HACCP

The Pre-Requisite Program

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Hazard Analysis Critical Control Points

▶ *Biological hazards* result from pathogens, including bacteria, fungi, yeast, viruses, and parasites that can cause severe illness.

▶ *Chemical Hazards* - In addition to food safety risks, contaminations include unnecessary chemical methods and the presence of unintentional adulteration. These hazards include toxic contaminants from chemical control items such as pesticides, biocides, and cleaning agents, which can cause severe illness when ingested.

▶ *The Analysis* includes the assessment of the whole food operation from raw material production, food composition analysis, procurement up to processing, conditions of storage, shelf life, and consumption.

▶ *CCP - the last component of the acronym HACCP is the Critical Control Points.* These points are the controllable processing steps within the whole food chain that need accurate evaluation and control factors to remove potentially or naturally present food safety hazards or reduce them to an acceptable level. Critical control points require corrective action procedures and aspects of verification to support control measures to ensure the safety of food products.

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WHERE TO START

- Who is the client, what type of site of you dealing with?
- What is their auditing criteria?
- What is the Pre-Requisite Program?
- What is your role?
- The IPM Program
- **What is the client's role?**
- What type of records are needed?
- The Audit
- References

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Who is the client, what type of site of you dealing with?

- Food or Beverage Manufacturing & Processing
- Food or Beverage Distribution
- Food or Beverage Labelling and Packaging
- Grain Handling
- Pharmaceutical
- Transport i.e trucks, ships
- Hospitality
- Fast Food
- Livestock - domesticated animals that produce products for food consumptio i.e meat, milk, eggs
- Abattoir
- Farms
- Retail

The Food Production Chain
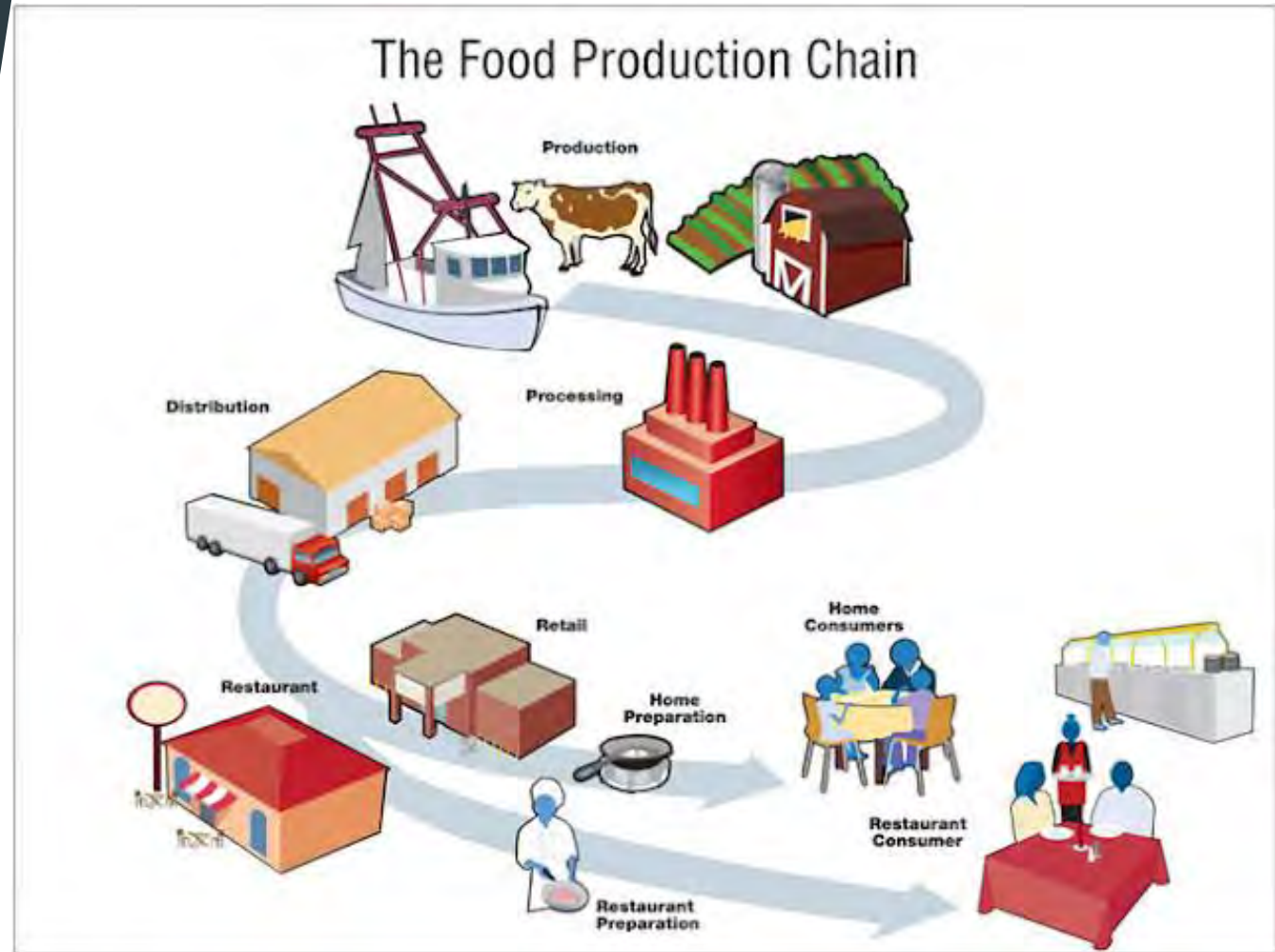
What is their auditing criteria?

