

Chapter 1.1.

E-Business Applications of the Mid-Atlantic Regional Food Systems Web Site¹

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Abstract

The term “food system” is used frequently in discussions about nutrition, food health, community economic development and agriculture. The food system involves all processes involved in getting food from the farm gate to the consumer: production, harvesting, processing, packaging, transporting, marketing, consuming, and food disposal. The Mid Atlantic Regional Food Systems Web Site was designed to provide a forum for assisting the food system with the dissemination of information that can enhance individual players in the system. The web site is now available on an experimental basis to provide producers and consumers with education and user friendly information pertaining to a safe and nutritious local food supply and consumption.

Introduction

The World Wide Web (WWW) is revolutionizing access to and delivery of information, via timely, and easy-to-use, interactive multimedia, and multi-disciplinary methods. The extension outreach system of land grant universities can utilize this powerful tool to enhance educational opportunities for food system professionals and consumers.



The three-year project described here is a work in progress. It is being designed to develop extension education on the WWW around a food systems model that allows delivery of personalized instruction while providing multi-disciplinary answers to complex questions. The term “food system” is used frequently in discussions about nutrition, food, health community

¹ The site, which is still under construction, is being developed by Principal Investigators utilizing resources from the University of Delaware; Rutgers, The State University of New Jersey; The University of Maryland; Sussex County (NJ) community College; and the USDA’s National Agricultural Library. The development of this site is one aspect of a comprehensive food systems approach, as conceptualized by the Mid Atlantic Consortium.

economic development and agriculture. The food system involves all processes involved in keeping us fed: growing, harvesting, processing, packaging, transporting, marketing, consuming and disposing of food. It also includes the inputs needed and the outputs generated at each step. The food system operates within and is influenced by social, economic, and natural environments. Each step is also dependent on human resources that provide labor, research, and education.²

This form of instruction is not logistically feasible with traditional programming methods. Issues facing the industry are complex, and an effective method of addressing them is needed. The intent of this project is to provide better access to university and industry resources in order to maintain the leadership position of the Land Grant system and collaborating institutions in the delivery of research-based and applied information to the citizens of the region.

This chapter outlines the process involved in developing the regional food systems web site as a model infrastructure for interdisciplinary educational efforts. This project is unique in that it builds on the strengths of the collaborating institutional partners within the region. The interaction of many disciplines and issues such as agricultural production, marketing, food safety, environmental issues, and nutritional sciences illustrates the diverse educational needs of stakeholders (site users). Increasing understanding of the interrelationships within the entire food system, including its relationship to the environment and the value of its various components, ultimately contributes to the viability of the regional agricultural industry. This, in turn, will help maintain the quality of life for residents. This paper first describes the food systems web site project and then highlights selected e-business applications of the Mid Atlantic Regional Food Systems Web Site (MARFSWS).

Project Objectives

The overall objectives of this project are to:

1. Provide easy public and private entrepreneurial access to a database of current and reliable information.
2. Gather research based information, including case studies on farm retail direct and wholesale marketing, women's health, environmental issues, and food safety, allowing regional extension/research collaborators to update the content easily and quickly.
3. Determine methodologies to enhance e-business applications of the food systems web site. Examples include: Searchable Map for Product Offerings; Classified Ads Section for Product and Equipment Offerings; Calendar of Events; and a Retail Farm Market Directory.
4. Design and develop the MARFSWS, featuring an easily accessible and searchable database of basic and advanced resources, multimedia educational presentations, searchable directories of experts, current bibliographies, calendar of related meetings, on-line journals and newsletters.

² Wilkins, Jennifer, Food and Nutrition Web Site; for a more complete definition of the term 'food system' go to www.cornell.edu/food/expfiles/topics/wilkins/wilkinsoverview.html .

5. Develop evaluation mechanisms to allow continual feedback for improvement of the food systems web site and to determine the impact of the project.

