

Productive vitality.

Ruminants



Catosal[®]

The power for success.

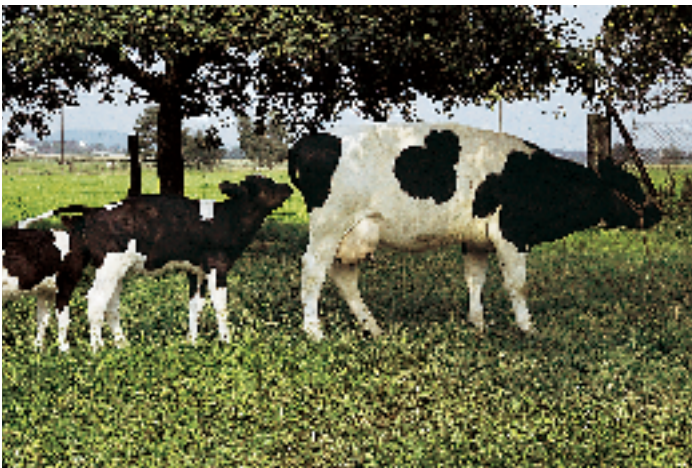
CATOSAL IMPROVES REPRODUCTIVE RESULTS AND BOOSTS DAILY GROWTH.

In-depth investigations have pinpointed the main indications in ruminants such as cattle, buffalo and sheep and also provided positive proof of Catosal's effectiveness:

In dairy herds, major losses are attributable to fertility disorders, mastitis and metabolic diseases. These pathological processes are linked to stress associated with late pregnancy, parturition, subsequent lactation and re-conception and are referred to as the "Parturition Syndrome" (Sommer 1985).

The impact of this syndrome threatens the entire herd and radically affects its future. Its prevention decides the economic success or failure of any dairy enterprise.

In the context of preventive screening, blood serum values before and after calving provide insights into the health profile of cows.



Improving hepatic function:

Fluctuation in levels of aspartate-aminotransferase (AST, formerly: GOT) is now accepted as one of the indicators of damage to the liver parenchyma (once the possibility of cardiac and muscular injury has been eliminated). In his 1974 study, Flaßhoff lists a wide variety of conditions associated with increased AST values within the Parturition Syndrome (e.g. in hypo-calcaemic paresis, placental retention and endometritis).

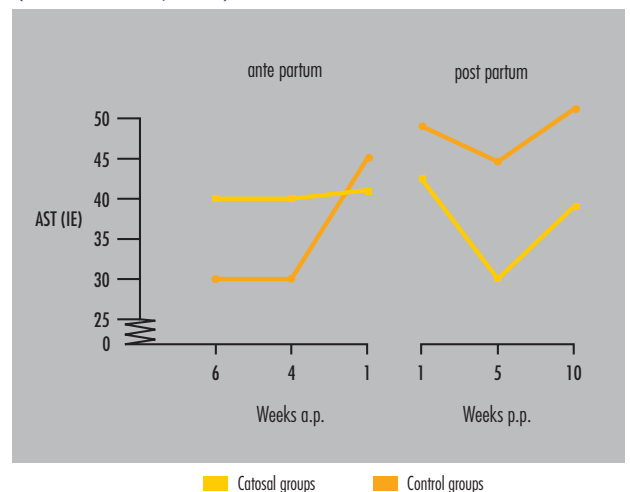
Administering Catosal to sick animals improves their liver function. This has been shown by a reduction of elevated AST values by up to 24% in comparison with untreated control animals (Sommer et al., 1971; Aehnelt et al., 1974 and Flaßhoff, 1974). This improved liver function benefits metabolism as a whole and thus improves general health.

A reduction in Parturition Syndrome cases proves Catosal's prophylactic prowess.

Ambrohn (1973) observed a drop in cases of metabolic disorders and

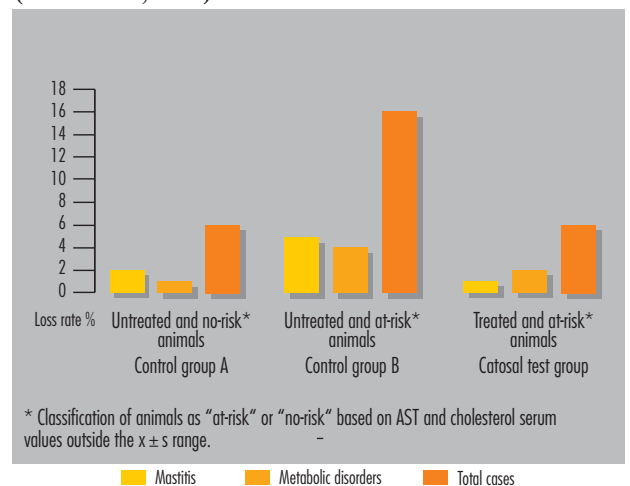
a reduction in sterility problems. According to Sommer et al. (1971) the infertility cases in the control group were twice as frequent and 4 times more cows required uterine treatment.

