

ZINGERMAN'S MAIL ORDER: CHEESE WASTE KATA PROJECT

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CHEESE WASTE KATA PROJECT

Zingerman's
mail order

The online shop for Zingerman's food and sends food, such as breads, cheeses, coffee and bottled olive oils, anywhere in America.



- Sells mostly 0.5 lb., 1 lb. and 2 lbs. denominations of cheese
- Recognizes presence of large quantity of cheese waste
- Wants to increase quantity of saleable cheese from each cheese wheel

CHALLENGE: CHEESE CUTTING CAUSES ALMOST ALL WASTE IN PROCESS FLOW



Inventory Stocking



Order Receiving



Cheese Cutting



Packaging & Shipping

Almost all cheese waste

The cheese waste is at a record high of **339.15 lbs.** due to miscuts during holiday season, resulting in lost sales of **\$3452.47.**

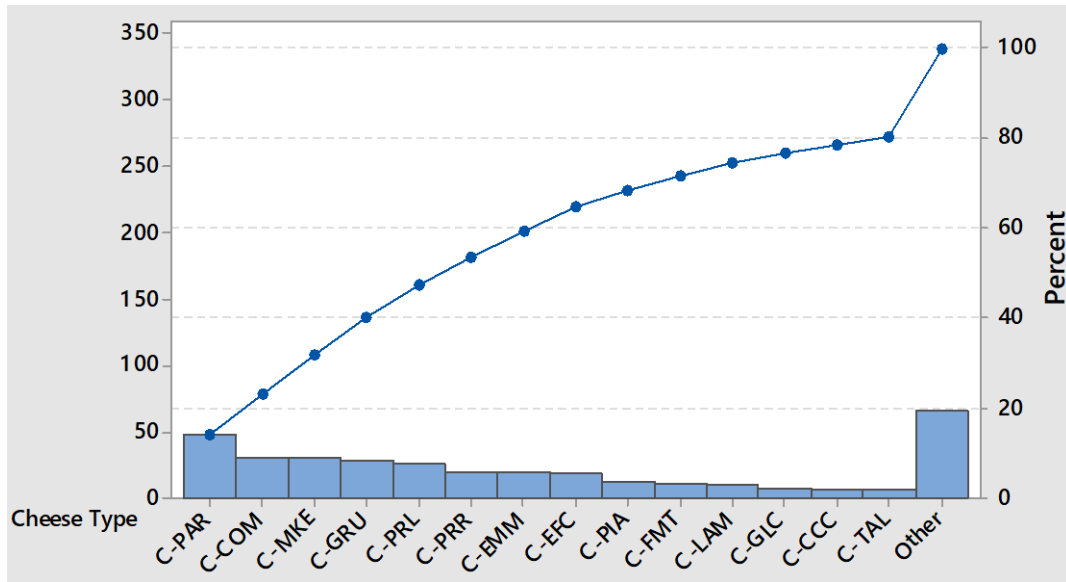
Goal: To achieve a 50% reduction in the quantity of cheese wasted due to miscuts before

Obstacles to cutting:

- Optimize Rind to Paste ratio
- Minimize cuts to maintain moisture of cheese
- Manage weight constraints
- Customize cheese cutting techniques
- Variation in operator skill