There are several auditing boards within our industry who cater for the various sectors that entail food safety.

▶ **AIB** - American Institute of Bakeries International

   Food & Beverage Manufacturers

▶ **BRCGS** - Brand Reputation Compliance (previously British Retail Consortium or BRC)

   Food & Beverage Manufacturers & Suppliers, Retailers, Fast Food Outlets

▶ **FSSC22000**

   Animal Feed, Manufacturing, Packaging, Transport & Storage, Retail & Wholesale, Catering

▶ **GFSI** - Global Food Safety Initiative

   The Global Food Safety Initiative (GFSI) is a business-driven initiative   for the continuous improvement of food   safety management systems

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What is the Pre-Requisite Program?

Are basic food safety operations and employee practices that aim to create the basic environmental conditions for working in a food business.

An effective pest control program is critical to supplying safe food to your customers and consumers **and it's a requirement of** GFSI certification programs, government legislation, and most food safety audit standards.

Pest control is a component of most prerequisite programs that support HACCP Plans and **it's considered in the risk** assessment as a potential hazard to materials and processes.

Pest Control Program. Includes food operations that help control the presence of pests as well as operations to prevent cross-contamination from the solutions used to eliminate pests.

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The IPM program

- ▶ INTEGRATED - harmonious use of multiple methods to control pests as well as the impacts of multiple pests

- ▶ PEST - organism detrimental to humans, invertebrate and vertebrate animals, pathogens & weeds

- ▶ MANAGEMENT - a set of rules based on ecological principles, economic & social considerations

i. Proactive Program - immediate corrective response

ii. Management Process - determine what service is needed

iii. Minimal Pesticide Used - treat only when pests are present

iv. Least Toxic Environment - limited use of pesticides i.e. aerosol spray vs gel

v. Technical Expertise - communication

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Developing the IPM Program

- A detailed survey should be conducted to identify the pest and conditions that contribute to the pests

- A diagram of the facility including areas of pest activity and the environment i.e. open field that could contribute to rodent activity

- High Risk areas - make a list of possible pest harbourages or activity that may be encountered

- Contributing factors - make a list and discuss with the manager how these could affect pest activity i.e. open foods

- Pest activity reporting - pest sighting to be filled in by client and reported for immediate action from PCO

- Manual or Electronic Pest Control file with all reports of activity to be kept on site.

- Gaining cooperation - PCO discussing and making recommendations to store manager

- The Initial service - current infestation needs to eliminated, contributing conditions noted, treatment should include harbourages and potential entry points.

- Servicing High Risk areas i.e. kitchen/dining area for cockroaches, waste area for rodents and flies etc.

