

## TECHNICAL BULLETIN

### F-C-R Update

#### **FOOD CONVERSION & COLIC CONTROL**

**Mycotoxins** are an increasing problem in animal feed stuffs. The Food and Agriculture Organisation (FAO) estimates 25% of the world's food crops are affected by mycotoxins during growth and storage, irrespective from which part of the World they come from. Their negative properties have become increasingly known since the 1960s' and are now such a problem that for the well-being of equines under professional stewardship it has to be *assumed that all feedstuffs will be contaminated to some extent*. Mycotoxins have such a virulent nature that at levels in feedstuffs as low as 0.01ppm (parts per million) i.e. 0.000001% they can be seriously detrimental to health. Deleterious affected areas include the liver **afatoxins**, kidneys **ochratoxin A**, **patulin**, the blood **trichothecenes**, brain, lungs, oesophagus **fumonisin**, nervous system **penitrem A**, gastrointestinal system **trichothecenes** and generalised organ haemorrhage, again **trichothecenes**.

Fortunately science is managing to keep abreast of the mycotoxin surge and has resulted in the introduction into F-C-R of the latest anti-mycotoxin combinations available. It contains mould inhibitors (the source of the mycotoxins) to stem further deterioration of feedstuffs in storage, and absorbers aimed at neutralising these toxins before they can adversely affect the major organs. This has a positive effect of food conversion as any compromise of the body organs that supply the digestive system with various biochemicals necessary would degrade those complex functions.

**Vitamin E**, a fat soluble vitamin confers known advantages to both breeding and racing equines, but virtually everyone refers to d- $\alpha$ -tocopherol for the natural form or dl- $\alpha$ -tocopherol for the synthetic one. Natural sourced vitamin E comprises 8 molecules, 4 tocopherol and 4 tocotrienols. Science is researching these "accompanying molecules" and coming up with significant positive findings. The variable absorption of alpha tocopherol in equines is being researched and the inter-relationship within its molecular family to metabolic functions, knowing it can deplete the plasma levels of the other molecules but all 8 having apparently significant positive effect on health and well-being. Hence the inclusion of suitable blends in F-C-R.



*Specialists in Feeding for the Future*  
— Since 1975 —

Ardmore Equine Nutrition Ltd

Ardmore

Co. Waterford

Ireland

Tel: 024-94134

Fax: 024-94333

Int Tel: +353-24-94134

E-mail: [info@ardmoreequine.com](mailto:info@ardmoreequine.com)

Web-site: [www.ardmoreequine.com](http://www.ardmoreequine.com)

Summarising a few of the important points of Vitamin E compositional adjustments:

- Inhibition of cyclooxygenase activity, hence reducing anti-inflammatory properties, these being known to cause many metabolic problems and dysfunctions
- Increased the long-term production of prostaglandin F<sub>2α</sub>, an anabolic stimulator of myofibre growth (muscle fibres)
- Detoxify reactive nitrogen oxide species (RNOS) in a matter superior to alpha tocopherol
- Increasing levels of certain tocopherols' increases the plasma level of d-α-tocopherol.
- Certain tocopherol compounds increase the production of new blood cells (angiogenesis) critical for nutrient transference around the body of the animal
- Appropriate blends on tocopherols reduce levels of C-Reactive protein a marker of inflammation and one that d-α-tocopherol alone can't reduce.

If you add the above to the advantages that are already provided by F-C-R

- Supplies nutrients and phytonutrients to correct and normalise digestive anomalies.
- Contains a unique PROBIOTICS to optimise the utilisation of all food stuffs.
- A broad spectrum of PREBIOTICS provides nutrition for the horses own digestive flora and the PROBIOTICS, enabling them to work at optimum efficiency in nutrient digestion.
- Digestive enzymes provide specific aids for the utilisation of fats, protein and carbohydrates for energy and other essential functions.
- Additional "B" vitamins are available to augment those produced by the horse under normal conditions, but frequently not in sufficient quantity under hard training or racing conditions to ensure the efficient utilisation of feedstuffs.

The result – Optimizes the well-being of the horse under professional racing and breeding conditions and minimises incidences of COLIC & HIND GUT problems.

## P.J. Bolton

P.J. Bolton

B.Sc.(Chem), B.Sc.(Biochem), ARIC, MBHMA, AIIM.

*Head of R & D for Ardmore Equine Nutrition Ltd*

June 2014



Specialists in Feeding for the Future  
Since 1975

Ardmore Equine Nutrition Ltd

Ardmore

Co. Waterford

Ireland

Tel: 024-94134

Fax: 024-94333

Int Tel: +353-24-94134

E-mail: [info@ardmoreequine.com](mailto:info@ardmoreequine.com)

Web-site: [www.ardmoreequine.com](http://www.ardmoreequine.com)

## PRODUCT – Technical parameters

Product name:	<b>F-C-R</b>
Product Function:	<b>A formulation consisting of manufactured ingredients together with natural palatisers to enhance the digestive function of all horses involved in the rigours of the professional racing and breeding environments.</b>
Form:	<b>Blended powder in a foil sachet.</b>
Composition:	<b>Vitamins, biochemical, enzymes and probiotics manufactured to the highest standards.</b>
Material quality:	<b>All ingredients approved under current relevant EU legislation.</b>
Quality Assurance:	<b>All manufactured ingredients are Food grade.</b> <b>The Product has a range of testing procedures conducted during manufacture to ensure both the physical and chemical parameters are correct.</b> <b>Post manufacture the product is subjected to extensive microbiological (U.K.A.S. accredited) testing for a wide range of potential equine pathogens. Testing for Banned Substances to BHA and Jockey Club requirements are conducted (as all "Ardmore" products are).</b> <b>When all testing parameters have been met the Product is deemed to be "fit for Sale" and released.</b> <b>No irradiation procedures are conducted on this product because all ingredients are non-natural derived</b>

### **P.J. Bolton**

P. J. Bolton

B.Sc. (Chem), B.Sc. (Biochem), LRIC, MBHMA, AIIM  
Head of Q.A. and Development for Ardmore Farm Supplies Ltd

June 2014