The effect of Catosal on AST activity in bovine blood serum (Sommer et al., 1971)

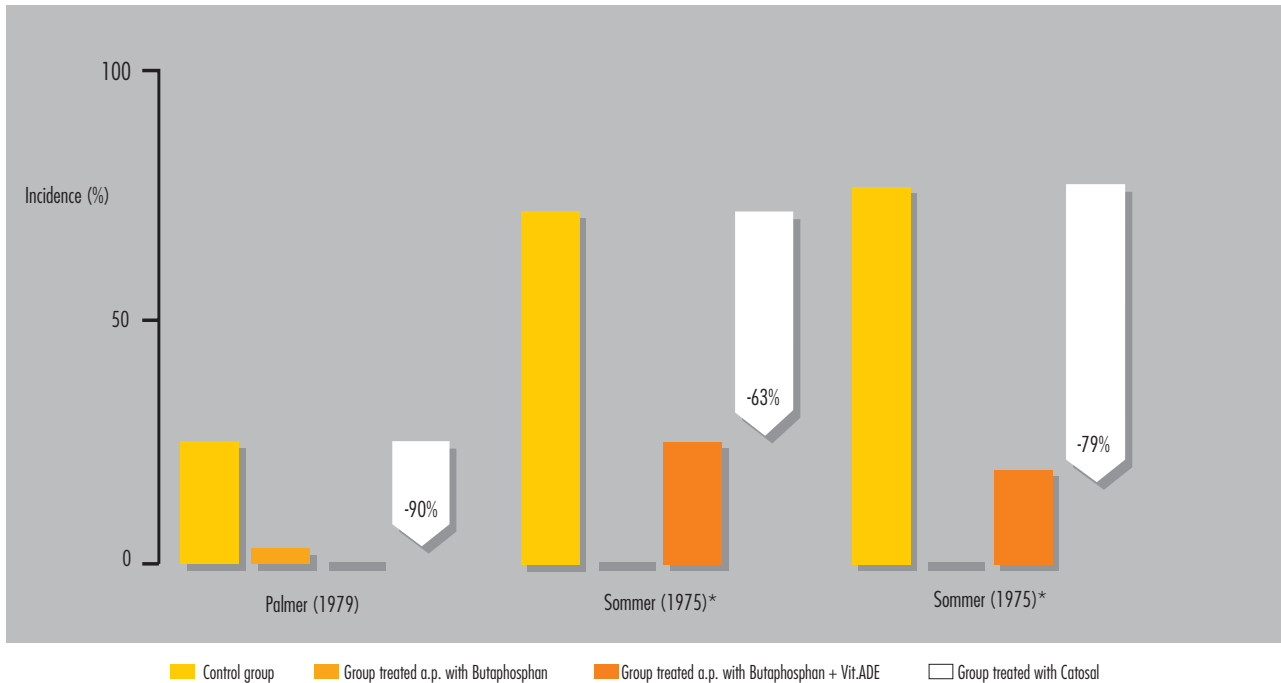


Catosal's favourable action on post-parturient metabolic and fertility disorders was documented by Wiedenroth (1979), who recorded fewer cases of ovarian dysfunction, tetany and acetonuria in „at risk“ animals that were treated, than in untreated „no risk“ (normal haemogram) animals. The group treated metaphylactically with Catosal had 22%

Effect of a.p. Catosal prophylaxis on cow losses (Wiedenroth, 1979)



Cases of Parturition Syndrome in bovine test groups treated with Catosal/Butaphosphan, or untreated



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fewer cases that had to be treated than the „at risk“ group. Sixteen percent of all cows in control group B had to be slaughtered, mainly due to mastitis and metabolic disorders, while these losses were 10% lower in the Catosal treated group. The 1979 study by Palmer recorded an impressive 90% drop in post-partum disorders.

This South African investigation was supported by Sommer (1975) who has shown that Catosal/ Butaphosphan is highly beneficial in reducing cases of Parturition Syndrome in cows. Incidence in the Catosal/ Butaphosphan group was between 63% and 79% lower than in the untreated control group.

Catosal metaphylaxis reduced the number of calcaemic pareses and the also the number of animals culled mainly due to impaired performance (Sommer et al., 1971).

Investigations by Schuh (1994) were designed as a blind study and carried out using Butaphosphan and a placebo. Findings with at-risk animals (AST > 30 U/l, cholesterol < 2.6 mMol/l) revealed the following variations between control groups: Treatment with Butaphosphan reduced the incidence of placental retention by 10% and hypocalcaemic paresis by 8%. In addition, during the subsequent lactation period, cases of disease within the Butaphosphan group dropped by 11% and losses/slaughter by 9.5%.

