

Niche Markets for Natural Fibers: Strategies for Connecting Farmers Who Raise Fiber Animals with Textile Artists—A New England Perspective

Abstract

Farmers annually harvest natural fibers from alpacas, goats, llamas, rabbits, and sheep. However, they have seen a decline in consumer demand due to the increased production of synthetics. Despite global trends of decline, New England farms involved in fiber production have increased. This article identifies niche markets for these natural fibers and provides farmers with marketing/sales strategies to successfully target these markets. Data from 2007 and 2013 suggest that the niche market of textile artists can help farmers increase their profits through direct marketing strategies. Extension professionals can use these strategies to develop educational materials and workshops.

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Introduction

Farmers across the globe harvest tons of natural fibers from alpacas, goats, llamas, rabbits, sheep, and other more exotic fiber-producing animals such as bison. However, these farmers have seen a decline in consumer demand due to the increased production of synthetics such as nylon and polyester (Food and Agricultural Organization of the United Nations [FAO], 2009). On December 20 of 2006, the United Nations General Assembly adopted resolution 61/189 declaring 2009 as the "International Year of Natural Fibers" (IYNF) to increase awareness and use of natural fibers by showcasing their importance in job creation and the preservation of culture. A multi-lingual IYNF- 2009 website was created by the Coordinating Unit of the Food and Agricultural Organization of the U.N. to inform and encourage people from around the world to become more involved with natural fibers. This website suggests five key reasons for choosing natural fibers: (1) they are healthy to wear, (2) they provide jobs for small-scale farmers, (3) they are sustainable and environmentally friendly, (4) they have many uses, and (5) they are fashionable (FAO, 2009).

Although the IYNF International Steering Committee defined natural fibers as "those renewable natural fibers of plant or animal origin which can be easily transformed into a yarn for textiles" (Common Fund for Commodities, 2008, v.), this article focuses on animal fibers and the New England region of the United States. There are six reasons for this article's specific production and geographic focus:

1. Data from the *2007 Census of Agriculture* show that both the production of animal fibers and the number of farms engaged in this production had increased in this region since the *2002 Census of Agriculture* (United States Department of Agriculture - National Agricultural Statistics Service [USDA-NASS] 2002, 2007a).
2. The *2007 Census of Agriculture* found that female operated sheep and goat farms outnumber male operated farms (USDA-NASS, 2007d, p. 3).
3. Three of the five states with the highest number of female principal farm operators (i.e., Arizona, New Hampshire, Massachusetts, Maine, and Alaska) are located in New England (USDA-NASS, 2007d, p. 2).
4. Sheep and goat farms are one of the three classifications of farms with "new farm/new farm operators" status (USDA-NASS, 2007b, p. 3).
5. Eighty-one percent of all U.S. farms are considered "small farms," and New England is one of two areas with the highest percentage of these farms (USDA-NASS, 2007, p.4).
6. Women farmers, many of whom fit in both of the small and new farm categories, need to have targeted programs that Extension professionals develop specifically for their needs (Barbercheck, Brasier, Kiernan, & Sachs, 2009; Rivera & Corning, 1990).

One of the specific skills that that women farmers said they lacked is the ability to market their products, and they wanted Extension professionals to develop training/educational events that would help them improve their knowledge and skills (Barbercheck, Brasier, Kiernan, & Sachs, 2009). Developing marketing workshops for producers with similar expertise (Flaskerund, 1995) and with similar product interests and geographical area would help Extension professionals provide better service to farmers through tailor made outreach initiatives that would enable farmers to connect with their end buyers through specialized distribution channels (Kraenzel, 2001). Brown and Bewsell (2010) suggest market segmentation as a strategy for avoiding the pitfall of a one-size approach for assisting farmers.

Help with marketing related issues is a top priority for many farmers, and Extension specialists are frequently asked for assistance (Chase, 2006). In addition, there is sufficient need for Extension professionals to develop programs that help farmers identify and use both value-added and new marketing initiatives (Hancharick & Kiernan, 2008). Specifically, through better access to the global market place, wool producers have the potential to increase their yield per pound (Kott, Moore, Schuldt, & Manoukian, 2009).

