

## EFFICACY STUDY OF PASHU-JEEVAN (CATTLYX) SUPPLEMENTATION ON MILK YIELD, APPETITE AND OTHER VARIOUS RUMINAL DYSFUNCTIONS IN CATTLE

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### ABSTRACT

*Present study was under taken to evaluate the efficacy of PASHU-JEEVAN (CATTLYX)- A Natural Cattle Feed Lick, supplementation on milk yield, appetite and other Various Ruminal Dysfunctions in Cattle. PASHU-JEEVAN (CATTLYX) provide cattles with a palatable source of nutrients to supplement their everyday intake. PASHU-JEEVAN (CATTLYX) ensures that all cattles get their daily balanced intake of salt, minerals, vitamins and trace elements which positively effects on Body weight, growth rate, pregnancy, age, lactation stage and milk yield.*

*PASHU-JEEVAN (CATTLYX) provides pure salt to stimulate the appetite, assist good digestion and prevent weight loss to enhance milk production. It also contains essential trace elements such as magnesium, selenium, iodine, zinc and copper etc.*

*The administration of PASHU-JEEVAN (CATTLYX) resulted in an increase in milk yield. Recorded milk yield of each animal on a daily basis showed an increased trend from day 2 of feeding PASHU-JEEVAN (CATTLYX).*

*PASHU-JEEVAN (CATTLYX) improved milk yield, Fat% and CLR reading in dairy cattles. There is no adverse effect of PASHU-JEEVAN (CATTLYX) on composition of milk. Also, there were no adverse effects on health of animals during the study period. Hence, PASHU-JEEVAN (CATTLYX) can be used safely as supplement in dairy cattles.*

**Keywords:** *Pashu-Jeevan, Cattlyx, Milk Yield, Cattle Licks, Appetite, Essential Nutrients*

## **Introduction**

Everyone who raises livestock is concerned for their wellbeing. Healthy animals yield more milk and breed more. So getting their intake right is essential, especially their salt and mineral intake. Feed and additional nutrition does not always provide adequate salt and minerals because individual animal requirements vary. A lack of salt can result in loss of appetite, weight loss, and decrease in milk yield in cattles, breeding problems, reduced growth and a decline in natural resistance.

The well being of animals depends upon the proper functioning of their digestive system. An efficient digestive system is vital to an animal not only for its physical outlook but also to produce milk and meat. In ruminants anorexia, tympany, indigestions are commonly encountered and are characterized by poor appetite, change in pH towards either side, decreased ruminal motility and reduced protozoal counts (Radostitis *et al.*, 1994). Therefore, it becomes essential to correct the ruminal environment by one way or the other for proper production. Ruminal dysfunctions could be due to ingestion of silage, spoiled/ moldy silage, excessive amount of protein, urea, excess ingestion of grain starch, prolonged usage of antibiotics, sulfonamides or indigestible fibers, sand, soil etc

Reduced milk yield is attributed to physiological, nutritional, managemental and metabolic disturbances or due to disease conditions. In the early stage of lactation (3-4 months), animal is in peak production, which later on starts to decline. The value of a dairy animal depends on its ability to produce milk efficiently, effectively and economically.

Proper mineral nutrition and supplementation is essential to animal health and high level of milk production (Harris et al 1994). Most of the diet of ruminants is plant material and the amount of minerals present in the plants depends on the mineral status of the soil on which the herbage grows, the ability of the plant to absorb them, and the stage of growth of the plant. The levels of minerals can even vary from field to field on the same farm (Chesworth and Guérin 1992; Preston and Leng 1987). Therefore, it is very difficult to give average values for the amount of minerals that might be expected from feeds. Grains are low in calcium content but high in phosphorus. Legumes usually are good sources of calcium but not phosphorus, and grasses are much lower in calcium than legumes (Schroeder 2004). Cows that produce more milk require more calcium due to the greater obligatory loss of calcium in the larger volume

of milk. Cows that are ill but are still lactating should receive supplementary calcium in addition to other treatments for the primary disease.

Present study was under taken to evaluate the efficacy of PASHU-JEEVAN (CATTLYX)- A Natural Cattle Feed Lick, supplementation on milk yield, appetite and other Various Ruminal Dysfunctions in Cattle.

PASHU-JEEVAN (CATTLYX)- A Natural Cattle Feed Lick, provide cattles with a palatable source of nutrients to supplement their everyday intake. PASHU-JEEVAN (CATTLYX) ensures that all cattles get their daily balanced intake of salt, minerals, vitamins and trace elements which positively effects on Body weight, growth rate, pregnancy, age, lactation stage and milk yield. PASHU-JEEVAN (CATTLYX) target specific results like Fertility, milk production and growth.

PASHU-JEEVAN (CATTLYX) provides pure salt to stimulate the appetite, assist good digestion and prevent weight loss to enhance milk production. It also contains essential trace elements such as magnesium, selenium, iodine, zinc and copper etc.

#### **Aim of the study**

The present study was aimed to evaluate the clinical efficacy and safety of “PASHU-JEEVAN (CATTLYX)- A Natural Cattle Feed Lick” supplementation on milk yield, appetite and other Various Ruminal Dysfunctions in Cattle.