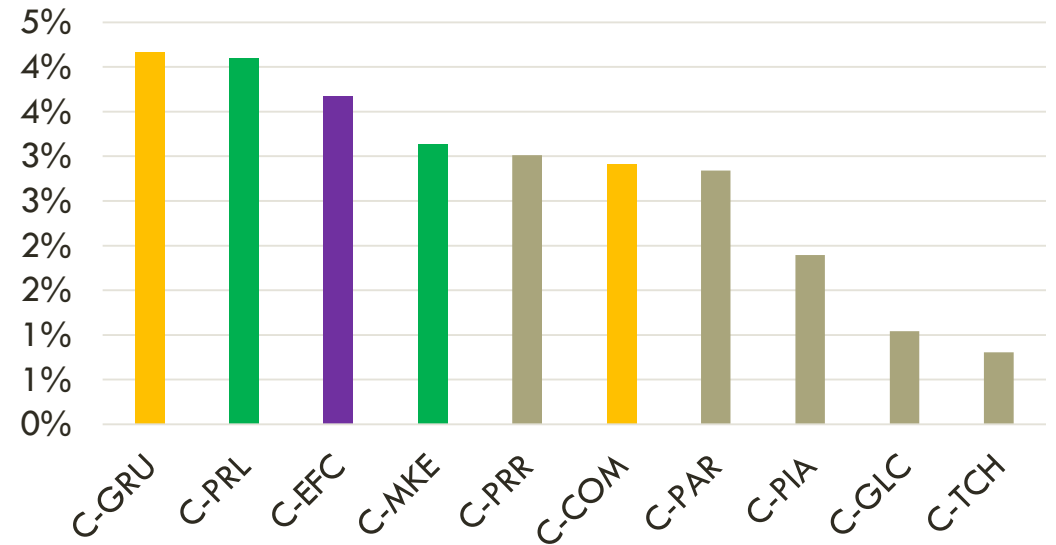
CURRENT STATE: 3 CHEESES RESPONSIBLE FOR LARGE QUANTITY OF WASTE

Cheese waste by quantity (lbs.)

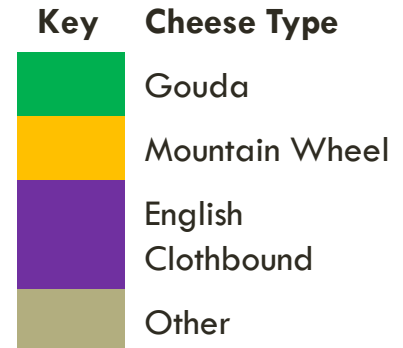


14 Cheeses are responsible for 80% of waste

Top 10 cheeses by waste %



Focus on 3 most wasteful types of cheeses to reduce waste



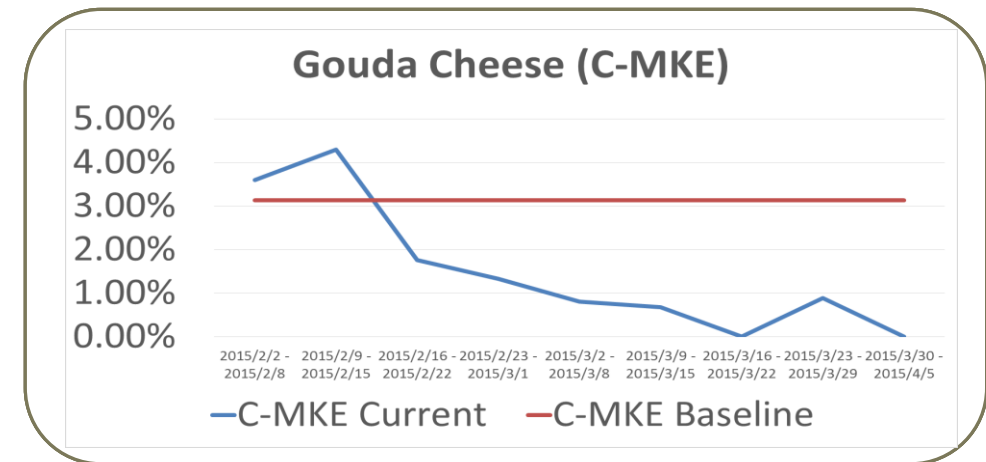
GOUDA CHEESE



PDCA 1: GOUDA WASTE

Gouda Cheese: MKE & PRL

Target Condition: Reduce by 30% from 3.60% to 2.40%



Status	What we did?	Expected Impact	What happened?	What we learned?
1	Monitored cheese cutting with respect to operators	Difference in operators skill results in waste; high skill operators have low waste and others have high waste	High waste levels were found irrespective of skill level	Errors in cheese cutting was caused due to difficult and error-prone cutting process
2	Developed new standardized cutting process and cut cheese shape	Reduced waste in cutting cheese	Reduction in cheese waste was found for few operators	Variation due to difference in skill and training
3	Trained all operators to follow new standard cutting process	Reduced waste observed for all operators	Waste in Gouda is reduced to 1.24% .	Training is key to sustaining low waste using new cutting process



Next Steps: Sustain decreased waste of Gouda Cheese by monitoring new cutting process and continuing training.



