



## Food Defence

Since the terrorist attacks in New York on 11 September 2001, governments around the world have developed an increased concern for the safety and wellbeing of their communities. Whilst the chances of terrorist attacks are relatively low, the area of food defence is one which should demand increased attention from all food industry groups in an effort to limit the potential of threats and attacks to their products.

### What is Food Defence?

Food Defence is a relatively new term that does not have a clear definition. Early in 2007, at a workshop in Baltimore, MD, in the United States, a group of industry, academics and government officials came up with:

*“Food defense means having a system in place to prevent, protect, respond to and recover from the intentional introduction of contaminants into our nation's food supply to cause public health, psychological, and/or economic consequences.”*

The dairy industry provides a highly nutritious and widely marketed range of food products that are increasing in both diversity and penetration of geographical boundaries. The nutritional benefits of milk permit the strong growth of many pathogenic microorganisms, requiring that measures be taken to ensure the safety of the product for the consumer. It is this intrinsic capability for supporting pathogens that makes milk an ideal mechanism for the threat of attacks on the food supply.

Food protection should cover the areas of food safety (unintentional contamination) and food defence (intentional contamination). Whilst the dairy industry addresses food safety issues associated with the production and processing of their products through Food Safety Programs (FSP's), both on-farm and in the factory, consideration also needs to be given to food defence.

### Defending From Whom?

An actual attack through the contamination of food can come from a number of motivations:

- Disgruntled employees
- People with an issue against a specific manufacturer
- People who aim to attract attention and media notoriety

- Extortionists with the aim of receiving money
- Terrorists with the aim of retribution or causing fear within the population

The contamination may occur either in the production, processing or post-processing areas of the food chain. Obviously, contamination arising at the production stage can potentially reach more consumers than if the contamination occurs in the retail area where it can be limited to single packs of product.



Simply the threat of an attack, with no accompanying contamination, is another possibility that is even harder to prevent.

### Defending Against Intentional Contamination

The United States Food and Drug Administration responded to the issue by releasing Food Security Preventive Measures Guidance<sup>2</sup> in 2003. The measures that are presented will assist producers, manufacturers and carriers to develop more robust systems that will improve the capability of defending against intentional contamination, but would also benefit distribution premises and vendors. These measures address the general areas of management, human element, facility, and operations.

### Management

The owners of dairy farms, carriers, processors and distributors (premises and vendors) should consider:

- Conducting an initial assessment of security procedures currently in place

## Note

### Food Defence

- Developing a confidential security management strategy
- Developing a product recall strategy
- Providing training to staff in food security awareness
- Providing appropriate supervision to all staff with access to product
- Conducting routine security checks of product and raw materials
- Reviewing the effectiveness of the food security plan at least annually
- Alerting law enforcement and authorities responsible for products about threats or incidents.

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#### Human Element

The owners of dairy farms, processors and carriers should consider:

- Obtaining and verifying work references before taking on staff
- Undertaking police reference checks on persons before employing them
- Limiting access to product and ingredients to only those staff that need to be in production areas
- Preventing staff from bringing personal items into areas where product and ingredients are accessible
- Being alert for atypical staff health conditions or a spread of those conditions
- Accompanying all visitors at all times when they are in areas with access to product and ingredients.

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#### Facility

The owners of dairy farms, processors and carriers should consider:

- Securing doors and other entry points to areas where product or ingredients can be accessed
- Inspecting bulk unloading equipment and pumps in the receiving area before use
- Monitoring the security of the premises
- Farmers should especially consider locking or sealing all entrances to the vat room and entry points on the vat (bulk milk tank).

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#### Operations

The owners of dairy farms, carriers, processors and distributors should consider:

- Using only appropriately licensed sources of product and ingredients
- Supervising all deliveries of feedstock, product and ingredients and inspect for any tampering, contamination or damage
- Reconciling the product and amount received with the amount ordered and invoiced on the shipping documents
- Investigating any documents with suspicious alterations
- Storing all product, ingredients and product labels in a secure location
- All openings of raw milk tankers should be sealed (tagged) when the tanker will not be under the direct supervision of the driver
- Using only reputable transport companies and establishing delivery schedules.

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#### Emergency Point of Contact

Should any producers, carriers, manufacturers or distributors suspect that tampering or malicious, criminal or terrorist activity may have taken place, they should immediately inform their local law enforcement office and Dairy Food Safety Victoria, and take immediate steps to enact their recall program.

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#### References

1. A workshop sponsored by the Department of Nutrition and Food Science, University of Maryland held at the Maritime Institute of Technology and Graduate Studies.
2. Guidance for Industry. Dairy Farms, Bulk Milk Transporters, Bulk Milk Transfer Stations and Fluid Milk Processors. Food Security Preventive Measures Guidance. US Food and Drug Administration and US Department of Health and Human Services. July 2003. <http://www.cfsan.fda.gov/~dms/secguid8.html>
3. Australian Government Trusted Information Sharing Network. <http://www.tisn.gov.au/>
4. Australian Food & Grocery Council (AFGC) on [www.afgc.org.au](http://www.afgc.org.au)

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