Heath and Exercise Science Senior Thesis Projects
Spring 2014

Title of Thesis: A comparison of two raw juices with a commercially available drink on athletic performance and post-recovery measures

Student Name(s): Maody Miranda and Nicole Li (2014)

Faculty Sponsor Name(s): Paul Arciero

Abstract Optimal nutrition for athletic performance and recovery is essential. This study investigated the effect of two raw juices on athletic performance and recovery. Athletes (n=17) were randomly assigned to consume 16oz of either; beetroot, celery or control (fruit) juice. A submaximal test was performed on a cycle ergometer followed by a 5K time-trial and 30 mins of recovery. Variables measured were RPE, lactate, glucose, blood pressure, and heart rate. The consumption of beetroot juice showed the most positive effects compared to the consumption of the celery juice and placebo, especially for lowering systolic blood pressure ($p<0.05$). Although statistically insignificant, the consumption of beetroot juice also reduced mean VO_2 during submaximal exercise and heart rate compared to the other two drinks. Interestingly, the consumption of celery juice resulted in the fastest finishing time during the time-trial. These results suggest that the consumption of beetroot juice or celery juice can possibly be use as an effective ergogenic aid for athletes to improve athletic performance and recovery.