

# Reducing hair contamination and eliminating landfill



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With 36% of food and drink manufacturers claiming to be sending zero to landfill by 2015, how can we achieve zero landfill for head coverings, while reducing both hair complaints and costs.

The three key issues identified by the food industry were:

- How to re-use and recycle head coverings.
- Which head coverings gave the best performance for reduced or comparative costs.
- How to train and educate staff for correct wear practices, particularly those for whom English is not their first language.

## Re-use and recycle

With the most common current form of headwear, the mob cap being made from spun bond polypropylene which is not biodegradable, options for disposal are limited.

Currently much of these products go into landfill after their single use or can be collected at a cost and sent for burning as Refuse Derived Fuel (RDF). However, many people consider this practice 'greenwash'.



This is because the benefit derived from the energy produced is relatively small compared to the combined environmental costs of both collection and the energy used to burn the non-woven polypropylene and elastic material. In addition, harmful gases are produced which must be contained meaning RDF is often used in cement kilns limiting the prospect for using this option.

Further, research conducted by the University of Bolton in England for ABurnet Ltd found that mob caps were ineffective at containing hair. This is because they do not hold or contain hair due to both a very low surface contact area with the head, with the fabric having random gaps caused by the lack of control when aligning the fibres in the material. This creates small holes throughout the fabric which being 'limp' allows shed hairs to pass through the fabric and enter the food production area.



The solution to this first problem is to re-use and recycle a head covering that crucially was designed to contain hair. This was the thinking behind the development of new HairBarrier fabrics with StayCool technology such as that used in ABurnet's new Kleen Caps.

With the University of Bolton finding these products to be four times more effective at containing hairs than mob caps, or 11 times more effective when used with HairTite HygieNets, hair contamination can quickly be reduced together with cost savings in fines and management time, which can then be put to more proactive, cost effective business enhancing uses.

To effectively re-use and recycle head coverings such as ABurnet's new KleenCaps, a simple wash system with process control validation needs to be in place. Residual hairs must be removed at washing. ABurnet's new KleenCap wash sys-

tem with HairGon meets these criteria and is simple to use.

Used caps are placed in a wash bag with fill marker, which is then placed in the wash without any additional handling. HairGon, the advanced formula wash additive which dissolves residual hairs, can be added to the wash, either by dosing or bottle fed. HairGon will also dissolve pathogens leaving KleenCaps clean and fresh for re-use.

The wash bag can then be spun dried and re-issued to staff. This reduces handling when compared to the issue, collection and disposal of single use mob caps.

Clear multi-lingual signage is available at both points of collection and issue to show staff what to do and control usage. Easily identifiable wash colour code stripes, integral to the cap's construction are used to date control stock rotation.

A simple documented system of Process Control Validation is available to download to ensure a quality assured process is reproduced every time. Used caps can then be sold by the kilo as wipers to local industry, such as garages and engineering companies, providing both additional revenue and a positive PR opportunity for your business to the local community.

## Best results and cost

Results from tests designed and conducted by the University of Bolton found that:

- Mob caps per 100 employees on average had 8,500 protruding hairs.
- KleenCap Max with HairBarrier and StayCool technology reduced this figure four fold.
- Wearing HairTite Hi-Care HygieNet under KleenCap Max reduced this figure 11 fold with the HairTite folding and holding hairs, together with the HairBarrier fabric in KleenCaps helping to hold shed hairs by gripping, positive attraction and anti-slide properties.

In addition, Brian W. T. Plunkett, MIT MRIPHH of Queens College, Oxford University, UK, found that during an eight hour shift, 3,300-5,000 hairs per 100 employees will

be shed. It is therefore not hard to see why hair is currently the number one contaminant in food and, more importantly, how your choice of head covering can significantly reduce this key consumer issue.

## Train and educate staff

Performance HairBarrier headwear, such as KleenCaps, can only be totally effective when worn properly. This is why training is important. With many temporary and non-English speaking people working in the food industry, training needs to be clear, simple and visual. Any instruction needs to be in multiple languages.

ABurnet's HairBarrier tools, which are free to download, provide:

- Best practice advice taken from across the food processing industry.
- Clear visual multi-lingual wear guides for different products, such as mob caps and Kleen Caps.
- Clear, visual multi-lingual key instruction guides, such as Buddy Up and Enclose All Hair.
- Audit tools to either download or complete on line.
- Quick and easy to use web based reporting to highlight key areas for improvement, driving reductions in fines, saving both time and money.

## Improved performance

Some 99% of food processors find that by using performance Hair barrier Headwear such as KleenCaps, combined with the free HairBarrier tools, hair contamination can be dramatically reduced with savings in fines and management time.

In addition, the reductions in landfill can be written into their business improvement plans with key retail customers, earning them enhanced status with key accounts creating a positive platform for further business expansion.

It is clear that reviewing your choice of head coverings can both help the environment, reduce hair contamination and lead to significant cost savings and business improvements. ■