

# ***Kohnke's Own***<sup>®</sup>

# **CELL-SALTS**<sup>™</sup>

## *Questions and Answers*

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**Cell-Salts<sup>™</sup> provide a source of essential salts to supplement the natural content in feeds.**

Adding them to the diet helps to ensure that it contains an adequate intake of physiological salts to meet the needs of horses exercising at low, moderate and intense levels under variable weather conditions.

Under warm to hot conditions, additional fine, plain salt on an equal volume or 'scoop for scoop' basis with Cell-Salts<sup>™</sup>, is recommended to meet the increased sodium and chloride requirements of hard working and free sweating horses, especially during prolonged and long distance exercise.

Cell-Salts<sup>™</sup> is an innovative formulation which helps to supplement essential salts to correct dietary shortfalls at an economical cost. It does not include 'fillers' or other nutrients which would serve to dilute its concentration of important salts.

**Q Why is it important to feed a salt mix?**

**A** During exercise, 80% of the energy metabolised during muscle activity is given off as heat. This is dissipated largely by evaporation of sweat secreted from the skin surface to cool the body during exercise. Sweat loss of 4-5L/hour can be expected during moderate exercise under cool conditions, increasing by 30-35% under warm conditions and doubling to 10-11L/per hour under hot conditions.

Horses experiencing sweat loss should be supplemented with sources of potassium, magnesium and calcium when worked on a regular basis. Cell-Salts<sup>™</sup> provides a concentrated supplement of potassium and magnesium, with sodium, which helps correct the low sodium and chloride levels in common feeds.

Cell-Salts<sup>™</sup> provides high levels of potassium in particular to offset the slow uptake of this important electrolyte mineral from feeds.

**Q Why is only a limited amount of sodium chloride (or plain salt) included in Cell-Salts<sup>™</sup>?**

**A** Cell-Salts<sup>™</sup> is a concentrated salt mix - this means that we have not 'padded' it out with sodium chloride or plain salt. Most salt mixes have a much higher dose rate. This is due to the addition of sodium chloride to their mix.

Cell-Salts<sup>™</sup> contains concentrated levels of potassium and magnesium, along with adequate sodium and chloride for lightly worked horses. As sweat loss increases, to provide sufficient sodium, you can add your own plain salt on a 'scoop for scoop' ratio, relative to your horse's exercise needs, to balance the ration. This means that you can keep the dose rate low, making Cell-Salts<sup>™</sup> one of the most economical products on the market.

**Q Why is glucose added to Cell-Salts<sup>™</sup>?**

**A** Glucose provides an energy source for the efficient uptake of sodium in salt. When the horse drinks water, it assists rehydration of the blood and tissues after exercise. The glucose also helps to make Cell-Salts<sup>™</sup> more palatable. Some high salt products are sifted out by 'fussy' eaters. Cell-Salts<sup>™</sup> contains microfinned ingredients to help avoid settling and sift out any salt mixes contain cheap coarse salts which are easily sifted out. The potassium found in Cell-Salts<sup>™</sup> is also coated with high quality vegetable oil, which is resistant to oxidation. This coating reduces the bitterness associated with high potassium salt mixes. This helps ensure that Cell-Salts<sup>™</sup> is well accepted in the feed.

**Q When should I introduce Cell-Salts<sup>™</sup> to my horses ration?**

**A** Once a horse is brought into training and feed mix of chaff and hay, the natural intake of important salts, such as sodium, potassium and magnesium, may be reduced and not meet daily needs even for light exercise. A daily supplement of **Cell-Salts™** given along with a 'scoop for scoop' basis of plain, especially under warmer weather or for heavily sweating horses, fine salt should be introduced at the start of training. The dose rate can be increased as work effort or duration is increased, or sweat loss becomes obvious.

**Supplementary Guidelines:**

- **Cool, Moderate weather Kohnke's Own® Cell-Salts™.**
- **Hot, Dry Weather: Kohnke's Own® Cell Salts with equal volumes of plain fine salt.**

**Q Can Cell-Salts™ be given in water or as a drench?**

**A** The small amount of refined vegetable oil, which is used to coat the potassium to prolong its uptake and mask the normally bitter taste means **Cell-Salts™** does not readily dissolve in water to be offered as a drink. It can be used as a saline drench when given in large volumes of water (4 litres). You must consult your vet for advice on administering salines.

**Q Cell-Salts™ does not contain bicarbonate. Why?**

**A** Bicarbonate is a salt present in the blood and muscle cells to help provide natural alkaline reserve, along with phosphates in buffering against lactic acid produced by rapidly contracting muscle cells during fast, anaerobic exercise.

Horses have a large alkaline reserve and adding extra bicarbonate in a salt mix in a small 30-60g dose, has no direct benefit because the total amount of bicarbonate added is a relatively miniscule amount. Excess bicarbonate can be absorbed into the blood and result in a horse becoming 'thick in the wind' during and after exercise.

Excess bicarbonate can also trigger an increase in the excretion of potassium in the urine, which can result in low blood levels of this important salt. Levels of bicarbonate can also be tested in pre-race blood samples if excess is given to race horses.

Citrate muscle buffers are also available to help neutralise lactic acid in the muscle tissue, but excess use can also increase the excretion of potassium salt and result in reduced nervous function and dehydration.

**Q What form of plain salt is suitable using on a 'scoop for scoop' basis when supplementing with Cell-Salts™?**

**A** Plain, fine table salt is recommended as it is less likely to be sifted out compared to sea salt or rock salt.

**Q What pack sizes is Cell-Salts™ available in?**

**A** **Cell-Salts™** is available in a 2kg (ideal travelling pack) and 5kg.

New Zealand Distributor: Contact Donna from Animal Feed Solutions

for your nearest stores. Freecall: 0800 AFEEDS Phone: 0274434119

Email: [info@animalfeedsolutions.com](mailto:info@animalfeedsolutions.com)

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