



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

## Social Media Opportunities for Value-Added Businesses

Kathleen Kelley<sup>a</sup> and Jeffrey Hyde<sup>b</sup>

<sup>a</sup>*Ph.D. Associate Professor, Horticultural Marketing and Business Management  
The Pennsylvania State University, 301 Tyson Building, University Park, PA 16802  
Phone: 814-863-2196, Fax: 814-863-6139, Email: kmk17@psu.edu*

<sup>b</sup>*The Pennsylvania State University*

---

---

### Abstract

An Internet survey was administered (14-17 May 2010) to 1210 consumers who had active Facebook, Twitter, or blog accounts to investigate their use of social networks and their attitudes towards direct marketers who utilize these tools. Overall, 94% of participants have an active Facebook account with 33.1% believing Facebook is a “good fit” for on-farm markets and farmers’ markets pertaining to the food they sell. Relating to other advertising and promotions participants believe are a “good fit,” responses ranged from 61.7% for print advertisements (newspaper, store circulars, mail) to 15.3% for MySpace. Differences were explored between groups based on fresh fruit and vegetable and value-added processed product consumption. Participants who responded that they consumed 3 or more servings of fresh fruits and vegetables during an average day were more likely to believe that print advertising (66.0%), email (41.8%), Facebook (36.9%), and blogs (22.4%) were a “good fit” for these direct marketers compared to participants who responded that they consumed 1 to 2 servings. Based on number of servings of value-added processed products participants reported consuming, those who consumed 3 or more servings in an average day were more likely to believe Facebook (42.9%) was a good fit compared to those who consumed 1 to 2 servings (22.4%). Results can assist direct marketers and other agricultural businesses to identify social networking tools that best appeal to their target markets, components consumers feel are mandatory for a direct marketers, and what advertising and promotions these retailers should consider to disseminate farm market and on-farm market information.

**Keywords:** Direct market, Facebook, produce, survey, Twitter

### Introduction

A question most businesses frequently consider is how to best advertise and promote to their customers. Traditional sources such as newspaper, television, and radio are still recognized as valuable outlets but with 79% of U.S. adults having Internet access and 65% of online adults using social networks (Sterling, 2011) it is only prudent to consider non-traditional outlets as a way to product products and build relationships with clientele.

Conducting an Internet search to learn about demographics of social network users (Finn, 2011), how they currently use and would prefer to use the tools, and suggestions as to how businesses could best use the tools (Meister, 2001) reveals an abundant number of resources. Research has been conducted to learn how consumers use business social networking sites; however, data pertaining to how they use sites specific to fruit and vegetable direct marketers is not readily available.

With Facebook recognized as the a popular social network with “nearly one-sixth of the world’s population” using it (Estes, 2011), it would be prudent to not only learn how direct marketers could use Facebook to connect with clientele but how to encourage them to respond to posts, event invitations, and other communications.

Questions that deserve investigation include what social networks consumers use when they want to learn about food products and brands and whether or not tools used differ from social networks they use when learning about other interests. By identifying the outlets most widely used and developing best practices as to how to use the networks retailers may increase customer counts, interaction, and hopefully revenue.

## **Materials and Methods**

Data were collected through a 15 min Internet survey (14-17 May 2010) administered to 1210 consumers residing in five metropolitan areas in the mid-Atlantic U.S. region (Richmond, Baltimore, Philadelphia, Washington, D.C., and New York City). Participants were randomly selected from a panel of participants managed by Survey Sampling International, LLC (Shelton, CT) a provider of sampling solutions for survey research. Panelists received an electronic consent statement along with a link to the survey developed by researchers and approved by the Office of Research Protections at The Pennsylvania State University (University Park, PA). Panelists were screened for having an active Facebook, Twitter, or blog account, being at least 18 years old, if they resided in one of the targeted metropolitan areas, and also if they were the primary food shopper for their household.

Survey questions were pre-tested and administered to a sample of randomly selected 100 Survey Sampling International, LLC panelists. Question topics focused on consumers’ use of non-traditional advertising and promotional strategies with emphasis on how tools are used pertaining to fresh fruit and vegetables and value-added produce products and associated retailers who sell these products.

### *Statistical Analysis*

Data retrieved from the surveys were analyzed with SPSS (versions 18 and 19; SPSS, Chicago, IL). To assess differences between responses segmented by demographic groups Pearson's Chi Square and Phi and Cramer's V tests were used for categorical and/or multiple-choice questions, and Kruskal-Wallis and Mann-Whitney tests for Likert-Scale questions.

## Results

### *Participant Demographics*

Most common responses to demographic questions were female (71.4%), a member of a two-adult household (47.1%), living in a household with no children (62.7%), were age 49 to 64 (35.6%) and 37 to 48 (25.3%) years, had either obtained some level of high school to obtaining some level of college/technical school education but had not graduated (57.2%), with a household income of \$49,999 or lower (64.7%).

