Southern Gardens Citrus (SGC) Processing is the world’s largest supplier of 100 percent pure Florida not-from-concentrate orange juice to private label industry and major brands. Opening in 1994, SGC is the newest orange juice processing plant in the United States. Our Mission Statement is “Continuously improve and become the low cost supplier of high quality citrus products to our customers, while maximizing returns to our shareholders.”

Since 1995, we initiated a Maintenance Excellence effort with the vision of excelling our maintenance program from reactionary to proactive. The lowering of maintenance costs and improvement of the uptime of our equipment/assets for operations were the main goals of this vision. This effort was driven by a new general manager who brought in maintenance consultants to develop strategies and objectives. Asset criticality was established, planners were added, and mechanics were placed on area teams. KPI’s were established and monitored to determine our results and future course of action. Laser alignment was added to the program to eliminate repetitive failures.

In 2004, our Reliability Excellence effort was launched with benchmarking and training with additional maintenance consultants. A lingering silo effect was eliminated by centralizing maintenance. A Reliability Engineer position was created and upper management steering team was created to monitor and support maintenance and reliability efforts that was named the Reliability Excellence and Leadership Team (REAL Team). A TPM inspection style approach to rebuilds was introduced to eliminate unnecessary maintenance costs. SAP as our CMMS went live in 2008.

Predictive Maintenance programs were introduced: Infrared Thermography; Ultrasound Analysis; Oil Analysis; Vibration Analysis; and Off-line Motor Testing. Our lubrication program was reinforced with the use of Utrasonics. Fans began to be dynamically balanced with the assistance of Vibration Analysis. Resources were reallocated to expand these programs and ensure their success, such as training mechanics to become PdM Technicians and redefined our Utilities department responsibilities for our air and steam systems. These processes have assisted Southern Gardens in becoming proactive by allowing us to focus on what needs attention. We are constantly looking to expand the use of our predictive maintenance tools to increase their usefulness. This, along with a plant culture of continuous improvement, has allowed our asset condition management to improve year after year and financially justify itself.

The Orange Juice business is a “penny” business and margins can be affected by many uncontrollable factors coupled with the everyday business challenges, such as global competition and citrus diseases. This by nature means that all of our programs have to have financial returns have to be greater than costs.

The results have been gratifying with year after year reduction in emergencies and maintenance costs, maximized use of internal labor through the elimination of electrical contractors and only use other contractors when skilled labor is an issue. We have found that we could reduce the maintenance work hours through attrition: 12 Mechanics to 9, 12 Mechanic Helpers to 6, 2 Instrument Techs to 1, and 50% reduction in Maintenance Management.

List of hardware:
- Flir T620 Infrared Camera
- Flexcam T10 Infrared Camera
- Fluke Ti10 Infrared Camera
- Commtest v87 Vibration Analyzer
- SDT 170 Ultrasound Detector
- UE Systems Ultraprobe 100 Ultrasound Detector
- UE Systems Ultraprobe 201 Grease Caddy
- All Test IV Pro De-Energized Motor Tester
- Optalign Plus Laser Alignment tool

List of software:
- Flir Tools
- Commtest Ascent
- All Test Pro EMCAT 2005 Calculator
- All Test Pro EMCAT3
- SAP
- Microsoft Office