This article offers small-scale farmers who raise fiber-producing animals a niche market strategy for reaching a growing market segment in their local or regional environment as well as tactics for expanding their marketing reach through the Internet. Our direct, point-of-sale strategies aim to help farmers who produce high quality fiber earn more per pound while simultaneously creating potential repeat business opportunities.

Purpose

The purpose of this article is to identify niche markets for natural animal fibers and provide farmers with marketing and sales strategies to successfully target these markets. Extension specialists can use these strategies to assist farmers through tailored workshops and educational materials.

Methodological Framework

Because there is limited information about niche markets for natural animal fibers, the data that were used to

address this knowledge gap were obtain through exploratory methods that could address "who," "what," "why," and "how." Both written survey instruments and in-depth interviews asked respondents very general types of information, such as demographics, what respondents purchased, where they purchased, why they purchased particular items, how they used their fiber purchases, why they became involved in textile arts, and how they engage with other textile artists and farmers who raise fiber animals.

The New England region was selected as the site for data collection because data from the agricultural censuses of 2002 and 2007 (USDA-NASS, 2002, 2007a) show that both the production of animal fibers and the number of farms engaged in this production has increased in this region (Table 1). In addition, the New England region has numerous weaving, spinning, and multi-medium guilds and organizations as well as long standing sheep and wool festivals in each of the New England states.

Table 1.
New England Farms Involved in Fiber Production

	Wool-Producing Farms				Mohair-Producing Farms				Alpaca Farms		Llama Farms	
	Farms 2007	Farms 2002	Lbs. 2007	Lbs. 2002	Farms 2007	Farms 2002	Lbs. 2007	Lbs. 2002	Farms 2007	Farms 2002*	Farms 2007	Farms 2002
CT	262	164	28,972	25,157	20	1	1,547	(D)	112		138	111
ME	426	317	66,838	50,346	64	18	1,783	(D)	138		200	148
MA	434	274	63,971	45,411	44	22	2,624	2,077	167		302	185
NH	341	235	42,351	36,415	16	15	896	2,344	119		170	109
RI	48	35	5,797	6,449	0	1	0	(D)	24		34	25
VT	442	312	81,167	69,896	27	20	1,958	2,155	93		171	139

Source: Data compiled from agricultural censuses of 2002 and 2007 (USDA-NASS, 2002, 2007a)

*Alpaca data was not reported in *2002 Census of Agriculture*

(D) USDA-NASS withheld to avoid disclosing data for individual farms

Data Collection and Yields

Two sets of data were used to identify niche markets for natural animal fibers and the receptiveness of these markets to purchase directly from farmers who raise fiber animals. Table 2 provides an overview of these data sets.

Table 2.
Overview of Data Sets Used to Inform Article

Data Sets	Type of Study	Purpose of Study	Respondents	Rational for Purposeful Sampling
(1) 2007 benchmark study of	Exploratory study examined how women in	Designed as a pre-2009 IYNF research project to provide	Eighty-six exploratory surveys and 12	This particular group of women was chosen as their group describes itself as "boundary-

<p>women textile artists who transform animal fiber into yarn for textiles</p>	<p>the northeast who spin, knit, crochet, and weave connect to natural animal fiber through their communities of textile producing friends, their own fiber related activities, and to the farmers who raise fiber animals</p>	<p>data on women's activities related to the transformation of animal fiber into yarn for textiles prior to the media attention and promotional activities and events that would occur in 2009 during the "International Year of Natural Fibers"</p>	<p>in-depth conversational interviews were completed during the three day event of the 5th Annual SPA, Knit, Spin gathering of the New England Textile Arts Network. [198 people attended, 98 were respondents = response rate of 49.5%]</p>	<p>spanners from all across the many New England guilds and associations with two common passions: [working] with fiber and textiles and ...sharing what [they] know" (The New England Textile Arts Network, 2003). Respondents were deemed to possess a rich level of information which is one of the important criteria for purposeful selection of respondents (Patton, 1990).</p>
<p>(2) 2013 in-depth conversational interviews of women textile artists residing in the northeast U.S.</p>	<p>Exploratory study about the work and lives of women textile arts residing in the northeast U.S.</p>	<p>A sub-set of this data was related to the experience of these textile artists with using natural animal fibers and their connection with the farmers who raise fiber producing animals</p>	<p>20 in-depth interviews of textile artists residing in the northeast that were identified through their membership in local and/or state textile-related guilds</p>	<p>These textile artists were selected as they are talented artists who have gained recognition through their participation in textile related guilds and guild competitions. Respondents were deemed to possess a rich level of information which is one of the important criteria for purposeful selection of respondents (Patton, 1990).</p>

