



**OUR SCIENCE,  
YOUR SUCCESS**

**FOR-RECOVERY**



**SUPPORT YOUR  
HORSE WITH  
THE POWER OF  
UBIQUINOL  
(CoQ10)**



**FOR-RECOVERY** provides horses with a natural source of Ubiquinol (CoQ10), an essential feed element for optimal body function, helping to support post-exercise recovery and maintain performance throughout the competitive season.

## **UBIQUINOL (CoQ10) – ESSENTIAL FOR LIFE**

Horses have evolved over thousands of years as free ranging pasture grazers and can consume herbage for 17 to 20 hours per day. Pasture grasses and legumes naturally contain Ubiquinol (CoQ10) but modern day husbandry often sees elite equine athletes stabled with limited pasture access.

## **THE ROLE OF UBIQUINOL (CoQ10) IN THE BODY:**

### **CELLULAR ENERGY SYNTHESIS**

ATP is the biological unit of energy and (CoQ10) is the coenzyme (essential for enzyme function) for at least three steps of ATP production, making it essential for cellular energy synthesis.

### **NATURAL ANTIOXIDANT ACTION**

Ubiquinol (CoQ10) acts directly as a front-line scavenger of potentially damaging free radicals (produced as a by-product of all cellular processes) but also aids in the regeneration of other antioxidants, such as Vitamin E.



Performance horses need to have an adequate source of Ubiquinol (CoQ10) in their diet to quickly replenish stores depleted by exercise and maintain the levels required for recovery and optimal body function.

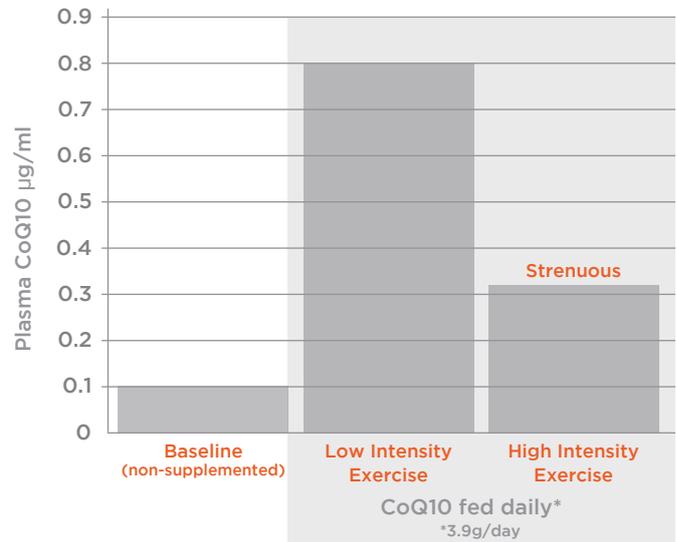
**UBIQUINOL (CoQ10) IS PART OF THE NATURAL EQUINE DIET AND IS ESSENTIAL FOR OPTIMAL BODY FUNCTION, HAVING A VITAL ROLE IN CELLULAR ENERGY PRODUCTION AND A NATURAL ANTIOXIDANT ACTION.**

# THE NEED FOR UBIQUINOL (CoQ10) IN PERFORMANCE HORSES

## EXERCISE

Strenuous (fast and/or prolonged) exercise during training and racing/competition requires more energy and generates higher levels of free radicals than when at rest. This can be further exacerbated by the pressures of travelling to competition or advancing age. Ubiquinol (CoQ10) stores are used up quickly and need to be replenished for optimal post-exercise recovery. Research in several species has demonstrated that organs which have the highest requirement for Ubiquinol (CoQ10) include the heart, muscles and lungs – all essential for performance.<sup>1,2</sup>

HIGH INTENSITY EXERCISE SIGNIFICANTLY REDUCES COQ10 IN HORSES<sup>3</sup>



THE COMPETITIVE LIFESTYLE OF RACE AND PERFORMANCE HORSES MEANS THAT THEY HAVE A HIGHER REQUIREMENT FOR UBIQUINOL (CoQ10) THAN HORSES AT REST.

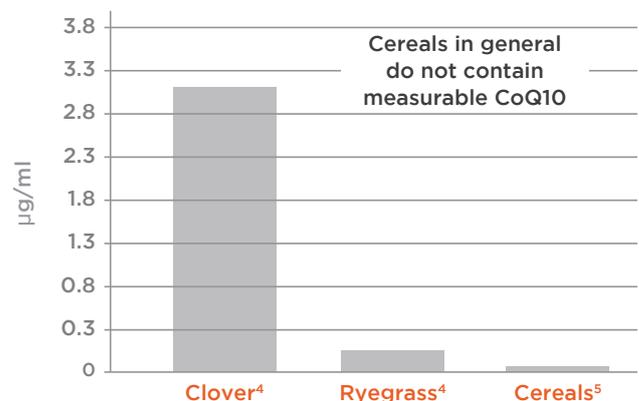
## SYNTHESIS IN THE BODY

The rate at which the horse produces Ubiquinol (CoQ10) often cannot meet the demands of training and competition, prolonging post-exercise recovery.

