# Hydra F

**Effervescent supplementary feed for stabilising levels of hydration and electrolyte balance**

HUVEPHARMA®

# Diarrhoea in neonatal ruminants

Diarrhoea is a commonly reported disease in newborn calves, lambs and kids. It is a serious welfare problem and a major cause of economic loss to producers due to poor growth, mortality and treatment costs. Neonatal diarrhoea is the number one cause of mortality in ruminants before the age of one month.

Diarrhoea is defined as an increase in faecal water loss due to an imbalance between absorption and secretion of water and electrolytes. Neonatal diarrhoea in ruminants is defined as a complex multi-factorial disease, resulting from an interaction between host, environment, nutrients and infectious agents. Gastrointestinal disorders are caused by both pathogens (viruses, bacteria, protozoa) and non-infectious factors (feeding, housing conditions, management practices).

It is the most observed clinical sign of illness in young calves and occurs mainly in the first month of life, due to its poor immune response capacity. The younger the calf, the greater the risk of developing diarrhoea, and death usually results from progressive, severe dehydration, acidosis, and loss of electrolytes. The principles of pathophysiology and treatment described in calves also applies to lambs and kids.

## Treatment of diarrhoea

**The highest priority in treating scour is to replace the water and electrolyte loss with fluid therapy.**

**Orally administered solutions are most appropriate for scouring calves that are still able to stand and to suck.**

### The oral electrolyte solution should:

1. Supply sufficient sodium to facilitate normalisation of extracellular fluid deficits, with a highly effective standard ileal digestibility (SID). Highly effective standard ileal digestibility (SID) where SID = [Na+]+[K+]-[Cl-]
2. Provide an alkalinising agent to treat the metabolic acidosis.
3. Provide sufficient energy as these electrolyte solutions maybe administered instead of milk or milk replacer for a short period of time.




**References :**
Constable et al, J Vet Intern Med 19:581-589, 2005
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Lorenz et al, Irish Veterinary Journal, 64:9, 2011
Izzo et al., Australian Vet Journal, Vol 89,5, 2011
Smith, Vet Clin Food Anim 28:465-481, 2012
Kumaresan et al., Intas Polivet Vol 13(I):8-14, 2012
Cho et al, J Vet Sci 15 (1), 1-17 , 2014
Trefz et al, J Vet Intern Med 29: 688-695, 2015

# HYDRA F: High hydration power in acute digestive disorders

Used in the early stages of diarrhoea or after the farm animals have been successfully hydrated following parenteral fluid therapy.

Hydra F should be administered as a milk replacer for 2 or 3 days. Then it is advisable to resume normal milk feeding.


## SID of 114 mmol/L

Replenishes fluids: electrolytes NaCl, KCl and sodium bicarbonate

**Na+ : 127 mmol/L**
**K+ : 28 mmol/L**
**Cl- : 41 mmol/L**

## Energy 156 kcal/tablet

Lactose as a source of energy helps return to milk feeding

## Easy to use

Effervescent tablet fully dissolved in a one minute

**In every meal for 2-3 days:**

Product specifications

# Hydra F

**Electrolytes in an effervescent tablet**

## Nutritional aims

Stabilisation of water and electrolyte balance to support physiological digestion.

## Composition

Lactose, sodium bicarbonate, sodium carbonate, potassium chloride, sodium chloride.

## Properties

Highly soluble and easy to use due to the effervescent formulation. Hydra F contains lactose which allows an easier return to milk feed.

## Analytical constituents

| | |
|---|---|
| Crude protein | 4.2 % |
| Crude fibres | 0.1 % |
| Crude oils and fats | 0.1 % |
| Crude ashes | 18.0 % |
| Sodium | 5.9 % |
| Potassium | 2.2 % |
| Carbohydrates | 65.3 % |
| Bicarbonate | 8.3 % |
| Chlorides | 2.3 % |
| Lysine | 0.0 % |
| Methionine | 0.0 % |

## Additive contents per kg

**Flavouring substance:**

2b17034 - Glycine ..... 41 500 mg

**Preservatives:**

1a330 - Citric acid ..... 84 640 mg

## Instructions for use

In case of risk of, during periods of, or recovery from digestive disturbance (diarrhoea).

- **Calves:** dissolve 2 tablets of Hydra F in 2 litres of warm water (around 40 °C) during the meals, 2 to 3 times per day for 2 to 3 days..
- **Lambs, kids, piglets:** dissolve 2 tablets of Hydra F in 2 litres of warm water, 2 to 3 times per day for 2 to 3 days.

## Precautions for use

It is recommended that advice from a veterinarian be sought before use and before extending the period of use. Do not administer a solution prepared more than 24 hours before. Simultaneous feeding of milk should be avoided in animals with abomasum. Keep out of the reach of children.

The simultaneous use of different organic acids or their salts is contraindicated where one or more of them is used at or near the maximum permitted content.

## Storage

Shelf life: 2 years.

It is recommended to store the product at a temperature below 25 °C. Storage above this temperature for a long period of time is likely to cause browning of the product, without modifying its properties.

## Packaging

Box of 40 tablets of 50 g each.


Fab. : α FR 49.264.006 - Agrt : α FR 49.331.011

Hydra F

HydravoFizzyBr.ENO2.1023/MNArt

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