



# TRINIDAD AND TOBAGO BUREAU OF STANDARDS

## *AN OVERVIEW*

**TTS 642:2018, GOOD MANUFACTURING PRACTICES (GMP) FOR  
THE FOOD INDUSTRY – REQUIREMENTS**

*Fostering Excellence,  
Improving Lives*

**Date: 30<sup>th</sup> October 2020**



GMP Defined

TTS 642

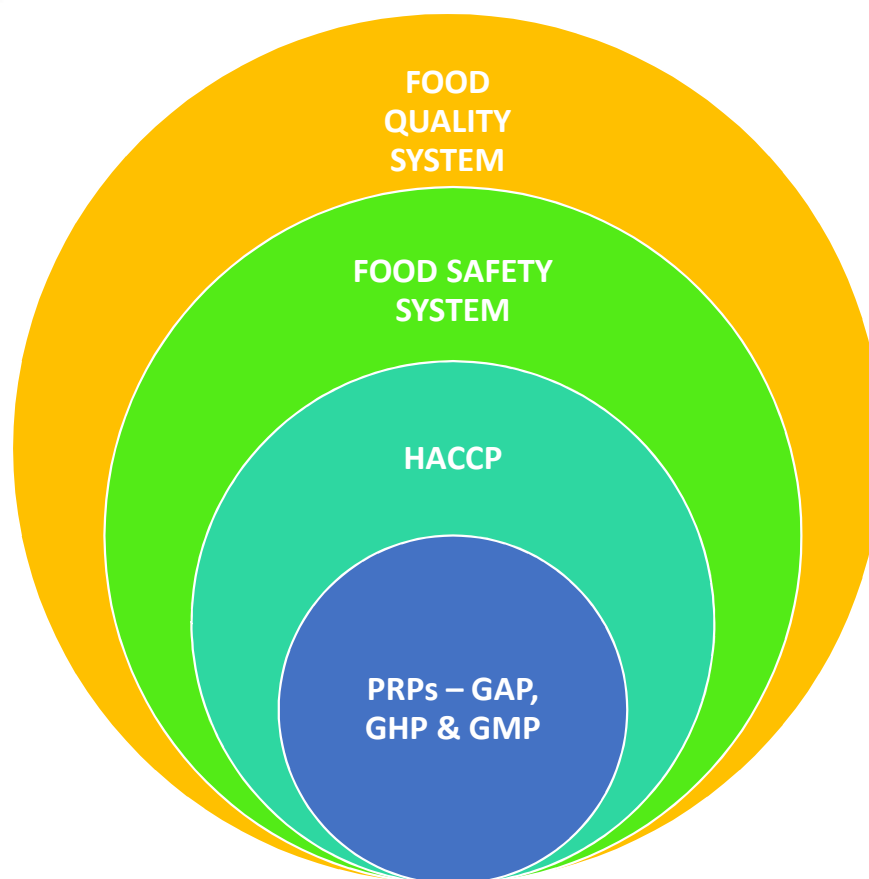
**G M P**  
**D e f i n e d**

## Good Manufacturing Practices

Essential operational, technical and managerial practices necessary to enable food establishments to consistently produce safe food

# Constituents of Food Safety and Quality System

P  
R  
P



## Prerequisite programme

Basic conditions and activities that are necessary to maintain a hygienic environment throughout the food chain suitable for the production, handling and provision of safe end products and safe food for human consumption

- Over 200 diseases are spread by food. 1 in 10 persons fall ill every year from foodborne diseases; a few of those persons will die.
- Contaminated foods can cause long term health effects e.g heavy metals and pesticides
- Vulnerable persons are most affected by foodborne diseases, particularly, the elderly, pregnant women, the sick and children under 5 years

- The complexity of the food chain gives many opportunities for contamination
- The responsibility for safe, good quality foods is multisectoral and multidiscipline
- Food contamination affects more than just the person who gets sick
- There is drug resistance to some foodborne bacteria
- COVID-19 Pandemic!!

# GMP National Objectives

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Comply with regulatory and standards requirements

Assure consumer protection and satisfaction

Build business sustainability



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GMP Objective 1

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**C o m p l y**  
**With Regulatory**  
**Requirements**

# GMP Background

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Year	No. of Companies	No. of NAI	No. of VAI	No. of OAI
Oct 2013 to Sep 2014	24	9	13	2

An **OAI** inspection classification occurs when significant objectionable conditions or practices were found and regulatory action is warranted to address the establishment's lack of compliance with statute(s) or regulation(s).