Better insemination results and shorter calving intervals underscore Catosal's outstanding track-record:

In artificial insemination, the yardstick is the insemination index i.e. inseminations per conception and the non-return rate.

The 1979 Palmer study also outlines a marked reduction in the insemination index from 3.0% to 1.36%. It also records a marked drop in the “days open“ period from 179 to 83 days.

The 1974 Flaßhoff study on fertility rates provides yet further proof. The Catosal group recorded an initial insemination result that topped the control group by 22% .

The comprehensive study by Sommer also documented a 21% rise in first-insemination pregnancies. Subsequent research findings showed an increase of more than 16% in first-insemination results (Schuh, 1994).

Using Catosal in dairy cow metaphylaxis enhances profitability.

Reduced incidence of the Parturition Syndrome, improved insemination results and shorter calving intervals all under-score the value of Catosal in metaphylaxis. Profitability analyses by Flaßhoff (1974), Palmer (1979) and Wiedenroth (1979) confirm a significant drop of one-third in sickness-related expenditure and profit-loss.

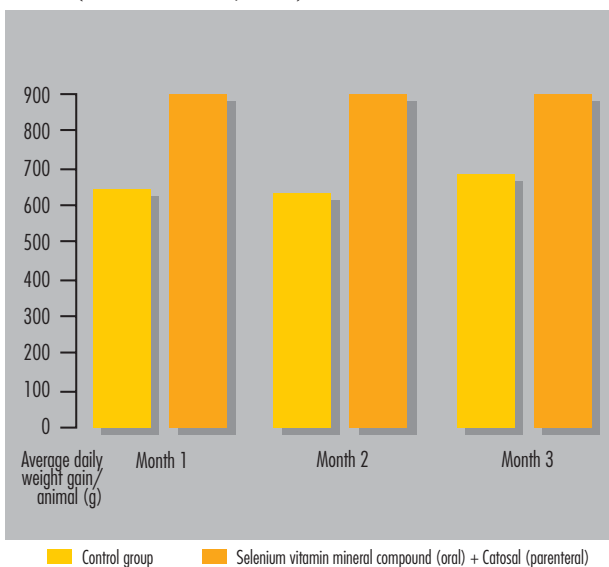
Catosal also scores as ancillary therapeutic agent. Applications include:

- **Hypocalcaemic paresis (recumbency):** Studies by Ambromn (1973), Grötzner (1975), Mäusl and Mäusl (1975) give details of use in hypocalcaemia with parallel administration of calcium.
- Where there is hepatitis, Catosal acts as ancillary protective liver therapy, as reported by Hermisson (1975).
- **Weak Oestrus/Anoestrus:** In such cases, the main objective is activating oestrus. Studies by Nisnovich and Bertolé (1981), Brooks et al. (1984) and Hasenpusch et al. (1987) confirm the efficacy of Catosal as ancillary therapy.

Improved individual daily weight gain is another major profitability generator:

Animals given Catosal and a selenium-vitamin-mineral compound gained around 38% more weight per day than the control group receiving no additives (El-Sherif et al., 1981). Authors attribute this positive result to stimulation of the metabolic processes and an increase in muscle activity.

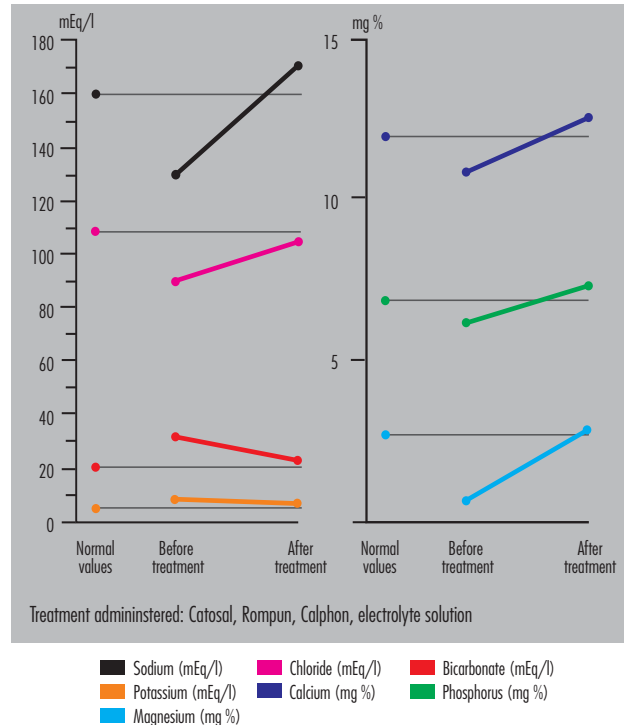
How Catosal boosts daily weight gain in fattening buffalo calves (El-Sherif et al., 1981)