Project Mission

Incorporating agriculture, nutrition, food safety, retail/wholesale farm marketing, and environmental issues, the project mission is to illustrate how collaborating institutions can cooperate in developing more efficient WWW-based educational and outreach tools. Stakeholder representatives drive the infrastructure being developed, supporting and directing professionals in content development. They in turn direct a web master/designer to produce the end product for the information consumer. Both consumers and stakeholder review boards provide feedback for continually updating and improving the MARFSWS. The goal of the MARFSWS is to increase accessibility to resources and expertise across institutional boundaries in the Mid-Atlantic region. The site will greatly enhance our ability to meet the range and timeliness of technical needs of professionals in business, government, private, voluntary and non-governmental organizations, students, agricultural producers, and consumers.

Food Systems Web Site Goes Online

The MARFSWS is now available on a trial basis to provide producers and consumers with education and user-friendly information pertaining to safe and nutritious consumption of the local food supply. The term “Food System” is used frequently in discussions about nutrition, food, health, community economic development, and agriculture. Included in the initial launch of the site are five components of the food system. They are:

- Agricultural Direct Marketing
- Producer/Consumer Interface
- Women’s/Men’s Health and Nutrition
- Environmental Issues
- Food Safety

Agricultural producers and the public are invited to visit the site at www.agri-culturehealth.com. It is important to note that the site is still under construction, and in the development stage. It is currently being made available on an experimental basis. The site is being designed and developed by Principal Investigators utilizing resources from the University of Delaware; Rutgers, The State University of New Jersey; The University of Maryland; Sussex County (NJ) Community College; and the USDA’s National Agricultural Library. The project received initial funding from the Kellogg Mid Atlantic Consortium, as one aspect of a comprehensive food systems approach being developed by 10 member institutions of higher education and industry representatives to provide information and education to agricultural producers and the general public. This site is being developed for use by:

- Agricultural producers/marketers
- Educators
- Health conscious families
- The general public

Among other features, users of the MARFSWS are able to obtain information on the benefits of consuming vegetables, fruits and whole grains that promote health and potentially reduce the risk of disease while simultaneously identifying local food suppliers via a convenient mapping system.³

Agricultural producers will be able to list their markets and product offerings available to consumers.⁴ Producers will also have the benefit of obtaining information on watershed, other land management and environmental issues.⁵ Overall this site, although in its infancy and still under construction, has the opportunity to become the premier Regional/National Food Systems informational web site. (The Home Page for [www. agri-culturehealth.com](http://www.agri-culturehealth.com) is shown below).



E-Business Applications of the Food Systems Web Site

One of the major foci of this project is to be responsive to stakeholder/user needs. Some of the stakeholders identified several e-business applications that needed to be incorporated into the web site. To date the web site has several e-business applications, the development of which is on going. They are:

- An electronic directory of retail farm markets
- A classified ads section for direct retail farm marketers
- Calendar of events for agricultural marketing
- Resources for farm market operators, agricultural producers, and consumers.

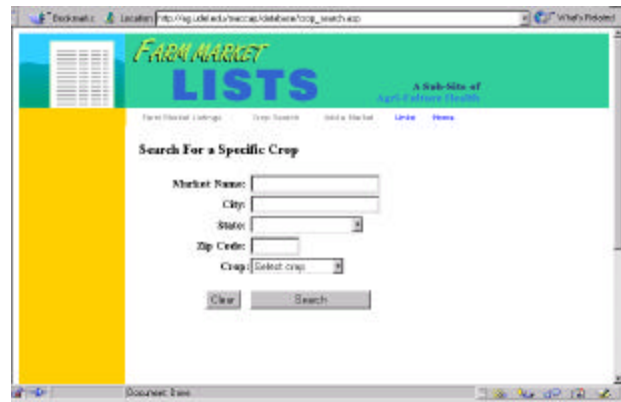
³ German, Carl L., Richard VanVranken, and Kathleen Shimomura, et al., Mid Atlantic Regional Food Systems Web Site, Producer/Consumer Interface Component, < agri-culturehealth.com >, November, 2001.

