



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

*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.*



Women Farmers and E-Commerce Opportunities for 21st Century Marketing

Mary Peabody, Ph.D.
University of Vermont Extension

Beth Holtzman
University of Vermont Extension

Jessica Hyman, M.S.
University of Vermont Center for Rural Studies

William Sawyer, M.S., M.P.A.
University of Vermont Center for Rural Studies

ABSTRACT

In the fall of 2006, the Center for Rural Studies (CRS) and Women's Agricultural Network (WAgN) piloted a curriculum for agricultural entrepreneurs interested in incorporating e-commerce features – e.g. email lists, Web sites, online marketing, online ordering – into their operations. This broad definition of e-commerce reflects the integration of information technology and the Internet into business and marketing planning.

The workshops were held from 2006 to 2009. Each of the cycles provided insight into how to make future sessions more beneficial to participants. Offering the course even once/year during a period of rapid change in the available technology guaranteed that significant adjustments had to be made to the content each session.

This working paper addresses why we took on this challenge, why women farmers became the target audience, how the course was structured, and an overview of the results of the classes to date. Also included are lessons learned from the experience and next steps.



The inclusion of e-commerce tools in agricultural businesses seems inevitable for those farms that engage in direct marketing.

In preparing farmers to explore e-commerce there is a need to understand how these decisions fit into business management.

Introduction

In the fall of 2006, the Center for Rural Studies (CRS) and Women's Agricultural Network (WAgN) piloted a curriculum for agricultural entrepreneurs interested in incorporating e-commerce features – e.g. email lists, Web sites, online marketing, online ordering – into their operations. This broad definition of e-commerce reflects the integration of information technology and the Internet into business and marketing planning. The following white paper addresses why we took on this challenge, why women farmers became the target audience, how the course was structured and an overview of the results of the classes to date. Also included are lessons learned from the experience and next steps.

Success for small-scale, diversified farms often depends on the careful appropriation of resources in ways that will maximize the return of the investment.

Significance of the problem

Vermont is seeing a surge of interest in the direct-to-consumer marketing of food products. During the decade from 1997 – 2007, the percentage of sales for directly marketed foods increased 237% while total agricultural sales increased by approximately 41% (Diamond, A., Soto, R. 2009). At the same time the Pew Internet and American Life Project reports that consumers are more comfortable than ever making purchase decisions online. “22% of Americans said they had ever bought a product online in 2000, a number that grew to 49% in September 2007.” According to the Census Bureau, revenues for online purchasing grew by nearly fivefold in this time period – from \$7.4 billion in the third quarter of 2000 to \$34.7 billion in the third quarter of 2007.” (Horrigan, 2008)

The increase in consumer acceptance of the Internet and e-commerce parallels an increase in the number and type of Vermont farm businesses that are well-positioned to take advantage of this emerging opportunity. Moskin (2005) noted “the concentration [of small farms producing organic, specialty, or value-added products] is especially high in the Northeast, where a small farm near an urban

area can now survive solely through farmers' markets, restaurants, farm membership (in which customers pay in advance for a season's worth of produce) and other direct outlets.” The opportunity is high in this sector of agriculture and consumer interest in “buy local” campaigns indicates that it could grow significantly.

Success for small-scale, diversified farms often depends on the careful appropriation of resources in ways that will maximize the return of the investment. The scarcest resource will always be time, followed closely by money. Since these farms are small there is a limited labor force and a few individuals must learn to wear many hats. Strategies and skills that can help farmers and entrepreneurs maximize their use of time are of great benefit.

Why e-commerce?

In the decade since Pine and Gilmore (1999) introduced readers to the emerging expectations of the “Experience Economy Consumers,” Extension educators and technical assistance providers working with microentrepreneurs have watched as agricultural businesses struggled to find ways to position themselves for profitability. In an environment where a quality product was essential, but not sufficient, to guarantee customer loyalty, business owners of all types and sizes have been challenged to find new ways to keep their product in front of the customer. As a result, Extension professionals have witnessed an expansion in the value-added approaches of doing business that are of interest to, and implemented by, rural entrepreneurs

As the internet becomes an increasingly essential source of information for consumers it is important that direct-market farmers, value-added food entrepreneurs, and other small rural businesses carve out an online presence. This “virtual storefront” offers education to current and prospective customers, provides timely information about what is available seasonally, and helps provide the personal connections to the farmer/producer that “buy-local” consumers crave.

Although many of Vermont's small-scale

farms and micro-businesses are committed to serving the local consumer, it is often an economic necessity to look for ways to broaden their market niche beyond their local community. Many communities are too small and/or too poor to be able to support the quantity of products available. Using e-commerce as a tool to help entrepreneurs span rural distances to market and sell their products in a larger distribution area is a viable option in many instances.

