

Bonza[®]Plex7

Chelated Mineral Livestock Feed Supplement

Cattle, Sheep, Goat, Pig, Camel and Ostrich Specific

For Veterinary Use Only



Cattle, Pig, Sheep and Goat; Main Sources of Meat and Milk

According to a report published by the United States Department of Agriculture (USDA), the number of cattle in the world was estimated to be one billion heads in 2022. India has the largest number of dairy cattle and is the leading milk producer in the world followed by the EU and the USA, while the USA is the largest producer of beef. The statistics indicate that there are more than one billion sheep and one billion goats in the world. China, Australia and New Zealand are the major sheep meat producers, whereas China, India, Pakistan and Nigeria are the chief producers of goat meat. According to the USDA statistics, the number of pigs is estimated to be 750 million in the world and China, Brazil and the USA are the world's leading pig producers and processors.

Livestock Feed Supplements and Additives

Feed supplements and additives are an inseparable part of modern industrial livestock husbandry, which lead to quality and productivity improvement in this industry. Although micronutrients account for less than 0.01% of livestock body mass, they are vital for the normal function of biological systems.

Mineral (inorganic) salts are commonly used to meet the needs of livestock herds for micronutrients, yet owing to the low absorption rate of these compounds, often high doses should be added to their diet, because they are mostly excreted directly into the environment. Organic sources of mineral elements, such as chelates (mostly having amino acid-based structures), usually demonstrate higher rate of absorption than inorganic structures.

One main obstacle to the widespread use of existing organic supplements is their low cost-effectiveness, so animal nutrition experts are currently looking for a proper method to improve both production efficiency (meat & milk) and health level (minimizing mortality rate & the incidence of diseases).

Bonzaplex7 Supplement; Livestock Specific

Relying on the results of various research proven, scientific studies and experiments and also in view of the market need, Sodour Ahrar Shargh Knowledge-based Company has manufactured a

unique product named "Bonzaplex7" chelated mineral supplement as a forerunner of Bonza livestock supplements. The technology used in the production of this supplement is patented in Iran Patent Center & the United States Patent and Trademark Office (USPTO) and is filed in the European Patent Office (EPO) as well. This supplement contains 7 micronutrients of copper, zinc, selenium, iron, chromium, cobalt and manganese in chelated form and guaranteed doses.

Adding Bonzaplex7 supplement to the diet of dairy & beef cattle as well as suckling calves elevates health, speeds up growth rate and early weaning and reduces medications and antibiotics consumption, all of which will lead to a significant reduction in livestock maintenance cost and an increase in production. Supplementing dairy cattle's diet with Bonzaplex7 supplement can specifically improve fertility rate, and daily milk fat production percentage and amount, while reducing retained placenta and abortion. Therefore, using this supplement is incredibly cost-effective, with profits several times more than the cost of purchasing Bonzaplex7.

Bonzaplex7 supplement, containing 7 micronutrients in chelated form, can completely replace mineral micronutrient supplements; doing so, the recommended doses will be more than those in the tables of instruction.

Bonzaplex7 Composition

| Copper | Zinc | Manganese | Cobalt | Selenium | Chromium | Iron |
|--------|-------|-----------|--------|----------|----------|------|
| 18000 | 51000 | 28000 | 1700 | 300 | 500 | 8000 |

ppm in chelated form



1 kg

Published Article

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REGULAR ARTICLES



Lactation responses of Holstein dairy cows to supplementation with a combination of trace minerals produced using the advanced chelate compounds technology

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Abstract

Advanced chelate compounds technology is a novel technology that introduces a new generation of chelates to deliver trace elements better by polymerization of organic acids. In the present study, the over-supplementation effect of Bonzaplex7 supplement, which is designed based on the aforementioned technology, was evaluated on milk yield of dairy Holstein cattle through two experiments. In the first experiment (exp. I), 24 primiparous dairy cows were randomly assigned to one of 3 groups: (1) without over-supplementation (control); (2) daily allowance of 7 g/cow Bonzaplex7 containing Co (12 mg), Cr (3.5 mg), Cu (126 mg), Fe (56 mg), Mn (196 mg), Se (2 mg), and Zn (357 mg) (Bonzaplex7); and (3) daily allowance of the same amounts of all of the trace minerals in amino acid complex form (AA). In the second experiment (exp. II), 170 multiparous dairy cows received either 7 g/day/cow Bonzaplex7 (85 cows, test) or no additional supplement (85 cows, NS). In exp. I, the milk yields in control, Bonzaplex7, and AA were 34.30, 36.46, and 35.83 kg/day, respectively ($P = 0.528$). No significant differences in milk composition were detected among the groups. In exp. II, however, higher milk fat and energy-corrected milk yield were observed in test compared with NS. Both Bonzaplex7 and AA elevated the plasma concentrations of Cu, Mn, and Se. The results provided evidence that supplementing dairy cows with a combination of trace minerals which produced using the advanced chelate compounds technology has a potential to improve milk fat and to decrease disease susceptibility under stressed conditions.

