease FCR

Available P

- > Usable in all breeds
- > With multi-enzyme and heat-resistant phytase pellet

#### В Unit A Metabolisable energy 1800 1650 Kcal/kg Crude protein 18 12.5 % Digestible lysine 2.8 0.41 digestible methionine 11.5 8.7 Methionine + digestible cysteine 11.6 8.8 digestible threonine 1.6 0.45 19.46 25.10 Ca

6.1

5.3

# CHITIKA POWERMIX

## 2.5% broiler chicken concentrate

Chitika Powermix product is formulated by poultry nutrition experts and researchers to achieve maximum productivity and genetic potential of breeds inside Iran. This concentrate is formulated in type A and B according to the needs of broilers.



yeast cell walls contain 25% of the weight of live yeast.

The yeast cell wall contains compounds such as mannoproteins, beta-glucans, mannan oligosaccharides, chitin and N-acetylglucosamine. Mannan oligosaccharides and beta-glucans have no electrical charge and do not bond with micronutrients and minerals. But with their spiral structure, they have a high ability to bond with mycotoxins.

The most important role of the yeast cell wall in livestock and poultry nutrition is the absorption of mycotoxins in the feed. Also, the oligosaccharides in the cell wall of yeast act as growth stimulants in immune system modulation with their prebiotic function.

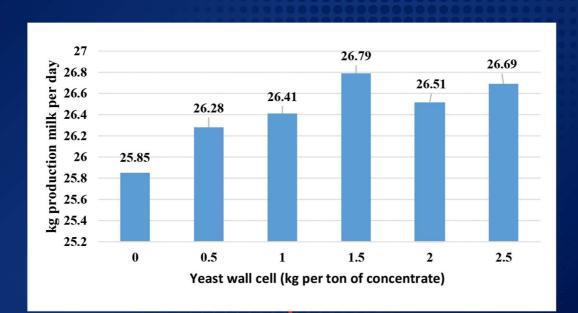


#### The most important effects of Chitika yeast cell wall (Chitacel chitika)

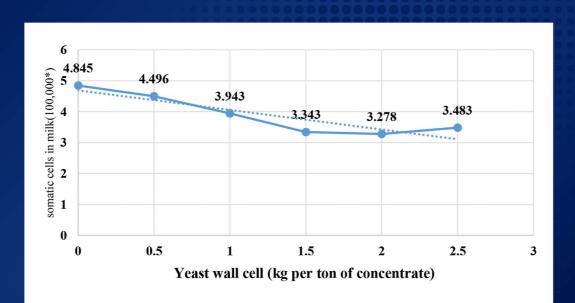
- ToxinBinder (absorption and removal of toxins)
- Digestive health
- > Help to increase the probiotic population in the gut
- > Increasing the digestibility of food and improving animal performance
- > Boosting the immune system
- Reducing diseases and reducing treatment costs

# YEAST CELL WALLS

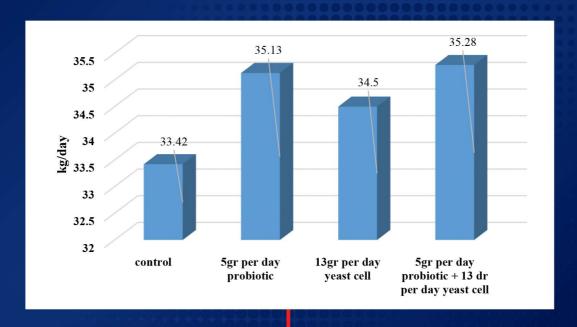
# The effect of different levels of Chitacell yeast wall cell on milk production in Holstein dairy cows



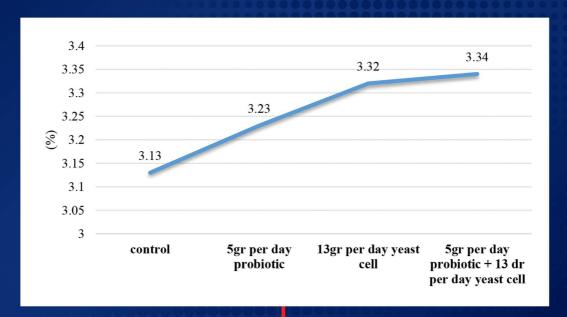
# The effect of different levels of Chitacell yeast wall cell on somatic cells in Holstein dairy cows



The effect of adding probiotics, yeast wall and their mixture in the diet of dairy cows on milk production (kg)



# The effect of adding probiotics, yeast wall and their mixture in the diet of dairy cows on fat milk



# 5% supplement for laying hens

Most of the poultry diet consists of soybeans and corn Most of the poultry diet consists of soybeans and corn and they cannot fully provide the vitamin and mineral needs of poultry. For this purpose, mineral and vitamin supplements are used in the diet. Chitika supplement is a product from Chitika company, which is formulated to supply the vitamins and minerals needed by laying hens using the world's best-known brands. This product is formulated based on the needs of common strains and is available in separate packaging (mineral and vitamin).



## The most important beneficial effects of Chitika supplement

- Supplying the bird's need for vitamins and minerals
- Reduction of egg losses
- Increase the continuity of production peak

25 kg of mineral supplements per ton of feed

25 kg of vitamin supplements per ton of feed

onsumable Laying hens



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