THE CULTURAL HISTORY AND FUTURE OF SHEEP FARMING IN THE HIGH COUNTRY

A Thesis
by
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Submitted to the Graduate School
Appalachian State University
In partial fulfillment of the requirements for the degree of
MASTER OF ARTS

May 2011
Center for Appalachian Studies

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ABSTRACT

THE CULTURAL HISTORY AND FUTURE OF SHEEP FARMING IN THE HIGH COUNTRY. (May 2011)

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Sheep were quite valuable for residents in the High Country, defined in this thesis as Ashe and Watauga counties in North Carolina, from the time of the early settlers until World War II. In the earlier years, prior to the turn of the 20^{th} century, people would use sheep to feed and clothe their families. From the turn of the century until around World War II, however, farmers used what the family needed and sold or traded the rest for a profit.

Sheep fit well into the subsistence-first type of economy as a part of farmers' multiple-livelihood strategies; since they were well suited to the steep slopes in the mountains, farmers could raise sheep instead of growing crops on unsuitable land. They also allowed for diversification on a farm because they offered more than one product—meat and wool. Each of these products was sold in a variety of markets at different times of the year. The wool or lamb was usually pooled together with that of other farmers and sold to the highest bidder. These community markets allowed the farmers to be profitable and receive the highest price for their goods. The community also fostered continued learning and service to sheep farmers.

The High Country saw a decline in the number of sheep post-World War II. The nature of the markets as well as the community structure changed with increased globalization which made it less profitable to raise sheep. The demand for wool and lamb decreased with the end of World War II, and predators and parasites continued to decimate flocks. Farmers began to look at other farming ventures, and today a pasture of sheep is an uncommon sighting.

Since sheep were once a vital part of many farms in the High Country, I wondered if they might again add to the profitability of a farm today. Even though sheep will never return to the numbers of the 1930s and 1940s, could there be ways for people to utilize them once again? From agricultural development theories, literature research, and interviews with community members that raised sheep, I have attempted to piece together a cultural history surrounding sheep in the High Country. By describing the past during the height of sheep production one can view the community structure and reasons why sheep production was so popular. I seek to determine the viability of raising sheep in the High Country today, applying lessons from the past and encouraging the use of new alternative and emerging markets in innovative ways.

ACKNOWLEDGEMENTS

I would like to express my gratitude to my committee members: Christof den Biggelaar, Patricia Beaver, and Amy Galloway. The encouragement and insight from the committee during this process has been a true asset.

I would also like to thank my key informants for this thesis: Robert Shipley, Winston Kinsey, and Charles Young. Your information regarding sheep has been invaluable and this project could not have been completed without you.

My family is also to thank, for fostering ideas of kin ties as a way for small family farming to be a viable and noble livelihood.

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CHAPTER I: INTRODUCTION

Agriculture has always been a way of life for residents of the High Country which, for the purpose of this thesis, is defined as Ashe and Watauga counties in northwestern North Carolina. This thesis seeks to draw a cultural history of sheep farming in the High Country. Many farms across Ashe and Watauga counties raised sheep with the peak production occurring during the 1930s and 1940s. After this time, there was a steady decline in sheep numbers. Many factors led to this decline. While the numbers will likely never rise to those previous levels, alternative and niche marketing can be utilized in order to integrate sheep back into farms in the High Country today.

I initially became interested in the subject of sheep in the High Country during recent travels in South America. I had the good fortune of working on a sheep dairy in Uruguay, milking 60 sheep daily. The topography and climate of that area in Uruguay were similar to those of the High Country, and my initial research question regarding the lack of sheep in Ashe and Watauga counties began to form. It was during my first semester in graduate school in Dr. Patricia Beaver's Appalachian Culture and Social Organization seminar class that I discovered that sheep had been an integral part to many farms in northwestern North Carolina during the 1930s and 1940s. From this revelation, I began researching the history of sheep in the High Country, what led to the decline, and the future uses of sheep in this region. It is apparent that sheep are representative of agriculture as a whole in the High Country; they are one example to illustrate the transformation of agriculture over time.

Sheep have long been an important animal to inhabitants of the southern Appalachians. Sociologist Donald Davis observed that the importance of sheep to mountain agriculture in the Appalachians has been “grossly underestimated” (134). During the mid-1800s, sheep herding was an important practice in the southern Appalachians, stemming from the English cultural tradition of herding. Many of the settlers of the Appalachian region were English and Scots-Irish and, as they settled, they brought cultural practices, such as sheep herding, to the region. Most of the sheep around 1850 were of Merino or Saxony stock, producing about one to three pounds of wool per animal; however, some improved breeds, such as Leicester, Southdown, Cotswold, and Bakewell, were imported from England to the southern Appalachians prior to the Civil War (Davis 134).

The clearing of woodlands for pasture along with the decline in gray wolf and mountain lion populations allowed the southern Appalachians to be an ideal grazing location during the 1800s. Noticing the large herds of sheep grazing the peaks of the Blue Ridge Mountains, Frederick Olmstead declared “sheep raising and wool growing should be, I think, the chief business of the mountains” (qtd. in Davis 134). Wool was the primary reason to raise sheep during that era. Wool production, weaving, and dyeing allowed sheep to be central to the household economy, especially for women. Davis commented that “sheep were invaluable to the homestead, especially to women, who generally oversaw the feeding and shearing of the animals” (136). Davis postulated that a contributing factor to the absence of information about sheep in scholarly literature could be due to the fact that raising sheep was within the woman’s realm of responsibilities. Even though sheep production is rarely discussed in scholarly literature, it is undeniable that sheep were an essential part of the lives of mountaineers.

In order to understand the progression of sheep farming in the High Country specifically, one must look at the agricultural trends that have occurred over time. This area is a unique part of Appalachia as “the economy of western North Carolina remained predominately agricultural and relatively self-sufficient” (Boyer et al. 3) long after other areas of Appalachia faced displacement due to coal or other industries. Agriculture was a major economic enterprise in the past, and still plays an important role in the economy today.

Julian Yoder’s 1938 Master’s thesis provides an excellent view of agriculture in Watauga County in the past. This is an appropriate era to look at the history of agriculture in the county as this is when the height of sheep farming occurred. The crops and trends that Yoder observed can also be applied to Ashe County as the neighboring counties share the same climate and topography, and in fact were once one county until 1849 when Ashe County was split in order to form Watauga County (Yoder, *The Economic Geography* 7). It is telling that although the title of Yoder’s thesis is *The Economic Geography of Watauga County, North Carolina*, more than half of the pages are devoted to agriculture. This shows that the major economic enterprise for the county in the past was agriculture.

For the commercial crops that were most important to Watauga County during the 1930s, Yoder first lists Irish potatoes. Though they were once used for family consumption only in a subsistence manner, after World War I, the Irish potato became the leading commercial crop in the High Country. As a major commercial crop, the potato was primarily hauled to Piedmont factory towns in North and South Carolina as well as Tennessee using trucks (Yoder, *The Economic Geography* 26, 37-38). The local market was negligible due to its low profitability.

Much like potatoes, cabbage was primarily grown for family consumption until World War I. In terms of acreage, in 1919, there were 105 acres of cabbage; in 1929, 595 acres; and 1,750 acres in 1937 (Yoder, *The Economic Geography* 39). This rise charts the growth of the crop as it transitioned from being a subsistence crop to a commercial crop. In the High Country there were several sauerkraut factories, so farmers could sell heads of cabbage as well as contract with a kraut factory. Overly large or culled heads could fulfill factory contracts, and at the time of Yoder's writing, the contract price averaged $10.00 per ton (Yoder, *The Economic Geography* 43). Marketing played a larger role in the production of cabbage than potatoes.

Green beans were also an important staple crop for the High Country. The Sustainable Development Program's Outreach Director at Appalachian State University, Tommy Walsh, discusses the green bean market that was particularly large in Johnson County, Tennessee, which borders Watauga County. He comments:

> When I was a young boy, we had a green bean market over in Johnson County, and people from all over came over and picked snap beans, brought their beans over there to market. It was the green bean capital of the world in1940 to1955. And the market was there in the small town of Mountain City [, Tennessee], but back in those days, cars and pickups were backed up for a mile the other side of town coming back this way on old 421. You would get to the market to bring your beans and sell 'em and that was the major industry in that whole area at that one time. Tobacco was second, but it was through that market over there they would ship out and load out trucks,

> 60,000 bushels of hand-picked beans in a day. They went to canneries, Bush brothers, Stokelys, Van Camp, [and] Wintergarden was one that was a quick freeze packaging house in Knoxville. The beans went to the fresh market in New York, Pennsylvania, Philadelphia, all over. My father grew about 600-700 acres of beans every summer. (Walsh)

From this description, it is apparent that green beans were a major crop for residents of the High Country and even connected them with larger markets outside of the immediate region.

Though tobacco dominated as a major cash crop in the recent past in the High Country, in the 1930s, it was a newly introduced crop. Burley tobacco had no local market during the early 1930s, so most of it was sold in cities such as Johnson City, Tennessee. The hope was that with increased production, local markets would be created in which farmers could sell their tobacco and save on travel costs (Yoder, *The Economic Geography* 45). This, of course, would come to pass, and the High Country would become a major producer of Burley tobacco.

Apples were another major crop for the farmers of the High Country. The conditions of this area, with ample rainfall, sunlight, and drainage, proved to be quite conducive to raising apple stock. Three commercial orchards existed in Watauga County: Flat Top Manor Orchards near Blowing Rock, Valle Crucis Orchard, and Silverstone Orchard. These orchards combined produced about 60,000 bushels of apples per year during the mid-1930s (Yoder, *The Economic Geography* 58). Apples were seen as a crop with much potential, yet the startup costs deterred many farmers from apple production.

Agricultural operations often involved livestock. Land not conducive or suitable to grow crops was often utilized for grazing. Raising sheep was a major part of farms in the past, which is the subject of this thesis, and will be discussed at length in subsequent chapters. Dairy and beef cattle have long thrived in the High Country. Farmers would often kill a yearling for family use, and dairy cows would provide milk for farmers' household needs. Any meat or milk beyond the family use would be sold to various markets including livestock markets and cheese factories. The hides would be tanned for leather (Yoder, *The Economic Geography* 65).

The agricultural ventures that Yoder observed continued on for many years after his writing. Each area of agriculture evolved in different ways, with some ventures declining, such as sheep, and some ventures growing, such as tobacco; yet agriculture remained an important part of the economy for Watauga and Ashe counties. In 1950, there were 2,639 farms in Watauga County, comprising 163,426 acres out of 205,000 total acres for the county (USDA, *Soil Survey* 1). Over time, however, agriculture has declined in the High Country, which can be attributed to "rapid population growth and development" (Boyer et al. 16). In addition to the population growth and development, agriculture has declined due to alternative employment that was located off-farm, the mechanization of agriculture, and loss of markets over time.

From 1960 to 1980, the number of full-time farm workers declined from 963 to 551 in Watauga County and from 1,363 to 621 in Ashe County (Boyer et al. 17). Many farmers began working in factories. Numerous manufacturing plants entered the region around World War II, including Shadowline, Blue Ridge Shoe Company (where my grandmother, Peggy Clark, worked), Hanes Textiles, and Thomasville Furniture. By 1978, 31.6 percent of the labor force in Ashe County and 13.7 percent of the labor force in Watauga County worked in manufacturing (Boyer et al. 5). The percentage is lower in Watauga as Appalachian State University employed about 10 percent of the labor force during that time.

Some farmers continued farming, like my grandfather, Ray Clark, who grew cabbage, tobacco, cattle, and eventually Christmas trees. Representative of many farmers in Watauga or Ashe counties, he grew crops that were profitable in the markets that existed. He sold cabbages to the kraut factory. The sauerkraut factory was organized in 1920 by Watauga County extension agent John Steele as a cooperative association called the Blue Ridge Farmers Association. Fifty farmers held stock in the company and in the mid-1920s, cabbage from local farmers began to be processed into sauerkraut at this facility. Yoder comments that the annual output of the factory required around 1,500 tons of cabbage, yielding around 75,000 cases of canned kraut (*The Economic Geography* 76). This factory, owned by the farmers themselves, was an important economic enterprise in the High Country. When Watauga Kraut Company closed its doors in the 1980s, local farmers lost the market for cabbage—a traditional staple crop (Boyer et al. 20).