A **VAI** inspection classification occurs when objectionable conditions or practices were found that do not meet the threshold of regulatory significance. Inspections classified with VAI violations are typically more technical violations of the Food Drug and Cosmetic Act.

A **NAI** inspection classification occurs when no objectionable conditions or practices were found during the inspection or the significance of the documented objectionable conditions found does not justify further actions.

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USFDA

- Need for this standard was identified by export TT
- No focussed information on national foundational prerequisite programmes on which to build and assure food safety and quality.
- The United States of America Food Safety Modernization Act (FSMA) has resulted in changes to the regulatory framework for federal food inspections
- Poor outcome for TT manufacturers inspected by the USFDA
- The Safe Food for Canadians Act necessitates the implementation of GMPs as a pre-qualification requirement for exports to Canada.



# TOP Reasons for Refusal of Entry to USA

Lack of effective  
pest control

Screening

Harbourage areas

Sanitation  
monitoring

Floors, walls, and  
ceilings

Buildings/sanitary

Cleaning and  
sanitizing  
operations

Manufacturing  
conditions

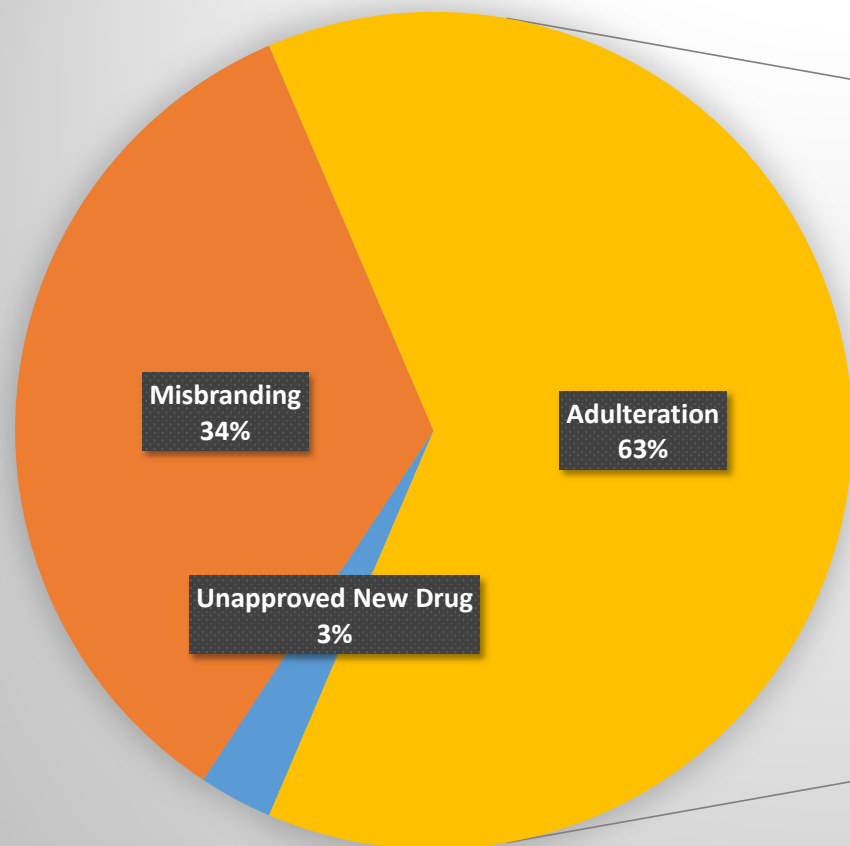
Reasonable  
precautions

HACCP Plan  
implementation



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## Reasons for USFDA Refusals of TT Products (Sept 2018 – Sept 2020)



- Unsafe Colour
- No process
- Insanitary
- Filthy
- No permit

- Unapproved New Drug
- Misbranding
- Adulteration

The background of the slide features a photograph of several glass jars filled with a yellowish-orange liquid, likely soybean milk, arranged in rows. The jars have white plastic lids. In the upper left background, a piece of machinery is partially visible with the text "SOY BEAN MACHINE" on it. The slide is decorated with teal-colored geometric shapes, including a large triangle on the right side and a smaller one at the bottom right.