Why women farmers?

Since 1994, the Women's Agricultural Network (WAgN) has provided education and technical assistance to farmers interested in starting or expanding an ag-related business. In that time period much has been learned about the learning styles of women farmers and how to deliver business planning and development programs in ways that promote informed decision-making and successful outcomes for WAgN's clients.

The recently released Census of Agriculture reports the number of women farmers increased 30% between 2002 and 2007. This trend is not an anomaly—the numbers of women farmers will continue to increase as will the number of acres of agricultural land managed by women. The reasons behind this increase are complicated and vary from one region of the country to another but the trend is solid and the northeast is leading the way. In fact, three of the five states reporting the highest numbers of women farmers are in New England.

While the number of women farmers is on the rise, the statistics offer other important data that causes some concern. In general, women's farms are quite small with 75% reporting less than \$10,000 in market value. We know from direct experience that women farmers can grow their businesses and improve their profitability with appropriate education and technical assistance. We also know that the 'multiple bottom line' is important to the farmers we work with and that sustainability is a core value in their business planning.

Many women farmers in the northeast fall into the "new and beginning" farmer

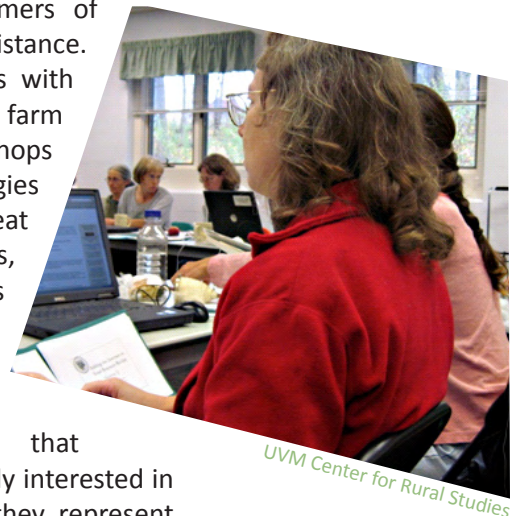
category. They frequently are not from a farming background and have little knowledge or understanding of the agricultural services available to help them be successful. These women have a steep learning curve and are enthusiastic consumers of education and technical assistance. They are also very generous with their time, frequently hosting farm tours, speaking at workshops and sharing their strategies for success. They offer great potential as research partners, advisors, and peer mentors provided we can effectively reach them and work with them to attain their goals.

Experience indicates that women farmers are also highly interested in relationship marketing and they represent the types of business owners that would be the best fit for the type of training being developed. In identifying e-commerce as a topic for new educational programming, it was a natural next step to pilot the program within the WAgN network. WAgN had the contacts with women farmers whose businesses were at the perfect stage of development to introduce these e-commerce planning concepts.

Women as learners

Time and again programs targeting women are challenged to answer the question "why focus on women, aren't these issues relevant to all farmers?" The short answer is yes. Many of the issues raised by women farmers are important and relevant for all farmers. The difference is that learning and behavior-change take place more effectively when the planning and delivery are structured for the needs of the audience. In other words, it is not the information itself that will be changed; it is how the information is delivered that must be changed.

Since 1994, the Women's Agricultural Network has offered classes to both men and women. The primary difference is that our classes are structured in a way that respects women's learning preferences. Men do in fact learn from the experience and most find the classes both enjoyable and productive. In



taking care to design learning opportunities for a specific target audience the quality of the educational experience provided to all farmers is improved.

Decades of research has provided important insight into adult learners. More recently, researchers have begun to investigate how adult women's learning preferences differ from those of adult men. What has been learned needs to be disseminated to those who provide education for women farmers. Jane Hugo, a respected adult educator reinforces this point,

The field [of adult education] needs to offer more examples of this work [women-centered learning] where it happens—in businesses, community organizations, government training facilities, schools and virtual spaces like the Internet. Practitioners need staff development opportunities in which they can experience the kinds of teaching environments that research is telling us are effective for women. (Hayes et al, p 213)

The literature on women's preferred learning styles is clear. The concepts of authority, voice, context, identity, resistance and the social construction of knowledge are all considerations in how women learn, adapt to new knowledge and make decisions. All of these areas are important in the planning and delivery of outreach and education programs.