My grandfather also grew tobacco as there were many tobacco warehouses in the area. There were four burley tobacco warehouses in Boone, built between 1930 and 1960: the R.C. Coleman Burley Tobacco Warehouse, Farmer’s Burley Warehouse, and Big Burley Warehouses #1 and #2 (Morris). In addition to the warehouses in Boone, other burley operations existed in West Jefferson and Mountain City, Tennessee. My family sold tobacco at these area warehouses until they began closing. Instead of the cooperative atmosphere of the warehouses where the crops were sold to the highest bidders, tobacco began to be sold under contract to big tobacco companies (Morris). R.C. Coleman Burley Tobacco Warehouse was the last to close its doors in Boone in the early 2000s and the warehouse in Mountain City followed suit within a couple of years.

This trend is also true of livestock markets and slaughter facilities. One of the first local livestock markets opened in the mid-1940s to serve local farmers. There were many slaughter facilities, or abattoirs, in the High Country. These began closing their doors, however, with the abattoir in Watauga County closing in the 1980s and the Ashe County abattoir closing around 2000 (Kinsey, personal interview).

Once markets for these important crops disappeared, there was no longer a way to make a living by continuing to raise these crops as in the past. The profitability of farming decreased after the supportive structures of these markets and processing facilities closed, further decreasing farming as a livelihood. My family raised Christmas trees for a while, which is an important crop for the High Country, but eventually left farming altogether. The markets of my grandfather's era no longer exist, and the power of the farmers has been lost to large corporations.

In 2007, there were 587 farms utilizing 45,782 acres in Watauga County, and 1,125 farms utilizing 108,452 acres in Ashe County (USDA, "2007 County, Watauga" 1; "2007 County, Ashe" 1). Ashe County has fared better than Watauga in terms of maintaining farmland; however, both have suffered from the decline in family farming as a viable occupation with the expansion of tourist, recreation, and second home industries (Boyer et al. 4). Even though farming is not the major economic enterprise it once was, there are markets that have arisen that offer outlets for small farmers. These markets are akin to the Blue Ridge Farmers Association or the Burley warehouses.

The main markets that now exist for small farmers in the High Country are farmers' markets, Community Supported Agriculture (CSA), and other local opportunities such as cooperatives or small businesses that market produce for the farmer. An example of the latter is Hollar and Greene, located in Deep Gap in Watauga County. Dale Greene and his father-in-law Liege Hollar began their business in 1963. At first they hauled cabbage for local farmers to town to sell at the farmers' market. Over the years, the business grew and today, Hollar & Greene has "turned into the largest fresh cabbage operation for retail in the United States" ("History," *Hollar & Greene*). The company continues to deal with farmers in the High Country, but has also expanded to grow and ship cabbage from ten branch offices and nine states using over 50 tractor trailers. Hollar & Greene plans on expanding as they are able. This is a market that is available today for growers in the High Country, and illustrates a business that was truly built from the ground up.

In Appalachia, farmers' markets are an important outlet for small to medium scale producers. Although these farmers usually cannot compete with larger industrial operations in selling to grocery stores or restaurant chains, they can generally make a profit at a local or regional farmers' market. By having direct access to consumers, producers can keep prices low and still maintain a higher profit margin by eliminating the middle-man (Best 416). The Watauga County Farmers' Market has been in operation since 1974. This market "is a direct link between our local farmers and the consumer. Local support for farming allows increased awareness of good land practices, preservation of rural landscapes and lifestyles, and the minimal use of pesticides" (*Watauga County Farmers' Market*). There are many other farmers' markets in the High Country, including the Ashe County Farmers' Market, the High Country Farmers' Market, and the Blowing Rock Farmers' Market, in addition to some smaller 'tailgate' markets in Valle Crucis and Banner Elk. These markets seek to connect farmers with consumers in order to sell produce locally.

Community Supported Agriculture (CSA) are organizations through which farmers sell shares of their farms to consumers at the beginning of a growing season and in return, consumers receive a selection of produce each week during the season. The CSA connects consumers with an actual farm they can visit, and the concerns of the farmer become the concerns of the consumers as they have a direct investment in the farm and share in the risks involved in farming. Many farmers choose to market through CSAs as this is sure income at the beginning of a season when most expenses must be paid for such as seeds, fertilizer, and seed-starting materials. This safeguards farmers' income in case of crop failure or poor weather. Both the producers and consumers benefit from this exchange, and CSAs are becoming a popular way to purchase and sell local produce.

Although farming is not the economic mainstay it once was in Watauga and Ashe counties, there are outlets for farmers to sell produce locally. By viewing the history and evolution of agriculture and markets in the High Country, one can better understand how one part of this system, such as sheep, might fit into the larger picture. By focusing on sheep farming in the High Country, this thesis aims to understand the structure and function of agriculture and agricultural markets in Watauga and Ashe counties in relation to their overall socioeconomic development over time. I hope that through such better understanding, sheep can once again play a role in the diversification of local farms, thereby enhancing the sustainability of the High Country farm sector and its overall economy and environment.

Chapter II discusses the theories that have influenced the structure and function of the agricultural system in the High Country, including subsistence farming and globalization. Changes in the overall structure of agriculture translate into changes at the local level, and it is important to understand theories of agricultural development in order to understand the specific situation with sheep in the High Country.

Chapter III portrays the cultural history of sheep in the High Country. Attention is especially given to wool production, lamb production, and conditions that contributed to the profitability of sheep in the past. Many of these conditions deal with the markets of the past favoring the farmers, which is evident from the examples of cabbage and tobacco. Chapter IV discusses the many factors that led to the decline of sheep in the High Country.

Chapter V explores the potential future role and place of sheep in the agricultural system in the High Country. Though sheep will never return as a major farm enterprise and source of farm profits, there are a number of existing and new markets that farmers can access. Many of these markets are alternative or emerging markets where there is an emphasis on value-added products. Some of the emerging markets also cater to immigrant communities who enjoy eating lamb. In the conclusion, Chapter VI, I then develop a strategy toward a re-insertion of sheep into the local farming system as an economically viable and an environmentally sound option for farmers in the High Country.

CHAPTER II: THEORETICAL FRAMEWORK

The evolution of sheep farming in the High Country is grounded in a theoretical framework about the development of agriculture. This theoretical framework provides a foundation to which the specific example of sheep farming in the High Country can be applied. These theories arise during the discussion of sheep farming and provide a basic understanding of the development and evolution of agriculture in the High Country.

Subsistence-First Agriculture

Economist Clifton Wharton, Jr. defines pure subsistence production as "a self-contained and self-sufficient unit where all production is consumed and none is sold and where no consumer or producer goods and services from sources external to the unit are purchased" (13). Obviously, pure subsistence production rarely, if ever, occurs in the world. Subsistence agriculture, a concept that is a bit more tangible, refers to a "farm family's goal of production for family food rather than for commercial sale. There is a direct and close interrelationship between production and consumption" (Wharton, Jr. 14). Others, such as professors Veronika Bennholdt-Thomsen and Maria Mies, amplify this definition, describing subsistence farmers as producers directly concerned with producing and maintaining food for their own consumption without earning money to purchase food in order to live (11). It is thought by some that from the time of the first settlers into the southern Appalachians until about 1950, most farmers in the region practiced subsistence farming by raising animals for food, growing vegetable gardens and orchards, and gathering from the woods what they needed for clothing, shelter, and additional food (Lacefield and Rasnake, “Subsistence Farming” 433). Though it is debatable how independent of outside markets families really were, it is undeniable that subsistence farming happened on some level in the history of Appalachia.

There are complications in the concept of subsistence agriculture, however. Some unanswered questions include how much a farmer can sell in the market or purchase instead of producing solely for the family and still be considered a subsistence farmer, or what to call farmers that produce non-edible products such as cotton. Instead of subsistence, I use the term subsistence-first, which better encapsulates many Appalachian farmers.

Sociologists Dwight Billings and Kathleen Blee describe the term ‘subsistence-first’ as allowing small farmers to “live more or less independently of the vicissitudes of capitalist development” (101) by producing as many goods as possible for family-use. This displays a deep connection with the environment as this is what provided sustenance. Producing food and fiber for the family is the primary goal in subsistence-first farming.

What makes the term subsistence-first different from subsistence agriculture, however, is that even farm families that were nearly self-sufficient produced at least a small surplus which they bartered with neighbors or sold at a local general store (Blethen 22). It is this participation with external markets to sell surplus that differentiates subsistence-first economies. During the decades leading up to the height of sheep production in the 1930s and 1940s, the High Country could have been considered a subsistence-first economy. Members of the community would produce goods that would be consumed by the family, but they were also part of a larger bartering system to trade any excess goods a family might have for items that could not be grown or made in their location, such as coffee or sugar. The primary goal was to feed the family, so gardens and livestock would be first utilized for consumption within the immediate family and anything in excess of that amount would be traded, most likely at a community general store. This is seen with the selling of wool to the general stores for store credit, barter, or cash.

Even though farm families in Appalachia produced mainly for their own consumption, they were not cut-off from the outside world and were able to trade or sell surplus. Indeed, it is undeniable that connections to external markets have existed in the High Country for centuries even though this region is stereotyped as being isolated. A general store operator, William Holland Thomas, in western North Carolina during the early nineteenth century connected Appalachian farm families to the world market through trade. He shipped butter, tanned hides, and ginseng to markets in Savannah, Charleston, Washington, Baltimore, Philadelphia, and New York (Blethen 23). Ginseng connected Appalachia with Asia as the root was shipped to London and then to China through the British East India Company. Farmers in the High Country, whether they realized it or not, participated in a larger global market by selling or trading surplus goods to local general stores that connected them with areas as far away as China.

Though subsistence-first farmers participated in a larger global market, it seems that a major theme that defines subsistence-first economies is that capitalism was not a major driving force in production, but merely a way to get rid of excess goods. The commitment to family was first and foremost. Davis comments that "commitments to family, home, and church greatly tempered the influence of the market on the typical mountain homestead…[B]ecause the very center of economic life in the antebellum upcountry was the household, agricultural activities were mediated foremost by 'ties of kinship rather than by the marketplace'" (Hahn qtd. in Davis 141). Obligations to the family weighed most heavily on the decisions a farmer made, not capitalism or the economic system. Subsistence-first farmers did participate in a form of the global market; however, this was not the primary motivation in growing crops or raising livestock. Through living in a way that provided for a household first and foremost, families could escape from the money-hungry and power-mongering consequences that often accompany capitalist development, forsaking all for the pursuit of economic success. Anthropologist Eric Wolf differentiates between the capitalist world market and a capitalist mode of production stating that "the capitalist mode of production may be dominant within the system of capitalist market relations, but it does not transform all the people of the world into industrial producers of surplus value" (297). This describes subsistence-first farmers as they participated in capitalist market relations, but they were not transformed into industrial producers because of their primary goal of family subsistence.

Subsistence-first based economies require the work of the larger community in order to be successful. These types of economies "are rarely realized at the individual household level but require strong community ties and deep kinship networks. Such relationships are strengthened through certain types of work—irregular, seasonal, and under-the-table work, activities done primarily for family subsistence—and through various methods of economic exchange—local *exchange* trading systems, bartering, work trade" (Kirkland 1; Halperin 1-2). It may have appeared to outsiders that the communities that comprised the High Country were self-sufficient; however, this term does not fully describe what was happening to allow the subsistence-first economies to be successful. An intricate web of networks and relationships allowed the subsistence-first economies to function, and this web was a major aspect of the local economy of the High Country during the 1930s.

Multiple Livelihood Strategies

In her book, *The Livelihood of Kin: Making Ends Meet "the Kentucky Way,"* anthropologist Rhoda Halperin researched Appalachian communities utilizing multiple livelihood strategies, which are the complex relationships between economy and kinship. She describes these strategies as the Kentucky way, which is "a system of local knowledge and practices that allows people to take control of their livelihood, and that provides them with a sense of autonomy" (Halperin 11). Within this system of economic activities, individuals or families would take part in a variety of tasks in order to make a living, which was a major part of the subsistence-first based economies of Appalachian communities, including those in the High Country. Each person in a family would have a particular task that would change seasonally and generationally. Even through the changing jobs, Halperin comments:

> What remains stable are people's ties to land and their strong commitments to family—understood here as a large network of kinspeople…They have managed to maintain traditional patterns of social and economic life—strong kin and community ties and family economies—outside of household and community contexts. They are not marginal. Indeed, they have resisted marginality by using both their social (family) and their economic (land) resources in innovative and flexible, but at the same time, traditional rural ways. They have managed to transform traditional patterns of livelihood in positive and culturally consistent ways. (Halperin 2-3)

It is through multiple-livelihood strategies and kinship-based relationships that community members rely on each other. These networks of relationships can extend past blood relations to include anyone in the community as long as there is some type of commonality and the desire to uphold and protect the mutual experiences and interactions. In this way, families, neighbors, or communities escape marginality and are able to make a living within the subsistence-first based economies. Sociologist and local food advocate Thomas Lyson observes that “the local economy was not something that could be isolated from society. Rather the economy was embedded in the social relations of the farm household and the rural community” (8). People could not escape the kin connections as they were part of the local economy of the region. Many would argue that families living in the High Country utilized multiple-livelihood strategies in order to make a living by relying on their kin and diversifying their sources of income.

