

A Potato Producer Peels Away Waste

Client:

A family-run processor of dehydrated potato products in North America with multiple plants and distribution centers focused on high quality food and superior customer service.

Challenge:

For an heirloom business spanning three generations, our client already possessed a commendable Management Operating System (MOS). Managers and supervisors already employed many of the visual and collaborative tools conducive to operational excellence. However, several missteps related to reporting and accountability held the organization back from succeeding and eroded its margins.

Problem No. 1: Low Yield

Our client made a personal commitment to never send out product underweight, even packages well within acceptable margins for allowance - certainly admirable, but a decision that ultimately hurt the business financially. Additionally, the company was unsuccessful in understanding the full scope of its processing losses, particularly its shift-to-shift and daily losses. In total, we estimated the impact of on-site raw material and packaging waste at about \$20 million annually across their 4 plant enterprise, much of it recoverable with the proper training.

Problem No. 2: Crewing issues

Employees on the line did not follow standard operating procedures as laid out by the employer, be it because of a lack of guidance or an unwillingness to change. Approximately one-third of effort expended by workers added value to production. Although much of what our client hoped to accomplish with us was rooted in hard data and strategic implementation, the company also needed to address how the proposed cultural shift affected staff, many of whom were old guard. Balanced lines and proper resource allocation are just as important as convincing the best workers to advocate for updates to the MOS and lead by example.

Problem No. 3: Inadequate OEE caused by throughput ambiguity

A balanced Overall Equipment Excellence equation requires three variables: uptime, a running rate, and out-of-specification loss amounts. Although our client already reported on OOS products and needed only minimal adjustment to its downtime loss assessments, finding an optimal throughput was still a struggle. In-house operations managers had tirelessly researched the design capabilities of their equipment, even called in another consulting company to determine an ideal throughput value, all to no avail. After all that effort, an optimum throughput for production assets eluded everyone. Without it, the business lacked its primary compass.

Process:

Once strategists from USC Consulting Group stepped in, surveyed the scene and began collaborating with in-house stakeholders, we developed a set of actions that would, in time, correct each of these imbalances.

Solution No. 1: Increase yield through data-driven waste management strategies

After examining loss points on the lines, packaging, packaging weights, ingredients, and other variables influencing waste, our team upgraded the client's production/yield MOS and instituted statistical process control charting. The SPC was designed to decrease overage waste through visualization of upper and lower control ranges. In the end, a slight reduction to the amount of product in each package led to considerable cost savings in the near term, as well as high projected year-over-year gains.

Solution No. 2: Reduce labor costs through MOS alignment

Upon a review of our client's legacy MOS, we suggested several resolutions for small-scale deficiencies and larger organizational improvements. We also trained internal managerial teams on implementation and how to discuss upgrades with line workers. These efforts included the following:

- Enhanced Plan-Do-Check-Act (PDCA) cycles
- Work-to-time relationships
- Dynamic capacity resource planning
- Shift playbooks

Solution No. 3: Improve OEE with goal-oriented throughput

We dug into the client's operating history and culled the top 10 reported run rates for high-performing SKUs. We then aggregated a preliminary throughput rate based off the collected data. Even though the throughput rate offered fell below the design rate, the client now had a target to focus on, one that it knew it could work up to and maintain over the long term.

Performance Results:

- \$2.4 million annualized projected savings from crewing adjustments
- \$1.2 million annualized projected savings from yield and throughput improvements
- Reduced overage waste
- Improved crew training and labor planning

Conclusion:

With the project still ongoing, our client has already seen dramatic cost savings across these three areas.

Adjustments to crewing reached an annualized projected savings of more than \$1.5 million. Combined, throughput and yield improvements have, so far, reclaimed an annualized projection of about \$1 million. By the end of this particular project, we expect the company to realize a total savings of \$3.6 million.

The OEE reporting ties directly to the MOS, where managers and team leaders are better able to measure against performance targets and look at the results in daily and weekly review meetings. The strong action items they create also drive out waste and nonvalue-added activities in the process.