

MEAT PURCHASING HACCP

- Government inspected
- Government graded
- Purchaser inspected



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Meat Purchasing HACCP

Government Inspected

Meat must be inspected by federal inspectors if it is to be marketed in interstate commerce. Government inspection of meat is done to ensure that:

1. Meat is wholesome and fit for human consumption: this inspection controls the marketing of diseased or dead animals
2. Processing areas and equipment pieces are sanitary
3. Labeling accurately describes product in accordance with existing standards of identity and lists approved ingredients as required.

Unfortunately, government inspection has little correlation with microbiological quality. High-quality hamburger has as few as 100 spoilage microorganisms per gram. However, hamburger that has 10,000,000 spoilage organisms per gram will still pass government inspection. Raw meat, poultry, and fish are normally contaminated with 1 to 1,000 pathogens per gram. It is up to the chef/cook to assure the safety of the items through pasteurization (i.e., heating the meat to temperatures for a period of time necessary to decrease the microorganisms to a non-hazardous level).

Government Graded

Meat that has been USDA inspected may be graded for quality and yield. Grading of meat is not mandatory. There are 8 quality grades for beef animals: Prime, Choice, Good, Standard, Commercial, Utility, Cutter, and Canner. These grades are based on color and texture of the meat, character of the bones, and fat deposition. Generally, the 4 top grades (Prime - Standard) are younger animals, while the lower grades are older, more mature animals. Beef carcasses may also be yield graded and assigned a value of 1 to 5. A carcass that has a yield grade of 1 has a lower amount of fat and will yield a higher amount of lean meat. A yield grade of 5 indicates the carcass has a very high proportion of fat to lean meat and is the lowest yield grade.

Lamb carcasses are graded Prime, Choice, Good, Utility, and Cull. Pork carcasses carry no grade mark for quality.

USDA quality grades should be used to establish ingredient specifications by comparing costs and yields of carcasses from different suppliers.

Purchaser Inspected

The quality attributes identified in the grading information can be used to monitor the quality decline of meat products and estimate their degree of degradation.

Grades are assigned at the point of shipping and are no guarantee of quality at the time of delivery.

There are many possibilities for the mishandling of meat products during distribution that can result in product spoilage. Purchasers must know the quality attributes of fresh meat products and should not rely on grading as the only way to assure high quality products. Quality grades should be used as a reference and common ground when dealing with people who are not familiar with the high quality characteristics of fresh meat products.

References

Charley, H. 1982. Food Science. John Wiley and Sons. New York, NY.

INSPECT YOUR PURVEYORS

Can they obtain, store, and deliver products meeting the specifications?

Dirty floors
Broken and open cases
Spilled food
Dirty employee uniforms
Rust and lack of paint



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Inspecting Purveyors to Assure Quality

Inspecting Purveyors

One of the critical controls in a foodservice or food production operation is to check on the QA systems of suppliers (e.g., distributors, producers, processors). The production facilities and warehouses of purveyors should be inspected at least twice a year.

Inspection of purveyors should establish whether they can obtain, store, and deliver products that meet defined specifications. Inspections should focus on:

- Overall efficiency of the business
- Operational problems causing damaged or poor quality product (e.g., dirty floors and equipment; broken and open cases; spilled food; dirty employee uniforms and employees; rust, lack of paint and general maintenance)
- Lack of organization.

For a more detailed analysis of purveyors and food producers, the Food System Quality Assurance (QA) Certification Criteria form (found on the next page) can be used.

Purveyor's Responsibilities

Purveyors must be responsible for inspecting their sources of supplies, which include meat packers, fish suppliers, and other warehouse sources. It is important to know what purveyors demand of their suppliers and what QC and QA checks the purveyors conduct.

The billing-inventory system provided by purveyors should be fast and accurate in order to prevent product deficits. Inventory corrections should be made to detect packing, billing, or credit errors. Responsible purveyors have accurate, daily inventory systems and provide this information to their sales people so that orders will be filled.

References

Kotschevar, L.H. 1975. Quantity Food Purchasing, 2nd ed. John Wiley Sons. New York, NY.

RECEIVING, INSPECTING, AND STORING INGREDIENTS

Government-inspected food

Check delivery vehicle is sanitary
Refrigerated food $\leq 41^{\circ}\text{F}$
Frozen food is frozen; no ice crystals
Return non-specification items
Rotate stock, FIFO



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Quality Control in Receiving, Inspecting, and Storing Ingredients

Receiving Deliveries

When receiving a delivery, it should be checked against the order as the truck is unloaded. This procedure will allow the refusal of any non-ordered or unspecified product(s) before the invoice is signed. If any credits need to be written, arrangements should be made before the driver leaves. Weights and quantities of ordered items should be checked to determine whether pricing is correct. All items should be checked for physical damage from shipping or loading. Dented cans, broken dry ingredient containers, and produce of inferior quality should be rejected. Boxes and cartons of foods should be inspected for evidence of rats and cockroaches.

Receiving in this manner provides the opportunity to examine the truck while the driver is busy unloading. The truck should be clean and at proper temperature, if refrigerated.

Inspecting Raw Products

Perform spot temperature checks on meats and produce. All supplies must come from government-inspected suppliers. Alert the driver and company about any problems. Reject foods not within acceptable safety and quality tolerances. Check produce quality attributes to determine that fruits and vegetables are at their specified stage of ripeness. Wash delicate fruits and vegetables and store in covered containers to maintain a high humidity. Examine root and tuber vegetables for roots, tops, and sprouting.

The purveyor's invoice should be signed only after all products have been inspected for conformity to specifications, temperature, damage, and weight or quantity. Be ready to accept deliveries. Inadequate storage procedures lead to waste, quality deterioration, and possible safety hazards.

Storing Deliveries

All foods should be stored in areas appropriate for maximum quality retention. Products should be dated in order to ensure product rotation, and aid in loss prevention and future ordering.

Use FIFO (first in, first out). Always put the new items at the back, and the older items in front, to be used first. Never add fresh to old.)

Seals on packages of meat should be intact. Refrigerated, vacuum-packaged meat should be purple in color. It only turns red after exposure to oxygen. Fresh and cured meat should be stored as close to 28°F as possible for maximum quality shelf life.

The temperature of incoming refrigerated food should be below 41°F . Refrigerated food products must be stored in refrigerators or coolers before the outside layers reach 45°F .

Frozen food should be frozen when received and should show no signs of temperature fluctuation (e.g., formation of large ice crystals as a result of thawing and refreezing). Freezer storage temperatures for frozen products must be maintained below 0°F . Frozen products must be packaged in containers or packaging materials that prevent moisture loss and oxidative changes during storage.

Summary

- Products should be inspected as they are received to ensure that their quality lies within acceptable tolerances. If not, they should be rejected and returned.
- The majority of products should conform to specification. The amount of defective goods or those below specification should not exceed 5%.
- Products should be stored appropriately (in coolers, refrigerators, freezers, or dry storage areas) immediately after delivery to maintain quality and prevent microbial growth and contamination.

References

Peddersen, R.B. 1977. Specs: The Comprehensive Food Service and Specification Manual. Cahner's Books International, Inc. Boston, MA.