Multiple-livelihood strategies can also serve as a counterpoint to subsistence agriculture as more than likely, families were relying on a kinship network in order to make ends meet. Billings and Blee discuss how kin networks were a vital part of survival for people in Beech Creek in Kentucky. Among families producing below the subsistence level, 68% were related to a nearby family producing at or above subsistence, and it is inferred that the lower-producing families survived through interdependence (Billings and Blee 204). This debunks the individualistic stereotype of the Appalachian subsistence farmer that grows what he or she needs and is completely self-sufficient. No society, family, or individual can be completely self-sufficient, and the idea of multiple-livelihood strategies helps to explain why people may appear that way.

An example of multiple-livelihood strategies in the High Country could be manifested by a person who raised sheep, perhaps on a relative's steep slopes. While both meat and wool were sold, the person also had other sources of income in order to make a living. Perhaps the woman of the family sheared the sheep to spin wool in order to make value-added products such as yarn or blankets. Various crops could have been grown to sell, or the person could have been a wildcrafter—someone who hunts various forest crops such as ginseng or goldenseal. Even making moonshine is an example of how a person could have participated in multiple-livelihood strategies. This farmer incorporated many different ways to make a living, and often this required reliance on family or kin. The avenues for income were diverse, which helped to ensure the resiliency of the income made as well as the kinship network.

Schultz's High-Payoff Input Model

Agricultural economist Theodore Schultz presented his agricultural development theory relating to rural societies in 1964. He uses the word 'peasant' to describe members of traditional agrarian societies, which is also an apt term to describe the members of the communities that comprise the High Country. Schultz's theory states that peasants are rational allocators of available resources, but they have remained poor because they are provided with limited technical and economic opportunities to which they can respond (Ruttan 66). In order to respond to this situation, Schultz offered three types of high-payoff investments for agricultural development: 1) agricultural research institutions to generate new location-specific technical knowledge; 2) technology supply industries to develop, produce, and market new technical inputs; and 3) schooling and nonformal (extension) education of rural people to enable them to use the new knowledge and technology effectively (Ruttan 67). This theory was enthusiastically accepted, and arguably led to much agricultural advancement in rural areas as education specific to each location was provided to farmers.

Though this theory led to much technical advancement in agriculture across the globe, development economist Vernon Ruttan feels it is incomplete. Schultz's model neither explains how economic conditions induce an efficient path of technical change for agriculture in an area nor how economic conditions induce the development of institutions such as agricultural experiment and research stations which become the suppliers of the location-specific knowledge (Ruttan 67). Regardless of this critique, the high-payoff input model shaped the development of agriculture, particularly in rural areas such as the High Country beginning in the 1960s. The high degree of services provided to farmers in this region was due to the belief that agricultural education should be open to all and specific to each location.

This theory marks a transition from subsistence agriculture and multiple-livelihood strategies into the global realm. The previous two theories focused on a much localized view of how societies operate—the communities grew most of their own food or relied on their family and friends in economic and social dealings. Schultz's theory still involves opening up location-specific information to rural residents which perpetuates the idea of the local community structure; however, this theory lends itself to the specialization of produce or products which leads to the need for development and trade. The previous two theories more or less disappeared (although it can be argued that both still exist on some level today) due to capitalist and industrial development.

Appalachia has long been viewed as a place in need of developing in order to "catch up" with the rest of the country. Ron Eller, Appalachian historian and scholar, comments that "Americans have an enduring faith in the power of development to improve the quality of life. At least since the late nineteenth century, we have associated progress toward the attainment of a better society with measures of industrial production, urbanization, consumption, technology, and the adoption of modern education and cultural values" (*Uneven Ground* 1). Through development, which includes specialization and industrialization, it was projected that particular regions could advance economically and socially.

Schultz's theory acts as this transition point because the research and information provided to rural communities often dictated what could best be grown or raised in a particular area, and the process to accomplish this production. If it was too costly to produce an item, it seemed preferable to specialize on the region's strengths, or its comparative advantage, instead of producing a little bit of everything. This transition propelled the High Country into the global market through development and progress to "better" these two counties.

Comparative Advantage

Comparative advantage is an economic term which means that a region can produce a product at a lower opportunity cost than other regions (Cattaneo 12). In this traditional view of development, a region produces items they are good at producing and trades for items that are needed or wanted, which are produced cheaper elsewhere. People no longer have to be subsistence farmers or rely on kin networks because the global market is now at their fingertips. This marks the transition from subsistence-first economies to cash-based economies, which happened in the High Country after the Great Depression. In this view, everyone is a winner as goods become cheaper as commodities are produced for less due to cheaper labor costs, cheap land, and less regulation, and regions are better off to produce one thing and trade for everything else.

Certain regions are more conducive to growing certain products than others; the latter will, therefore, be better off to concentrate on just those things that they can produce best and cheapest, and import the other products. Trade, especially in the global realm, allows all regions to trade their product for other products that they may not produce well. Subsidies may also be given elsewhere causing imported products to be artificially cheap, essentially driving the small farmer or manufacturer out of business as these subsidies are given to the people that produce a large quantity of one particular crop or product.

Although the High Country was an excellent location to grow many items such as potatoes, apples, cabbage, and sheep, as evidenced by Yoder's observations, many of these staple crops declined in this area under the name of comparative advantage. At the heart of the decline of agriculture in the High Country is infrastructure. There were poor roads leading into and out of the area, and even today there are no major thoroughfares that run throughout the two counties—a four-lane highway at the most. Railway service first came to Boone in 1919 when the original Tweetsie Railroad's line was extended from East Tennessee; however, a flood in 1940 washed out the Boone connection and it was never rebuilt ("East Tennessee"). Even when the train connected the High Country to other towns, produce was not generally shipped by train. Julian Yoder commented "this is partly due to the inefficiency of the small, narrow-gauged railway which necessitates reloading in a nearby town" (38). The one potential infrastructural advantage the High Country had was so inefficient it was negligible.

Without reliable transportation into and out of the High Country, produce could not easily be shipped to other areas. People hauled their produce, such as potatoes, in pick-up trucks to factory towns; however, many more potatoes could be shipped more efficiently and cheaper from another location due to a railroad or better roads. As Watauga and Ashe counties were essentially seen as isolated areas, their comparative advantage of a suitable climate and cheap labor was no longer sufficient to compete on the national market.

Additionally, the land in the High Country faced extensive clear-cutting of timber in the late 19th to the early 20th century. The former forest soils were highly acidic (Walker 15) and in need of many addendums in order to grow certain crops, and also suffered high erosion rates without vegetation to hold them in place. Ron Eller observed that due to logging practices during the early 20th century, entire mountains were clearcut and left to erode (Eller, *Miners* 110). He further described the severity of the erosion and flooding situation by quoting the Reverend Dr. A. E. Brown, who stated that the situation was worsened because "many of the mountain streams are dry throughout the summer and fall, while in winter, the waters descend in torrents and do vast damage, rendering worthless the bottom lands which used to be the most desirable for farming purposes" (qtd. in Eller, *Miners* 111). Don Davis reinforces this observation by writing that "the loss of topsoil due to timber cutting thus prohibited appreciable amounts of rain from soaking into the ground and water table causing stream courses to run dry during the summer months and flood during the winter and spring months…[L]umbering practices were one of the principal causes of increased flooding in the southern mountains" (169-170). Though the southern Appalachians were extensively clear cut by timber industries under the name of comparative advantage, the devastation that was left in the wake of the logging practices caused farming to be more challenging. Growing crops on a large scale proved to be difficult due to the erosion, flooding, and poor soils that remained as a memory of the timber industry.

In addition to the poor soils, the land in the High Country is hilly, which made mechanization of farms difficult as machinery cannot operate well, if at all, on steep slopes. As increased development occurred in the area, more land became devoted to housing and less land was available for farmers to expand their operations. All of this culminated into Appalachian farmers being high cost producers, unable to compete with farmers elsewhere who had good transportation infrastructure and flat fertile land that was easily mechanized and could be expanded.

Because other areas had a comparative advantage over the farmers in the High Country, the staple crops that Yoder discusses in his thesis moved to other areas in the United States. Idaho is now known for its potatoes where land is flat, can be mechanized, and is easily irrigated. Washington is known for its apples even though the High Country had hundreds of varieties at one time and the climate was thought to be especially conducive to growing apple trees. The green beans that Tommy Walsh described also left the area due to mechanization that occurred in flatter areas. He recalls:

> Some plants started coming in and drying up some of the labor force. And they had been doing some experimental planting of beans on the Cumberland Plateau in Tennessee and on the Eastern Shore of Maryland and they come out with these mechanical bean pickers. The land on the Plateau and Eastern Shore was flat. And

> rock free as well. But our hills are very up and down and filled with rock…we had bought a couple of bean pickers and they picked up more rock and everything else except beans. So beans sort of faded out. (Walsh)

The mountainous area coupled with labor costs associated with hand-picking beans caused the crop to move out to other areas that were flatter and where mechanized pickers could be utilized.

Most other vegetables and livestock began to be sourced from other areas as well where there was room for vast fields of monoculture crops, or one single crop over a large area. The Great Plains states raise hogs cheaper than farmers elsewhere and farmers in California use subsidized water and a favorable growing climate to become the main producers of fresh fruits and vegetables in the U.S. (Lyson 3). The diverse, small-scale farms of the High Country simply could not compete; thus, agriculture declined.

The same is also true of manufacturing. Eller comments that "many traditional forms of off-farm employment in Appalachia declined as well during the 1950s, including logging, furniture manufacturing, railroads, and textile production" (*Uneven Ground* 30). Many of the factories and manufacturing jobs that entered this region around World War II began to move to other areas that had a comparative advantage. Anthropologist Jefferson C. Boyer states:

> By the late 1970s across the rural South, the industrial solution to economic development began to tarnish. Increasingly faced with competition from products and cheaper labor markets from Asia, Mexico, and Central America, plant closings and layoffs ensued. These were most frequent in the traditional industries (textiles, apparel, furniture and food processing) and in branch plants or subsidiaries of larger

> firms. Steady automation also contributed to the loss of jobs in manufacturing. (Boyer et al. 5)

Whereas comparative advantage once meant regions within the same country, it has now expanded to include the global realm. Lyson describes how recently agricultural regionalization within the U.S. has transformed into global regionalization as producers from around the world participate in the global market (3). Most factories relocated to Asia or Central America because they have a comparative advantage over the United States in that the cost of labor is cheaper and there are less stringent environmental and labor regulations. The same is true of agriculture. For example, sheep are raised more efficiently in New Zealand and Australia because these are the countries that specialize in sheep products. Comparative advantage is a theoretical framework for interpreting the expanding agricultural markets in some regions, and their decline in others.

Globalization/Neoliberalism

Globalization is a difficult concept to define as there are many different thoughts and opinions about the issue. However, in general terms, globalization is referred to as "a catch-all term for the expansion of diverse forms of economic, political, and cultural activity beyond national borders" (Calhoun 192). It is expanding the local market outward into the global realm. This is not a new idea, as the early European explorers traded goods with China and the Americas. Today, however, there is an emphasis on technology and communication as a way to progress, and both of these means allow globalization to happen in nearly every part of the world. Anthropologist Bryan McNeil observes that "typical discussions of globalization focus on highly mobile production centers and patterns of flexible production and accumulation, as well as the increasing competition between nations and states to attract companies with incentive packages and favorable regulation" (99). The globalization of today places the power in the hands of transnational companies and free trade. Many believe globalization is the answer to alleviating poverty across the globe through international trade, much like development was seen as the key to 'fixing' poverty in Appalachia.