Designing the training

In planning a course on e-commerce that would specifically target women farmers, the team first had to identify learning objectives. The questions used to guide that process were:

1 What essential decisions will the farmer need to make prior to electing an online strategy?

Electing to implement an e-commerce strategy requires many of the same strategic decisions that should be part of any change to the business development plan. Among

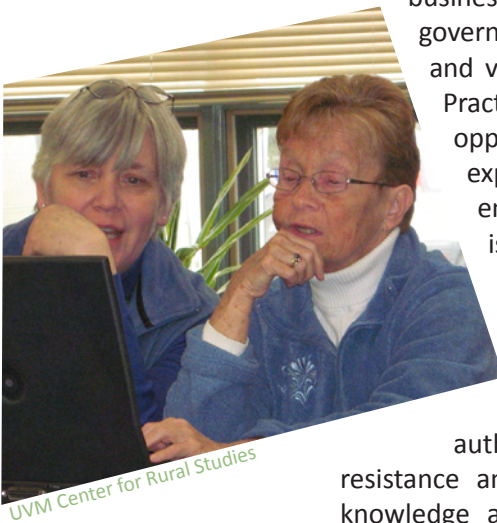
those decisions,

- Clearly identified goals that will be achieved with this strategy (e.g. what is the purpose in taking this step? And what will the business gain from this action?);
- Measurable outcomes that will allow the investment to be assessed (e.g. increased sales, new customers, improved communication with existing customers);
- Understanding of the consumer trends driving this investment;
- Identification of available resources – both money and time—that will need to be invested; and
- Decisions regarding what aspects of the work will be done in-house vs. what will be hired out.

2 What tasks/skills will an entrepreneur need to be successful in e-commerce?

- An evaluation strategy that will allow the business owner to assess the return on investment;
- Knowledge of how to find, negotiate, and contract with consultants doing e-commerce work; and
- Basic understanding of the technology being applied and a willingness to spend time and resources staying current with a quickly evolving field.

The curriculum, which continues to evolve, emphasizes best practices in business planning. Early in the development we determined that, rather than presenting a formula for developing a business Web site and incorporating e-commerce, it would be more effective to guide the participants through a process of evaluating what an online presence could do to enhance their business. The course materials emphasize how having an online presence can increase the visibility of a business, allow for more efficient order processing and improve communication with customers – all without changing the flavor of the enterprise. Most importantly, the curriculum encourages participants to think critically about the Internet and determine what online features are appropriate for their businesses. The curriculum does not present the Internet or



e-commerce as inevitable paths for every workshop respondent. Rather, adoption of e-commerce strategies is presented as a continuum of choices. Where the individual business rests along that continuum is for the business owner to decide based on the desired outcomes. This is consistent with the teaching philosophy of the Women's Agricultural Network where informed decision-making is the goal of all educational activities.

Course structure

The course has been offered in a variety of configurations ranging from 2-4 sessions and from 9-20 contact hours. Materials are presented using a mix of lecture, group discussion, small-group work, and guest speakers. Discussion plays a critical part in the course. Participants are actively encouraged to ask questions. The initial outline of the curriculum was designed in anticipation of the needs and learning styles of female farm business owners. Subsequent cycles have been refined based on the needs and preferences expressed by participants in the course evaluations.

The workshops were marketed to WAgN members through its newsletter, and then announced to the general public through brochures, e-mail distribution networks, and press releases and calendar listings in local newspapers. Although the workshops were targeted to female farm business owners, they were open to men as well. Two of the 41 total participants have been male.

There was no prerequisite learning to participate in the class. Some of the participants had established Web sites while others were in the early stages of considering some type of online presence.

The pilot class offered in 2006 was developed based on research about women's preferred learning styles. A consideration of the literature led to the conclusion that the workshops should be developed to de-emphasize lecture-type presentations by "experts" and to spend more time in peer learning activities, demonstrations and hands-on practice. The emphasis on peer learning was also reinforced by the

results of a 2004-2005 survey of the target audience, which showed that a majority of respondents were interested in integrating the Internet into their businesses but felt they were uncomfortable and uneasy about the technology and implications. Peer learning activities created situations in which workshop participants could safely share their lack of knowledge and discomfort with the Internet and develop trust for the technology by seeing what others were doing.

The course organizers developed a curriculum in which there were a few lecture-type presentations on the basics of the Internet and e-commerce delivered by the staff of the UVM Center for Rural Studies and WAgN, but the majority of the time was devoted to presentations by fellow farmers using e-commerce and designated time for small group work. The group work was guided by tasks, such as sharing the current Internet practices of each group member, and by questions about how the group members felt about e-commerce's possible role in their business success. Homework was also given at the end of each session and usually consisted of reviewing

"The most important part of the workshops to me was what makes a good web site and what components are needed."

Cycle 3 participant

Cycle 1- 2006

The class was held on three consecutive Wednesdays evenings in Burlington. There were 11 participants, ranging from a young woman who planned to start her own dairy farm to spinner/teacher/yarn seller to a third-generation beef and maple syrup operation. Four of the participants had existing web sites.

Cycle 2 - 2007

The class was held on two consecutive Saturdays in February in St. Johnsbury. The time of year and location proved challenging, and there were only two participants..