#### **Study design**

This study was an open, prospective, non-comparative clinical evaluation and was conducted by R&D Division, Rashtriya Swasthya Shiksha Avam Anusandhan Sansthan, Kankhal under association with technical experts of Government Ayurvedic, Hospital Pipali, Pithoragarh, Government Veterinary Hospital, Pipali, Pithoragarh and Patanjali Bio-Research Institute, Padartha, Laksar Road, Haridwar (Uttarakhand).

#### **Materials and methods**

The present study was conducted in 14 milk producing cows and buffaloes of different lactations and age groups with signs of inappetence, dullness, depression and decreased ruminal motility. The cattles selected for the study had attained peak milk yield and were in the declining phase (more than 120 days after calving) of milk production. The milk yield of each

cow was recorded on a daily basis for a period of 15 days [i.e. before treatment (7 days), during treatment (10 days) and after treatment (15 days)]. Corrected lactometer reading (CLR) were done before, during (two times) and after treatment.

### Results & Discussion

The administration of PASHU-JEEVAN (CATTLYX) resulted in an increase in milk yield. Recorded milk yield of each animal on a daily basis showed an increased trend from day 2 of feeding PASHU-JEEVAN (CATTLYX).

PASHU-JEEVAN (CATTLYX) improved milk yield, Fat%, and CLR reading in dairy cows [Table 1]. There is no adverse effect of PASHU-JEEVAN (CATTLYX) on composition of milk. Also, there were no adverse effects on health of animals during the study period. Hence, PASHU-JEEVAN (CATTLYX) can be used safely as supplement in dairy cattles.

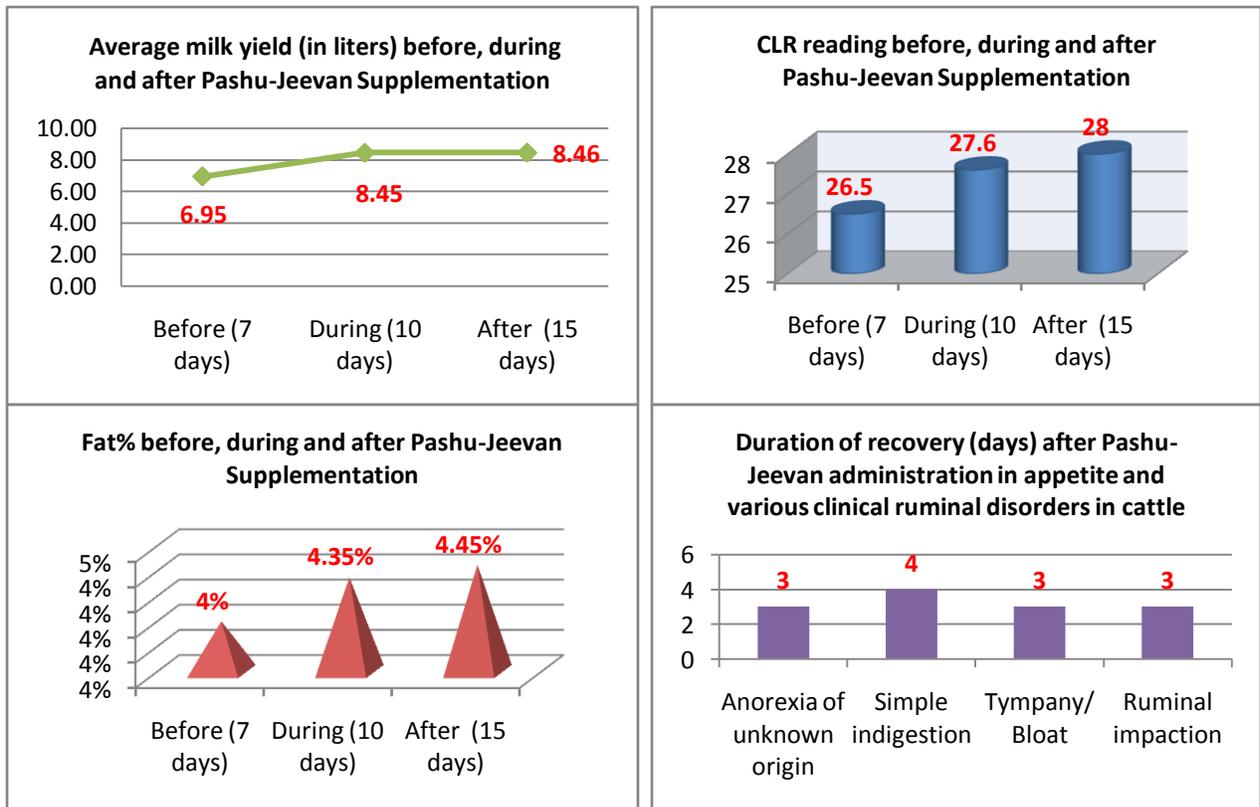
Parameters	Before (7 days)	During (10 days)	After (15 days)
Average milk yield	6.95	8.45	8.46
CLR reading	26.5	27.6	28
Fat%	4.00	4.35	4.45