The International Monetary Fund supports globalization as a means to achieving social well-being, stating "there is substantial evidence, from countries of different sizes and different regions, that as countries "globalize" their citizens benefit, in the form of access to a wider variety of goods and services, lower prices, more and better-paying jobs, improved health, and higher overall living standards" (IMF Staff 2008). Many see globalization as an inescapable part of social progress that will help heal the social ills of this world. The idea is that by being able to access all of the amenities that the Global North currently enjoys, the Global South will "catch up" and poverty will be eliminated. This has been the long-standing theory for the eradication of poverty. It is evident from history, however, that globalization creates a dependency where poorer nations will likely never "catch up."

One take on globalization views capitalism as an expansionist world system evolving over centuries. This system has expanded unevenly, permitting both traditional agrarian life and the modern market system (Hennen and Lewis 553). These two separate systems are able to coexist through what is known as cores and peripheries. Eric Wolf, anthropologist and peasant studies scholar, discusses globalization from the perspective of cores and peripheries. Peripheries are nations that are subsidiaries of the cores. They are dependent on the core regions and provide cheap food, raw materials, and labor for the industrializing homelands (Wolf 296). Globalization is able to thrive in this type of structure as the complex hierarchal system is controlled by the capitalist mode of production. This is evidenced in the New

World Colonies that produced sugar, tobacco, and cotton for the homelands (Spain, France, and Great Britain) in centuries past and has since infiltrated into the whole world (Wolf 297). Colonies were peripheries of the colonizing nations through the system of colonialism. Even the United States was peripheral to the interests of the English, French, and Spanish. In this view, present-day globalization is a form of neo-colonialism, but not undertaken by nation states as before, but by transnational corporations. The Global North and Global South today are examples of a core and periphery in the view of neo-colonialism undertaken by corporations.

Appalachian scholar Wilma Dunaway supplements Wolf's discussion of cores and peripheries by describing the current world system under globalization as a "trimodal structure." This structure consists of core, semiperipheral, and peripheral zones that are interdependent where "each level of the world economy vies for a position in the global division of labor. Most typically, external zones are incorporated as peripheries of the world economy, and the affected peoples quite often trade economic and political autonomy for dependence on a worldwide network of production" (Dunaway 17). In this system, cores are the most powerful zones with semiperipheries being the transition point and peripheries depending on the other zones while providing raw materials to the overall system. Each zone shifts institutionally until it can successfully interact with the other parts of the world market. Local economies are "integrated with production, investment, and distribution processes in other zones until they are interdependent with other areas of the world economy" (Dunaway 17). This is how the local economy of the High Country expanded outward to become dependent on other zones as part of globalization, arguably as a periphery due to the raw materials that were provided to more industrialized regions.

Globalization has opened the market up to the world, and as a result, we are able to enjoy items that we cannot produce in the Appalachian Mountains, such as mangoes and macadamia nuts. This is made possible by large-scale factory farms who provide the bulk of food and fiber produced today which consumers depend on for imported goods that can only be produced in climates outside of their region or nation (Lyson 30). It is undeniable that we benefit from globalization; however, it is a strong force that dictates how markets are conducted. Jan Douwe van der Ploeg, professor of transition studies and adviser to the Italian Minister of Agriculture, views the current world system under globalization as a manifestation of Empire. Though the global movements of people, ideas, and goods are not new, their intensity and speed have increased and become a great force that governs how we lead our lives. Van der Ploeg states:

> The essence of the *current* stage of globalization is that it introduced literally everywhere *sets of generalized rules and parameters* that govern specific local practices. These sets of generalized rules represent the core of Empire. As a result, Empire materializes as an ongoing *conquest* that takes over once relatively autonomous and self-governed local constellations…and reassembles them in a way that ensures controllability and exploitability. In so doing, it eliminates the local, transforming it into a 'non-place.' The only relevance of the local is as a set of coordinates—one of many other such sets—in which generalized rules are applied. (van der Ploeg 233)

Globalization has essentially thrown away what was once local and replaced it with Empire. The old ways of subsistence-first agriculture and multiple-livelihood strategies no longer fit in with the rules and governance of Empire, thus these traditional ways of viewing society in the High Country are no longer acceptable. Dunaway observes that one of the main incentives behind globalization is the capitalist world system's defensive reaction toward conflicting economic systems, such as subsistence-first economies (18). Because of this, cultures are transformed or eradicated when global capitalism takes over new zones. As globalization expands deep into the daily workings of peoples' lives, political and economic priorities are rearranged where "the cultural legacies of those changes are left to be managed by the communities they affect" (McNeil 99). Communities must adapt to a new system sometimes vastly different from the previous economic system as this is a reality of being part of globalization.

Comparative advantage is a main component of globalization that has affected communities in the southern Appalachians. A region such as the High Country once enjoyed a variety of crops and produced many manufactured items. Yet through comparative advantage and globalization, most of these crops and nearly all of the factories left the area to go to areas that could produce these goods cheaper. Under the governance of the Empire, it was no longer feasible to grow these staple crops, so they moved elsewhere. As a result, both agriculture and manufacturing declined in the High Country post-World War II.

Neoliberalism enables globalization to be a dominant force in the world. Beginning in the 1970s, neoliberals called for "extensive economic reorganization, and harking back to the ideas of the age of free trade, insisted that the market, free of state intrusion, would spontaneously and neutrally order the complex web of decisions, actions, needs, and abilities of a multitude of individuals" (el-Ojeili and Hayden 52). The neoliberal goal is to allow markets to operate uninhibited by any state, and there was much push around 1980 to deregulate markets and reduce social spending. This allowed "competitive individualism" (el-Ojeili and Hayden 53) to flourish and help the Empire to become so powerful. Though neoliberalism is seen as a type of 'survival of the fittest' in the economic world, it discredits ideas that were foundational to Appalachian societies.

In the face of forces of globalization, neoliberalism, and comparative advantage, farmers in the High Country simply could not compete. The rules were drawn, and the localized nature of many markets did not fit into the larger picture of globalization and the Empire. For this reason, agriculture, including raising sheep, declined in the High Country. Because the free-market determined that this was the most profitable for large companies, and, by implication, or society as a whole, there was an absolution of responsibility—this was simply the way it had to be.

Sustainable Development

Sustainable development (SD) is thought of by some to be the answer to not only social ills but also environmental problems. It was first officially defined in 1987 by the World Commission on the Environment and Development in its seminal work, *Our Common Future*, as development ensures that humanity "meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED 8). SD is generally thought to encompass the intersection of the environment, economics, and society when looking toward the future of this planet. How this is to be accomplished is a bit ambiguous, however, and to look at the progression of SD, one must look at the evolution of "official" sustainable development, which is how governing bodies of the world decide SD will be conducted.

The World Commission on the Environment and Development, which first convened in 1983, was comprised of members from 21 countries, and gathered information about the then current state of the world through research as well as public hearings in five continents, with the hopes of incorporating varied and differing recommendations on the future of worldwide development. With this official definition, sustainable development took a decidedly anthropocentric view as the focus is clearly on humans and societies; sustainable development was not only to save the environment, but also the human occupants.

The WECD began the discussion about SD and how national governments could carry out SD. The next major event in this history of SD was the Earth Summit, which was held in Rio de Janeiro in 1992. This meeting was supposed to be representative of the culmination of the work and attitudes of the world's people following *Our Common Future.* The events leading up to the Earth Summit seemed promising for addressing the trifecta of sustainable development (SD): society, environment, and economics. The Summit was to have an open dialogue among the world's citizens of how SD could be achieved.

Leading up to the Earth Summit in 1992, there was great hope for a multi-national meeting that would address the collective social and environmental issues in the world. Sociologist Trent Schroyer commented that "preparations for the United Nations Conference on Environment and Development (UNCED) between 1989 and 1992 involved a set of actors that constituted a pluralistic world. Maintaining this diversity in cultural, geopolitical and sectorial actors is essential for world sustainability" (9). This diversity was celebrated, and it was the coming together of so many viewpoints that excited those working towards SD. Schroyer further discussed this feeling, writing, "those that participated in this spirit envisioned that the Earth Summit and the idea of sustainability would become a new metaphor and an emerging ethic for global cooperation and open discourse" (12). The solidarity was unparalleled. Those involved with the preparations for the Earth Summit had high hopes for a worldly coming together where everyone's voice was heard and major international decisions and treaties, devised in everyone's best interest, would be created.

The Earth Summit was viewed as a "historic opportunity to influence consensus building around the previously separated issues of preservation of the environment and economic development" (Schroyer 10), and "strove to address two major crises: the crisis of nature and that of justice" (Sachs 32). The Earth Summit did produce some results as two treaties were signed (the Convention on Climate Control and the Convention on Biological Diversity), and three other documents, including Agenda 21, the pivotal document to sustainable development, were simply agreed to in principle. After the massive harmonious buildup to the event, the results felt a bit flat and it was evident that the corporate interests of the world were beginning to dominate the discussion of sustainable development.

Schroyer describes that the corporate sector's major interest at the Earth Summit was to "ensure the elimination of any regulation of their activities. They accomplished this by promoting the Free Trade agreements that were then being negotiated" (14), and in this corporate shift in SD, "the Earth Summit's final outcomes were in deep denial of ecological and social justice issues that were never confronted" (10). This was only the beginning of corporate interests intervening in sustainable development, and since the Earth Summit, the situation has worsened, all under the guise of alleviating poverty. Involvement of the business sector with talks about SD is so dangerous because most corporate decisions, including the Free Trade agreements, only work to expand the chasm between the global North and global South by creating dependency.

Ten years after the Earth Summit in Rio in 2002, the World Summit on Sustainable Development (WSSD) took place in Johannesburg. As a sequel to the first meeting, Vandana Shiva, environmental activist and eco-feminist, commented that the WSSD "was artificially presented as being about 'poverty,' not about the 'environment'" (25), even though the struggles of the poor are related to access and rights to natural resources. This creative interpretation of the WSSD's theme was the opening for corporations to pitch globalization as the solution to poverty that is experienced in the global South.

Shiva writes that "globalization was then offered as the solution to poverty and decisions that were aimed at robbing the poor of their remaining resources, and, hence, making them poorer, such as privatization of water, patenting of seeds and alienation of land, were being offered as measures for 'poverty alleviation'" (25). This theme of globalization as a means to alleviate poverty under the name of SD began during the Earth Summit, but completely dominated the WSSD, in what Shiva describes as the "corporate hijack of the Earth Summit" (26). People's needs were traded for corporate interests, as these interests were seen as the salvation to the poverty and environmental devastation that was happening and continues to occur today.

In fact, as Schroyer commented, "the business 'vision' at the Earth Summit derived from the claim that unless the Third World had access to global markets, sustainable development was not possible. Increasing aggregate economic growth is the only way, they claimed, to create the wealth essential to address poverty and restore the environment" (15). This hijack of the Earth Summit was a way to allow corporate interests to be involved with talks about sustainable development and offer their solution as the *only* solution to the world's problems, both societal and environmental.

This corporate take-over of SD is part and parcel of the regulations guiding van der Ploeg's idea of Empire. Though there were good intentions of solving the world's environmental, societal, and economic problems, the rules of the Empire did not allow for anything other than the view that globalization and free markets are the best way to solve these problems.

Sustainable Agriculture

Sustainable agriculture is arguably more tangible than sustainable development. However, many of the problems associated with SD also plague sustainable agriculture. Sustainable agriculture is an approach to farming that maintains viable productivity while preserving the ecosystem (Lacefield and Rasnake, "Sustainable Agriculture" 434). In theory, according to Robert Zimdahl, professor of weed science, sustainable agriculture must be: 1. Ecologically sound, by achieving species diversity, conserving resources, and avoiding toxic inputs; 2. economically viable, yielding a positive net gain leading to profitability; 3. socially just, where resources and power are distributed equitably so all basic needs are met; 4. humane, involving kindness to all life forms; and 5. Politically acceptable, as any system is doomed to fail if it is not accepted by the larger body of society's members (Zimdahl 125-126). Carrying out all of these goals of sustainable agriculture can be difficult. Even if the first three goals are met, the system must be politically acceptable if it is to be successful. This is perhaps the most difficult goal to meet as sustainable agriculture is sometimes seen as alternative, and straying away from the status quo often makes people uneasy.