Cycle 3 - 2007

The class was held on three Wednesdays in late autumn from 10-3:30 in Randolph. The 16 participants included a range of farm business types. There was a wide range of experience and familiarity with the Internet and website development among the participants. Six of the participants had existing websites.

Cycle 4 – 2009

The class was held on four weekdays in early spring from 9:30-3:30. The 12 participants had established farm businesses and several were producing value-added products. Seven of the participants had existing websites.

existing farm Web sites and other examples of e-commerce, so that participants could bring reactions and questions to the next class.

Assessment of learning

Assessment of participant learning is completed in four parts. The first opportunity is some baseline data collected as part of the registration application. Participants are asked about their business and their level of comfort with computers and the Internet. Participants are also asked to identify what they perceive will be the greatest barriers to establishing an online presence for their business.

At the end of the course, participants are asked to complete a course evaluation. These evaluations are designed to capture input on which aspects of the course were most effective and suggestions for changes in the general format of the course. In most instances responses indicated that the course met the expectations of the participants. As is almost always the case, the farmer-speakers were the most popular aspect of the class. Direct farmer-to-

farmer exchanges are always popular ways to transfer information for this population of learners. Small group assignments got mixed reviews with several participants reporting that they preferred learning about the technical aspects of e-commerce from an experienced source rather than being left to forage around for strategies.

The third phase of the evaluation strategy is a post-course check-in that is distributed 3-4 months after the course completion. The questionnaire is distributed via e-mail. The intent is to ascertain what, if any, changes are made in the period immediately following course participation.

The final assessment of learning is a follow-up evaluation sent to all participants 8-24 months after the completion of the course. The intent of this evaluation is to assess what, if any, actions the participants have taken using what they learned in the course and to reflect on which topics were actually of most use after a period of time. Participants also provide URL information for their Web sites (if they have one) so some evaluation results are drawn from simple observation.

Modifications

Over the period of the four course cycles, changes were made to the format of the class as well as the subject matter. The team continues to look for the right balance between lecture, guest speakers and peer-directed learning.

The participants' registration questionnaire responses from the first cycle reflected a wide range of reasons for taking the workshop, including plans to add an online store, to maintain contact with customers, to increase viability and sales, to expand their market and upgrade current websites. The participants' level of comfort with the Internet was fairly evenly split between "very comfortable" and "somewhat comfortable," with one "uncomfortable." Nine of the participants said that the greatest barrier they faced in setting up a website or e-commerce site was lack of knowledge. Others cited concerns about the security of online commerce and uncertainty about choosing a Web designer.

In the initial evaluations, several participants indicated that the small group work was not effective for this topic. One participant described it as "the blind leading the blind." Another said she "preferred listening

"I now appreciate the use of keywords and have a vastly improved understanding of how a search engine works."

Cycle 1 participant

Table 1 : Evaluation responses for each session

Course Cycle	Date	Total Participants	Immediate Responses	Post-workshop Responses	Follow-up Responses
1	Nov. 2006	11	6	5	7
2	Feb. 2007	2	2	1	0
3	Oct. 2007	16	13	0	9
4	March 2009	12	9	7	0

Evaluations results are based on the participants' answers to the questionnaires as well as independent observations of their websites. The process evaluation was instrumental in the design and content of the workshops. Each session evolved and changed based on feedback from the participants.

to experts and those with experience in the field to small group work.” However, they praised the guest speakers and the full group discussions that would result from questions on what was being presented. “[The] farmer speakers were good to show that people can do it themselves, it seemed less daunting,” one participant said. Subsequent cycles of the class limited the small-group work while the emphasis on guest speakers and full-group discussion was increased.

In the pilot session of the course, a few participants expressed frustration about the time constraints of each workshop and suggested longer sessions. As a result subsequent cycles of the class included longer sessions and more contact hours. There appears to be a desire on the part of the participants to have a class that is built around full-day sessions compressed into a shorter time period rather than a class that is offered one evening a week over a longer time period. This is likely due to the nature of working with farmers who have many competing demands on their time.

Several participants said they wanted more information about the specific steps they needed to take to get started with e-commerce. Such information was intentionally left out of the course design in order to avoid the impression that participants were being pressured to integrate e-commerce into their businesses. In light of the evaluation results, the course was adapted to include more of the technical how-to’s of the Internet and e-commerce. The course content now includes tips for effective and efficient Web site development and design, strategies for incorporating e-commerce elements, search engine optimization, online transactions and fulfillment, targeting customers and competition analysis, social networking and online community building.

Other modifications to the course included the addition of an optional first day for those participants with less online experience. This allowed them to learn basic Internet and e-commerce information in advance of the more technical content provided later.

