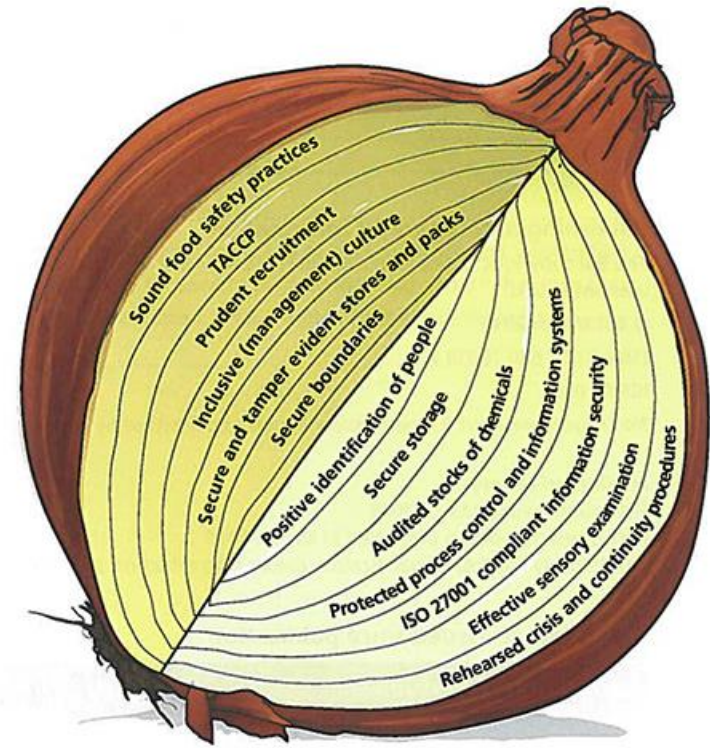


Using, Training and Implementing PAS 96:2014

PAS 96:2014

Guide to protecting and defending food
and drink from deliberate attack



**Professor Tony Hines, MBE, FIFST,
Director of Crisis Management,
Leatherhead Food Research**

HACCP used and accepted globally as a system to prevent accidental contamination of food.

HACCP not generally used to detect or mitigate deliberate contamination or fraud.

Deliberate contamination requires human intervention.

The purpose of PAS96:2014 is to guide food businesses managers through approaches and procedures to improve the resilience of supply chains to fraud or other forms of attack.

PAS 96:2014 = HACCP + TACCP

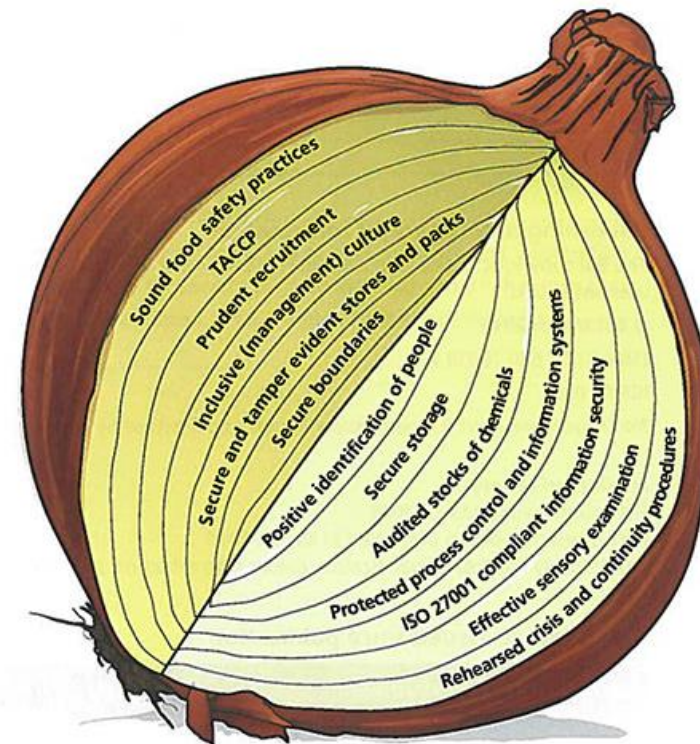
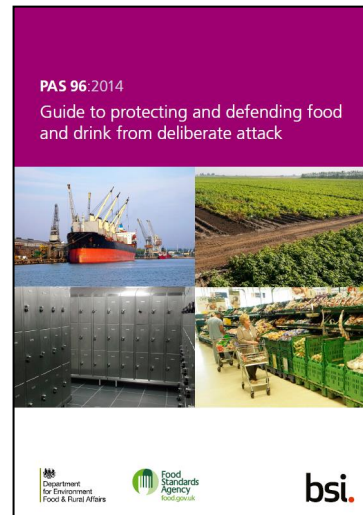
PAS 96:2014 describes Threat Assessment Critical Control Point (TACCP) which aligns with HACCP but has a different focus. This focus is PEOPLE and therefore needs the inputs from non-food safety specialists, especially HR.