The U.S. Department of Agriculture's Sustainable Agriculture Research & Education (SARE) program offers the following three primary goals of sustainable agriculture: 1. Providing a more profitable farm income; 2. Promoting environmental stewardship by protecting and improving soil quality, reducing dependence on non-renewable resources, and minimizing adverse effects on environmental resources; and 3. Promoting stable and prosperous farm families and communities (Sustainable Agriculture Research & Education). SARE's definition of sustainable agriculture seems a bit more mainstream than Zimdahl's, which might lead to greater acceptance of the goals as part of sustainable agriculture.

Though both Zimdahl's and SARE's goals pertain to sustainable agriculture, they differ, showing the variation with what is included as "sustainable." Zimdahl includes little about farm profitability which is arguably an important part of sustainability for farmers; however, SARE's goals include two about profitability but are silent on human and nature equity. Part of the problem with the term sustainable agriculture is that there is no vehicle, or a means for implementation, leaving it open to interpretation. The goals of sustainable agriculture are apparent, but their actual implementation is less defined. Without having an implementable definition of sustainable agriculture, it simply becomes another catchphrase that is overused in talk, but rarely realized.

Since sustainable agriculture, much like sustainable development, is difficult to define and has different definitions for different people, a consensus on how to carry out sustainable agriculture cannot be reached. Many believe growing food organically is sustainable. This can be part of sustainable agriculture; however, it is not all of what sustainable agriculture is about. Much of this problem lies in a disconnect between consumers and the food they eat. This is termed 'distancing.' Lyson uses distancing to "indicate the process that separates people from the source of their food and replaces diversified and sustainable food systems with a globalized, commodified system" (39).

Since there is a large disconnect in the U.S. between the actual food being grown in the field and the produce in the grocery store, many consumers would vehemently support organic agriculture as a form of sustainable agriculture. This is not always the case, however. For example, organic farms, branded as participating in sustainable agriculture, have grown to the point of being monoculture industrial farms. Professor and sustainable agriculture advocate Julie Guthman comments that "many people presume that institutions within the organic sector operate according to a different logic than that of the agribusiness firms that drive the industrialization and globalization of food provision [, however] the organic sector itself is "industrializing" and "globalizing" at a rapid pace" (2). Corporate takeover as well as comparative advantage has seeped into the sustainable agriculture scene, and many consumers feel they are supporting sustainable agriculture by purchasing organic food from these large farms. These farms wreak as much havoc environmentally and socially as conventional industrial farms. Labor is exploited and soils are depleted in both cases.

This type of "sustainable" agriculture has further taken power out of the local arena and placed it in the hands of globalization through comparative advantage. The rules governing the Empire have decided that local does not matter, and if consumers wish to participate in supporting sustainable agriculture, then they can purchase produce (organic or conventional) from areas that can grow it the most efficiently.

Local Food Economy

Local food economies take sustainable agriculture one step further to return power back to the local communities. A local economy, according to the prolific author Wendell Berry, rests on two main principles: neighborhood and subsistence. These principles are an excellent place to begin a discussion of a local food economy because they seem to drive home the nuances that exist within the phrase. Berry describes the practice of neighborhood to be, “in part, charitable, but it also must be economic, and the economic part must be equitable; there is a significant charity in just prices” (“The Idea” 260). In a local food economy, there is an economic exchange, and to stay true to the idea of neighborhood, this exchange should be equitable. Berry comments on his second principle of a local economy, subsistence, by writing “of course, everything needed locally cannot be produced locally. But a viable neighborhood is a community; and a viable community is made up of neighbors who cherish and protect what they have in common. This is the principle of subsistence.” (“The Idea” 260). Therefore, a local food economy is centered on the production, marketing, selling, and eating of food within a community, and includes equitable exchanges among community members who are willing to protect this local resource.

The ideal local food economy, made up of neighborhood and subsistence ideas, operates as a self-organized system. There are many members to the system: producers, marketers, and consumers. Each member within the system, in order to follow through with Berry’s two principles of a local economy, occupies a specific niche. Each person has a specific role in the local food economy. In this way, the system becomes self-organized. There is a type of order that exists among the apparent disorder as members are connected with each other. Norberg-Hodge, et al. described the web of interdependence within a local food system, stating “when the web of economic links among small farmers, processors, retailers, and consumers is strong, both the economy and the sense of interdependence characteristic of real community are strengthened as well” (81). This reinforces Berry’s ideas of both neighborhood and subsistence as part of the local economy as there is a sense of equity and something in common to cherish and protect.

Civic Agriculture

Thomas Lyson expands on the idea of a local food economy by describing what he calls ‘civic agriculture.’ He believes civic agriculture is the vehicle for implementing sustainable agriculture. Civic agriculture is conducted through the emergence and growth of community-based agriculture and food production activities that allow consumers to experience local, fresh, and safe foods. Civic agriculture also creates jobs, encourages entrepreneurship, and strengthens community identity by bringing together production and consumption activities (Lyson 81). These goals are accomplished through localized markets. Lyson states:

> Community-supported agriculture (CSA), farmers’ markets, specialized agricultural districts, alternative food stores, and consumer cooperatives represent important manifestations of the movement toward a civic agriculture. These new organizational forms have the potential to nurture local economic development, maintain diversity and quality in products, and provide forums where producers and consumers can come together to solidify bonds of local identity and solidarity. By rebuilding the linkages between farmers and consumers wherever possible, communities throughout the United States will establish a foundation for a more socially and environmentally integrated food system. (6-7)

Civic agriculture and the local food economy provide a vehicle for how sustainable agriculture should be carried out. Civic agriculture focuses more on community development and the different local markets that people can utilize in order to relocalize the food system, thus reclaiming the power in communities. The idea of a local economy incorporates other ideas previously discussed, such as subsistence and multiple-livelihood strategies. Part of being a community means that these methods will be put to use simply as part of the community-building process.

Lyson further comments that civic agriculture not only provides an income for the farmer, but also contributes to the overall health and vitality of communities in social, economic, political, and cultural ways (62). This locally organized system is made possible through networks of producers and consumers linked by place, much like multiple-livelihood strategies. By having outlets to connect farmers with consumers, such as CSAs and farmers' markets, the global market will be undercut. Civic agriculture is not in competition with the global market; however, the relocalization of the food economy aids in the vigor of the overall community and offers an alternative to the large global market. Through civic agriculture, sustainable agriculture can be conducted, and this only occurs by regaining power that was taken away in the globalization process.

Culture of the Table/Focal Things and Practices

To further reinforce the ideas presented in a local food economy and civic agriculture, philosopher Albert Borgmann offers ideas of a 'culture of the table' and 'focal things and practices.' These ideas can be incorporated to foster, in a practical fashion, a local food economy. He writes:

> Dinner is clearly the most hopeful focal point of a marriage and a family. Hunger reminds us every evening that there is an occasion for breaking bread together. The tenacity families have shown in clinging to a dining room in their house suggests a readiness to make dining a virtue, a skilled moral practice….What should make us still more determined to give the culture of the table a central place in our homes is

> the support social science has given our intuitions that dining together is good for body and soul, particularly so for those in the most vulnerable age—our teenagers. (171)

Borgmann is expressing the need for those living in the Global North to assess our lives and make small changes toward a more “simple” lifestyle. By this he is not pushing a neo-luddite agenda, but merely suggesting that we find focal points in our lives, such as the dinner table, where we can reflect and meditate on where the food came from, what work went into cultivating and preparing the food, and what it means to sit down with others to share in the celebration of life. In this way, the dinner table becomes a sacred space, where other distractions such as television are not welcome, where one can simply reflect on what is around him or her.

Borgmann believes these focal points can also extend beyond the private sphere, and in the “public sphere they are centers of communal celebration such as farmers’ markets” (160). Focal practices and communal celebrations are Borgmann’s keys to a pleasant and joyful society, simply revisiting these ideas in the present day could even bring the world more towards sustainability because “if we in the affluent countries lead lives that are good as well as pleasant, we can get off the hedonic treadmill and use our resources to be a global force of genuine liberty and prosperity” (160).

These ideas foster a local food economy because emphasis is placed on meditating on and celebrating the food and people that made it possible to enjoy local produce. It is an emphasis on Berry’s principles of a local food economy: neighborhood and subsistence. An equitable exchange happens when we cherish and protect that which we have in common. By slowing down and carrying out the 'culture of the table,' we place more importance on the local food economy than the globalized food economy that offers processed foods from faceless corporations. We desire to go to the farmers' market and to take part in the communal celebration.

In the High Country, Borgmann's ideas foster a local food economy in different ways to different people. Based on the agricultural history of the area, the focal practices and community celebrations are not too far removed from the present day. Perhaps people remember a time when there was no television or computers to distract people away from the culture of the table. They remember going to markets, when the local food economy was the main economy for the area, and may feel nostalgia associated with the public celebrations. This not only applies to food, but other crops such as tobacco. In *Tobacco Harvest: An Elegy*, Wendell Berry writes of the height of tobacco production in Kentucky. Harvesting tobacco was a public celebration as friends and neighbors practiced the "ancient custom of 'swapping work.' They were brought together by necessity and neighborliness, and also by friendship, old association, common history, and mutual respect" (Berry, *Tobacco Harvest* 2-3). Though this was hard work, everyone took part out of esteem of kin ties and celebrated upon the completion of the harvest. Food and agriculture mean something to people from agricultural backgrounds because they know what it feels like to hill up potatoes, pick the season's first squash, or harvest tobacco. This was a major yearly event in the not-too-distant-past in Kentucky as well as the High Country, and nostalgia for the communal swapping of work is very much alive in the southern Appalachians. Since food and crops are a 'focal thing' already for people in the High Country, participating in the local food economy is simply part and parcel of wanting to engage in the culture of the table.

Method

These theories regarding agricultural development can be combined to offer explanations for the progression of agriculture in the High Country. By presenting the specific case of sheep farming, the theories provide a framework to the cultural history as well as offer ideas for future sheep use. Prior to World War II, the communities in Ashe and Watauga counties operated primarily under a subsistence-first economy where they grew enough to supply the family with the rest being sold or traded for a profit. Many families raised sheep and ate the meat and utilized the wool for clothing or items such as blankets. Wool was especially used in the home prior to the turn of the century when it was spun for in-home production, which is another example of a livelihood strategy and value-added activity.

Sheep farmers also utilized multiple-livelihood strategies as sheep provided diversification to a farm where people also raised other crops, exploited local natural resources such as ginseng and timber, or had off-farm jobs to supplement the farm income. Sometimes this involved the sharing of resources with kin, especially in regard to land. It is this reliance on community members that allowed various sheep markets to be so profitable as the farmers held the power in the transactions.

Part of the profitability of raising sheep can be explained by Schultz's High-Payoff Inputs model. Southern Appalachia is a rural region, and much attention was given to providing farmers with information gained from researchers at research farms across the state. This knowledge was location specific, and was well-disseminated by extension agents. Many articles in the *Watauga Democrat* coming from local or state extension agents offered ideas or new research about sheep and how to make this enterprise profitable for the farmers in Western North Carolina. The High Country was a region that benefitted from the High-Payoff Inputs model, much like other rural areas around the world.

After World War II, however, comparative advantage dictated that sheep could be more profitably raised elsewhere because the infrastructure of the area made it difficult to sell products outside the immediate area. Also, larger numbers of animals could be raised elsewhere on flatter land. Ranges of sheep were already being raised out west, and this was a natural progression of where sheep would now primarily be raised within the United States. Of course, through globalization, New Zealand and Australia would become the largest producers of sheep in the world through comparative advantage. The markets and rules governing globalization, or the Empire, took sheep production out of the local area. With this, subsistence-first agriculture and multiple-livelihood strategies became more difficult. Globalization and neoliberalism leads us to the present day where very few sheep are raised today (less than 1,000 head for both counties combined).

Though sustainable agriculture, in part, operates under the idea of comparative advantage, the relocalizing efforts found in the Local Food Economy, Civic Agriculture, and the Culture of the Table helps to bring power back to local communities through sustainable agriculture. As these three ideas provide a vehicle for sustainable agriculture to be achieved, through farmers' markets, CSAs, and other communal markets, they are able to mimic markets prior to World War II. I theorize that by bringing power back to local communities through the Local Food Economy, Civic Agriculture, and the Culture of the Table, sheep production can once again become a part of agriculture in the High Country. This will most likely be achieved through alternative and emerging markets which subvert power away from the globalized agri-food structure and back into the local community.

