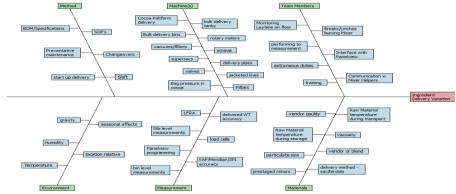


ZPI Data Enables Process Optimization to Dashboard Control (high volume ingredient delivery)

Opportunity-Analysis

Project focused on increasing the capability of high volume material delivery systems increasing product quality and decreasing scrap rates

- Scrap data is only available in weekly buckets thus cannot be correlated to root cause
- High scrap associated with critical product attributes, e.g., moisture and stack height.
- ZPI measurement of Analog signals from the Mixer showed instability in ingredient deliveries resulting in variability in dough and subsequent overall product variability.
- GPS used this data to identify and correct primary causes ingredient delivery variability



Improvements

- Key production input variables that effect product quality are now understood and controlled
- Significant increase in capability indices for critical to quality product attributes.
- Implementation of ZPI dashboards enables realtime monitoring of Analog mixer signals for nearimmediate reaction and repair.
- Project Benefits \$436,000

Breakthrough Results

Variation reduction in critical to quality ingredient

I-MR Chart of Actual by Cutoff Lbs OIL mixer 11 March MTD