Action planning was integrated into the course when it became clear that participants

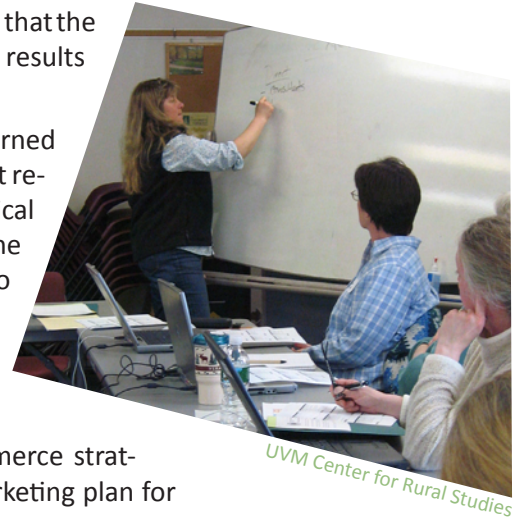
were not leaving the class with clear next steps in mind. Action planning has proved to be a highly useful educational tool in working with women farmers. It is an effective way to extend the learning beyond the time frame of the class and to ensure that the time invested in the learning results in some measurable progress.

When asked what they learned from the workshop, participant responses varied from the technical to the more theoretical to the strategic. Comments related to increased confidence in being able to make good decisions were common as were comments on the increased understanding of having an e-commerce strategy that compliments the marketing plan for the overall business.

In the post-workshop evaluation three months later, participants were asked again what they had learned. Their comments focused on the impact of the farmer-speaker and the importance of looking at other Web sites to see what works.

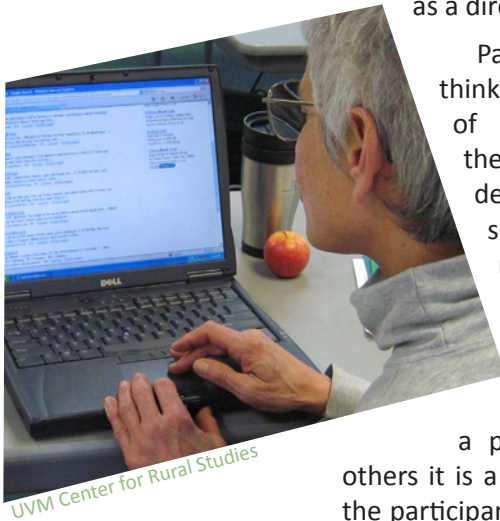
The outcome evaluation showed the progress participants made in creating or updating their Web sites, how they were evaluating the success of those changes, and whether they had changed any other aspect of their businesses as a result of their online efforts. The outcome evaluation also identified several participants who, after considering the pros and cons, decided not to add an online presence to their businesses. This decision is valued as a successful outcome of the course.

Of all the workshop participants, 52% of those who did not have Web sites before the workshop have created Web sites for their farm-based businesses since attending the workshop and 53% of those who did have Web sites before the workshop have made significant changes. At least one participant decided she was not ready to develop an online presence. Since her decision was informed by what she learned in the workshop and made with a full understanding of what having an online presence would entail, this is seen as a positive outcome. Taking this participant



into consideration, that means 22 out of the 41 total workshop participants (54%) made significant decisions about their businesses and online presence.

Two participants from Cycle 1 and three from Cycle 3 said that they have made changes to their businesses as a direct result of their online efforts. One said that the changes resulted from more people coming to her farm, another said the increased interest in her products contributed to her decision to start a farm share program. Another participant said that “changes in our business model may give the Web site an opportunity to contribute more.” Meanwhile, two other participants from Cycle 3 said that they have not made any changes to their businesses as a direct result of their online efforts.



Participants were also asked to think critically about what elements of e-commerce would benefit their business. This helped them determine the role of their Web sites in their overall business models. For some participants, their Websites are a way to share information about their farms and farm-based businesses, for others the Internet is a place to build community, for others it is a place to sell product. Many of the participants have multiple goals for their Web presence. These workshops help them determine what elements of e-commerce will help them meet their overall business needs.

Evaluations of the first two cycles included requests for more information for the participants to use post-workshop, depending on their plans. Consequently, future course cycles added more emphasis on discussing realistic next steps for participants at the end of the session. Thirteen of the participants had solid plans to take the next step toward developing new sites or updating their existing sites based on what they learned in the workshop. “I know more questions to ask,” one participant said. “I will also add seasonal information ... to keep my sight more active. I never would have thought of this without workshop.”

The workshop participants who did not

feel ready to initiate full e-commerce sites were encouraged to create basic Web sites or modify their existing sites to include interactive elements such as product information, event calendars or recipes. Participants were asked in the workshop evaluation to identify what elements of e-commerce would benefit their businesses. Their responses reflected a range from full e-commerce sites to static “brochure” Web sites. Based on their thoughtful responses, it is clear that the workshop achieved its objective of educating the participants about how to make decisions about their online presence. Also, four of the participants with established Web sites said they planned to make changes to the text and photos on their sites based on what they learned about keyword strategy and photo usage and formatting.