For this thesis, I combine this theoretical framework of agricultural development along with literature research and interviews. Much of the literature deals with sheep production throughout the United States in general. This is helpful for looking at overall trends, but there are drawbacks, since much information is not pertinent to Watauga and Ashe counties. One book in particular was helpful to this project: *Changes in the Sheep Industry in the United States: Making the Transition from Tradition*, written by The Committee on the Economic Development and Current Status of the Sheep Industry in the United States (CEDCSSIUS). This book offers a history of sheep production in the United States, what factors led to its decline, and explores options available to sheep farmers today. Again, this work deals with national trends, yet the information is very thorough and helps to piece together the cultural history of sheep in the High Country obtained from interviews with key local informants, and oral histories from Appalachia which help to explain cultural conditions that led to sheep profitability.

I conducted five formal interviews with residents of Watauga or Ashe counties who had raised sheep at some point in their lives in the High Country, with one person still having a small flock of sheep at present. I audio-recorded and transcribed all five interviews. I also gathered informal information via email from a local Extension agent as well as a sheep dairy owner in Tennessee. Other interviews, conducted by former students in Dr. Patricia Beaver's Appalachian Culture and Social Organization seminar class at Appalachian State University also provided insight into the history of sheep in the High Country. The information gained through the interviews is invaluable to the thesis, and I rely heavily on these interviews to form the content of this project.

I also relied heavily on articles from archive issues of the *Watauga Democrat*, the local Boone, NC newspaper. These articles offer a glimpse of the history of the High Country and illustrate subjects important to the populations of the past. In particular, I looked at issues from 1929 through 1948. These years capture the height of sheep farming in the High Country. In later issues, much less information was provided concerning sheep, reflecting the decline.

As this research project is qualitative in nature, highly specific information regarding sheep production in the High Country is presented. This forms a narrative of a specific aspect of agriculture in a specific region. Although there are drawbacks to this type of research, such as a difficulty in making general observations from a specific case, this project intentionally deals with a very specific region and the potential for a revival of sheep farming for that place (and in fact the CEDCSSIUS has formed an excellent overall trend analysis for the country). The oral histories and historical data gathered in the research process are important as historical relicts of the High Country, making this thesis, in a sense, an example of a focal practice. Also, since I plan to farm in the High Country, the information regarding the future of sheep farming is pertinent to how I might integrate livestock into my farm. In short, qualitative methods are the best fit for this project. These methods also allow me to draw the cultural history of sheep in the High Country and explore how the animal could be reintegrated on farms today, something that may be more difficult with other types of data collection and analysis.

CHAPTER III: THE CULTURAL HISTORY OF SHEEP FARMING IN THE HIGH COUNTRY

Sheep Production during the 1930s and 1940s

The production of sheep during the 1930s and 1940s in Ashe and Watauga counties was a vital part of any farm that had enough land for grazing. The decade leading up to World War II was the height of sheep farming in the High Country, although farmers had been raising sheep long before this era. Winston Kinsey, former Watauga County Commissioner and sheep farmer, comments that Watauga became a county in 1849, and the agricultural census that was conducted in 1850 shows that nearly every household had sheep (Kinsey, personal interview). Even though the history of raising sheep in the High Country goes back much further, these two decades offer a glimpse of a booming farming industry.

During this time, sheep were often combined with other farming operations. Kinsey comments "around here, it was just part of a mix. They had cattle, they had tobacco, they raised some corn for feed, they had pastures, meadows, good meadows that they would mow for hay and they'd have some sheep. Obviously some of them had several hundred head in the '30s and '40s. So it was just part of a good mix" (Kinsey, personal interview). Instead of focusing on one type of farming, the small farms of the High Country incorporated many different enterprises to create one holistic farm; it was part of a multi-livelihood strategy. Sheep, as part of this farm organism, contributed to the larger profitability of the farm and became a desirable part of farms in this area. In an issue of the *Watauga Democrat* from

March 1942, an author offered the following advantages for raising sheep in the High Country:

> The fact that the initial investment for sheep is comparatively small; sheep raising fits in well with the permanent system of agriculture in the mountains; money for sheep comes in at a time—late spring and early summer—when it is much needed because other mountain crops are not usually sold at this time; sheep are helpful in destroying weeds; they can live on the scant pasture of high slopes; they produce two money crops each year [:] lambs and wool; they do not require expensive shelter; they require little grain; they improve the fertility of the soil; compared with other classes of livestock they require little care; and they are easy to fence. ("Agricultural Leader" 3)

All of these advantages came together and made raising sheep a profitable aspect to a farm.

Sheep, as part of a holistic farm, were part of a strategy of diversification, which was a necessary tool for families and communities that were striving to not only provide many commodities for themselves but also to sell the surplus, working under a subsistence-first economic model. James Poole, a resident of Meat Camp since birth, commented that his family raised sheep and "they got wool off of them in the spring, and in the fall they sold lambs. They got two crops off of them a year. In the spring they sheared them, the wool would pay for feeding them and in the fall when they sold the lambs, that's the profit they got out of it" (Poole). Robert Shipley, former vocational agriculture teacher in Watauga County, also commented that "the wool on the sheep paid for the yearly keep and the lambs were the profit, which made a nice little supplemental income to the farm families that kept sheep"

(Shipley). It is evident that sheep were frequently raised in this area because they allowed for more than one outlet to earn an income for the farmer.

During the 1930s and 1940s, the combination of selling wool and lambs proved to make sheep a profitable venture for a farmer in this region. Dave Main, who raised sheep in Pottertown in Watauga County, felt he could make more money through the potential for diversification that sheep provided rather than cattle, making two incomes off the sheep rather than one on a cow and calf. Council Maine, a relative of Main, also attested to this by saying “in the spring you can shear and sell the wool. And then you might sell the sheep sometime during the year. Out of the sheep you would get about three little checks instead of one” (Maine). Woodrow Winebarger of Watauga County remembered that they “raised lambs for meat, and sheared them in the spring for the wool, and that was a pretty good prospect” (Winebarger). The ability of sheep to provide different avenues for the farmer to make money was viewed by some to be an advantage over cattle, and although many people did raise cattle, some people seemed to have a preference for sheep because of the dual nature of the production of the animal.

In North Carolina, in 1930, there were 88,000 head of sheep and a maximum number of 90,000 head in 1931. From that point, the number declined slightly during the 1930s (USDA, “NASS Sheep and Lambs Table”). This shows that sheep were a major driving force in the farming economy during this time, and it was also true within Watauga and Ashe counties. In a chapter in *History of Watauga County* entitled “Agricultural Development of Watauga County,” written in 1949, J.C. Yoder discusses the sheep industry within this county. The data he presents shows a growth in the number of sheep in the county after a decline in the late 1930s. He states that “in 1939 there were 5,544 sheep in the county. In

1945, the number had increased to 6,406. The improving facilities for the sale of wool and lambs in conjunction with the excellent grazing land portends a continuing expansion of raising sheep" (Yoder, "Agricultural Development" 59). Yoder calls for the expansion of sheep production, as they were well adapted to this area, and the markets available for the sale of sheep products were improving.

The excellent grazing land Yoder talks about is an important aspect of sheep adapting to and flourishing so well in this area. Robert Shipley believes one of the characteristics of this area of Western North Carolina that made sheep production work so well was "our high elevation [and] relatively mountainous area here" (Shipley). Shipley compared sheep thriving on mountainous terrain in Western North Carolina with sheep that are flourishing in Ireland because, on a recent visit there, he "found that they were growing sheep on some mountains that were so steep sheep were the only livestock that could stand and utilize the grass on those mountainous pastures" (Shipley). Indeed, the herding tradition of grazing sheep on high mountain elevations in the southern Appalachians can be attributed to the Scots-Irish, as sheep raising in Ulster and Scotland provided a prototype for the practice. With the arrival of the first settlers in the region, the mountain landscape became a large grazing commons for livestock such as sheep and cattle (Davis 101). From Shipley's and Davis' observations, it is interesting to note that sheep are sometimes the only livestock animal that can graze very steep pasture land, whether this land is in Western North Carolina or in Ireland.

Author John Alexander Craig also comments on the benefits of grazing sheep on steep lands in particular, stating "farms or localities of so rough or hilly nature as to have to be used mainly for grazing can undoubtedly be best used for special sheep-farming. Such country affords the sheep the closest approach to its natural life and offers less to contend with than is found under less natural surroundings" (4). Sheep thrived on steep slopes, so it is not surprising that, currently, this is an environment where they are easily adaptable. Much like the conditions needed to grow cabbage or apples, the High Country contains an excellent climate and topography for raising sheep.

Some of the land in Ashe and Watauga counties is pastures on sides of mountains, and it can easily be seen how sheep could be the animals to make use of that particular topography, especially in very steep areas that are not conducive to raising crops. Plowing can be very difficult in these areas, and plowed land on hillsides can lead to erosion as there are no roots holding the topsoil in place. This is what made mechanization of farming so difficult in these counties. James Poole remembered how his "grandpa would place [sheep] way up on the mountain and in the fall of the year he'd bring them down here and feed them through the winter" (Poole). This is similar to the grazing practices of the Scots-Irish with the grazing commons in Scotland and Ireland as the settlers would let the sheep graze atop mountains for many months before collecting them in the fall (Davis 101). There is evidence that people who raised sheep did indeed use the mountains that were not suitable for growing crops or for other grazing animals.

In addition to using the steep land, sheep "would eat weeds and grasses that other animals do not like as well so they contributed to keeping the pastures clean" (Shipley). Allowing the sheep to do a job that the farmer would otherwise have to do, likely by hand, would be a huge benefit, especially if this were on steep land. John Alexander Craig discusses the benefits of sheep grazing on steep lands as the sheep will fertilize the areas near the top of mountains and eat about 90% of plants considered weeds, all of which saves on labor for the farmer (5). The areas near the top of a mountain likely never got fertilized otherwise, and in fertilizing the tops of mountains, other plots also reaped the benefits as the fertilizer spread downslope. There was a distinct advantage of sheep over other animals in that they ate a wider variety of plants, and sheep are much smaller and weigh less than cattle or horses. Because of this, a sheep produces less impact on the soil than larger animals which is especially important in mountainous areas with high risks of erosion. All of these factors led to sheep becoming a beneficial animal that fitted well into farm families' multiple-livelihood strategy.

Wool Production

Wool production was a major part of the profitability of sheep during the 1930s and 1940s and into later decades in Ashe and Watauga counties. Selling the wool from the sheep would pay for the upkeep, which means all other products from the sheep were profit. In a 1929 issue of the *Watauga Democrat*, a columnist attested to this fact by stating "the wool will pay the whole cost of keeping and raising the sheep, leaving the sale price of the lambs as clear profit," which was "an actual fact as shown by [his] records" ("How to Make" 1). Although the columnist's records were not shown in the article, this was a common saying among farmers during this time.

Winston Kinsey supports this notion by saying "now the old timers would say that sheep are good because their wool would always pay for their feed bill" (Kinsey). Charles Young, a retired livestock Cooperative Extension agent in Ashe County, also validates this claim by stating "the reason farms used to raise sheep is because it used to make money. Wool prices used to be a dollar plus a pound, and five to six pounds a ewe, that's $5 to $6 a ewe, particularly if you were shearing yourself, you could pay your feed bill for the sheep with the wool and then all the lamb was profit" (Young). This piece of common knowledge led many farmers to raise sheep in the High Country.

During the late 1800s and into the turn of the 20th century, home processing of wool, including spinning and weaving, was common. Woodrow Winebarger remembers his grandparents spinning wool by hand with two different sizes of spinning wheels, and working the spun yarn with a loom, or knitting it (Winebarger). In an interview, Nellie Mae Edmisten of the Meat Camp in Watauga County recalls her "mother helping shear the sheep and she'd use some of the wool, but not all of it, for the padding of quilts. They'd sell some wool. She'd make thread for knitting. She had cards and [her] aunt had one of these spinning wheels" (Cooper and Cooper 68). Before venues were organized for selling wool, this type of processing was common, and the knitted or woven goods could be used by the families or sold. Few external markets existed for wool and mutton prior to the turn of the 20th century (Davis 136). Because of this, the animals did not bring in much additional income to the family, but did provide the family with important items such as wool to make blankets or clothing, and meat to eat. It seems that during the 1930s and later decades, however, selling raw wool was a more common practice than spinning the wool by hand. Perhaps this was due to the local economy shifting from subsistence-first to cash-based where items made out of wool were increasingly bought instead of made by the family. External markets for sheep products were created where farmers could sell sheep products, signifying a shift in the way that sheep were used in Appalachia.