With the number of methods retailers could use to reach customers it is necessary to determine which one(s) clientele are most likely to access. Of the 1210 participants, all respondents actively used at least one of the following social networking accounts: Facebook (94.0%), Twitter (22.0%) and/or blog (12.3%). When asked to indicate whether or not these tools were a "good fit" for five different direct marketing outlets approximately one-third of participants responded that Facebook was a "good fit" for on-farm markets and farmers' markets, Pick-your-own operations, local wineries, and local grocers (range of 22.2 to 35.4%), with 28.6% responding that Facebook is appropriate for road side fruit and/or vegetable stands (Table 1). Fewer participants, a range of 16.4 to 21.3%, responded that Twitter and blogs were a "good fit" for these businesses.

To understand attitudes and behaviors regarding electronic resources used to promote food items, participants were asked to indicate the types of on-line and social networking sites they found useful pertaining to fresh fruits and vegetables. Overall, "website for promoting food products" received the most responses with 31.0% of participants selecting the tool. Fewer participants selected other electronic resources that ranged from MySpace pages (4.0%) to "website for selling food products" (23.4%).

Data were further analyzed to detect differences in using these tools based on the number of fresh fruit and vegetables and value-added produce products participants consumed in an average day. Even though a majority of participants indicated that they consumed 1 to 2 servings of fresh fruits and vegetables or value-added produce products during an average day, more participants who consumed 3 or more of the fresh and processed products indicated that they found the on-line and social networking sites presented as being useful. Of the differences, 40.2% of those who consumed 3 or more servings of value-added products found Facebook pages useful compared to those who consumed 1 to 2 servings (17.9%; Table 2).

Comparing traditional and non-traditional advertising and promotions allows retailers to determine the best mix for their business. Responses were collected for a number of retailer outlet types (e.g. local winery, local grocery, supermarkets and grocery store, warehouse club) as to whether or not a particular avenue was a "good fit." Data specific to on-farm markets and farm-

ers' markets is presented in Table 3. Based on responses, "print advertisements (newspaper, store circulars, mail)" was selected the most by participants (61.7%) as being a "good fit," with websites (company's website, third-party websites), television and/or radio, email, and Facebook selected by 39.8% to 33.1% of participants. Twitter, MySpace, and Blogs were selected by even fewer participants, range of 15.3 to 18.2%.

Significant differences were evident between those who consumed 1 to 2 servings of fresh fruits and vegetables and value-added produce products and those who consumed 3 or more. Again, those who consumed 3 or more servings of fresh fruits and vegetables and/or value-added products were more likely to select certain advertising and promotions than those who consumed less. Specifically, those who consumed 3 or more servings of fresh fruit and vegetables were slightly more likely to select print advertisements (66.0%), email (41.8%), Facebook (36.9%), and blogs (22.4%) than their counterparts. Those who consumed 3 or more servings of value-added produce products were slightly more likely to select Facebook (42.9%) than those who consumed 1 to 2 servings (33.4%).

## Conclusion

Selecting appropriate advertising and promotion tools and using them effectively is a must for small businesses. With the number of options available, retailers may feel overwhelmed as to what methods will reach their target audience. Data collected from participants indicated which social media tools they found useful regarding produce retailers. Results indicate that only about one-third believe these are a "good fit" for these direct marketers. Reasons as to how participants use social networks (e.g. "liking" a business's Facebook page, write blog entries) and components they expect a social network to include (e.g. ability to respond to an event invitation posted by a business) have also been collected and may assist in determining how to design efforts so that they provide the greatest return on investment.

Though significant differences were detected for data based on segmenting participants according to their consumption of fresh fruits and vegetables and value-added products these differences were not vastly different. Therefore strategies developed to reach audiences many not need to greatly change based on how many servings of these products consumers eat during an average day. By using the same advertising and promotional strategies to reach light and heavy users the amount of time and monetary resources retailers need to be expended can be greatly reduced. Data collected from survey participants provides the starting point from which retailers can begin their own investigation of what will work best for their individual businesses.

## References

- Estes, A.C. 2011. Facebook's grown-up problems are adding up. *The Atlantic wire*. Accessed Sept. 27, 2011. <<http://www.theatlanticwire.com/technology/2011/09/facebooks-grown-problems-are-adding/42994/>>
- Finn, G. 2011. A portrait of who uses social networks in the US (and how social media affects our lives). *Search Engine Land*. Accessed Sept. 27, 2011. <<http://searchengineland.com/a->

[portrait-of-who-uses-social-networks-in-the-u-s-and-how-social-media-affects-our-lives-81653](#)>

Fox, V. 2011. Pew Internet: Diving into how we access local news. Search Engine Land. Accessed Sept. 27, 2011. <<http://searchengineland.com/pew-internet-diving-into-how-we-access-local-news-94264>>

Meister, J. 2011. Increase your company’s productivity with social media. Harvard Business Review. Accessed Sept. 27, 2011. <[http://blogs.hbr.org/cs/2011/09/increase\\_your\\_companys\\_productiv.html](http://blogs.hbr.org/cs/2011/09/increase_your_companys_productiv.html)>