When asked about the specific skills they acquired during the workshop, most of the participants who filled out the evaluation said the workshop gave them a better understanding of the Internet and how to develop an effective Web site. In addition, six respondents said they gained technical skills and an understanding of search engine procedure. One respondent said the workshop gave her the confidence to pursue her idea for a Web-based business.

“It really helped to clarify a lot of misunderstandings, misconceptions and ‘hazy’ areas of what we knew already and gave us useful tools and concepts,” one participant said, while another said she wished the workshop had been more advanced. Many of the respondents praised the workshop structure. Two of the respondents with established Web sites said the content was somewhat elementary for their needs, but one of these added that the hands-on html portion of the workshop was the most helpful. Three other respondents said the information was too technical, but a fourth said the difficult material was explained well for the audience. One respondent suggested condensing the material to streamline the workshop and set aside time to discuss individual issues. One decision made in response to the need to free up time for such discussion was to eliminate the hands-on html portion of the workshop

and to provide supplemental resources related to html code instead.

When asked what online elements would benefit their businesses, participants’ answers widely varied. Some respondents did not think they were ready to create Web site or did not respond. Two mentioned blogs. Some said their sites needed to be further developed and organized, while others, who already had well-organized sites, said they needed to improve the appearance of their sites with updated photos and/or make more attractive pages. A few respondents mentioned elements that would help promote products, such as downloadable order forms and product pages. Respondents also mentioned enhancing site navigation and using keywords to optimize searches and reach a broader audience. The majority of respondents said they hoped the changes would broaden their markets, give them more exposure, add new customers, and increase sales. A few respondents said they hoped educating the public about their products would increase their business and that people would want to learn more about them.

When asked what skills or knowledge they gained from the workshop, a few respondents said they were overwhelmed by the information and did not feel they could create their own Web sites without technical assistance. However, they said the workshop provided them with a greater overall understanding of the process. A few mentioned the technical skills they gained, including how to attractively organize a site, what elements to include and exclude in their design to attract customers, and how to use keywords. Several respondents mentioned the importance of site management through Google Analytics, search engines, and keyword use and market research through observing market trends, customer demographics, and gathering a better understanding of public needs.

All the respondents said the workshop met their expectations;

some said it surpassed their expectations. They praised the depth of the sessions and practical applications and said the workshop provided many good ideas. Several respondents said they gained a lot but still felt there was so much more they need to know, such as the mechanics of building a Web site, and producing an online catalogue. Several respondents gave ideas for hands-on sessions for things like creating a Google account or setting up a Facebook page.

Resources

The following staffing, equipment and other resources were used in the delivery of this course:

1. Workshop Staffing

Two-three facilitators: One facilitator leads the opening presentation and introductions and also delivers some of the e-commerce content. The other facilitator (sometimes two) operates as more of an “ombudsperson” for the workshop participants, walking around the room, providing hands-on help to individuals when needed, and helping to get the presenter’s attention when there is a question or idea to share with the entire group.

One “e-commerce expert”: Given the fast

“It was a good choice in coming to the workshop because it helped me firm up my ideas and become more comfortable in my choice of web business.”
Cycle 3 participant

Table 2 : Cycle 4 participant feedback

In addition to the open-ended questions, participants in Cycle 4 were asked to rate their agreement with several statements about the workshop. The feedback was overwhelmingly positive. Responses were given on a one to five scale (1=strongly agree, 2= agree, 3=neutral, 4=disagree, 5=strongly disagree). The table below shows the mean rating for each statement

Statements	Response Mean
The workshop helped me make decisions about my web presence	1.1 (SD: 0.3)
The material was presented at an appropriate level for me	1.6 (SD: 0.5)
The course was well organized	1.3 (SD: 0.5)
The instructors were knowledgeable	1.2 (SD: 0.4)
The speakers were knowledgeable	1.1 (SD: 0.3)
I feel that I received good value for the cost of the workshop	1.1 (SD: 0.4)
I would recommend this workshop	1.0 (SD: 0)

N=9

pace of change in information technology and the Internet, the workshop organizers found it easiest to devote their time to developing and conducting the workshops and to leave the latest e-commerce information to an expert, normally a consultant or practitioner, who delivers the course content on the most up-to-date technology and practices. Having an expert be external to the organizing team also allows the facilitators to be a separate sounding board for any of the workshop participants who may feel somewhat overwhelmed by the e-commerce content. The expert receives an honorarium.

