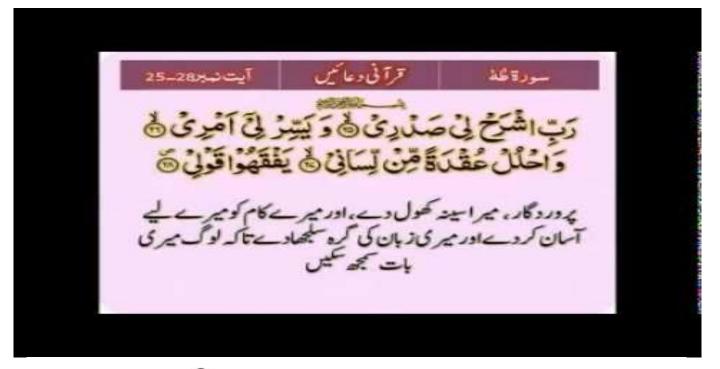


FSQM - Dr. Shahid Mahmood Rana



## رَّبِّ زِدْنِی عِلْمًا

My Lord! Increase me in knowledge.

#### FOOD SAFETY AND QUALITY MANAGEMENT

#### **DHND**

YEAR-V

Session: 2015-2020

Dr. Shahid Mahmood Rana Associate Professor



INSTITUTE OF FOOD SCIENCE AND NUTRITION (IFSN)
UNIVERSITY OF SARGODHA, SARGODHA-PAKISTAN



# FSQM L # 58. FOOD QUALITY MANAGEMENT: HISTORY, IMPORTANCE, SYSTEMS

**Courtesy:** 

SONTAKKE MANMATH D
RAUT GANNESH SUDHAKAR

### **CONTENTS**

- 1 Quality Assurance
- Total Quality Management
- 3. GMP/GHP,GLP,GAP
- Sanitary & Hygienic Practices

### WHAT IS QUALITY..?

ISO 9000:2000 DEFINITION OF QUALITY-

- It is the degree to which a set of inherent characteristics fulfills requirements.
- "Fitness for use"
- Quality is excellence that is better than a minimum standard.
- "Conformance to requirements"

The ability of your product or service to satisfy.

### **QUALITY**











#### WHAT IS QUALITY ASSURANCE ...?

#### **DEFINITION**

"Planned and systematic activities implemented within the quality system that can be demonstrated to provide confidence that a product or service will fulfill requirements for quality"

Quality Assurance is a system for evaluating performance, service, of the quality of a product against system, standard or specified requirement for customers.

Planned activity or systematic approach to provide adequate confidence of product and service.





## COMPONENTS OF QUALITY ASSURANCE





#### **QUALITY ASSURANCE**

QA is a way of preventing mistakes or defects in manufactured products and avoiding problems when delivering solutions or services to customers.

#### ISO-9000 DEFINED

"A part of quality management focused on providing confidence that quality requirements will be fulfilled"

## QUALITY ASSURANCE VS QUALITY CONTROL

#### **Quality assurance**

- 1.A part of quality management focused on providing confidence that quality requirements will be fulfilled.
- 2.Planned and systematic activities implemented within the quality system provide confidence that a product or service will fulfill requirements for quality
- 3.is a complete system to assure the quality of products or services.

#### **Quality control**

- 1. A part of quality management focused on fulfilling quality requirements.
- 2. The operational techniques and activities used to fulfill requirements for quality.

 Quality Control just measures and determines the quality level of products or services. It is a process itself.

# GENERAL PRINCIPLES OF QA..

#### Fit for purpose

The product should be suitable for the intended purpose

#### Right first time

Mistakes should be eliminated

## FUNCTIONS OF QUALITY ASSURANCE..

- To maintain standards & specification for all raw material & finished product.
- To give service to company in all areas related to product quality includes trouble shooting, visiting, production, facilities, designing and training Quality control panel.
- To produce information that is accurate, reliable and adequate for the intended purpose.
- IV. Evaluating performance, service, of the quality of a product against a system, standard or specified requirement for customers

# ACTIVITIES IN QUALITY ASSURANCE



### OBJECTIVE OF QA..

- 1) Managing good manufacturing practices (GMP)including
- 2) Managing good laboratory practices (GLP)
- 3) Managing a safety programme
- 4) Assuring the quality of raw materials
- 5) Assuring the quality and traceability of finished product
- 6) Evaluating plant environment
- 7) Developing an HACCP plan

# FSQM L # 59. FOOD QUALITY MANAGEMENT: HISTORY, IMPORTANCE, SYSTEMS

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# WHAT IS TOTAL QUALITY MANAGEMENT?

TOTAL

-Made up of the whole

QUALITY

-Degree of excellence a product or service provides

MANAGEMENT

-Act, Manner of handling (or) Art

# WHAT DOES TQM MEAN?

A philosophy that involves everyone in an organization in a continual effort to improve quality and achieve customer satisfaction.

# WHAT'S THE GOAL OF TQM?

"Do the right things right the first time, every time."