Relevance of Data Sets

By combining the relevant data from two data sets that were collected from similar types of informants from the same geographical region of the U.S., we believe that we have developed a reasonable account of the nature of this particular niche market segment. The 6-year time differential between the two data sets allowed us the opportunity to assess the changes occurring in this market segment and craft more effective marketing and sales strategies for small-scale farmers. In addition, all of the data that were used to inform the findings of this article were from females. This helped us further define and suggest strategies for reaching this unique niche market.

Results and Discussion

Data such as textile medium, sources for fiber, and engagement with others could be aggregated into percentage reporting within categories without losing depth of response. Data that related to why they purchase (or do not purchase) particular items and why they became involved in textile arts were kept *in vivo*, line coded, and grouped into categories (Strauss & Corbin, 1990, 1994). Brief illustrative quotations and categorical exemplars are used to describe the respondents answers to these "why" questions.

Use of Animal Fibers

Findings from the analysis of both data sets suggest that women who engage in fiber-related activities such as knitting, spinning, weaving, felt making, rug hooking, and the dyeing of fibers were actively involved with turning natural fibers into yarn and were producing various types of textiles for their own use, for family and friends, and for purchase by others. These women often engaged in more than one textile medium, and almost all of them (99%) were knitters. Table 3 shows the diversity of their fiber related activities.

Table 3.
Textile Mediums Used by Fiber Artists

Types of Textile Mediums	Percentage of Respondents Participating	Number of Respondents Participating
Knitting	99	117
Spinning	71	84
Dyeing	51	60
Felting	51	60
Crocheting	35	41
Weaving	27	32
Rug Hooking	14	17
Note: Respondents could report more than one type of medium. N= 118		

This multi-medium participation along with descriptive narrative that details how these textile artists used these media can help farmers to determine both product preparation as well as variety of products offered. For example, sometimes, the fiber artists purchased yarn that they then knitted, crocheted, wove, or perhaps dyed. At other times, the same fiber artist purchased fleece, top, or roving that they then either spun into yarn or felted, and perhaps dyed prior to the spinning or felting process. This suggests that in addition to fleece, top, or roving from their fiber animals, farmers might also want to also offer yarn that can be used for knitting, crocheting, weaving, and hooking.

Farmers who are skilled in dyeing and/or able to choose a sophisticated dye palette for the external preparation of their fiber may be able to add additional value to their product. Farmers with less skill or ability may actually cause their product to lose value as textile artists said that they will "not typically buy fiber of ordinary color or yarn that resembles mass produced, commercial yarn." That is why many prefer to dye their own or purchase only from those who produce outstanding color-ways or make their yarn from scratch through both dyeing and spinning.

The farmer also needs to be mindful of what products can realistically and aesthetically be made from their particular type of fiber animal. A final product that will rest against the skin or become a sturdy outer garment, rug, or tapestry will not typically come from the same type of fiber animal. One of the most recent resources on spinning animal fibers to yarn (Robson & Ekarius, 2011) can provide farmers with the necessary vocabulary to entice spinners to use their animal fibers in the most compatible ways.

Results also suggest that fiber artists view some of their knitting, crocheting, and spinning as a social activity and frequently do so with others. Almost 50% knit with others more than three times per month, and 31% knit with others at least one-two times per month. Twenty-three percent of the spinners said that they meet with others more than three times per month, and an additional 23% spin with others at least one-two times per month. Farmers who also knit or spin and make the time to become involved in both formal and informal groups have the advantage of making personal connections with potential customers and the ability to show others their products on a regular basis. Farmers who neither knit nor spin may want to consider asking someone who actively participates in these fiber-related social activities to use some of their complementary fiber and take it with them on their social outings.