Farmer-Speakers: Normally each course has 2-4 farmers present on how they use the Internet and e-commerce in their business. It is important to find farmers who are interested in the topic, are adequate presenters, and who each are using e-commerce in different manners or degrees. An honorarium is paid to compensate the farmer-speakers for time and travel.

2. Classroom Space

The workshops have been held in intimate spaces that allow for proximity, regular talking volumes, and elbow room between participants. Workshop participants are seated at tables in a semicircle, focusing on the space where the presenters and speakers stand. Other than the space for the table and presenter, there should be adequate side space for food and refreshments. There should be enough space at the tables for the participants to break out and form small groups, if needed.

3. Equipment

Each workshop has a data projector and a projection screen. This project has allowed hooking up to laptops brought in by different speakers. Each workshop space has had a high-speed Internet connection and a wireless Internet signal that is simple for participants and presenters to connect to freely. Oftentimes the workshop organizers have brought in their own wireless router, so that they are personally familiar with the set-up. Each workshop has allowed participants to sit at laptop computers, either individually or doubled up. These laptops allow participants

to peruse examples of e-commerce or the work of their peers online at any point during the sessions. Doing this allows participants to advance their learning during the session if needed, fulfill a new curiosity about something they have just learned, or to inform their questions or comments about what is being presented. Some participants have even augmented workshop conversations by sharing a related item that they have found online via their laptop. In the future, workshop organizers would like to allow for each participant to transmit an image from their laptop to the data projector, so that they may share visuals with the entire group, especially their own Web sites.

4. Food/Refreshments

Refreshments and food provide a social aspect to these classes. When the classes were expanded to full-day, snacks, coffee and a light lunch were added. At times, some of the food provided is the products of the workshop participants, themselves.

The course research, development, as well as part of the delivery costs were subsidized through grant funds. Registration fees for the class increased from \$25 to \$75 as the length of the class increased and more content was added. Increasing the registration fee appeared to increase the interest in the workshop, perhaps because the participants' perception of the value of the course increased with the fee. Each registration period offered an early registration discount of \$10/participant.

Lessons Learned

Each of the cycles of this course provided insight into how to make future courses more beneficial to participants. The greatest limitation in evaluating the changes made to the courses was grounded in having to adjust both the delivery and the content each time the course was offered. Offering the course even once/year during a period of rapid change in the available technology guaranteed that significant adjustments had to be made to the content. This factor made it difficult to assess which changes were resulting in greater participant satisfaction.

Certainly we can say that the course

"I gained so much. The workshop was a great springboard."

Cycle 2 participant

improved over time. We can also say that the women farmer participants appreciated the opportunity to learn in a safe and supportive environment. Although women farmers are integrating computers into their business operations in ever-increasing numbers, there is still a 'lack-of-confidence' factor which makes this class appealing to WAgN participants.

The inclusion of e-commerce tools in agricultural businesses seems inevitable for those farms that engage in direct marketing. In preparing farmers to explore e-commerce there is a need to understand how these decisions fit into business management. To that end we have identified the following lessons learned from our four e-commerce classes.

- Farmers and course organizers frequently have different priorities around the importance of planning and goal-setting. Very often farmers were in a hurry to learn the mechanics of launching their e-commerce initiative without first taking the time to identify goals and expected outcomes.
- The language and marketing of the course must be very specific to avoid false expectations on the part of the participants.
- The pace of change in technology makes it challenging to give specific recommendations on e-commerce procedures. More beneficial is providing good decision-making tools so that emerging opportunities can be assessed as they become available.
- Having guest speakers that have adopted some e-commerce strategy for their business and are willing to share their experience is a critical part of course.
- Although diversity of business types appears to enrich the learning experience, it is useful to have participants be in roughly the same stage of experience regarding technology and the same level of Internet savvy. Having too great a spread in this knowledge area results in frustration as either those with less knowledge are left behind or those with more knowledge are left waiting while others catch up.

Next Steps

While the course organizers are pleased with the outcomes of these e-commerce classes, there are organizational barriers that need to be addressed. This class is resource intensive and it is unlikely to be sustainable over time without some revisions to the delivery. Moving the class to an online platform is being explored as one option. This has some appealing aspects in that it would dramatically decrease the operating costs associated with delivering the class. One of the drawbacks of this would be Vermont's uneven Internet service which would compromise participation in some regions of the state. Another potential drawback is the reduction in face-to-face networking time for participants.

Another option under consideration is integrating the content into existing classes on marketing or business planning. E-commerce units could possibly be offered as an optional session(s). The advantage of offering this material as part of a business planning class is that participants are already in a planning frame of mind. This will help introduce e-commerce tools as a business decision that needs to be considered within the larger farm plan and not as an add-on component.

