

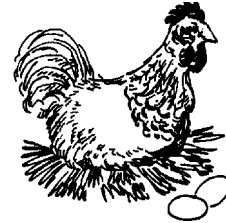


The University of Georgia

Cooperative Extension Service

College of Agricultural and Environmental Sciences / Athens, Georgia 30602-4356

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COMMERCIAL EGG TIP...

HACCP IN A NUTSHELL

HACCP, which stands for "Hazard Analysis and Critical Control Points," is a systematic approach to the identification and control of potential food safety risks in a food production process. These risks may be chemical, physical, or biological in nature. For the most part, food safety risks in the shell egg industry are biological in nature, associated primarily with Salmonella bacteria. Some chemical risks also may exist related to the use of pesticides, etc. Physical risks, caused by such things as hard or sharp objects, are unlikely in shell eggs but might occur in further processed egg products. Any identified risk must be acknowledged in a HACCP program and the procedure for its control specified. HACCP may appear to be complicated and obscure, but the process is not conceptually difficult when broken down into its three parts.

Part 1. Quality Control. A good, well-documented quality control program is the basis for building a successful HACCP program. Quality control has two major components: Sanitation Standard Operating Procedures (SSOP's) and Good Manufacturing Practices (GMP's), both of which are intended to promote consistent production of safe, wholesome products fit for human consumption.

SSOP's are written procedures detailing a company's routine cleaning practices to promote a sanitary food production environment. For those sectors of the poultry industry which the USDA currently regulates in regard to HACCP, SSOP's are designated as either preoperational (done before production starts) or operational (done during production). SSOP's generally describe what will be cleaned and sanitized, how it will be cleaned, who will clean, and how often the cleaning will occur. Additionally, the SSOP must identify how the procedure will be monitored and documented. In the egg industry, SSOP's apply to such things as house preparation for flock placement, dust blowdown, and cleaning and sanitation of egg packers, egg washers, etc.

GMP's are written procedures describing minimum practices that a company will perform to promote food safety and product quality. They may form the basis for more specific and detailed SSOP's. Some examples of GMP's include standards for personnel hygiene, mortality removal, and rodent and pest control.

Part 2. Pre-HACCP. Some things need to be done before a HACCP program can be put together. The pre-HACCP requirements are:

- a. Assemble a HACCP team of individuals familiar with various aspects of the production process,
- b. Describe products and their distribution, e.g., shell eggs for distribution to restaurants, retail food chains,

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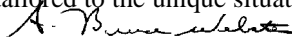
- c. List ingredients and raw materials used in the production process, e.g., feed, water, vaccines, medications, pesticides, litter, etc.
- d. Create a flow diagram of the production process,
- e. Verify the flow diagram.

These actions identify the people who are to implement the HACCP program, and clearly delineate the production process so that the principles of HACCP can be accurately applied.

Part 3. The Principles of HACCP. Unlike quality control, HACCP focuses specifically on food safety. There are seven principles (or steps) of HACCP which address identification of food safety risks, their control, and verification that the control program is working properly. These principles are:

1. Hazard Analysis
 - all potential hazards that could occur at each step in the production process are listed
 2. Identification of Critical Control Points (CCP)
 - CCP's are production steps at which control is critical for product safety,
 3. Establishment of Critical Limits for each CCP
 - if a critical measure for a CCP exceeds a preset limit, e.g., more than 10% of environmental swabs turning out to be positive for Salmonella enteritidis, food safety risk has become unacceptable,
 4. Specification of Monitoring Procedures for each CCP
 - each CCP must be monitored by a designated sampling procedure so that it can be known when an unacceptable food safety risk has occurred,
 5. Corrective Action to be taken when a Critical Limit is Exceeded
 - control measures must be defined to keep contaminated product from reaching the consumer, and to restore the process into compliance with the HACCP program.
 6. Record Keeping
 - accurate records must document the HACCP program to prove that it is working,
- Verification and Validation
- A designated person must review the HACCP documentation periodically to verify that the program is in operation as specified, and the HACCP program itself must be evaluated at least annually by the HACCP team, and revised if necessary, to ensure that it is effective.

There is currently no regulatory requirement in the U.S. for egg companies to compile HACCP programs for shell egg production or processing operations, but USDA and FDA initiatives could change this scenario at relatively short notice. It is also possible that customers of egg companies may require HACCP programs of their suppliers. If so, egg companies which currently use one of the existing egg quality assurance programs should have few problems transitioning to full-fledged HACCP. Many of the components of egg quality assurance programs would fall into parts of a HACCP program. For example, cleaning and disinfection guidelines represent SSOP's. Rodent control, biosecurity, proper application of vaccines, medications, and pesticides, egg refrigeration, and the obtaining of feed from mills with Salmonella control programs represent GMP's. The use of SE-free stocks, environmental testing for SE, egg refrigeration, record keeping, and third party verification are consistent with various of the seven principles of HACCP. HACCP takes egg quality assurance a step further by making food safety assurance a systematic process tailored to the unique situation of a specific company.



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Consult with your poultry company representative before making management changes.

“Your local County Extension Agent is a source of more information on this subject.”