TACCP takes a business into the mind set of an attacker, anticipating their motivation & capability

Implementing and Using PAS

My 'tool kit' for:-

- Training
- Appreciation
- Risk Assessing
- Due Diligence



To ensure:-

Compliance that is:

- Reasonable and proportionate

In Food Defence we talk about **Threats**

TACCP

Threat Assessment Critical Control Point



To ensure a safe and robust supply chain consider:

Temptation Assessment Critical Control Point

Identify where in the value chain there is a temptation for fraudulent activity, where most value can be added, what the benefits are and the potential for detection.

Consider **Economic Temptation**



- Intentionally non-specific
- Every business is different
- Does not seek to aid criminals
- Proportionality
- Risk is different for different businesses and product categories Differing Risk Assessments will lead to different action plans Assessments may conclude 'no action required'
- **THINKING LIKE CRIMINALS**

Stop being a Food Technologist / Safety Specialist,
Quality Manager, Supply Chain Specialist
and

Think like a criminal

What do you buy a lot of and could be subject to
'bulking' or 'diluting' to a degree that will not impact
on the safety, sensory qualities of the product, not
change it visually or physically, is expensive and
untested?



TACCP

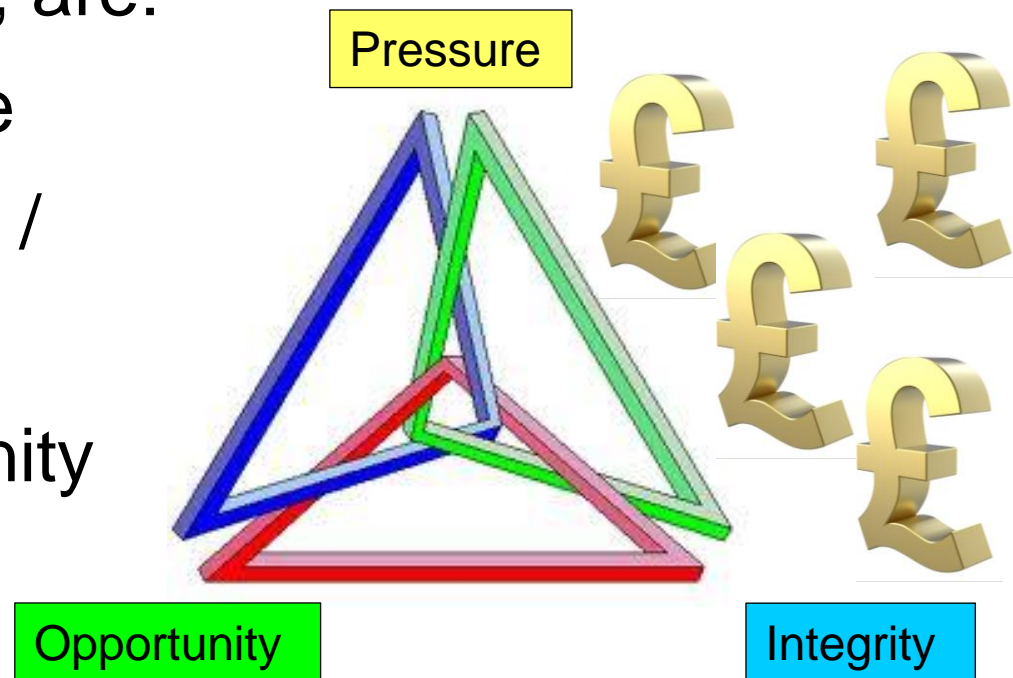
The size of threat depends on key features:

- Motivation and capability of an attacker or group
- Vulnerability of the target Impact Assessment

**Intentional contamination requires
human intervention**

The factors, which comprise the three points of the so-called fraud triangle, are:

- A perceived pressure facing the person / business
- A perceived opportunity to commit fraud
- The business / person(s) integrity



Opportunity

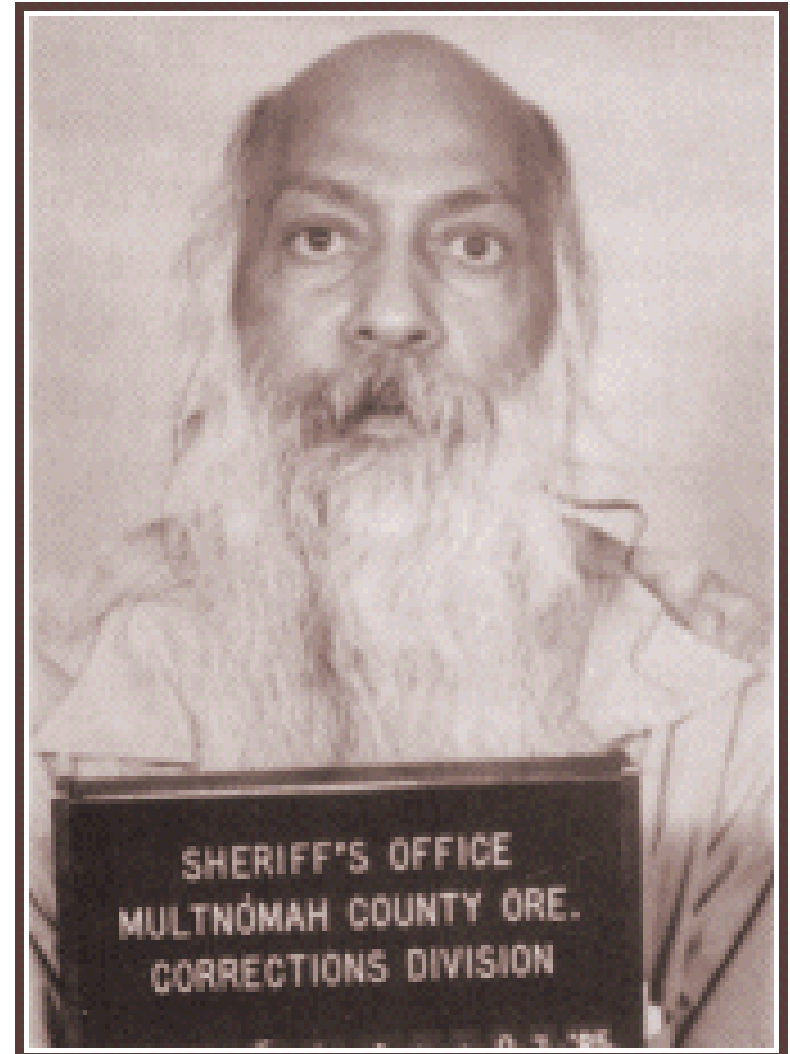
Availability

Quality

Detection

Profit

In 1984, members of a religious sect contaminated salad bars in the USA with *Salmonella typhimurium* causing 751 cases of salmonellosis. The attack appeared to be a trial run for a more extensive attack intended to disrupt local elections



Biological agents (bacteria, toxins, viruses, parasites, etc.) can be delivered in the form of liquids, aerosols, or solids

Chemical agents can be delivered as airborne droplets (nerve, blister, blood, and choking agents) and toxic chemicals (e.g., pesticides, rodenticides, lubricants, cleaning chemicals and heavy metals) Battlefield Chemical Weapons!