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Barriers that impact the IPM

It is expensive to implement

Responsibility of one individual

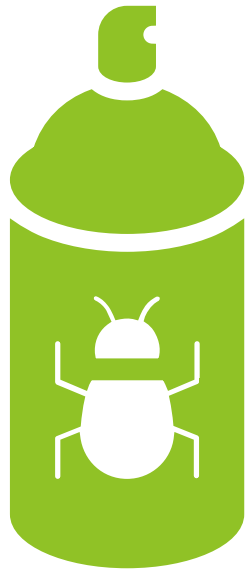No commitment or accountability

New to decision makers

Requires more skill and knowledge than traditional pest control

Want the bare minimum due to price

Participation from the client

Lack of education contributes to lack of participation

Role of the Pest Control Operator

- ▶ Check the rules of the establishment (auditing criteria) before attempting to do the actual work

- ▶ Ensure the pesticides you plan to use are labelled for food handling establishments and for the area that it is permitted to be used in certain areas.

- ▶ Read the labels carefully and ensure you mix your products BEFORE entering the establishment

- ▶ Do not apply pesticides during operating hours, communicate with the client.

- ▶ Ensure the client has done their deep clean cycle before attempting to apply pesticides.

- ▶ Discuss with your client before attempting to apply pesticides inside electronic equipment or devices

- ▶ Get to the root cause of the problem

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Pesticides are necessary in an IPM program, but they should be used in a manner to minimize risk of exposure to staff, food and food preparation surfaces.

It is best for the client to disassemble, clean and vacuum an infested piece of equipment prior to service

Ensure open foods are sealed in airtight containers

Ensure food waste is removed from the facility

Ensure no cutlery, crockery or glassware are exposed

Ensure there is a partnership effort between you and the client i.e. participation from the client,

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What is the Pest Risk?

▶ Cockroaches - German, Brown Banded, Oriental, American

▶ Flies - House fly, Fruit fly, Blow fly, Drain fly

▶ Rodents - Rats, Mice

▶ Stored Product Insects i.e. Weevils/Moths

▶ Birds - Sparrow, Minah, Pigeon, Gull, Starling

▶ Cats - Feral, Free Roaming

▶ Occasional invaders - spiders, ants, crickets, snails or any other relevant pest within the geographical area.

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What are the control methods for Cockroaches?

Chemical Control for Cockroaches

▶ Pyrethrum or synthetic pyrethroid based insecticides should be used for **"knockdown" purposes inside the facility.**

▶ Fogging is not recommended due to dead insect contamination hazards, only Pyrethrum based products must be used, all open food, raw ingredients and packaging must be removed or covered properly. Light or low-level detailed cleaning must be done prior to fumigation

▶ During the summer months - knockdown treatments should be applied as often as possible

▶ Cockroach monitors can be used to monitor for the presence of cockroach activity

▶ Nightly inspections should be carried out monthly if there is a history of cockroach infestations

▶ Pyrethrum aerosols should be used to stimulate activity and not replace residual spray treatments or sticky trapping/gel applications.

▶ Cockroach monitors can be used to monitor for the presence of cockroach activity

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What are the control methods for Rodents?

Mechanical & Chemical Control

▶ Tamper resistant bait boxes that are lockable and inaccessible should be used with anti-coagulant baits which meet the requirement of the South African legislation.

▶ Bait stations are to be weather resistant and non-absorbent

▶ Should be strong enough to resist entry by non-target species i.e. cats/dogs

▶ Baits used should be of wax or compressed materials which will be impossible for the rodent to remove or accidental spillage from bait stations

▶ Where there is open food or packaging, baits should be carefully placed to ensure accidental food contamination is avoided. They **should be placed in 'dead areas'**

▶ Back break traps should be placed inside lockable bait boxes and inspected weekly for activity.

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What are the control methods for Flies?

Mechanical & Chemical Control

▶ Physical trapping by means of electric fly killing equipment (blue light), fitted in such a way that flies do not bounce off the grids and contaminate materials or work surfaces. These need to be fitted with a glue board that is replaced monthly or weekly according to auditing standard during peak season.

▶ Catch trays to be emptied weekly during peak season

▶ Use of residual insecticides inside facilities should be controlled and only be used in areas where all other methods of control are impossible, in areas where breeding are suspected and inaccessible.