Sterling, G. 2011. Pew: 65% of online adults now use social networks. Search Engine Land. Accessed Sept. 27, 2011. <<http://searchengineland.com/pew-65-of-online-adults-now-use-social-networks-90752>>

**Tables**

Table 1. Proportion (%) of survey participants who responded that certain social networks (e.g. Facebook, Twitter) were a “good fit” for select direct marketing outlets (e.g. pick-your-own, local grocer) pertaining to food they sell<sup>2</sup>

Variable	On-farm markets and farmers’ markets	Pick-your-own operation	Road side fruit and/or vegetable stand	Local winery	Local grocer
Facebook page (%)	36.5	34.0	28.6	33.3	34.7
Twitter (%)	18.1	20.3	15.3	18.5	19.0
Blogs (%)	18.2	21.3	16.4	18.1	17.1

<sup>2</sup>Internet survey conducted 14-17 May 2010 involving 1201 consumers who have active Facebook, Twitter, or blog accounts and reside in five metropolitan areas in the mid-Atlantic U.S. region (Richmond, Baltimore, Philadelphia, Washington, D.C., and New York City).

Table 2. On-line and social networking sites survey participants have found useful pertaining to fresh fruits and vegetables segmented by behavior characteristic (number of servings of fresh fruit and vegetables and value-added produce products consumed during an average day)<sup>z</sup>

Variable	Average response	Servings of fruits and vegetables consumed during an average day <sup>y</sup>		Servings of value-added produce products consumed during an average day	
		1 to 2	3 or more	1 to 2	3 more
Responses (no.)	1201	701	447	749	112

Proportion with- in each segment (%)		61.1	38.9	87.0	13.0
Which of the following types of on-line and social networking sites have you found useful pertaining to fresh fruits and vegetables?					
Facebook page (%)					
	17.5	14.1b	22.8a	17.9b	40.2a
Twitter (%)					
	5.5	4.4b	7.8a	5.3b	15.2a
MySpace page (%)					
	4.0	1.7b	8.1a	2.5b	20.5a
Blogs (%)					
	7.9	6.0b	11.2a	8.0b	22.3a
Email sent by a business and/or company (%)					
	19.1	14.6b	25.1a	20.3b	29.5a
Email newsletter (%)					
	22.0	19.0b	27.7a	23.1b	33.0a
Website for promoting food products (%)					
	31.0	29.1b	35.1a	33.2b	43.8a
Website for selling food products (%)					
	23.4	21.5b	27.3a	25.6	26.8

<sup>z</sup>Internet survey conducted 14-17 May 2010 involving 1201 consumers who have active Facebook, Twitter, or blog accounts and reside in five metropolitan areas in the mid-Atlantic U.S. region (Richmond, Baltimore, Philadelphia, Washington, D.C., and New York City).

<sup>y</sup>Percents with different letters within rows and behavioral segments (number of servings of fresh fruit and vegetables and value-added produce products consumed during an average day) are significantly different  $P \leq 0.05$  based on Pearson chi-square statistic. Analysis conducted using SPSS (version 18 and 19; SPSS, Chicago).

Table 3. Responses to survey questions pertaining to traditional and non-traditional advertising and promotional strategies that are a “good fit” for direct market outlets segmented by behavior characteristic (number of servings of fresh fruit and vegetables and value-added produce products consumed during an average day)<sup>z</sup>

Variable	Average response	Servings of fruits and vegetables consumed during an average day <sup>y</sup>		Servings of value-added produce products consumed during an average day	
		1 to 2	3 or more	1 to 2	3 more
Responses (no.)	1201	701	447	749	112
Proportion within each segment (%)		61.1	38.9	87.0	13.0
Believes that the following types of advertising and promotions would be a “good fit” for on-farm markets and farmers’ markets pertaining to food they sell					
Print advertisements (newspaper, store circulars, mail) (%)					
	61.7	59.5b	66.0a	63.0	59.8
Television and/or radio (%)					
	37.4	37.5	37.6	39.4	39.3
Websites (company’s website, third-party websites) (%)					
	39.8	38.1	42.1	41.4	37.5
Email (%)					
	36.5	34.1b	41.8a	37.9	39.3
Facebook (%)					
	33.1	30.7b	36.9a	33.4b	42.9a
Twitter (%)					
	18.1	16.4	20.6	18.8	23.2
MySpace (%)					
	15.3	14.3	16.6	15.9	21.4
Blogs (%)					
	18.2	15.4b	22.4a	19.4	23.2

<sup>z</sup>Internet survey conducted 14-17 May 2010 involving 1201 consumers who have active Facebook, Twitter, or blog accounts and reside in five metropolitan areas in the mid-Atlantic U.S. region (Richmond, Baltimore, Philadelphia, Washington, D.C., and New York City).

<sup>y</sup>Percents with different letters within rows and behavioral segments (number of servings of fresh fruit and vegetables and value-added produce products consumed during an average day) are significantly different  $P \leq 0.05$  based on Pearson chi-square statistic. Analysis conducted using SPSS (version 18 and 19; SPSS, Chicago).