In order to sell or spin wool, the sheep had to be sheared. Many farmers sheared their own sheep, likely learning from older people in the community. Classes were also offered to teach farmers or youth. An article appearing in the May 16, 1946 issue of the *Watauga Democrat* announces a sheep shearing school:

> A sheep-shearing school will be held at Lee Swift's farm on Upper Beaver Dam Thursday, May 23 from 9 a.m. till 3 p.m.
>
> Mr. Warner, who is with the Sunbeam Corporation…and H.M. Stamey, extension animal husbandry specialist, will conduct the school. Farmers will be shown how to shear sheep, tie wool, and how to sharpen combs and cutters, also how to care for shearing equipment.
>
> Each sheep producer should try to attend the school to learn how to shear sheep. 4-H Club members and FFA boys are especially invited to attend. ("Sheep Shearing School" 8)

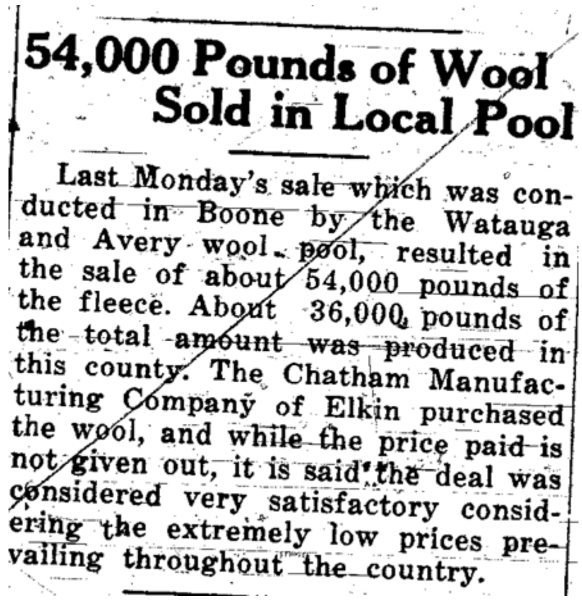
Because of classes such as this or other on-farm instruction, most sheep producers knew how to shear sheep or knew who to ask in order to shear. Winston Kinsey comments that Watauga County had many good shearers through the 1960s, and even produced two national champions during the 1940s, brothers Clint and Andy Reese (Kinsey, "Interview Questions").

It is evident that during the 1930s and 1940s there were a few major venues for selling wool. These markets relied on the kinship-based community structure in order to operate. Even though the farmers might not have been related by blood, the commonality of raising sheep formed a bond where a livelihood was being protected. In this way, the connection between farmers acted as a kinship tie, leading to cooperation and the pooling of resources in order to earn the best income for all involved instead of participating in cut-throat economics. They cherished that which they had in common, and strived to uphold the small farming way of life, much like Civic Agriculture attempts to do presently.

The first market for selling raw wool was a wool pool, through which farmers would gather all their wool together at one location and receive bids for the collected wool. An article in the *Watauga Democrat* from May 1930 outlines the process of the wool pool in Watauga County. It states:

> Every famer or dealer who has wool for sale and wants to put it in the Watauga County wool pool is asked to deliver it in Boone on either Thursday or Friday, June 5th or 6th. The State Division of Marketing will have a man present on these dates. The Southwestern Wool Growers Association has agreed to advance 20 cents on the pound for the fleece on these dates, and ship the wool to Baltimore and hold it until they decide it is best to sell. Then the balance will be paid to the farmer or dealer. On the dates above mentioned bids will be received from dealers and consumers and will be sold outright provided a satisfactory price is offered. If this is not the case, it will be sold through the government agencies as indicated. ("Watauga Wool Pool" 1)

The wool pool was a yearly event, and in order to obtain more wool for the pool, counties would often combine wool. Robert Shipley commented that "for the wool, why, we obtained bids after we got the wool all together and got it packed and we knew how much we had. Frequently [we] went in with other counties to make a large collection of wool and get bids on it to sell to the highest bidder, and that worked out very well" (Shipley). An article in a 1931 issue of the *Watauga Democrat* (see figure 1) describes the sale of 54,000 pounds of wool in the wool pool that year, which was a combination of Watauga and Avery counties, with 36,000 pounds of the wool being produced in Watauga County ("54,000 Pounds of Wool" 1). The combining of the wool in a pool was an excellent way to market the wool and sell all of the supply an individual farmer might have because the pool organizers would handle the actual sale and a farmer could sell all of his wool at one time.



54,000 Pounds of Wool Sold in Local Pool

Last Monday's sale which was conducted in Boone by the Watauga and Avery wool pool, resulted in the sale of about 54,000 pounds of the fleece. About 36,000 pounds of the total amount was produced in this county. The Chatham Manufacturing Company of Elkin purchased the wool, and while the price paid is not given out, it is said the deal was considered very satisfactory considering the extremely low prices prevailing throughout the country.

Figure 1. Article from the July 9, 1931 issue of the *Watauga Democrat*.

Charles Young tells of the inner workings of the wool pool. He worked with wool pools from the 1960s to today. He comments:

> Originally the producers would elect a committee to handle the wool pool. That committee would have an idea of what kind and how much wool they would have every year and generally it was right after wool was taken in, so they would know exactly how much they had and the grades. They would offer it to bid to all the wool using companies like Woolrich and Pendleton…there used to be 20 to 30 companies in this area that would bid on our wool…You would get ten guys sitting around a

> table with a telephone with some sort of loud speaker on it and the auction is actually going on somewhere in Virginia most of the time. The companies would be bidding on the different pools…So all these were getting bid on at the same time, and when they hit the top bid that group of people sitting around the table had to accept or decline the bid. And if they declined it, you always wondered what would happen. I don't think we ever did. You didn't want to be stuck with 50,000 pounds of wool… Used to, during the wool pool, the farmers would bring the wool in and NCDA [the North Carolina Department of Agriculture] guys would be up here and would grade all of the wool, as in every fleece that came out those guys would stick their hands in it and tell if it was long wool, short wool, the grade, how coarse it was, if it had a couple burrs in it, and rebag it. Imagine trying to rebag 80,000 pounds of wool in 8 foot burlap bags…Plus you had to keep it all straight. You weighed it as each producer came in and then had to grade each one, so they had so many pounds of each grade. We generally had 5 or 6 different grades and then we'd bag it all separate and ship it to the company. (Young)

The wool pools were a major market for High Country farmers, and since wool was in such high demand from the different companies, it was an easy and sure way to sell wool. The *Watauga Democrat* would announce the wool pool each year and specify different collection points for the wool throughout the two counties. Sometimes the collection points would be farms, but frequently, as evidenced from a 1944 issue of the *Watauga Democrat*, collection points would be different general stores, such as Howard Mast's store, Sherwood's Store, Clyde Perry's Store, and Donley Hagaman's store (Hamilton, "News and Views of the Farmers" 1944, 5). General stores were often community meeting areas and reached out into the rural communities that were farther away from the larger towns, so it is not surprising that they would also serve as collection points for the wool pools.

Even though wool pools were likely the most common method of marketing wool, there were also other venues to sell the product. Wool was sold to a woolen mill in Mouth of Wilson, Virginia, and processed there. Kathleen Curtis Wilson, curator of the Frank H. McClung Museum at the University of Tennessee, cites that “Fields J. McMillan established a woolen mill at the mouth of Wilson Creek in 1884. For over a hundred years, the mill purchased raw wool from farmers throughout the area, sold the spun fiber to other weaving mills, and manufactured woolen blankets sold to families across the region” (6). This woolen mill was also an excellent way for farmers to sell the wool from their sheared sheep, and Dave Main commented that “most of what I sold, I sold it down at the Mouth of Wilson, a wool place down there,” although “a time or two they put on a [wool] pool here and it brought me a dollar and a half a pound” (Main). James Poole remembers the woolen mill in Mouth of Wilson, saying “my daddy used to haul [wool] for everybody around here over there. I guess they made clothes or something out of it over there” (Poole). The way Poole describes the process, it seems like it was a form of a wool pool, collecting wool from the neighbors and taking it to the mill all at once. This is a manifestation of multiple-livelihood strategies as kin ties were used in economic dealings.

As evidenced by various advertisements in archive issues of the *Watauga Democrat* during the 1930s, wool was also bought by local stores from the farmers. An advertisement for Boone Feed Company in 1932 (figure 2) offered to pay 11 ½ cents cash or 12 cents of trade for a pound of wool that is free of burrs and tags (“Wool Wanted” 5), and in 1933, Smithey’s, a general store in Boone, wanted 2,487,805 pounds of wool (figure 3), stating that they “bought the majority of WOOL of Watauga County last year, paying merchandise to those that needed it, and cash to those that demanded it. This year we are doing the same thing, paying the top market price either in merchandise or cash, so be sure to see and get SMITHEY’S prices on wool before you sell” (“We Want 2,487,805 LBS. WOOL!” 8). These two ads not only demonstrate that wool was such a sought after commodity that area businesses were trying to compete with the wool pool and the woolen mill, but it also shows the nature of business in local communities, willing to give cash or trade for the wool. If farmers could get store credit in a store like Smithey’s, they might be more willing to sell to a store rather than wait to get a check cut to them after a wool pool as most products they would need to buy would likely be in the store. In this way, both the subsistence-first economy and multiple-livelihood strategies were being utilized.

Figure 2. Advertisement from Boone Feed Company in the August 25, 1932 issue of the *Watauga Democrat*.

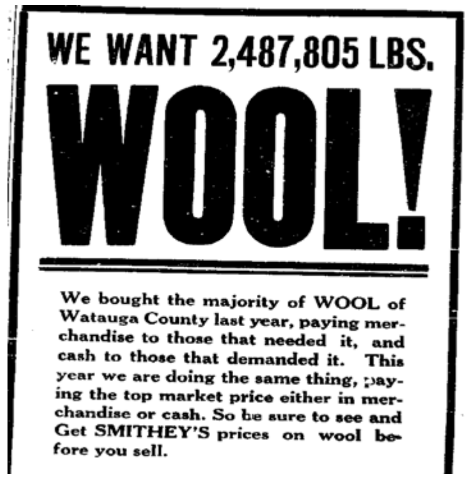


Figure 3. Advertisement for Smithey's in the May 18, 1933 issue of the *Watauga Democrat*.

Though selling wool at general stores was a common event during the early 1930s, it seems that this transaction fell out of practice during the latter part of this decade. There were no advertisements from the 1940s offering the same cash or store credit deal to wool producers. Perhaps this is because the wool pool was such an easy venue for selling wool or the general stores felt it was no longer profitable to buy wool. Also during the same time, there was a shift in the local economy where trading and store credit was phased out by the cash economy. This is when globalization began to change the way markets operated in these Appalachian towns, and Empire laid down the rules for cash-based economies where there was no room for bartering or trading. When charting the progression of globalization in the High Country, it is interesting to note that in 1933, Smithey's wanted to buy nearly two and a half million pounds of wool yet by the end of this decade there is no mention of any store wanting to buy wool in the newspaper.

Many factors had to be weighed in determining where farmers would sell the wool from their sheep, whether it was the county wool pool, the woolen mill, or a local store. It is clear, however, that wool was a desired product during the 1930s and 1940s in Western North Carolina, and this demand for wool was a main factor in sheep being a profitable venture for local farmers.

One of the major driving factors in the profitability of wool from a national perspective was the United States government. The first piece of legislation that had provisions to support the domestic wool industry was the Buy American Act of 1933. This act required manufacturers of goods for the U.S. Army to use domestic wools if they were available and not unreasonably higher in price than wool from other countries. As World War II approached, the U.S. Army began placing large orders for fabrics containing wool (CEDCSSIUS 279). Most of the uniforms for the soldiers contained wool, and this act allowed domestic wool to be used for this material.

