

MONASH INDUSTRY TEAM INITIATIVE (MITI) 2016-17

Natural Cheese Giveaway Optimization

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Introduction: "Nobody sells more cheese than Bega". Placed at their Fast Moving Consumer Goods factory at Strathmerton, the project aimed to give an unique experience to the life in rural Victoria and the dairy industry. Natural cheese giveaway was combatted by reducing the inherent variation of produced goods as well as optimizing the recycling capacity.

Project Aim:

- Focused on reducing extra natural cheese given away in packets.
- Analysis of various products & prioritization occurred.
- Variation in the product was targeted to be reduced.
- Understand the process and the equipment in greater detail.
- Dealing with operators and bringing about a change in mindset.

Project Outcomes:

- Physical modifications were made to the line to reduce natural block giveaway and highlighted areas which require equipment upgrades.
- Optimized operator settings on natural block and shred lines.
- Implemented improved quality check procedures.
- Continual execution of these changes, will allow Bega to reap significant financial benefits through reduction in giveaway.

Physical Modifications:

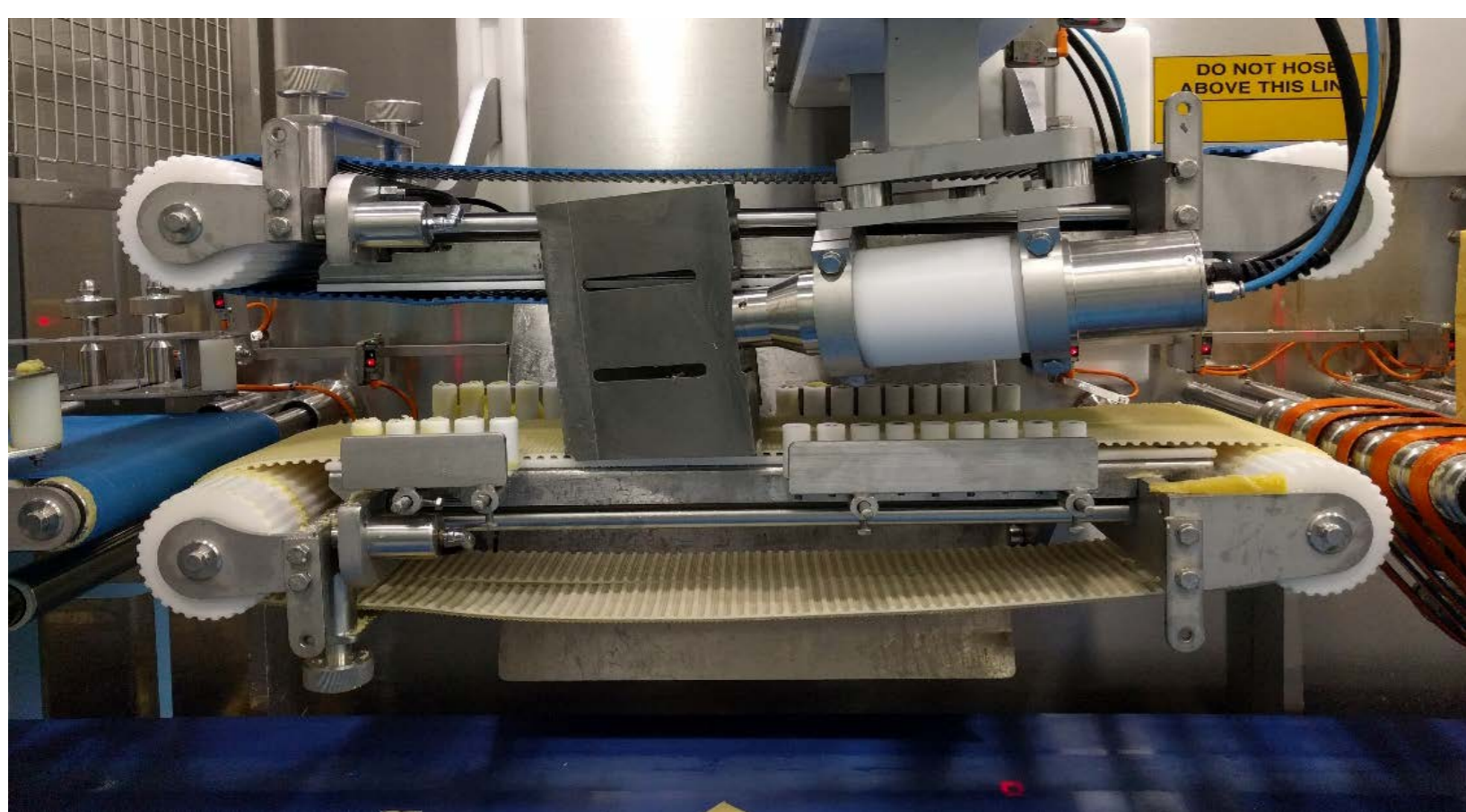


Figure 1: Added Roller guides to the Ultrasonic trimmers.