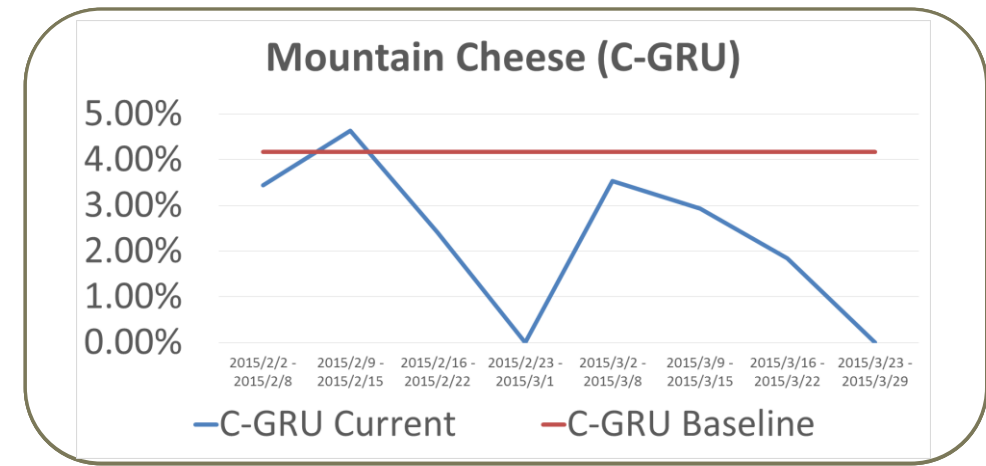
MOUNTAIN WHEEL CHEESE



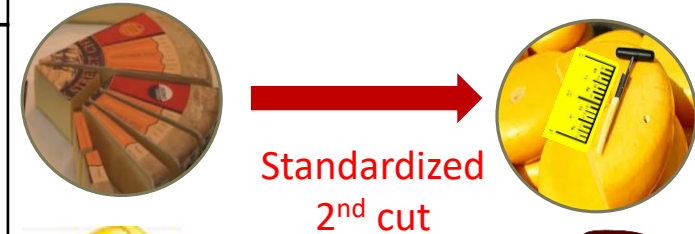
PDCA 2: MOUNTAIN WASTE

Mountain Wheel Cheese – C-COM, C-GRU, C-LET

Target Condition: Reduce by 30% from 3.35% to 2.35%



Status	What we did?	Expected Impact	What happened?	What we learned?
1	Used sticker markings on cheese wheels to cut into 1/8 th	Reduced dependency on visual judgment to break the wheel down into workable pieces.	Steady reduction in cheese waste. (~15% on an average for the 3 varieties)	Increased confidence and ease in cutting for the operators as the marking system was considered to be reliable
2	Developed new measurements for making the 2 nd cut in the wheel eights.	Reduced cheese waste due to a standardized cutting technique	Dramatic reduction in cheese waste (~51% on an average for the 3 varieties)	The standardized 1 st and 2 nd cut resulted in a much lower variation in the weight of cheese resulting from each cut
3	Trained all operators to follow new standard cutting process	Reduced waste observed for all operators	Waste in Mountain wheel cheese is reduced to 1.7% .	Training is key to sustaining low waste using new cutting process



Maintain 52% Reduction

Next Steps: Sustain decreased waste of mountain wheel cheese by monitoring new cutting process and continuing training