Source of Animal Fibers

Where do fiber artists get their fibers? Most get their fibers from a variety of sources. Table 4 shows multiple opportunities for farmers to sell directly to these fiber artists as 28% buy directly from farmers, 69% buy their fibers at fiber fairs and festivals from vendors who are often farmers, and 39% buy on-line from vendors who could also be farmers.

Table 4.
Sources Used by Fiber Artists for Acquiring Their Natural Animal Fibers

Sources	Percentage of Respondents Who Purchased	Number of Respondents Who Purchased
Yarn and Fiber Shops (walk-in)	73	86
Fiber Fairs & Festivals	69	81
Yarn and Fiber Shops (on-line)	39	46
Direct from Farmers who Raise Fiber Animals	28	33
Other Fiber Artists	22	26
Fabric Stores	12	14
Other	5	6
Note: Respondents could report more than one type of source. N = 118		

The northeast region is home to some of the oldest fiber related fairs and festivals in the U.S. as well as numerous workshops, conferences, and retreats. Twenty-four percent of the fiber artists who were interviewed said that they typically attend more than five of these types of events per year, 27% attend three-four events per year, and 44% attend one-two events per year. The remaining 5% attend occasionally. These fiber enthusiasts travel with friends to attend these fiber-related events and look forward to the "treasures" they find and purchase.

When asked about their fiber selection process, the following three aspects of the fiber emerged as their top

motivators for purchasing a particular fiber and are expressed as exemplar quotes from the participants: "eye candy," "feel," and "unique qualities." Farmers need to remember that the making of fiber-related products is both a labor- and time-intensive process and that fiber artists who expend this labor and time want the fiber to be visually stimulating and a pleasure to touch and have qualities that showcase uniqueness and local production. If they just wanted a product made from natural animal fibers, they could go to a store and buy the finished, machine-made product (typically manufactured outside the U.S.) for a tenth of the cost of buying their own raw materials let alone the true cost of their time and labor for designing and making the product. A dozen simple marketing/sales strategies related to these findings are shown below.

1. Become a vendor at as many local/regional fiber related events as possible.
2. Create eye-catching displays that show off the fiber in a format that suggests its best potential use.
3. Prepare the fiber for visual appeal as well as hand (e.g., make sure that it is well skirted and free of vegetable matter or that guard hair is separated from the under coat).
4. If the fiber is less than top quality for hand spinning, say so, and price accordingly.
5. Always allow the potential buyer to feel some of the fiber or unroll the fleece for inspection if requested.
6. Show and tell the story of the individual animals that produced the fiber (e.g., take a picture of the animal, and use its name, rather than sheep #236, and describe its age and reproductive status), and attach this information to the fiber or display it in some way as this helps to create its uniqueness and helps develop a bond between the purchaser and the farm where the animal lives.
7. Develop a website for the farm, and post information about future event attendance, new fibers for sale, and updates on the various fiber animals and handout the website information, as well as farm address and contact information with every purchase.
8. Become involved with online fiber communities such as Ravelry that allow vendors to purchase advertising space for minimal costs (Ravelry, 2012, January 25; 2013, January 22)
9. Host an open farm day that would allow visitors to see the animals and purchase fiber and/or products made from the fiber.
10. Create a fiber farm-share program.
11. Develop an adopt-a-fiber-animal program whereby a fiber artist pays for the upkeep of a particular animal in return for the fiber it produces.
12. Provide a farm-based informational feeding and care workshop for people who are considering buying a particular type of fiber animal.

