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Popular Article

Application and methodical strategy of HACCP in Meat Plant

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Introduction

Livestock production is an essential rural activity that gives farmers, rural poorer and weaker sectors of society, and others a means of livelihood and income. In India, the meat industry is significant because it not only produces flesh and its byproducts for human consumption but also helps millions of men and women from lower socioeconomic classes secure stable livelihoods through sustainable livestock development. A protocol for the Hazard Analysis Critical Control Point system should be included in any protocol for a modern technologically based food security mechanism. HACCP is widely recognized as the ideal method for ensuring the safety of our foods, including beef. Products made from meat and poultry are important contributors to foodborne disease. The incidence of foodborne disease may be significantly reduced as a result of improvements in the handling and preparation of meat and poultry products. A methodical strategy to accomplish this goal is offered by the hazard analysis critical control point (HACCP) idea. HACCP became crucial for producing local foods that came near to being completely guaranteed against contamination.

The World Bank predicts that by 2030, there will be a 50% rise in global food demand and an 85% increase in global meet demand. A sizable group heard HACCP for the first time in detail in 1971 at the Conference for Food Protection. In 1974, it was modified and successfully applied to low-acid canned foods.

Organoleptic tests are insufficient. In a technologically sound and technology-based approach to food safety, government organoleptic examination and HACCP complement one another. In order to improve food exchange and protection during the implementation of HACCP in

slaughterhouses. The HACCP system develops crucial operations and provides strong and effective strategies for monitoring and controlling those risks, which can result in food borne illness and outbreaks.

According to the World Health Organization (1997), there are seven basic principles that should be followed for HACCP implementation and the logic system for the application of HACCP, according to the Codex Alimentarius (Food and Agriculture Organization, 1997), has 12 steps that start before these seven principles and involve them as the implementation of the system progresses. Logical sequence for the application of HACCP are as follows:

- Assemble the HACCP team
- Describe product/process
- Identify Intended Use
- Construct process flow diagrams
- Confirm accuracy of process flow diagrams
- Conduct a hazard analysis
- Determine critical control points
- Establish critical limits for each CCP
- Establish a monitoring system for each CCP
- Establish corrective actions
- Establish verification procedures
- Establish Documentation and Record-Keeping

Prerequisites for the implementation of the HACCP plan

Some of the prerequisite programs that the business and its workers must complete ensure the application of HACCP. To guarantee the processing plant has a minimum level of hygiene, these prerequisite programs, such as good manufacturing practices and cleaning procedures, should be established. The following elements are included in these programs:

- Physical structure and maintenance of the premises,
- Water supply,
- Handler health and personal hygiene,
- Pest control,
- Sanitization of premises and equipment,
- Calibration of instruments,
- Quality control of raw material and ingredients, recall procedures, and measures related to consumer complaints.

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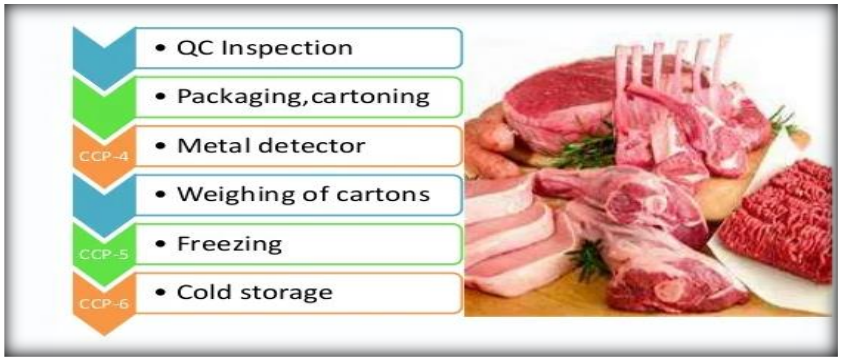

Advantages of HACCP

- Boosting consumer and customer trust.
- Offers security for the market.
- Lower expenses by cutting back on product waste and rework.
- Lower the likelihood of product recalls and withdrawals, which will lower insurance and company liability protection costs.
- Put more emphasis on and control over food safety.
- Inspections should be made simpler mainly due to documentation and record keeping.
- Offer products of consistently high quality.

The future acceptance of HACCP

The following are a few things to think about:

- HACCP is still not universally understood on a national and foreign level.
- There is a misconception or unrealistic assumption that using HACCP will solve every issue. This is partly because some CCPs can only partially manage a hazard, which is a fact that needs to be acknowledged or accepted. (i.e., CCP2).
- To improve HACCP application.
- A HACCP-based control system will change the emphasis and approach of inspection from conventional techniques.
- Inspections might be restricted to specific steps in the production of food.
- Between the regulator and the regulated, there must be some level of mutual confidence for HACCP to be accepted.
- When HACCP is used to address a variety of no safety concerns (such as net weight), the emphasis on safety may become forgotten in the complexity of the system.
- HACCP is a strong tool that should be used to prevent any issues where the possible hazards are extremely serious.

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Conclusions

Meat production must be done in a hygienic manner not only for the safety and quality of the flesh, but also for the welfare of the animals. Different microorganisms have unique beginnings, necessitating the use of unique manipulating techniques. Utilizing food safety and quality assurance in slaughterhouses may help to reduce the physical, chemical, and microbiological risks associated with beef products. To safeguard meat, regulatory standards must be implemented in the slaughterhouse, and long-term planning is required. Compared to the traditional sampling and testing of quality manipulation, HACCP is a more advanced method. It is a cost-effective method that is somewhat helpful in the production of meat and meat products, not only because it is a preventative measure rather than a reaction that reduces the risk of processing and selling unsafe products. More research is needed on how the group of employees perceive control dedication and its importance, as well as its capacity impact on the HACCP method. It is necessary to create methods and instruments for measuring HACCP effectiveness that are accepted globally.

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