## DIET

The typical cereal based diet of performance horses does not contain Ubiquinol (CoQ10) in sufficient levels to maintain optimal body function.

SOURCES OF COQ10 IN THE EQUINE DIET<sup>4,5</sup>



FOR-RECOVERY PROVIDES UBIQUINOL (CoQ10) IN A DIET THAT MAYBE DEFICIENT FOR THE NEEDS OF PERFORMANCE HORSES, REPLENISHING DEPLETED STORES AFTER EXERCISE AND ENSURING DEMANDS ARE MET FOR OPTIMAL BODY FUNCTION.

# FEATURES AND BENEFITS

## A NATURAL SOURCE OF UBIQUINOL (CoQ10)

A potent antioxidant and vital coenzyme included to combat damaging oxidative stress.

## IDEAL FOR

- Those requiring additional support during the recovery period
- Horses who are travelling, especially over long distances
- Horses under increased performance demands
- Horses with a history of conditions associated with oxidative stress such as poor muscle recovery and suboptimal respiratory health



# WHY FOR-RECOVERY?

## OUR SCIENCE YOUR SUCCESS:

THE MOST BIOAVAILABLE SOURCE OF COQ10, AN ESSENTIAL FEED ELEMENT FOR OPTIMAL BODY FUNCTION.

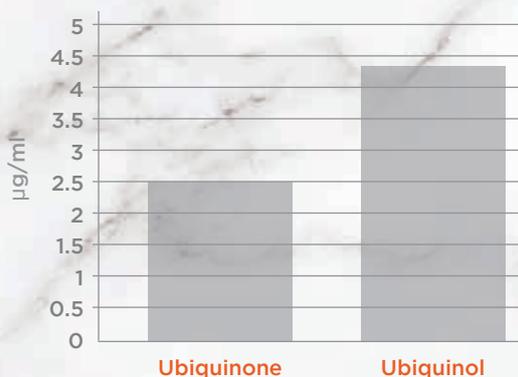
### EFFECTIVE:

Feeding FOR-RECOVERY daily during training and racing/competition increases plasma and muscle levels of Ubiquinol (CoQ10) in horses, ensuring that it is readily available, as it is needed. More than 83% horses at least doubled gluteal CoQ10 concentration with daily Ubiquinol (CoQ10).<sup>6</sup>

### DIRECT ABSORPTION:

Absorbed unchanged into circulation, research in other species has shown that Ubiquinol, the form of CoQ10 in FOR-RECOVERY, almost doubles the amount of CoQ10 in the blood compared to ubiquinone supplementation, which is found in other CoQ10 supplements for horses.

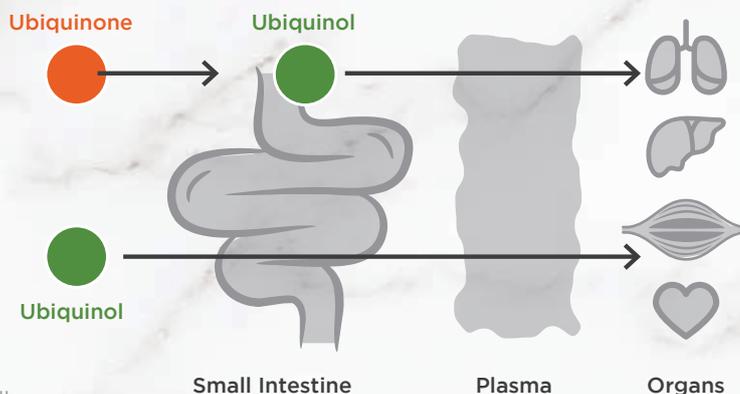
Blood CoQ10 levels following supplementation with two different forms of CoQ10\*<sup>7</sup>



\*This study was in humans

### READY TO GO:

The Ubiquinol (CoQ10) molecule used in FOR-RECOVERY is a key nutrient in the form that is ready to be used by the body, without the prior need and inefficiency of conversion from ubiquinone.



Ubiquinol (CoQ10) does not require conversion in the small intestine, allowing direct availability to cells.

## GUARANTEED QUALITY, AVAILABLE EXCLUSIVELY FROM FORAN

### TOP STANDARDS:

FOR-RECOVERY is produced to GMP and Foran's own S.A.F.E scheme, ensuring the highest product quality, safety and adherence to global anti-doping regulations, as defined by leading regulatory bodies, in accordance to Clean Sport principles.