Market Size and Characteristics

From "just ladies who knit" to "not my grandmother's pass-time," women who are actively engaged in the production of handmade textiles are adamant that their art form is "not frivolous, useless, or old-fashioned." They place very serious difference between handmade and homemade and spend both time and money to

perfect their craft and produce high-quality, well-designed, and well-executed products. The tools of their trade are often more expensive than golf clubs, cameras, or woodworking equipment, and many require dedicated work space in the same way that a woodworker needs shop space. They are equally sensitive to the marginalization they sometimes encounter when others perceive their knitting, crocheting, spinning, weaving, rug hooking, and dyeing as "just something old ladies do." Those who fail to fully grasp that these fiber enthusiasts view themselves as textile artists and their products as handmade creations of self-expression will never be able to fully capture their niche market.

When and how did these traditional crafts become art forms? Harding (2003) describes how the U.S. art-to-wear movement developed in the late 1960s and early 1970s along with other forms of freedom of expression. One populist movement occurring in art schools was a push-back against the traditional art-hierarchy that located "crafts," particularly those related to fiber, at the lowest level or were viewed as "women's work" and not even considered as craft. In addition, this art-to-wear movement wanted to involve the viewer in the artwork and considered the piece incomplete until the "viewer animates the piece by wearing it" (Harding, 2003, p.9). During the 1980s the movement gained momentum, exposure, and profitability. Its accessibility to mainstream culture and the talent of the artists involved contributed to its evolution. and by the 1990s new artists were entering the medium and commercial enterprises were busy trying to copy the unique properties of these art-to-wear garments. Was it still art, or had it become fashion? Or was it both?

As the numbers of fiber artists have increased, so too have the number of fiber-related publications, software design programs, organizations, and on-line communities. In addition, new and improved tools of the trade continue to be created as well as hundreds of types of commercially produced yarns and at least 80 types of hand-spun yarn. Currently, all of these activities continue to grow and evolve. Ravelry, a 6-year-old on-line fiber community, is just one of the many indicators of the size and growth of this market. In its 2012 "year in review" it had "over 2 million members" (Ravelry, 2013, January 11). By March of 2013, it had 3 million members (Ravelry, 2013, March 8), and by August of 2013, it had grown to 3,360,699 members (Ravelry, 2013, August 23).

Table 5 gives a few examples of publications that typify the evolution of the art-to-wear movement and provide insight on some of the characteristics of fiber artists. A prevalent theme throughout these books is creativity as well as modern techniques and designs. Extension specialists can use these suggested educational resources to assist fiber-producing farmers who want to learn more about the niche market of textile artists.

Table 5.
Publications That Typify the Evolution of the Art-to-Wear Movement by Fiber Medium
Focus

Fiber Medium	Publications & Focus
Knitting	Cornell (2004) traces the knitter's art and Lee (2007) describes contemporary knitting practices and techniques for textile artists.
Crochet	Chin (2006) describes couture crochet.
Spinning	Boeger (2008) pushes the envelope of hand-spun yarn as art and Anderson (2012) describes techniques for designing and creating 80 hand-spun yarns.

Weaving	Lamb (2013) provides modern insights and techniques for spinning yarn for various types of woven fabric as well as color considerations and techniques for weaving particular types of cloth.
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Findings from both data sets used in this article revealed that 65% of the participants designed their own creations and 32% of them sold these creations. Sixty-nine percent considered it to be a hobby (albeit a serious one), and the remaining 31% considered it to be a primary or secondary profession.

Table 6 shows the key thematic clusters that emerged from the data from the interview question that asked participants why they engage in textile arts. They are organized into groupings that represent inner-directed types of themes and outer-directed themes. Most (90%) of the women expressed numerous reasons for their engagement and almost all (98%) talked about creativity and self-expression.