ENGLISH CLOTHBOUND CHEESE

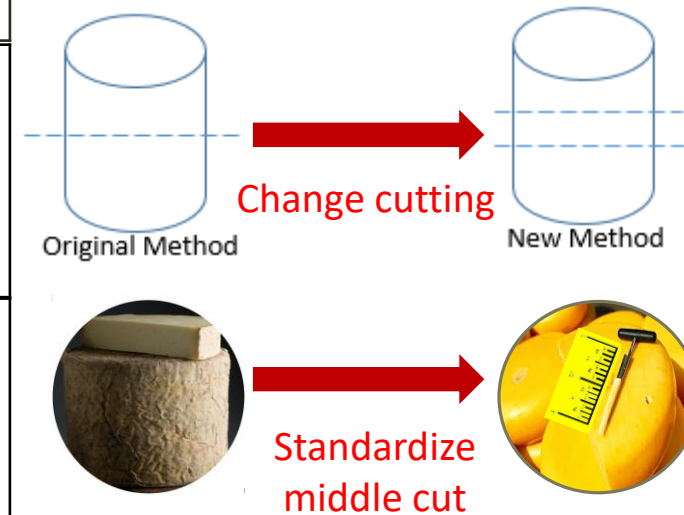


PDCA 3: ENGLISH CLOTHBOUND WASTE

English Clothbound Cheese – C-EFC

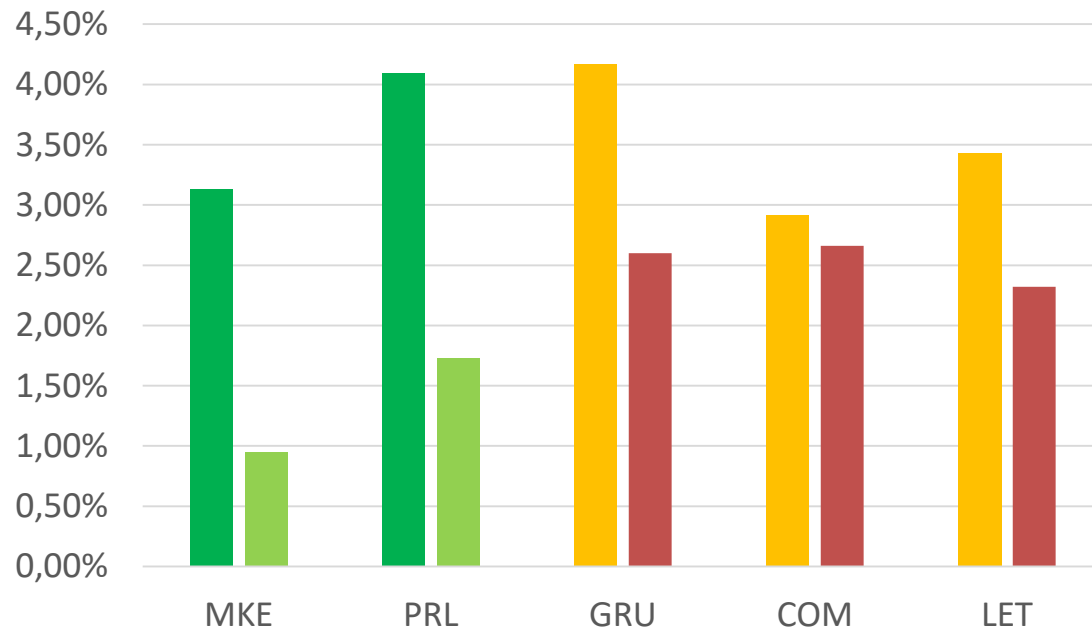
Target Condition: Reduce by 30% from 4.3% to 2.7%

Status	What we did?	Expected Impact	What happened?	What we learned?
1	Observe the current cheese cutting method for EFC	Identify the major weakness causing inconsistency in the current cutting method	Varying levels of waste was found even for experienced operators	The current method of cutting is unreliable as it required cutting very thin slices
2	Developed new cutting process where the initial cheese block is cut into thirds	Easier cutting process from the thirds will result in reduced cheese waste due to miscuts	There was no notable changes in waste levels when compared to the original method	We learnt that it is important to find an appropriate length of middle cut
3	Experiment with size of middle cut to find in optimal sizes of thirds	Optimal cuts will result in thirds that make for easy cutting, and so will further reduce waste due to miscuts		



IN 8 WEEKS, WE ACHIEVED...