GMP Objective 2

TTS 642

**A s s u r e**  
**C o n s u m e r**  
**P r o t e c t i o n a n d**  
**S a t i s f a c t i o n**

# GMP Purpose



TTS 642:2018, GOOD MANUFACTURING  
PRACTICES (GMP)  
FOR THE FOOD INDUSTRY –  
REQUIREMENTS



This standard establishes the foundational elements that are compatible with comprehensive food safety management systems and associated certification schemes, including Hazard Analysis Critical Control Point (HACCP), ISO 22000, FSSC 22000 and BRC Global Standard for Food Safety



# Scope

- This standard establishes minimum requirements for a food safety and quality system in food processing, manufacture, handling, packaging, storage, transport or holding, for any sector of the food chain, where food is offered for sale or supply for public consumption.
- The requirements of this standard are generic and apply to all food establishments involved in the processing or manufacturing of foods regardless of the size or complexity of the operations or whether the output is raw material or final product.
- This standard does not apply to sectors of the food chain where the output of primary agricultural production is sold whole, directly to consumers and which may include packaging at the point of sale.



# GMP Food Safety vs Food Quality

**Food Safety** - all those hazards, whether chronic or acute, that may make food injurious to the health of the consumer. It is not negotiable.

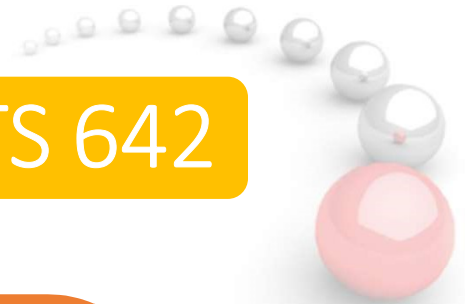
**Food Quality** - all attributes that influence a product's value to the consumer. This includes negative attributes such as spoilage, contamination with filth, discoloration, off-odours and positive attributes such as the origin, colour, flavour, texture and processing method of the food.



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# GMP Requirements

TTS 642



- 3 Regulatory requirements
- 4 Premises
- 5 Design construction & maintenance of internal spaces
- 6 Hygienic facilities
- 7 Utility systems
- 8 Equipment and utensils
- 9 Personnel hygiene
- 10 Pest control

## System Validation

## Management Responsibility

- 11 Storage and distribution
- 12 Consumer information
- 13 Procurement
- 14 Traceability and recall
- 15 Allergen management
- 16 Security – Biovigilance and bioterrorism
- 16 Documentation
- 18 Personnel training
- 19 (HACCP implementation)

## Resource Management

## Product Planning & Design



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# GMP Requirements

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- Environment
- Site
- Facility construction & maintenance
- Design, construction and maintenance of internal spaces
  - Hygienic considerations
  - Floors, walls and ceilings
  - Food contact surfaces, counter tops, work tops
  - Indoor lighting
  - Fixtures and fittings
- Equipment



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# GMP Requirements

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## Personnel

- Hygienic facilities
  - Handwashing
  - Personal facilities
- Personal hygiene
  - Illness and injury
  - Personal behaviour
- Training, training

## Storage and Distribution

- Storage
- Receipt of materials
- Distribution
- Vehicles and bulk containers
- Use and maintenance of vehicles and bulk containers

## Pest Managem't

- Preventative measures
  - Harborage and infestation
- Monitoring and detection
- Eradication



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# GMP Requirements

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## Consumer information

- Lot identification
- Product information

## Procurement

- Contractors and suppliers
- Incoming materials
- Packaging



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# GMP Often Overlooked Requirements

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Utility systems

Traceability and recall

Allergen management

Security – Biovigilance and bioterrorism

Documentation



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GMP Objective 3

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**B u i l d**  
**B u s i n e s s**  
**S u s t a i n a b i l i t y**

# GMP

## TTS 642

**GMP allows a manufacturer or processor to design according to individual need while taking a quality approach**

All facets of manufacturing are included in GMP

GMP ensures that products are consistently manufactured to meet intended use



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- Management involvement
- Clearly define all processes
- Procedures and instructions are written and implemented (consistency)
- Train employees in procedures
- Monitor, Verify and Validate processes
- Review systematically
- Protect product
- Monitor market for emerging issues eg 3D foods, clean and nutritional labelling



# GMP Results

TTS 642

- Improved control
- Ease of process and accountability
- Reduction in work processes and inventory
- Improved consistency
- Reduce wastage

**Improved processes**



- Smoother flow of processes
- Improved order and structure
- Improved reconciliation

**Improved production environment**



- Reduction in quality failure
- Less customer complaints
- Improved customer confidence
- Traceability

**Customer/public perception**



- Improved understanding of requirements
- Confidence in competency
- Improved efficiency
- Less risk of errors

**Employee satisfaction**



**Impacts bottom line**

# GMP Conclusion

TTS 642





Standards Information  
Centre at TTBS



Email [ttbs@ttbs.org.tt](mailto:ttbs@ttbs.org.tt)



Call: 662-TTBS (8827)

GMP

TTS 642

*Thank You*

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