

Water, Energy, and Food Waste Reduction at Wholesale Produce

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Driven to DiscoverSM

Company Background

- 140,000 sq ft
- 300 employees
- Facility runs 24 hrs, 5-6 days a week
- Produce wholesaling



WHOLESALE PRODUCE
SUPPLY COMPANY

A WPS FRESH COMPANY



Intern Project Goals & Incentives to Change

- Reduce organic and non-organic waste
- Conserve water
- Reduce energy and chemical usage
- Improve outcomes and save money



Tomato Room Water Reduction

- Tomato lines rinse tomatoes ~nine hours a day
- Tomato spray nozzles use 650,000 gal of water/year
- Costs \$7,700 a year
- High-flow rate not only wastes money and water, but can spoil tomatoes



Recommendation: Tomato Spray Nozzles

- New nozzles have 0.033 gpm flow rate
- New nozzles would save 510,000 gal/year, \$6,100/year
- Recommendation includes external strainers that would aid in cleaning
- Total cost: \$3,200



[Catalog75 Hydraulic Nozzles US](#)
[Units_UniJet_13802_TPU.pdf](#)
(widen.net)

Solutions

| Recommendation | Annual reduction | Total cost | Annual savings | Payback period | Status |
|--|------------------|------------|----------------|----------------|---------------|
| Replace tomato spray nozzles | 510,000 gal | \$3,200 | \$6,100 | 6.5 months | Recommended |
| Replace hose nozzles | 320,000 gal | \$1,800 | \$3,800 | 6 months | Implementing |
| Install metal guards on flume | 4,700 gal | \$0 | \$55 | Immediate | Recommended |
| Reduce run time of greens and flume rinse | 190,000 gal | \$0 | \$2,200 | Immediate | Recommended |
| Divert food waste from landfill to organics dumpster | 700,000 lbs | \$600 | \$17,000 | 11 days | Recommended |
| Implement upcycling solutions | 6,200,000 lbs | TBD | TBD | TBD | Investigating |

Personal Benefits

- Communication
- Information gathering
- Spanish skills