Table 6.
Thematic Clusters of Inner-Directed and Outer-Directed Reasons Why Women Become Engaged in Textile Arts

Inner-Directed Themes	Outer-Directed Themes
self-expression/creativity	socializing
sense of accomplishment/satisfaction	for others (family, friends, charity)
tactile (feel of fiber)	useful/practical
visual beauty (fiber, finished products, fiber animals)	community/connection to women (past, present, global)
soothing/relaxing	sustainable/handmade
skill of the craft/handmade	wearable art

Just as "buy local," "organic," and "slow" are movements and practices that represent a return to more sustainable ways of living, so too is the desire to produce handmade textiles from natural animal fibers. This awareness of the need for more sustainable ways of living and the search for a creative outlet that provides many personal benefits that are not tied to taking care of home and family or career help fuel this niche market. It is what they do for themselves, and they work hard not to feel guilty about the time and energy they spend on their art form. As one respondent said, "I keep reminding myself that the 4-5 hours I spend creating textile art is no different than a golfer playing a round of golf - no one faults them for that!" They enjoy a sense of accomplishment from this art form and find it to be beautiful to look at and a pleasure to feel. It soothes and relaxes them while also connecting them to a community of other women as textile production has been created by women throughout time. For them, however, this is an art form, not a necessity for the production of clothing and goods. They are proud of the wearable art or utilitarian pieces they create for themselves, family members, friends, charity, or for sale.

This niche market enjoys seeing and being with fiber animals. Findings from the two data sets showed that a quarter of the participants became so drawn to these animals that they have become small-scale farmers who raised rabbits, sheep, goats, llamas, and alpacas.

Conclusion

Textile artists and farmers will continue to have a sustainable relationship because producing textiles from natural animal fibers and being around fiber animals give these women both pleasure and purpose while simultaneously connecting them to traditional art forms with new possibilities and a growing network of other fiber artists. Farmers who recognize just how important and personal the creation of fiber art is to this niche market can develop lucrative opportunities for this sustainable relationship to occur. Although this article focuses on New England fiber-producing farmers and New England-based textile artists, we believe that the suggestions it contains can be adapted and used in other parts of the U.S.

It is imperative that Extension specialists provide niche marketing assistance as well as animal husbandry advice to the small-scale, new, and often women-operated farmers who raise fiber producing animals. This will enable these farmers not only to produce high quality fiber but also to successfully market and sell directly to buyers and maximize their earnings. Niche marketing suggestions given in this article can be used to develop educational materials and various types of workshops for farmers as well as 4-H youth. It can also help Extension professionals who work with the organizers of farmers' markets and agricultural fairs and festivals to develop programming and events.

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References

- Anderson, S. (2012). *The spinner's book of yarn designs: Techniques for creating 80 yarns*. North Adams, MA: Storey Publishing.
- Barbercheck, M., Brasier, K., Kiernan, N., & Sachs, C. (2009). Meeting the extension needs of women farmers: A perspective from Pennsylvania. *Journal of Extension* [On-line], 47(5) Article 3FEA8. Available at: <http://www.joe.org/joe/2009june/a8.php>
- Boeger, L. (2008). *Intertwined: The art of handspun yarn, modern patterns, and creative spinning*. Beverly, MA: Quarry Books.
- Brown, M., & Bewsell, D. (2010). Using a market segmentation approach to better target agricultural extension programs—Aligning learner needs with learning programs. *Journal of Extension* [On-line], 48(5) Article 5FEA6. Available at: <http://www.joe.org/joe/2010october/a6.php>
- Chase, L. (2006). Targeted marketing: Lessons from an agri-tourism enterprise. *Journal of Extension* [On-line], 44(2) Article 2RIB2. Available at: <http://www.joe.org/joe/2006april/rb2.php>
- Chin, L. (2006). *Couture crochet workshop: Mastering fit, fashion, and finesse*. Loveland, CA: Interweave Press LLC.
- Common Fund for Commodities. (2008, October 20), *Proceedings of the Symposium on Natural Fibers. Technical Paper No. 56*. FAO, Rome. Retrieved from: http://www.fao.org/es/ESC/common/ecg/322/en/Communication_Plan_concept.pdf
- Cornell, K. (Ed.). (2004). *For the love of knitting: A celebration of the knitter's art*. Stillwater, MN: Voyageur Press, Inc.
- Flaskerund, G. (1995). Targeted workshops improve marketing knowledge and skills. *Journal of Extension*

[On-line], 33(2) Article 2RIB3. Available at: <http://www.joe.org/joe/1995april/rb3.php>

Food and Agricultural Organization of the United Nations (2009). IYNF-2009, Why natural fibers? Five good reasons... Retrieved from: <http://www.naturalfibres2009.org/en/iynf/index.html>

Hancharick, A., & Kiernan, N. (2008). Improving agricultural profitability through an income opportunities for rural areas program. *Journal of Extension* [On-line], 46(5) Article 5FEA3. Available at: <http://www.joe.org/joe/2008october/a3.php>

Harding, T. (2003). The art-to-wear movement in America. In Duncan-Aimone, K. *The fiberarts book of wearable art*. New York: Lark Books, 8-10.