Radioactive agents are radioactive elements that can be delivered in liquid or solid form

Physical agents are materials that could cause adverse health effects if eaten (e.g. bone slivers, glass fragments, and metal filings)



PAS identifies three generic threats:

1. Contamination with toxic material
2. Sabotage of the supply chain
3. Misuse for terrorist or criminal activity. Threats could be carried out by individuals or groups with no connection to the organisation, no contractual relationships or by alienated or disaffected staff

MAD, BAD and SAD

Business Response Levels (Threat Levels):

- Normal
- Heightened
- Exceptional

Makes the assumption that Managers are aware of:

- HACCP or
- Similar Risk Management Procedures
- Crisis Management
- Business Continuity Management

Recommends a team approach and integration into existing protocols.

Not an external audit tool but suppliers are likely (increasingly so) to ask if you are familiar with PAS 96:2014

- Provides a framework of guidance
- Should be practical and proportionate
- Help businesses deter potential attackers.

What are we Defending?

Raw Materials, Ingredients, Finished Products, Customers, Staff and Consumers

Assets Equipment, Building, Vehicles,

People Employees, Visitors, Contractors,

Brand How much is this worth?

Building the TACCP Team

- Food Defense Coordinator (Security)
- Factory / Plant / Facility Manager
- Human Resources Manager
- Production Manager
- Quality Manager
- I.T. Manager
- Front Line Employees, loyal, long serving
- CEO / Director / Company Secretary



- Who are the critical people that should be on the Food Defense Team or “FDT”?
- Why is the team approach better than the individual approach?
- What should the requirements be for being a member of the team?
- What are the responsibility of team members / deputies?
- Why are signed Non-Disclosure Agreements or Confidentiality Agreements imperative to be on the team?
- How to assess and evaluate the progress of the team?

Who are we Protecting from?

Rogue or disgruntled employees

Terrorists, ideologically motivated individuals or
Groups

Criminals and fraudsters

Protesters - Anti-capitalist demonstrators

Subversives, radicals, saboteurs

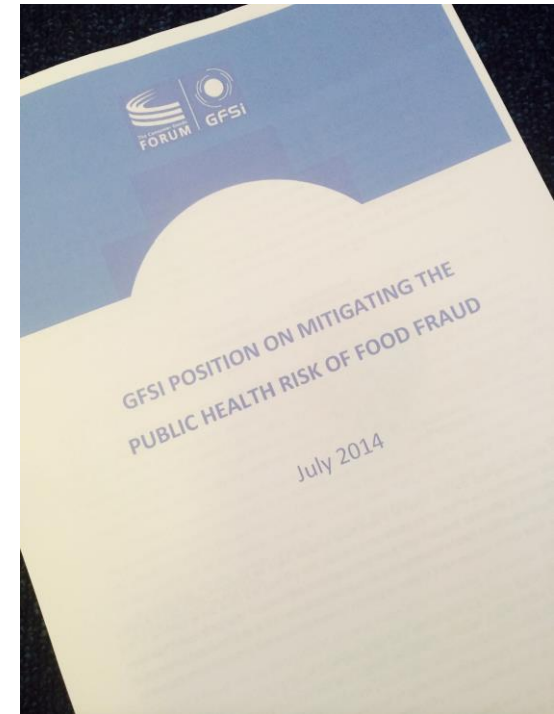
Pressure Groups, ALF, WI

PEOPLE



Information Harvesting on your Supply Chain

- Map / Document your supply chain
- Raw Materials inputs
- Ingredient inputs
- Products and Packaging