The animals with signs of inappetence, dullness, depression and decreased ruminal motility with respect to frequency and amplitude showed considerable improvement in ruminal movements within 5 days of post administration PASHU-JEEVAN (CATTLYX)-A Natural Feed Lick. The cases with a history of anorexia, bloat/tympany and ruminal impactions recovered within 3 days, whereas the animals with simple indigestions recovered within 4 days [Table 2]. This indicates that PASHU-JEEVAN (CATTLYX) can improve the ruminal movement probably due to presence of combination of potent medicinal floras which exerts rumenotonic, carminative and stomachic activity, ensuring optimal ruminal pH for growth and survival of microflora leading to better digestion and reduces the froth forming microbes in rumen and provides prompt and complete relief from tympany and bloat.

**Table 2 : Pre and post administration changes in appetite and ruminal motility in various clinical ruminal disorders in cattle**

Ruminal dysfunctions	No. of Cattles	Appetite (before )	Appetite (after)	Duration of recovery (days)
Anorexia of unknown origin	14	Off feed	Restored	3
Simple indigestion	8	Absent	Restored	4
Tympany/ Bloat	6	Absent	Restored	3
Ruminal impaction	8	Off feed	Restored	3

PASHU-JEEVAN (CATTLYX) powder can improve the activity of microflora, ruminal tonicity in ruminants and can be used in cases of anorexia, simple indigestion, bloat/tympany, ruminal impactions.



Since PASHU-JEEVAN (CATTLYX) is a mixture of pure salt and essential trace elements such as magnesium, selenium, iodine, zinc and copper to stimulate the appetite, assist good digestion and prevent weight loss to enhance milk production.

### **SALT (NACL)**

Salt is essential in life and supplies two essential elements to the feed, sodium and chloride. Animals show a “nutritional wisdom” for salt, which is induced by nutritional requirements.

Sodium maintains the balance between water and acidity. It plays an important role in functioning of the central nervous system and muscle contractions. Chloride is essential for forming hydrochloric acid needed for the digestion. Salt supports intestinal flora and thus better digestion.

### **MAGNESIUM**

Magnesium is a macro mineral that functions as an enzyme cofactor and is important for the central nervous system. Furthermore, magnesium gives strength to the skeleton and is needed for building up muscles. Low blood magnesium could result in grass tetany which could lead to death.

### **ZINC**

Zinc plays an essential role in many body processes, like enzyme systems concerned with metabolism, the healing process and disease resistance. A deficiency of zinc could result in swollen tissue around the hooves and feet problems, a deteriorated feed conversion and consequently production. Symptoms of deficiency are often a lack of energy (reduced feed intake) a rough hair coat and possible hemorrhages.

### **COPPER**

Copper is required for enzyme activity, plays a role in the central nervous system and is associated with iron metabolism. Copper is also required for bone formation. It also plays a role in hair development and pigmentation

### **IODINE**

Iodine is an element which cannot be made by the body itself and is only present in minute amounts. Iodine is essential for basal metabolism by producing thyroxin by the thyroid gland. A

lack of iodine could result in an enlarged gland also called a goiter. Also a stunted growth, apathy, blindness, hairlessness and a harsh coat are symptoms of an iodine deficiency. Iodine deficiency in dairy cattle could result in retained placenta and thus impaired reproductive performance.

### **MANGANESE**

Manganese is an important metal for human health, being absolutely necessary for development, metabolism, and the antioxidant system. Nevertheless, excessive exposure or intake may lead to a condition known as manganism, a neurodegenerative disorder that causes dopaminergic neuronal death.

### **IRON**

Iron is a component of red blood cells and improves the functioning of organs and tissues and plays a role in oxygen transport. An iron deficiency can cause anaemia.

### **COBALT**

Cobalt is essential to all animals. Bacteria in the guts of ruminant animals convert cobalt salts into vitamin B12, a compound which can only be produced by bacteria or archaea. The minimum presence of cobalt in soils therefore markedly improves the health of grazing animals, and an uptake of 0.20 mg/kg a day is recommended for them, as they can obtain vitamin B12 in no other way.

### **POTASSIUM**

Potassium is the major cation (positive ion) inside animal cells, while sodium is the major cation outside animal cells. The concentration differences of these charged particles cause a difference in electric potential between the inside and outside of cells, known as the membrane potential. The ability of cells to produce electrical discharge is critical for body functions such as neurotransmission, muscle contraction, and heart function.

### **Conclusion**

PASHU-JEEVAN (CATFLYX)-A Natural Feed Lick was found to improve the milk yield in dairy animals. The animals with signs of inappetence, dullness, depression and decreased ruminal motility with respect to frequency and amplitude showed considerable improvement in ruminal movements therefore, PASHU-JEEVAN (CATFLYX) can be used safely for enhancing

the milk production and thereby improve dairy economics.

### **Acknowledgement**

The encouragement provided by Dare Healths Private Limited, for supplying the trial material PASHU-JEEVAN (CATTLYX) for this trial is thankfully acknowledged.

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