

Work Performance

The Effects of an Antioxidant Nutrition Drink FRS on Work Performance and Health Parameters in an Industrial Setting

Eric Durak, MSc Mica Bell, BS Medical Health and Fitness, Santa Barbara, CA The effects of a six-week nutrition drink program were measured in 33 university employees who work in an occupational setting (e.g. grounds keepers, custodians and skilled trades). Staff work at various shifts during a 24-hour work period, and perform many jobs that require physical exertion, lifting, repetitive movements, and attention to detail. Specific areas of fatigue, mental alertness, and concentration were measured with a WPAI Questionnaire modified to apply to an industrial setting.

Participants were chosen from the volunteers at the job site and randomly assigned to an energy drink (FRS®) containing quercetin (A), or non-quercetin (B), and midway through the program, changed cans in a crossover design. The program consisted of consuming two 8.4 fluid ounce cans of FRS energy drink daily for three (3) weeks per drink mixture. Participants filled out the WPAI survey pre, mid and post study regarding eating habits, work habits, and physical and mental demands of their work.

Results indicated improvements in two areas of the WPAI survey:

In physical work demands. Group A had improvements in work performance (handle job task - 11%, $p=0.10$), work frustration (35.6%, $p = 0.08$), fatigue status (45.5%, $p=0.002$), and concentration (24%, $p=0.02$). Group B had improvements in phase II of the program using quercetin in areas of schedule demands, (4.6%, $p=0.08$), and concentration (10.3%, $p=0.02$).

Both groups collectively had improvements in both work performance and quality of life indices, including a 30% improvement in overall fatigue status ($p=0.004$), and levels of concentration (17.1%, $p<0.001$).

These results indicate that in the industrial work setting, FRS with quercetin improves work performance and quality of life aspects necessary to complete jobs on time and reduce chances of injury or illness during work efforts.