⁴ Ibid.

⁵ MARFSWS, Environmental Issues Component, November 2001.

The applications are described below.

Farm Market Lists Promote Local Retail Farm Markets and Product Offerings



To obtain the Farm Market List the user first clicks onto the **Regional (Local) Foods** icon on the home page of the web site. This brings up the menu for the Farm Market Lists which allows the user to search for a specific retail farm market, using the market name and address.⁶ (Search for a Local Market)

A further feature of the site allows the user to obtain a listing of all of the retail farm markets that choose to be listed within the region. This is done by clicking onto the **Regional/Local Foods** icon on the **Home Page** and then the **Farm Market Lists** icon.

One then clicks the **Show All** button to bring up all markets listed in the region thus far. It should be noted that this feature has not been advertised to potential marketers as of this point in time. Perhaps the most important feature for this e-business application is the ease with which the user/farm market operator can add their market to the list. This can be accomplished simply by clicking onto either the **Application** icon found on the Regional Foods home page or the **Add a New Market** option found on the Farm Market Listings page. This feature of the web site is important to farm retail market operators in that it allows them to promote their markets and product offerings on the Internet. Individual market operators may not be able to do this on their own, primarily due to cost and time constraints. Those who already have web sites, are provided with another avenue for promoting their markets. In many cases, the use of this site by market operators will assist extension and industry market consultants in helping retail farm market operators bridge the digital divide.

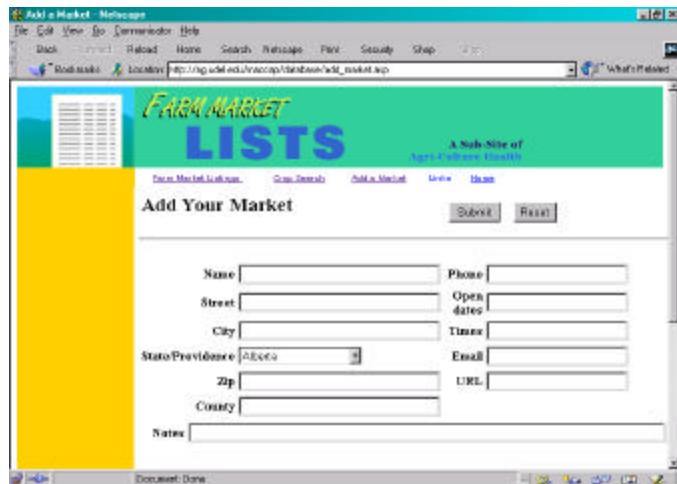


Consumers using the Farm Market List are able to search for local products and farm markets by specific crop. In either case, once a market has been identified the user is given the option of obtaining a map, complete with directions from point of origin to the farm market. (Example of a Farm Market Search). Fresh, home grown produce items for sale. Reasonable prices.

⁶ MARFSWS, Producer/Consumer Interface Component, November 2001.

Farm Market Classifieds on the Internet for Product and Equipment Offerings

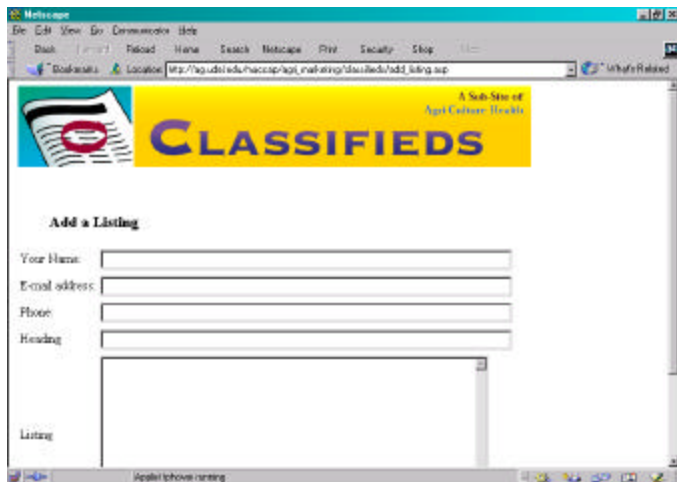
Another e-business application of the Food Systems Web site is the classified ads section, which allows the farm market operator to list items that are either wanted and/or for sale. The user can either Search Listings and/or Add a Listing to the classifieds.⁷ This feature has not been advertised for use at this point in time. (An Example of a Classifieds Listing).