### CONSISTENT AND FRESH:

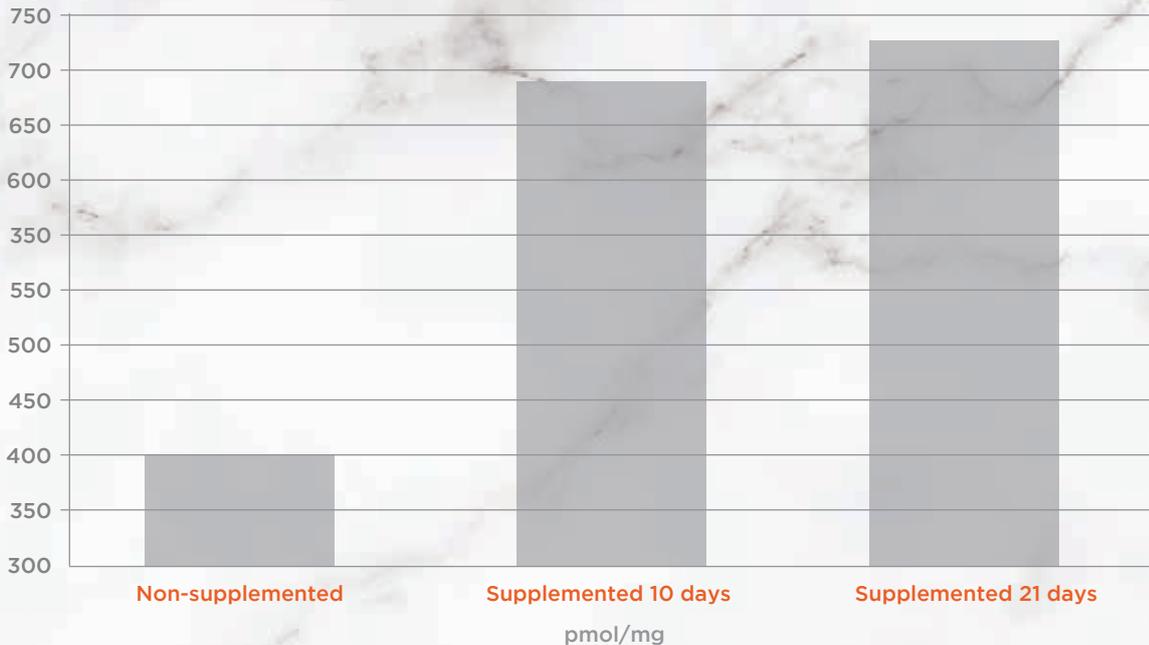
Individual daily sachets helps ensure freshness and makes it simple to guarantee each horse receives the recommended feeding rate of FOR-RECOVERY daily.

## FEEDING DIRECTIONS:

FOR-RECOVERY delivers essential feed element, Ubiquinol (CoQ10), to complete the diet of horses with limited access to natural sources and that have a higher nutritional need for CoQ10 as a result of their competitive lifestyle.

FOR-RECOVERY should be used throughout the training and racing/competition period, at least 21 days prior to when the need for Ubiquinol (CoQ10) increases, to ensure there are peak plasma and skeletal muscle levels when required during training and racing/competition.

### CONCENTRATIONS OF CoQ10 IN HORSES SUPPLEMENTED WITH UBIQUINOL<sup>6</sup>



\*Median levels in middle gluteal muscle following supplementation with 1g/day ubiquinol

2 sachets of FOR-RECOVERY (1g Ubiquinol (CoQ10)) should be fed daily for 10 days, then 1 sachet fed daily for maintenance.

Ongoing daily feeding is required, as discontinuation causes progressive decline in Ubiquinol (CoQ10) levels.

#### References

- <sup>1</sup> Aberg, F. *et al.* (1992). Distribution and redox state of ubiquinones in rat and human tissues. *Arch Biochem Biophys.* 295: 230-234.
- <sup>2</sup> Zhang, Y. *et al.* (1996). Restricted uptake of dietary coenzyme Q is in contrast to the unrestricted uptake of a-tocopherol into rat organs and cells. *J Nutr.* 126: 2089-2097.
- <sup>3</sup> Sinatra, *et al.* (2014). Plasma Coenzyme Q10 and tocopherols in Thoroughbred race horses: Effect of Coenzyme Q10 supplementation and exercise. *J Eq Vet Sci,* 34: 265-269.
- <sup>4</sup> Leadon, D.P. *et al.* (2020). Coenzyme Q10 concentrations in perennial rye grass and white clover. *World J Agri & Soil Sci.* 4 (2).
- <sup>5</sup> Pravst, I. *et al.* (2010). Coenzyme Q10 contents in foods and fortification strategies. *Crit Rev Food Sci Nutr.* 50 (4): 269-80.
- <sup>6</sup> Thueson, E. *et al.* (2019). Effect of daily supplementation with ubiquinol on muscle coenzyme Q10 concentrations in Thoroughbred racehorses. *Comp Exerc Physiol.* 15 (3); 219-226.
- <sup>7</sup> Langsjoen, P.H., Langsjoen, A.M. (2014). Comparison study of plasma coenzyme Q10 levels in healthy subjects supplemented with ubiquinol versus ubiquinone. *Clin Pharmacol Drug Dev.* 3 (1): 13-7.

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