Finally, in order for this course to meet its full potential we will need to develop an intake assessment in order to better screen potential class participants so that we can minimize the knowledge gaps that separate individuals. It is possible that we would separate the material into a basic workshop and a more advanced e-commerce class. In both instances clear course descriptions and expectations would be necessary for participants to select the best learning option.



UVM Center for Rural Studies

References

Diamond, A., Soto, R. (2009). Facts on Direct-to-Consumer Food Marketing: Incorporating data from the 2007 Census of Agriculture, Marketing Services Division, National Agricultural Statistics Service.

Hayes, E., D. Flannery, A.K. Brooks, E.J. Tisdell, J.M. Hugo. Women as Learners: The significance of gender in adult learning. San Francisco: Jossey-Bass Publishers, 2000.

Horrigan, J. (2008). Online Shopping. Pew Internet & American Life Project, An initiative of the Pew Research Center. Available online at <http://www.pewinternet.org/Reports/2008/Online-Shopping.aspx>.

Moskin, J. (2005, June 1). Women find their place in the field. New York Times. Retrieved June 3, 2005, from <http://www.nytimes.com/2005/06/01/>

Pine, B.J., II & Gilmore, J.H. (1999). Experience Economy: Work is theater and every business a stage. Boston, MA: Harvard Business School Press.

USDA Census of Agriculture (2007): Women Farmers. Downloaded October 4, 2009 from http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/Fact_Sheets/women.pdf.

Additional Resources

Barbercheck, M.; Brasier, K.; Kiernan, N. E.; Sachs, C.; Trauger, A. Journal of Extension (Volume 47, Number 3, June 2009). Meeting the Extension Needs of Women Farmers: A Perspective from Pennsylvania. The authors report findings from a needs assessment conducted to understand the educational needs of women farmers in Pennsylvania. They describe the characteristics of the women who responded to the needs assessment, the problems they face in making their farm operation successful, and the program topics and formats they prefer. Also included are recommendations to increase Extension engagement with this growing clientele.

Brasier, K.; Barbercheck, M.; Kiernan, N. E.; Sachs, C.; Schwartzberg, A.; Trauger, A. Journal of Extension (Volume 47, Number 3, June 2009). Extension Educators' Perceptions of the Educational Needs of Women Farmers in Pennsylvania; The increasing diversity of farmers presents new audiences for Extension. This article explores the results from a survey of Extension educators in Pennsylvania. The article identifies how Extension educators perceive women farmers, the factors that influence these perceptions, and how these perceptions influence educational programming. The authors recommend ways to reach women farmers with programs that are appropriate in both content and delivery.

SARE Project #LNE05-226 (2009). Sachs, C. WAgN: Sustainable ag network by and for women producers. This project adds to the growing body of research into the importance of outreach and education targeting women farmers. It provided the data that resulted in several journal articles.

SARE Project #ENC06-090 (2008). Martinez, J. Enhancing the Capacity of Educators and Farm Leaders to work with Socially Disadvantaged Latino Farmers. This project explains the importance of social and cultural awareness of the target audience in conducting fruitful education and outreach.

SARE Project #LNC07-290. Lezberg, S. University of Wisconsin-Madison, Effective Outreach for a new Wisconsin Agriculture: a social marketing approach to the environmental management needs of Hispanic and women farmers. Preliminary results of working with women farmers details elements of a focus group of 35 women farmers that met in March 2009 which include the following, "Women described plenty of situations where they still experience sex discrimination; such as at the local equipment dealer, the FSA office, and the veterinarian's office. Women who farm on a smaller scale than their neighbor farmers discussed the difficulties they had being understood and taken seriously by Extension and other government agencies and also by the local ag supply dealers."

SARE Project # CS05-035 (2006). Popp, J. University of Arkansas, Assessing and Meeting the Growing Needs of Arkansas' Women in Agriculture. Another project detailing the needs and interests of women farmers. The findings of this project are similar to other reports. Women are interested in being identified as women farmers, having activities that target them specifically, and have an interest in participation in local, state and federal programs that can help them be more successful.

About This Series:

The Food System Research Collaborative Opportunities for Agriculture Working Paper Series highlights the breadth of research by the collaborative's members and is intended to foster discussion on food system topics.

For more information, or to submit a proposal for the next round of white papers, contact Jane Kolodinsky at jane.kolodinsky@uvm.edu.

The full series is available online at www.foodsystemresearch.net

This material is based upon work supported by the Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture, under Award No. 2008-34269-18994. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture. Special thanks to Senator Patrick Leahy.



**CENTER for
RURAL
STUDIES**
at the University of Vermont

Center for Rural Studies
206 Morrill Hall
University of Vermont
Burlington VT 05405
Tel: (802) 656-3021
E-mail: crs@uvm.edu

Visit us online at www.uvm.edu/crs