Kraenzel, D. (2001). Building working relationships in agricultural marketing. *Journal of Extension* [On-line], 39(1) Article 1TOT1. Available at <http://www.joe.org/joe/2001february/tt1.php>

Kott, R., Moore, J., Schuldt, M., & Manoukian, M. (2009). Assisting wool producers in accessing global market. *Journal of Extension* [On-line], 47(1) Article 1IAW5. Available at: <http://www.joe.org/joe/2009february/iw5.php>

Lamb, S. (2013). *Spin to weave: The weaver's guide to making yarn*. Loveland, CA: Interweave Press LLC.

Lee, R. (2007). *Contemporary knitting for textile artists*. London: Batsford.

Patton, M. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.

Ravelry. (2012, January 25). How does Ravelry make money? Retrieved from: <http://blog.ravelry.com/2012/01/25/how-does-ravelry-make-money/>

Ravelry. (2013, January 11). 2012: a Ravelry year in review! Retrieved from: <http://blog.ravelry.com/2013/01/11/2012-a-ravelry-year-in-review/>

Ravelry. (2013, January 22). Ravelry pro: Advertising guidelines and pricing. Retrieved from: <http://groups.ravelry.com/advertisers/Ravelry+Pro+-+January+2013.pdf>

Ravelry. (2013, March 8). 3 million! Retrieved from: <http://blog.ravelry.com/2013/03/08/3-million/>

Ravelry. (2013, August 23). 3,360,699 registered users. Retrieved from: <https://www.ravelry.com/account/login>

Rivera, W., & Corning, S. (1990). Empowering women through agricultural extension: A global perspective. *Journal of Extension* [On-line], 28(4) Article 4FEA9. Available at: <http://www.joe.org/joe/1990winter/a9.php>

Robson, D., & Ekarius, C. (2011). *The fleece & fiber sourcebook: More than 200 fibers from animal to spun yarn*. North Adams, MA: Storey Publishing.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage

Strauss, A., & Corbin, J. (1994). Grounded theory methodology: An overview. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 273-285). London: Sage.

The New England Textile Arts Network. (2003, February). SPA, Knit, Spin. Retrieved from: <http://groups.yahoo.com/group/NewEnglandTextileArts/>

United Nations General Assembly (2006, December 20). Resolution 189, session 61, International Year of Natural Fibers, 2009. Retrieved from: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/61/189&Lang=E

United States Department of Agriculture - National Agricultural Statistics Service (USDA – NASS) (2002). *2002 Census of Agriculture*. Retrieved from: <http://www.agcensus.usda.gov/Publications/2002/USVolume104.pdf>

United States Department of Agriculture - National Agricultural Statistics Service (USDA – NASS) (2007a). *2007 Census of Agriculture*. Retrieved from: http://agcensus.usda.gov/Publications/2007/Full_Report/usv1.pdf

United States Department of Agriculture - National Agricultural Statistics Service (USDA – NASS) (2007b). New farmers, new farm operations. *2007 Census of Agriculture*. Retrieved from: http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/Fact_Sheets/Farm_Numbers/new_farms.pdf

United States Department of Agriculture - National Agricultural Statistics Service (USDA – NASS) (2007c). Small farms. *2007 Census of Agriculture*. Retrieved from: http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/Fact_Sheets/Farm_Numbers/small_farm.pdf

United States Department of Agriculture - National Agricultural Statistics Service (USDA – NASS) (2007d). Women farmers. *2007 Census of Agriculture*. Retrieved from: http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/Fact_Sheets/Demographics/women.pdf

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