



## **Waste management and minimisation**

### **Recycling instant skim sachet bags**

**Presented by**

**Environmental improvement team**

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# Waste management and minimisation in the sachet line

## Identifying the problem

Prior to 11 March 2004, instant skim milk sachet bags were not being collected for recycling at FPT Foods. The waste was being thrown into skips and collected by Wastehaul for disposal.

This presented several issues to the company, both environmental and financial:

- wastage of film that has been paid for
- a significant contribution to landfill
- transportation costs for Wastehaul to collect skips of sachet line waste
- hidden costs associated with generating waste (cost of materials wasted, loss of productivity; EcoRecycle Victoria estimates waste disposal represents only 10% of the total cost of waste when all these hidden costs are included).

## Wastage of film

Packaging was being wasted. FPT pays for the rolls of film so this represents a significant monetary loss to the company. According to Sarah, approximately 50 to 60 metres of instant skim milk film is wasted per day.

## Environmental impact

On average, one skip bin a month was being filled with sachet line packaging waste. Therefore, FPT contributed 12 skip bins (or approximately 36 cubic metres) of waste to landfill each year. (This may not be an accurate figure, and not all of the content would be recyclable). Apart from contributing unnecessarily to landfill, this can also reflect poorly upon the company, especially when today's consumers are environmentally aware.

## Transportation costs

Wastehaul charges \$70 to collect each skip bin and dispose of the waste. This cost is inclusive of landfill levies. Therefore, FPT would pay approximately \$840 per year for waste disposal. (This figure is based on the sachet line filling one skip bin per month for 12 months, that is,  $\$70 \times 12 = \$840$ .)

## Hidden costs

According to EcoRecycle Victoria, the full cost of waste to business is at least five to ten times greater than the disposal fees.

The full cost of waste includes:

- materials and packaging that have been paid for but not used
- storage and cleaning costs
- the cost of staff time and labour that goes into producing waste
- general loss of productivity.

## **Causes of the problem**

There are several reasons why the sachet line produces packaging waste, including damaged film, changeover, underweight product and pallet sampling.

### **Damaged film**

Film that is physically damaged in some way cannot be used for final product packaging and must be disposed of. Film can be damaged either in transit to the factory (the damage cannot be prevented by FPT) or in storage or handling at the site.

### **Changeover**

Roll changeovers contribute significantly to waste generation. Between damaged film and changeover, Sarah estimates that approximately 50 metres of film is wasted per day when packing instant skim. Also, the film is run through the sealer to ensure sealing accuracy.

### **Underweight product**

Underweight product rarely contributes to the generation of waste in the sachet line, especially when packaging instant skim. An underweight product may only be encountered once per month, as the weighing filler has a high level of accuracy.

### **Pallet sampling**

Sarah indicates that taking pallet samples results in more film being wasted.

## **Solutions**

### **Recycle waste**

The Freemasons were contacted regarding recycling waste. This was followed by a visual inspection to see if the packaging was recyclable and whether they could collect it.

It was found that they could collect and recycle the instant skim sachet bags (see attached sample of bag). However, they cannot take the foil film as it is not recyclable where they take it.

In the future it may be worthwhile to investigate whether another organisation can collect and recycle the foil so that the sachet line films and bags are 100% recyclable.

From 11 March 2004, Freemasons Recycling has been collecting the instant skim bags from the sachet line. They are placed into a bulk bag and collected for recycling. So far, four bulk bags have been recycled. Sarah estimates that one bulk bag will be filled every two weeks, depending upon the product being packed.

### **Reduce waste**

Reducing waste in the first place is a more effective and long-term solution to the issue. This helps the environment and the company's bottom line.

The major factors contributing to packaging waste are roll changeovers and damaged film.

With regard to damaged film, there could be better storage and handling of films to minimise damage in the first place. Due to inadequate storage or improper handling at the factory or in transit, films can become physically damaged and unable to be used. This is material that FPT has paid for but has been unable to use.

This could be improved if the films were stored in a more adequate space, although SARAH believes that the current situation is an improvement on the way things used to be done.

Better storage space could not only minimise waste, but increase productivity if films were not being damaged. However, due to space constraints in the warehouse, this may not be a viable solution. It is, however, an aspect that should be investigated further.

## **Conclusion**

The team identified that there was a waste management issue in the sachet line. Packaging was being disposed of into landfill and this was costing the company approximately \$840 a year in disposal and transportation fees alone.

Due to our investigation, the Freemasons are now collecting instant skim sachet bags to be recycled. This is reducing FPT Foods' contribution to landfill, lessening the impact on the environment and reducing costs incurred by the company for disposal of the waste.

## Environmental improvement team

Date: 21 April 2004

Project: Recycling instant skim sachet bags

Team members: Brad, James, Lisa, Peter and Sarah

Project findings	Management comments
<p><b>Identified problem</b></p> <p>50 to 60 metres of waste is generated by instant skim sachet packaging film per day.</p> <p><b>Reasons</b></p> <p>Film is damaged in transit to FPT and through handling and storage on site, during roll changeovers and when conducting sealing tests. Underweight product and through pallet sampling are also causes of waste.</p> <p><b>Proposed solution</b></p> <p>(See attached project report for details.)</p> <ul style="list-style-type: none"> <li>• Since 11 March the Freemasons have collected instant skim sachet bags for recycling.</li> <li>• Storage and handling on site have been improved. Sarah has initiated a maintenance request to modify the trolley for improved film roll handling.</li> <li>• Continue to look at ability to recycle waste generated from full cream packaging film, which is currently unable to be recycled due to foil content.</li> </ul> <p>The current solutions are already having a good environmental impact by reducing FPT's contribution to landfill. In addition, there are reduced disposal costs.</p>	<p>I will request supplier of packaging film reverts to using cardboard box around film rolls to prevent damage during transit.</p> <p>Colin Carpenter Powder Packing Supervisor</p> <p>Great presentation. Lots of work has gone into preparing it. I think there are plenty of projects like this around the factory and it's great to see people identifying them.</p> <p>As was mentioned, it's not only the packaging waste; there would be lots of hidden costs involved.</p> <p>Dorothy Dickson Environmental Manager</p>