Keywords Blood metabolites · Milk composition · Milk yield · Organic trace minerals · Somatic cell count

Published article in the “Tropical Animal Health & Production” journal concerning improvement in milk production and milk fat percentage, and reduction in the number of somatic cells of milk by Bonzaplex7 Supplement

Instruction

- ✓ Bonzaplex7 supplement can be mixed with feed/concentrate, or dissolved in milk for newborn and suckling livestock. Depending on the preference of farmers, it may be dissolved in water too. This supplement should be added to diets as an “On Top” according to the tables of instruction based on body weight. Therefore, there is no need to change the livestock’s diet, including any increase, decrease or alteration in the feed ingredients and other common mineral supplements.
- ✓ For suckling calves, it is preferable to dissolve Bonzaplex7 supplement in milk according to the daily doses.
- ✓ Due to the metabolism-optimizing properties of this supplement, its consumption should not be discontinued at any stage of breeding, including the dry period.

Precaution

Do not use other organic micronutrient supplements (such as amino acid, peptide, hydroxy analogue, polysaccharide or yeast-based chelates) along with Bonzaplex7 supplement in diets.

Package

- 1kg bag
- 20kg composite bag

Storage

- Make sure to close the container after each use. Bonzaplex7 supplement must be kept out of reach of children, away from direct sunlight, in a dry place, at room temperature and in the original bag. Protect it from freezing.
- The expiration date is 2 years after production if the container remains closed, and 12 months after it is opened.

Daily Dose per Pig

| Body Weight (kg) | Dose (g) |
|------------------|----------|
| Under 20 | 0.4 |
| 20 - 40 | 0.8 |
| 40 - 60 | 1.2 |
| 60 - 80 | 1.6 |
| 80 - 100 | 2 |
| 100 - 120 | 2.4 |
| 120 - 140 | 2.6 |

Dose per Metric Ton of Pig Feed: 600g

Daily Dose per Cow

| Body Weight (kg) | Dose (g) | Body Weight (kg) | Dose (g) |
|------------------|----------|------------------|----------|
| Under 70 | 1 | 500 - 550 | 6 |
| 70 - 100 | 1.5 | 550 - 600 | 6.5 |
| 100 - 150 | 2 | 600 - 650 | 7 |
| 150 - 200 | 2.5 | 650 - 700 | 7.5 |
| 200 - 250 | 3 | 700 - 750 | 8 |
| 250 - 300 | 3.5 | 750 - 800 | 8.5 |
| 300 - 350 | 4 | 800 - 850 | 9 |
| 350 - 400 | 4.5 | 850 - 900 | 9.5 |
| 400 - 450 | 5 | 900 - 950 | 10 |
| 450 - 500 | 5.5 | 950 - 1000 | 10.5 |

In high-yielding dairy cows and based on their weight, the daily dose of Bonzaplex7 can be increased by up to 20%

Daily Dose per Sheep / Goat

| Body Weight (kg) | Dose (g) (One Sheep / Goat) | Dose (g) (100 Sheep / Goats) |
|------------------|-----------------------------|------------------------------|
| Under 25 | 0.2 | 20 |
| 25 - 50 | 0.5 | 50 |
| 50 - 75 | 0.7 | 70 |
| Over 75 | 1 | 100 |

Daily Dose per Ostrich

| Body Weight (kg) | Dose (g) (One Ostrich) | Dose (g) (10 Ostriches) |
|------------------|------------------------|-------------------------|
| 0 - 40 | 0.25 | 2.5 |
| 40 - 80 | 0.5 | 5 |
| 80 - 100 | 1 | 10 |
| 100 - 120 | 1.5 | 15 |

Daily Dose per Camel

| Body Weight (kg) | Dose (g) | Body Weight (kg) | Dose (g) |
|------------------|----------|------------------|----------|
| Under 70 | 1 | 300 - 350 | 4.5 |
| 70 - 100 | 2 | 350 - 400 | 5 |
| 100 - 150 | 2.5 | 400 - 450 | 5.5 |
| 150 - 200 | 3 | 450 - 500 | 6 |
| 200 - 250 | 3.5 | 500 - 600 | 7 |
| 250 - 300 | 4 | 600 - 700 | 8 |

Except in pigs (which is included in the according table), for using this supplement in feed or concentrate, the required amount of the supplement should be calculated according to the consumption tables provided above and also the animals’ weight, and then administered



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