

MONASH INDUSTRY TEAM INITIATIVE (MITI) 2016-2017

Optimisation Of Plant Performance

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1 Introduction

- The Frozen Packing Line is experiencing a large growth phase where opportunities for improvement are critical to Burra Foods
- Project is focused on looking at innovative ways to optimise processes within the line by reducing waste

2 Project Scope

- Explore and quantify waste streams within the frozen packing line
- Prepare recommendations which reduce/eliminate the amount of waste being produced on the line
- Implement and monitor approved recommendations

3 Initial Investigation

Water Flashes

800 L

Excess flush water is being used in the CTU and filling line, hence producing excess recovery

Silo Changes

273,000 kg

Amount worth of in-spec product that could have been packed but was sent to recovery due to cream silo change in 2016

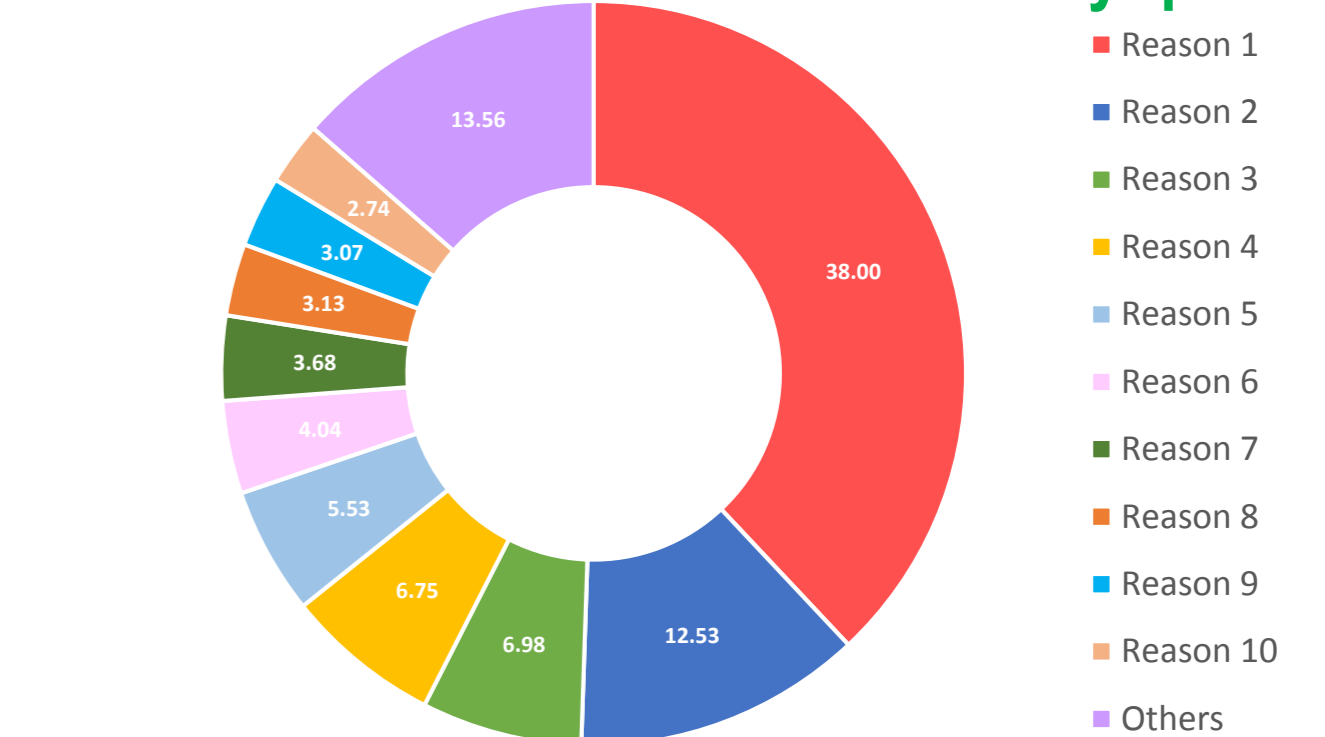
Downtimes

Five most recurring issues for downtime:

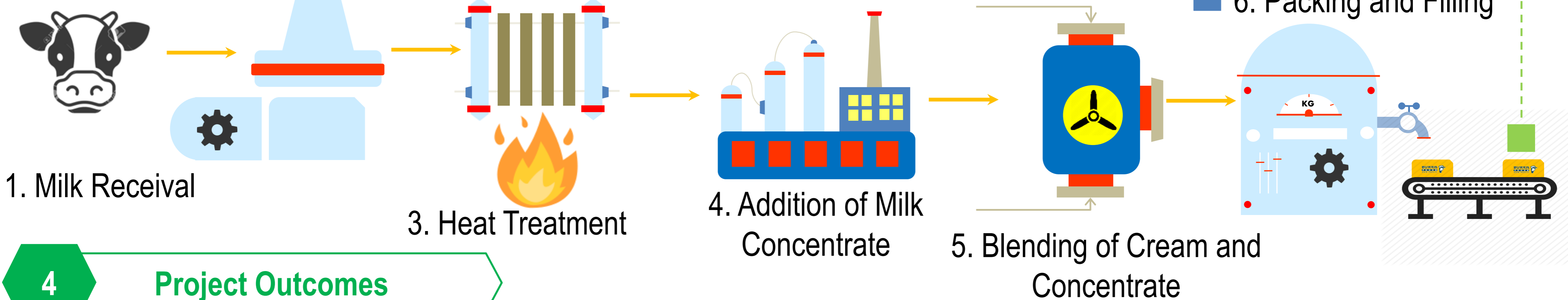
- Palletiser issues
- Printing issues
- Filler head (not capping properly)
- Spillage and clean up
- Scale issues

Rework

% Breakdown of causes of rework by quantity



2. Cream Separation



4 Project Outcomes

A. Froth Reduction in Cream Silo

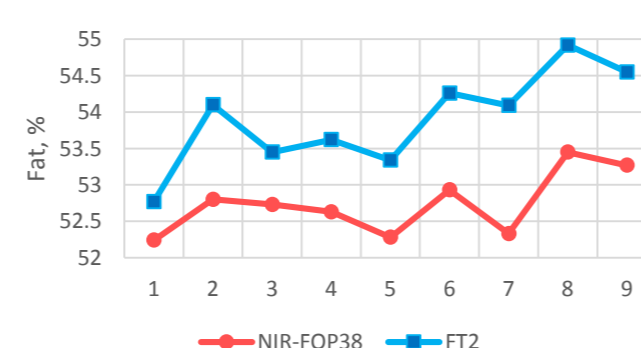
32,000 kg

Of fat, in the form of froth is dumped down the drain per year from cream silo 2.

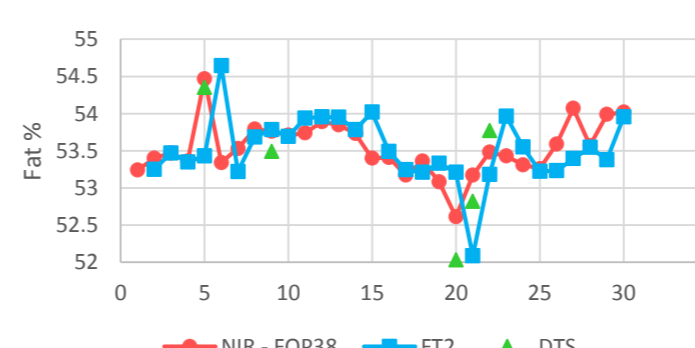
Achievement: Reduction of froth by at least 25% equivalent to \$18,000 worth of fat a year.

B. NIR Calibration

Fat % on NIR and FT2 - Before calibration



Fat % on NIR, FT2 and DTS After calibration



Achievement:

Successful calibration of NIR in the CTU for accurate fat, protein and total solid % measurement.

C. Fat Prediction Model

Achievement: Design of an accurate fat prediction model for the calculation of fat % of High Fat Cream, with only density and temperature as input variables.

5 Conclusion & Recommendations

- Successful identification of numerous areas where waste could be minimised in the frozen packing line
- Preparation of recommendations to reduce/mitigate waste in frozen packing line
- Implementation of approved recommendations