



Applications of tart Montmorency cherries: exercise recovery and human health

The Challenge

Montmorency tart cherry juice was already known to contain high quantities of phytochemicals that display anti-inflammatory and anti-oxidative effects. These have the potential to enhance various aspects associated with athletic recovery following strenuous exercise, such as managing illness and injury and positively modulating sleep. The Cherry Marketing Institute (CMI) wanted to explore the benefits of consuming the juice before and after intense exercise. Specifically the CMI wanted to understand more about the potential for significantly enhanced muscle function recovery after exercise.

Solution

Research carried out by academic experts at Northumbria University was a world first in demonstrating that consuming tart Montmorency cherry juice before and after intense exercise significantly enhanced muscle function recovery in the following days. Research was extended to demonstrate application to groups beyond athletes and has seen significant increase in the use of tart cherries for health-related benefits. Sleep is an important part of the body's recovery process. Montmorency tart cherries contain naturally occurring melatonin a hormone which regulates sleep in humans and animals. Further research by the team found that consuming the juice results in a significant rise in melatonin levels for the person taking it and improves sleep quantity and quality by five to six percent.

Impact

This research achieved widespread global media coverage. Since publication Montmorency cherry juice products have increased in popularity among elite athletes and the wider public. It is now incorporated into the training regimes of a wide range of professional athletes in the US and UK including Team GB, Premiership Football and Rugby Union teams, elite American Football, baseball and basketball players. Collectively this has made a positive impact on practitioner-led, evidence-based practice, where it has facilitated the maintenance of health, wellbeing and performance recovery. The ground-breaking research, led by Prof Glyn Howatson at Northumbria University, has increased sales and consumption of tart cherry juice. Our initial work has led to research that reaches beyond the sporting arena, including improved sleep, reduced indices associated with gout, and improved vascular function.

Organisation Overview

The Cherry Marketing Institute

The Cherry Marketing Institute (CMI) is a not for profit organisation funded by North American Montmorency tart cherry growers and processors. CMI's mission is to increase the demand for Montmorency tart cherries through promotion, market expansion, product development and research.



"U.S. Montmorency cherries have long been recognized as bringing significant health benefits relating to improved sleep quality, rapid recovery from exercise-induced soreness and improved care of joints. Unlocking the research behind this amazing super fruit, Northumbria positioned U.S. Montmorency tart cherries as one of the top fruits to reach for whether you're an athlete or health conscious weekend warrior. We are very pleased to see that the findings of this study have confirmed the additional health benefits that U.S. Montmorency tart cherry concentrate can bring"

John Carey, Director, Cherry Active Limited.

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