Identify and prioritise vulnerabilities for food fraud

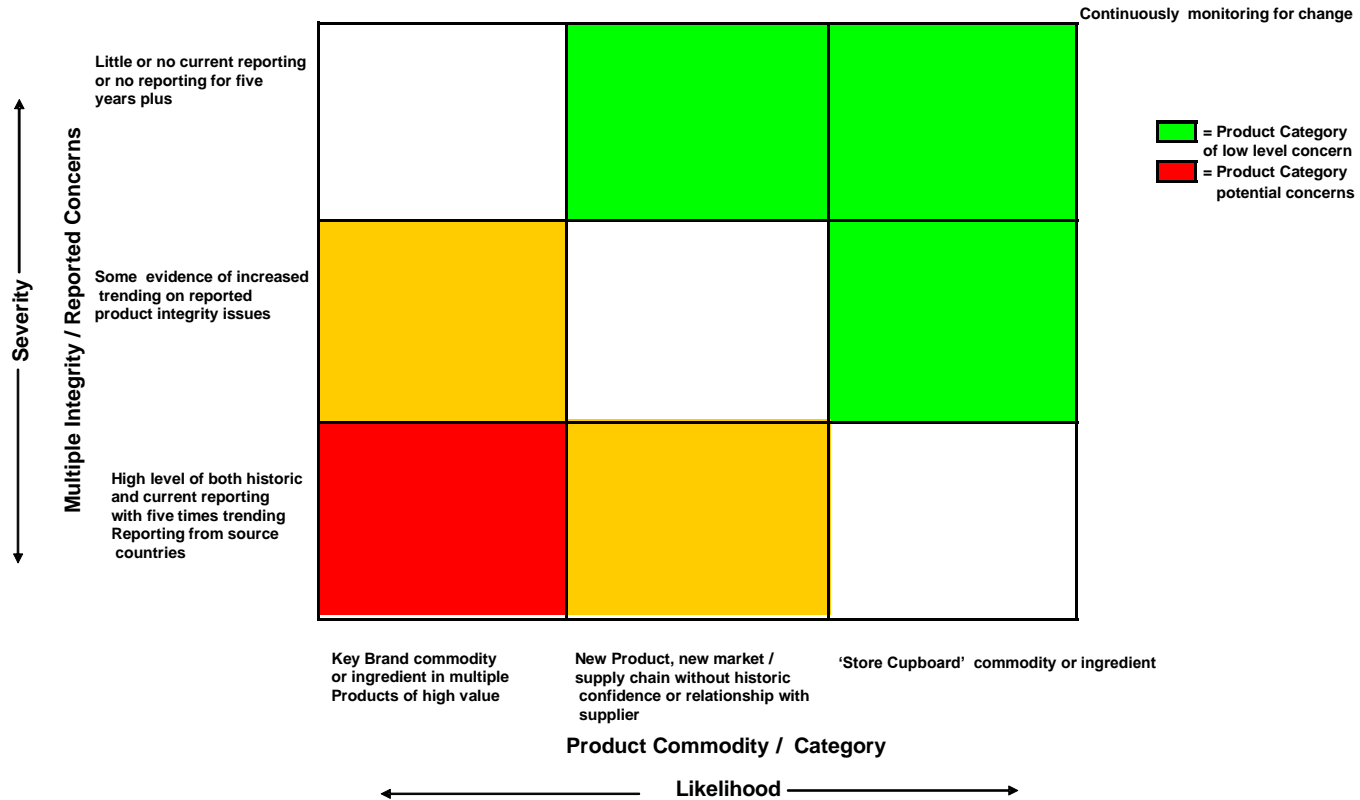
What, Where, How, **Who**

Terminology



HorizonScan Risk Framework Matrix

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Horizon Scan & Contaminants On-line



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