Resources for the Development of HACCP Systems in School Foodservice

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HACCP RESOURCES

Research and information about Hazard Analysis and Critical Control Point (HACCP) systems has been plentiful since the introduction of the concept by the Pillsbury Corporation in the 1960s. The theory and application of HACCP in food processing has evolved gradually since being introduced. In 1992, the National Advisory Committee on Microbiological Criteria for Foods published a document that identified a format for HACCP process analysis based on the seven HACCP principles (NACMCF, 1992). Since then, this document has been adapted by the U.S. Department of Agriculture (USDA), the Food and Drug Administration (FDA), and internationally through the Codex Alimentarius Commission for use in the food industry.

Since initial applications of HACCP have been mandated in the United States for certain types of food processing operations, information and educational materials have been developed principally for these groups. To date, a majority of the information and resources have focused on the education and training needs of food processors. Research from the scientific community has helped foodservice operators learn the value of HACCP in their operations. Besides manuals and training programs, articles in the scientific literature also have been crucial to the development of science-based, food safety practices in retail operations. HACCP applications in retail foodservice operations including restaurants, schools, hospitals, and other operations have not been as prevalent. There are many reasons to explain the lack of retail HACCP programs, but two primary factors are that many operators do not have a sufficient understanding about HACCP programs and that very few regulatory agencies mandate HACCP programs for foodservice operations.

Information about retail HACCP started appearing in the refereed literature as early as the late 1970s though literature in the 1990s provided a more complete overview of retail HACCP systems. Due to heightened concerns about food safety related to hospital patients, some of the first work related to retail HACCP in foodservice was conducted in healthcare settings (Bobeng & David, 1977; Bobeng & David, 1978a; Bobeng & David, 1978b). Other authors later reflected on the development of HACCP systems for other types of foodservice operations, such as restaurants, but also took a more thorough approach with new scientific information (Bryan, 1990; Synder, 1990; Synder, 1991; Sperber, 1991). More recently, research has been done relating to the development of food safety and HACCP programs in school foodservice operations (Giampaoli, Sneed, Clusky, & Koenig, 2001a; Giampaoli, Sneed, Clusky, & Koenig, 2001b; Henroid & Sneed, 2003; Hwang, Almanza, & Nelson, 2001; Kim & Shanklin, 1999; Youn & Sneed, 2003; Youn & Sneed, 2002). This research and subsequent work has formed the basis for retail HACCP programs.
Despite the presence of information related to retail HACCP systems in the literature, a majority of the education and training resources have focused on HACCP applications in other settings besides schools, such as hospitals. Foodservice operators must judge the quality of the HACCP materials available and make determinations about which resources are applicable in the retail environment. The purpose of this article is to provide a comprehensive listing of resources and articles published in refereed journal and trade magazines related to HACCP to date. The listing is provided as a representative sample of the available research and training materials for use in the development of HACCP programs in schools. A sampling of Web sites with information for the development of a foodservice HACCP program also is provided. Selected books and journal articles have been highlighted that might be particularly useful for the development of school HACCP systems. Research done specifically in schools or that is particularly applicable to school foodservice programs has been highlighted.

In addition to work specifically related to HACCP, there also are articles related to prerequisite programs, including good manufacturing practices, which address operational conditions and provide the foundation for the HACCP system. These programs include areas such as supplier control, temperature monitoring, personal hygiene standards, and pest control, and often are addressed through sanitation standard operating procedures. These programs are essential precursors to a valid HACCP program and should be the starting point for the development of any HACCP system.

**GENERAL REFERENCES**


FOOD SAFETY AND HACCP REFERENCES

Selected Books and Manuals


Selected Journal Articles


**Other Related Books and Manuals**


**SCHOOL HACCP AND FOOD SAFETY JOURNAL ARTICLES**


Other Foodservice HACCP Journal Articles


Bryan, F.L. (2002). Where we are in retail food safety, how we got to where we are, and how do we get there? *Journal of Environmental Health, 65*(2), 29-36.


**FOOD SAFETY KNOWLEDGE AND TRAINING JOURNAL ARTICLES**


**MICROBIOLOGICAL JOURNAL ARTICLES**


**MAGAZINE ARTICLES**


**FOODSERVICE HACCP WEB SITES**

2001 FDA Model Food Code  

Food Safety Project--Iowa State University Extension  

Food Safety Research Information Office (FSRIO)--USDA  

Food Safety Throughout the Food System--Pennsylvania State University  
Retrieved May 5, 2003, from [http://foodsafety.cas.psu.edu/](http://foodsafety.cas.psu.edu/)

Gateway to Government Food Safety Information--FDA  

HACCP Information Center--Iowa State University Extension  

HACCP Resources--FDA Center for Food Safety and Applied Nutrition (CFSAN)  

HACCP--Food Safety Information/Arizona Cooperative Extension  

HACCP Resources Database at Foodborne Illness Education Information Center--U.S. Department of Agriculture (USDA)  

Integrated Food Safety Information Delivery System--Iowa Department of Inspections and Appeals  
BIOGRAPHY

Henroid is Hotel, Restaurant, and Institution Management Extension Specialist, Iowa State University Extension, Hotel, Restaurant, and Institution Management Program, Ames, IA.