The screenshot shows a web browser window displaying the 'Farm Market Lists' website. The page title is 'Add Your Market'. The form includes the following fields: Name, Street, City, State/Province (dropdown menu), Zip, County, Phone, Open dates, Times, Email, and URL. There are 'Submit' and 'Reset' buttons at the top right of the form area.

Other E-Business Applications

Users of the MARFSWS have access to other e-business applications that are useful for commerce. Examples include: obtaining resources and educational information on the following topics: agricultural direct marketing, health⁸, food safety⁹, environmental issues, and a calendar of events where important industry and educational functions can be listed.



The screenshot shows a web browser window displaying the 'Classifieds' website. The page title is 'Add a Listing'. The form includes the following fields: Your Name, Email address, Phone, Heading, and Listing. There is a large text area for the listing content.

Summary

This chapter outlines and describes the Mid Atlantic Regional Food Systems Web Site, and highlights some of the possible e-business applications. The authors' believe that the development and launching of this web site can begin the process of 'Bridging the Digital Divide' in the food industry, particularly at the farm gate, for health professionals, dietetic students, and at the consumer level. Much work has been accomplished in the beginning phase of developing this web site. However, additional work, cooperative efforts, and further (or increased) funding are needed to bring this project into productive use. We hope that the presentation of this chapter will assist in expanding the dialogue on developing the pathway for continuing or improving this web site, complete with its e-business applications and the vast potential for expansion.

⁷ MARFSWS, Agricultural Direct Marketing Component, November 2001.

⁸ MARFSWS, Women's Health/Nutrition Component, November 2001.

⁹ MARFSWS, Environmental Issues Component, November 2001.

Web Site Presentations/ Demonstrations/ Links

German, Carl L., and Richard VanVranken, Mid Atlantic Direct Marketing Conference and Trade Show, “MARFSWS Demo”, Virginia Beach, VA, February 2001.

German, Carl L., and Richard VanVranken, Mid Atlantic Direct Marketing Conference and Trade Show, “MARFSWS Demo”, Parsippany, NJ, February 2000.

Shimomura, Kathleen, and Cassandra Corridon, Society for Nutrition Education Conference, “MARFSWS Demo”, Oakland, CA, July 2001.

German, Carl L., Richard VanVranken, Kathleen Shimomura, et al., “E Business Applications of the Mid Atlantic Regional Food Systems Web Site”, Research Update, Food Distribution and Research Society, Phoenix, AZ, October 2001.

Shimomura, Kathleen, Mid Atlantic Consortium Meeting, “MARFSWS Poster Presentation”, East Brunswick, NJ, October 2001.

Symanski, Elaine, The Packer Online, a link to www.thepacker.com “Health and Nutrition” section for the www.agri-culturehealth.com web site, November 2001.

Selected User Comments

Farm market operators are looking for ways to improve their sales and their market operations. This can be accomplished by including such things as a classified ads section, and a calendar of events. Other useful items to include in the Agricultural Marketing Component include a directory of Retail Farm Markets and Resources that farm marketers can use.

A user of the Women’s Health Component stated that user’s want good, reliable, informative, interactive websites on health and nutrition. Not websites that merely promoted products.

References

German, Carl L., VanVranken, Richard, et al., < www.agri-culturehealth.com > a Mid Atlantic Regional Food Systems Web Site, October 2001.

Wilkins, Jennifer, Food and Nutrition Web Site, cornell.edu/food/expfiles/topics/wilkins/wilkinsoverview.html