Figure 2: Hopper designed to improve cheese distribution on Ishida Multi-head weigher.

Protocol Modifications:

Packet Size	700g	500g	250g
Average Control Off : No-Underweight			
Target Weight	701.5g	501.5g	251.5g
Upper Limit	25-22	25-22	25-22
Propac Speed	44-45	44-45	45-46
ISHIDA speed (Propac Speed +)	+2	+2	+2
Average Control On: AQS/UTML			
Target Weight	700g	500g	250g
Extreme Upper Limit	25	25	25
Upper Limit	15	13	15
Lower limit	10	12	7
Propac Speed	44-45	44-45	45-46
ISHIDA speed (Propac Speed +)	+2	+2	+2

Figure 3: Optimized settings for Ishida Multi-head Weigher.

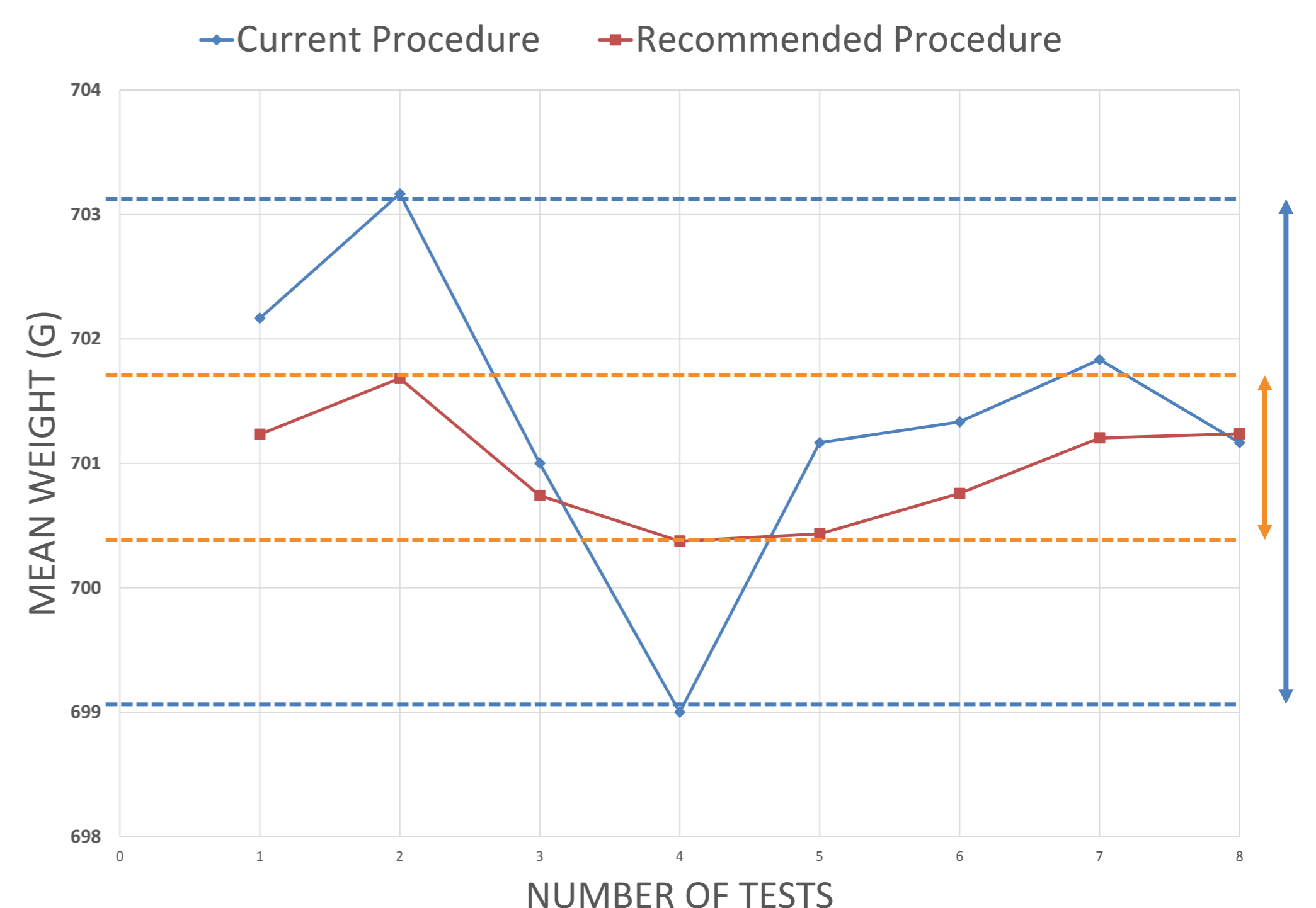


Figure 4: Improved sampling protocol to reduce noise.