Improvement in Waste %



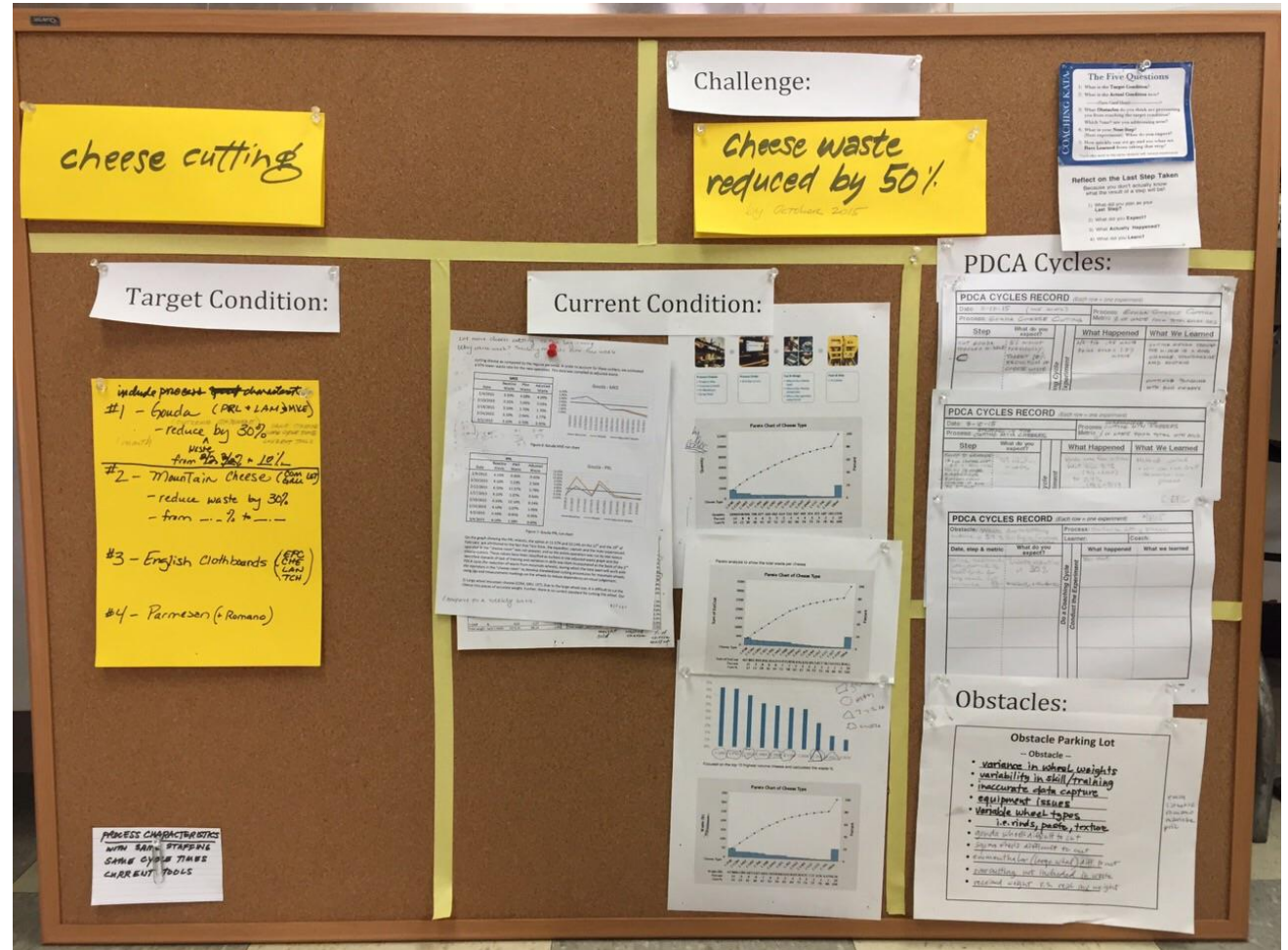
Cheese Type	Improved %
MKE	70%
PRL	58%
GRU	38%
COM	9%
LET	32%
EFC	In Progress

Decreased waste volume by 17%
Reduced cost by 14%

- Developed standardized waste reporting procedures
- Facilitated cheese team communication
- Ate extra cheese...

CONTINUING KATA: STRIVE FOR 50% REDUCTION

- Continue Kata for identified cheeses
- Create structured training for all operators
- Replicate Kata exercise for top 14 cheeses by wastes
- Benchmark cutting techniques against other vendors, such as whole foods & suppliers
- Develop tools for standardizing cutting processes



KATA LEARNINGS

- An existing process may seem to be perfectly satisfactory until you decide to change it.
- The Toyota Kata provides us with the means to initiate the change and achieve the desired results.
- The Kata is a building block for continuous improvement right from the current state analysis to the PDCA cycles.
- It is important to follow a systematic approach to yield results.
- It is essential to be patient and to analyze each situation carefully without jumping to hasty conclusions.
- The organizational culture is intertwined with the application of lean tools in the Kata and is critical to achieving the desired results.

THANK YOU