▶ Pyrethrum or synthetic pyrethroid based insecticides should be used **for "knockdown" purposes inside the facility**

▶ During the summer months - knockdown treatments should be applied as often as possible

▶ Electric Fly Killing light bulbs should be shatterproof & replaced annually or according to the manufacturer specifications.

▶ No intermittent pulse aerosols are permitted

What is the client's role?

TEAMWORK

▶ Management will supply sufficient support to the service provider to ensure effective pest management IPM system is in place and meets the requirements of the auditing standards.

▶ **It is the clients' responsibility to ensure that the site is clean, housekeeping practices are** implemented and storage of foods is sufficient to prevent pest infestation.

▶ Recurring infestations are the responsibility of the client due to infested product or poor housekeeping,

▶ All staff are to be trained on how to identify the presence of pests and infestations that are to be reported to management who will report it to the service provider.

▶ Regular meetings should be conducted between the service provider and client to ensure issues are addressed and resolved in the correct manner

▶ The IPM Program includes both the in-house personnel as well as the service provider.

▶ All employees should ensure that they maintain their work areas in a hygienic manner to prevent pest activity

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What type of records are needed?

▶ Copies of Labels & SDS no older than 3 years of the chemicals used on site.

▶ Up to date site plan indicating pest monitoring devices that are clearly marked and numbered.

▶ Service reports clearly indicating type of service conducted, areas treated as well as chemical usage and dilutions. Date and time to be included.

▶ Monthly trends of pest activity per pest.

▶ Signed Service Level Agreement clearly stating all pests treated as well as frequency of services specific to the site.

▶ Emergency contact numbers including service provider management, closest hospital to site and poison centre number.

▶ Pest sighting log for clients to complete and report, this is to be monitored with each service or call back.

▶ Corrective action reports specific to target pest sightings and follow up procedures for infestations above threshold*

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What type of records are needed?

- Records of housekeeping, pest proofing recommendations

- Bi-Annual or Quarterly audit reports, ensure you have the correct procedure according to the auditing standards. Some require alternative day and night audits

- Corrective action reports that are clearly numbered to ensure they match up with the service report

- Valid PCO registration documents with no less than 6 months field experience

- Records of meetings between client and service provider

- Evidence of active membership with a National Pest Control Industry board

- Evidence of public liability insurance for risks related to pest management activities.

- List of chemicals used on site with registration number and application of product.

- Detailed information on pest treatments and methods of control per pest treated on site.

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- ***Don't panic***

- Ensure you are up to date with the site criteria and any changes that may have been made to **the regulations. It is the client's responsibility** to ensure you are up to date with the latest standards. This can be added to the meeting minutes when doing your inspections.

- Ensure that you are on time or at least a few minutes early

- Do not be arrogant and give the auditor the benefit of the doubt, they have a task to get through and it is just as unpleasant for them as for you.

- If you have a good relationship with your client, you will generally get a heads up as to when the audit is expected. But this is not your safety net as they can have an unannounced audit at any time.

- **Cross your T's and dot your I's, do not be** sloppy with your record keeping as this will cost you your client and reputation with auditors

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The Audit - what to expect

▶ Know the protocols of the site, i.e. Good manufacturing practices, health & safety regulations

▶ Be humble, listen to what the auditor has to say and learn from your mistakes.

▶ Know your file - there is nothing worse than fumbling through records for the auditors to assess

▶ The client is not your friend and will be quick to blame the service provider

▶ Ensure there is historical data for the past 12 months and prior that have up to date trends, records of service, corrective action and pest sightings.

▶ Be prepared for unexpected questions that the auditor may throw your way i.e. dilution rates of chemicals, fly counts etc.

▶ Ensure that all your legal documents as well as SDS etc are up to date and current.

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QUESTIONS?

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FSSC provides trust and delivers impact to the consumer goods industry - FSSC

- AIB - Consolidated Standards for Inspection, PreRequisite & Food Safety Programs

AIB International Resources - Consolidated Standards, Webinars, PDF Downloads

- Woolworths SA Manufacturing Requirements V2021

- PepsiCo Integrated Pest Management (IPM) Implementation Guide V2018

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