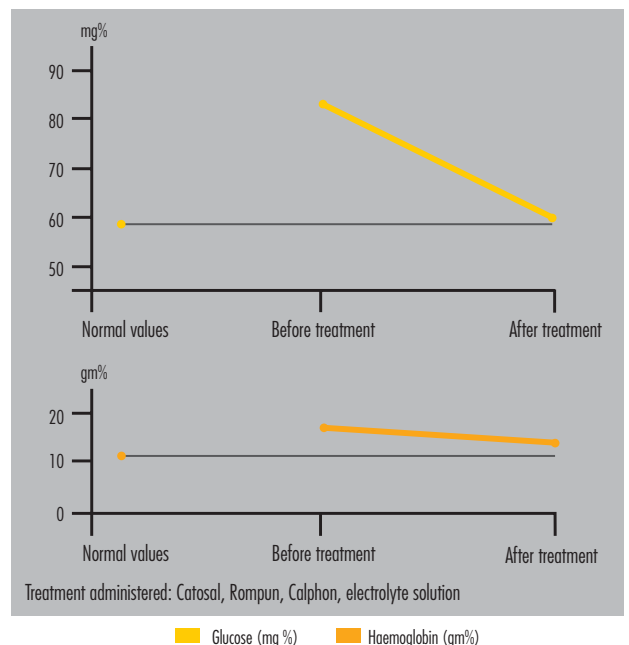
Catosal backs up tetany treatment too.

In a study, hypomagnesaemia/hyperkalaemia was experimentally induced, producing tetany symptoms in the test animals. As countermeasure, El-Sherif and Mottelib (1983) treated with Catosal, Rompun, Calphon and electrolyte solution. This therapy eliminated clinical symptoms and quickly induced normalization of parameters.

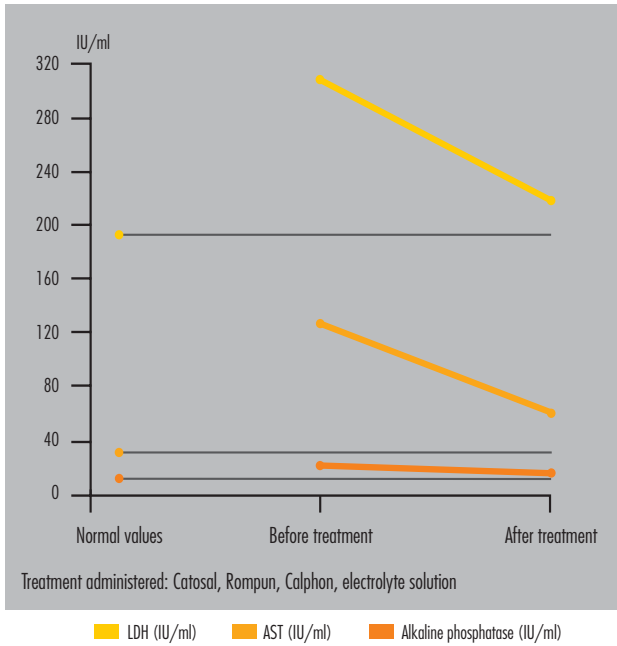
Serum electrolyte values before and after treating buffalo calves with experimentally-induced tetany (El-Sherif and Mottelib, 1983)



Glucose and haemoglobin values before and after treating buffalo calves with experimentally-induced tetany (El-Sherif and Mottelib, 1983)



Enzyme values before and after treating buffalo calves with experimentally-induced tetany (El-Sherif and Mottelib, 1983)



Catosal also offers effective support in the treatment of:

- **Theileriosis** in cattle (Moll et al., 1986)
- **Helminth infestation** in sheep (Ambronn, 1973)
- **Bacterial infections** in cattle (Scheer and Förster, 1975)

Studies also highlight the value of Catosal in ancillary therapy for a variety of disorders in growing animals:

- **Ricketts** in calves (Ambronn, 1973)
- **Growth disorders** in sheep (Menchari, 1972)
- **Enteritis** in calves (Schweizer, 1976; Larscheid, 1994)
- **Bronchopneumonia** (Larscheid, 1994)

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Indication	Dosage (s.c./ i.m. or i.v.)
Parturition syndrome in cows	20-30 ml per animal 1-2 time per week, up to 6 weeks
Tetany, cattle	20-30 ml per animal on 3 successive days
Rearing age disorders	5-20 ml per calf · 5 ml per lamb 1-2 time per week

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