# TOTAL QUALITY MANAGEMENT..

Total Quality Management (or TQM) is a supervision concept coined by W. Edwards Deming

Total quality management is an approach that seeks to improve quality and performance which will meet or customer expectations."

# TOTAL QUALITY MANAGEMENT PROGRAM

- 1. Top management commitment and involvement.
- Customer involvement & designing products for quality.
- 3. Designing and controlling production processes.
- 4. Developing supplier partnerships.
- 5. Customer service, distribution, installation.
- 6. Building teams of empowered employees.
- 7. Benchmarking and continuous improvement.

#### TQM IN FOOD INDUSTRY

Systems for development of quality assurance:

- GMP
- HACCP,
- ISO
- BRC

### **DEMING WHEEL FOR CONTINUOUS IMPROVEMENT**

Act

Plan

Do



Check Evaluate result

Take action to

process

standardize the

steps

TQM is the integration of all functions and processes within an organization in order to achieve continuous improvement of the quality of goods and services. The goal is customer satisfaction.

### **OBJECTIVES OF TQM...**

- Process improvement
- Defect prevention
- Measuring system capacity
- Developing improvement checklist
- Helping teams make better decisions
- Developing operational definitions
- Observing behavior changes over a period of time.



### PRINCIPLES OF TQM...



# FSQM L # 60. FOOD QUALITY MANAGEMENT: HISTORY, IMPORTANCE, SYSTEMS

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#### **QUALITY MANAGEMENT**

- Sum of all activities performed in an organization to produce and maintain a product with desired quality level against minimum cost.
- Quality management functions:



### PRINCIPLES OF TQM...



## Quality Assurance in food industry (Inter-relationship)





# GOOD MANUFACTURING PRACTICES

"Good manufacturing practice is that part of quality assurance which ensures that products are consistently produced and controlled to the quality standards appropriate to their intended use and as required by the marketing authorization or product specification".

#### **DEFINITION...**

Good manufacturing practice guidelines provide guidance for manufacturing, testing, and quality assurance in order to ensure that a food product is safe for human consumption

# GENERAL GUIDELINES FOR GMP

- **✓** Plant Maintenance
- Storage
- Work Surfaces
- Supervision

Walls

- Training
- Doors
- ✓ Plant Construction &Design

- ✓ Air Quality And Ventilation
- √Water
- √Windows
- √ Lighting
- ✓ Personal Hygiene

✓ Cleaning And Sanitation

- √ Ceiling
- ✓ Staff Hygiene
  - Floors

# GOOD AGRICULTURAL PRACTICES

"GAP are set of practices that address to environment, eco and social sustainability for all farm processes for safety & Quality produce"

Good agricultural practices are a collection of principle to apply for on farm production and post production processes resulting in safe and healthy food and non food agricultural products, while taking into account economical ,social and environmental sustainability.

#### **OBJECTIVES OF GAP...**

- To ensure safety & Quality of Produce in food chain.
- To capture new market advantage.
- To improve use of natural resources.
- To improve workers health and working condition.
- To create new market opportunities to farmers and exporters.
- To export trade of Agricultural produce.



# GOOD LABORATORY PRACTICES

GLP is a set of principles that avoids a frame work within which lab studies are planned, performed, monitored, recorded, reported and achieved.

- "A quality system concerned with the organizational process and the conditions under which non-clinical health and environmental safety studies are planned, performed, monitored, recorded, archived and reported."
- GLP followed in labs to avoid accidents while handling reagents.
- GLP has followed by every lab personnel.



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# PRACTICES FOLLOWED IN

- 1. All personnel working In lab must wear uniform/aprons to perform in the lab practices.
- 2. Wearing of mask, hats, covers, gloves, shoes, etc. should be hygienically recommended under GLP.
- 3. Safety glasses, protective eye glasses are essential to carry hazardous operations.
- 4. Ill person should not allow to work.
- 5. Avoid poor illumination, obnoxious flavors and noise in lab
- Provisions of exhaust fans in lab.

# SANITARY & HYGIENIC PRACTICES

- LIGHTING AND VENTILATION
- LOCATION OF PREMISES
- FLOORS AND WALLS
- CEILINGS
- INSECTS
- Doors and windows
- POTABLE WATER SUPPLY
- EQUIPMENT DESIGN



# GOOD HYGIENIC PRACTICES

- ✓ It refers to the set of practices associated with the preservation of health and healthy living.
- ✓ Include all practices regarding the conditions and measures necessary to ensure quality.







#### Areas examined under GHP

- 1. Primary production
- 2. Establishment: design and facilities
- 3. Control of operation
- 4. Establishment: maintenance and sanitation
- 5. Establishment: personal hygiene
- 6. Transportation
- 7. Product information and consumer awareness
- 8. Training



#### Conclusion

- Good Manufacturing Practices are the basis of the production and preparation of safe food
- Good Hygienic Practices deal with safety and suitability requirements to be followed world-wide
- Each food operation should adapt existing codes to their specific set of conditions
- Food operations should also decide which practices are critical for the safety of a product and thus have to be included in the HACCP plan.