Although the Buy American Act aided the wool industry in the United States, the main government policy concerning the U.S. wool industry was the National Wool Act of 1954. This act was the result of lobbying by wool producers, marketers, and manufacturers which led the U.S. Congress to conduct studies of the wool industry in the United States. The National Wool Act, signed by President Eisenhower, increased tariffs on all imported wool and woolen products and established an incentive payment program for growers to be paid out of wool tariff revenues (CEDCSSIUS 279). This program was unique because it provided support payments to producers who received higher market prices as a result. Most farmers receiving support for major crops simply received a fixed payment per unit of production (USDA, “Economic Impact” 1). On the national level, this is one of the main contributors making wool such a lucrative byproduct for farmers. By the time the Wool Act was enacted, sheep were already in decline in the High Country, so this incentive payment program may have been of more benefit to new production in the American west.

Winston Kinsey commented that “the government had a subsidy for a dollar a pound [for wool]…Or sometimes I think you got up to two dollars a pound with the subsidy” (2011). If each sheep had five to six pounds of wool, then this subsidy, as called for by the National Wool Act, provided farmers with a nice income from the wool after the years it was enacted. Although this law was enacted during the decline of sheep in the High Country, it still allowed those that continued to raise sheep to receive more per pound than in earlier years.

The National Wool Act further reinforced the profitability that wool provided to farmers. Even prior to 1954 when this act was passed, wool production was a booming business as “the United States was the world’s fifth largest wool-producing nation in the 1940s” (CEDCSSIUS 247). In the High Country, wool production involved general stores, woolen mills, county extension, and farmers. There were many avenues in which to sell wool, and the prices were favorable to the farmers. There was much interest in wool, even to the point of Watauga County producing two national shearing champions and offering shearing classes to the public.

Meat and Lamb Production during the 1930s and 1940s

If wool was said to pay for the upkeep of the sheep, then the selling of meat or whole lambs provided the farmer with the additional income that made raising sheep worthwhile. Robert Shipley, mentioned previously, was interviewed concerning sheep. Mr. Shipley, a native of Watauga County born in 1912, earned a bachelor’s and master’s degree in animal husbandry, and was the vocational agriculture teacher at Boone High School and Cove Creek High School (Mast 189). He has extensive knowledge about sheep in the area, especially concerning meat breeds. William Mast writes that Mr. Shipley "raised sheep on his farm for decades and showed them at the state fair for over 25 years… [and] was the president for the North Carolina Breeders Association and one of the first individuals to be inducted into the North Carolina State Fair Hall of Fame" (190). Shipley raised meat sheep on his farm in Watauga County for many decades.

Robert Shipley discussed one of the main avenues for selling lambs during the 1930s: lamb pools. Much like the wool pools, people from the area could pool their sheep and sell them all together. Shipley remembers that "we started selling our lambs to the buyers in Jersey City, New Jersey and Lancaster, Pennsylvania [and] would have wool and lamb pools here in the county in which we would have a state grader come and have an organized pool as we called it, starting at seven in the morning…Then as we got a truckload we would haul them to Marion, Virginia and load them on the railroad and sell them after they were on their way to the market" (Shipley). An article in the *Watauga Democrat* in August of 1932 also tells about eleven Watauga County sheep growers that pooled their lambs together and "shipped two double-decked cars of lambs to the Jersey City markets on August 1st, and returns which were received on the 6th amounted to a net $6,621.29" ("Jersey is Proven Good Market" 1). It seems that the lamb pools would send the lambs to the places that would yield the most income for the farmers who participated in the cooperative, and for some years that meant sending the lambs to Jersey City, New Jersey.

The purposes of a lamb pool are outlined in a 1941 column in the *Watauga Democrat*, stating "the lamb pool was organized for the following purposes: 1. To help the farmer receive the top market dollar for his lambs; 2. To teach the farmers the kind of lambs that the market wants; 3. To improve the quality of all the sheep in the county, and 4. To show the farmers that by co-operation they could succeed in the sheep business" ("Lambs for First" 1). Almost identical to the wool pools, lamb pools were organized affairs to aid the farmer in the marketing and the selling of lambs, and this organized structure made it easy for farmers to participate in this aspect of sheep production.

The lamb pool provided scales to weigh the lambs in many different locations across the county, providing a convenience as one of the scales was likely to be near a particular farm. There would also be multiple pools during the season so the farmers could sell the lambs when they were at their prime. During 1944, each collection received more than 500 lambs ("533 Lambs" 4; "60 Farmers Sell 558" 4; "48 Farmers Sell 507" 4). This was a good outlet for farmers to sell many lambs at one time with a reasonable price guarantee.

If famers sold their lambs through the lamb pool, they also received a government subsidy. H.M. Hamilton, the county agent in 1945, comments that "some farmers have been selling lambs to dealers and losing the subsidy and I hate to see these farmers lose this money. If you pool your lambs, you are assured of getting the highest market price and also the subsidy, so I hope all farmers will take advantage of this opportunity and get the highest dollar for their lambs" (Hamilton, "News and Views of the Farmers" 4). The lamb pools boasted that they could offer farmers the highest bid as well as the subsidy, earning them the most of anywhere they could sell.

One of the purposes of the lamb pool was to improve the quality of the sheep in the county. Robert Shipley advocated for the production of purebred sheep, intended to improve the quality of flocks, which in turn would produce more income for the sheep grower. As an agriculture teacher and farmer, he had great influence in the community, and people were likely to pay attention to production techniques he advocated, such as purebred production. In describing how purebred sheep production was implemented, Shipley recalled:

> At one time we had probably eight or ten purebred breeders in the county and we would go together and buy rams. One of the chief sources of rams was the Eastern Stud Ram Sale in Staunton, Virginia in which sheep were consigned from all over the mid-west, from as far away as Missouri for sure. All of the surrounding states here in the east had sheep as a major part of their economy and so I have showed and sold and bought sheep at the Eastern Stud Ram Sale for a number of years. We paid as much as $500 for rams there. Later on there was a top flock in Wisconsin being dispersed and I decided to go out along with Ed Love, a sheep grower here in the county, we'd go out to Madison, Wisconsin and I bought a ram and he bought a ewe and this was a dispersion sale. The ram cost me $860 and he paid $400 for his ewe, so that was a big addition to our flock. That was fairly typical of the breeders that wanted to maintain a high quality flock. (Shipley)

If the farmer could afford the upfront cost of a purebred ram or ewe, the money received from selling high quality-bred sheep would produce a sizeable return. A columnist that contributed to the article "How to Make More Money on the Farm" in the January 24, 1929 issue of the *Watauga Democrat* describes his decision to buy a thoroughbred Hampshire ram, and the resulting offspring being sold for $12 above the normal price of a lamb, which at the time was $8. They were sold within 30 minutes of taking them to market

(1). Improving the quality of a flock could pay larger returns, and this could simply mean buying a successful stud "because a well-bred ram can breed with any ewe for a result of good lambs" (Long 8). An advertisement from the *Watauga Democrat* (figure 4) announces a purebred ram and ewe sale at the Boone Livestock Market ("Purebred Ram" 6). Even if the farmer could not travel off the mountain, there were venues where purebred stock could be purchased. This was part of the purpose of the lamb pool, and these programs aided farmers to be more profitable in raising and selling meat animals.

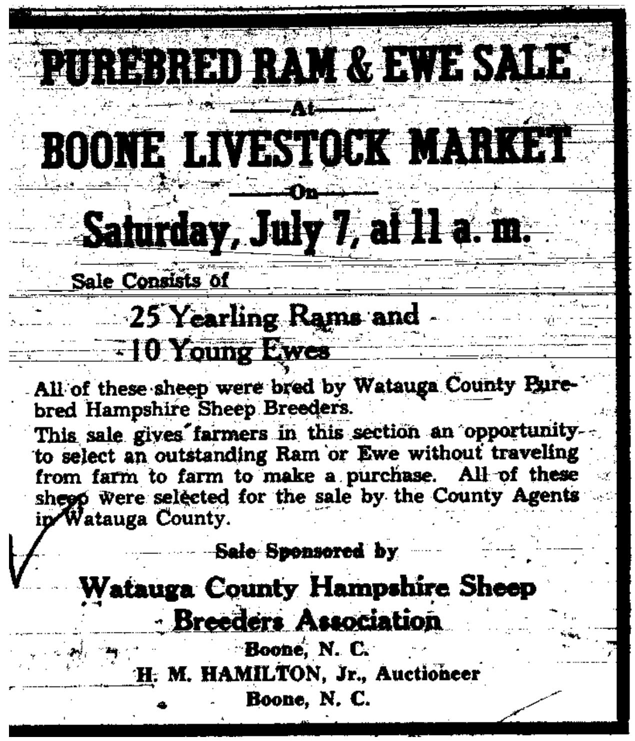


Figure 4. Advertisement for Purebred Ram and Ewe Sale in the July 5, 1945 issue of the *Watauga Democrat*.

Another avenue for selling lambs was livestock markets. The Watauga Livestock Market opened in 1944 and added the choice of venues in which farmers could sell their lambs. As seen in an advertisement in the *Watauga Democrat* (figure 5), the market conducted sales each Wednesday of the season and promised "plenty of buyers will be present and the highest prices will be assured" ("Watauga Livestock Market" 3). Although this livestock market was in direct competition with the lamb pools, it seems that the local economy had room for both. Both venues were utilized, and both purchased large numbers of animals during the same time. In August of 1944, a *Watauga Democrat* article announces the biggest sale at the livestock market thus far. Eight hundred eighty lambs were sold at "highly satisfactorily prices" with Armour & Co. buying "practically all of the lambs offered" ("Livestock Sale Breaks Record" 1). The Watauga Livestock Market was able to make this huge sale alongside the lamb pools which sold between 500 and 600 lambs during each of the three pools that year. This shows not only that there were a lot of sheep being raised in this area at that time but also that the competition between the two markets likely allowed farmers to be paid fair prices in either location.

Figure 5. Advertisement for Watauga Livestock Market in the April 27, 1944 issue of the *Watauga Democrat*.

Conditions and Support That Aided to Profitability of Sheep

It should be noted that during the 1930s and 1940s in rural areas such as Watauga and Ashe counties, community and kin ties were very strong, and often dictated how people interacted with each other. Anthropologist Dr. Patricia Beaver in her book, *Rural Community in the Appalachian South,* comments that “kin ties connect community residents into a system that gives personal identity through the expression of common roots, common ancestry, shared experiences, and shared values; kinship also provides an idiom for people’s behavior toward one another and is one of several bases for the actual formation of groups” (57). It is this deep connection with each other that provided different avenues that allowed community members to prosper in their endeavors, and although people acted as individuals, support in communal situations allowed individuals to succeed. Beaver states “community ideas of worth assume an ideal self-sufficiency and independence of the individual, although the individual of worth recognizes the rational limitations of such individualism and the value of cooperative action in specific circumstances” (160). It is through the limitations of individualism that an infrastructure emerged to aid farmers to not only succeed, but to be a powerful force together, as a community.

Within the framework of a subsistence-based economy and multiple-livelihood strategies, it is apparent that many conditions were in place to aid farmers not only in the raising of their sheep, but also in the marketing and selling of their goods. One of these conditions was the high degree of services provided to farmers, either through agriculture extension services, or through the local high schools that trained young people in vocational agriculture classes. These services follow Schultz’s High-Payoff Input model of localized knowledge being provided to rural communities through people such as extension agents and high school teachers.

Many of the articles in the *Watauga Democrat* from the 1930s and surrounding decades involved statements from agriculture extension agents with new information regarding sheep production. One such article, entitled “State College Issues New Bulletins on Sheep,” discusses new information regarding the control of internal parasites in sheep (5). The information came in the form of a bulletin from agents who worked at an experiment station. Many other articles from this time can be found including “Intestinal Parasites in Sheep Controlled,” which offered sheep farmers information on the newest form of parasite control, phenothiazine (“Internal Parasites” 3); and “Tie Wool Fleeces with Paper Twine” which explained the expectations at the wool pools for packaging in order to gain the maximum profit ("Tie Wool" 3). Researchers were continually producing new information and findings regarding sheep. Disseminating this information through agriculture extension agents, who were local people in the community, allowed farmers to feel that they had a support system should they need any help.

The North Carolina Cooperative Extension, formally established in 1914, exists to give citizens of North Carolina access to information and resources of NC State University and NC A&T State University, the two land grant universities in the state. The organization of NC Cooperative Extension is unique as the top position is not held by a financial officer or a director, but by North Carolina Citizens, as seen in their organizational chart (NC Cooperative Extension). This means that the citizens, or farmers, of North Carolina hold the power within the ranks of Extension, and it is in place to serve the citizens. This type of support that gave people the power aided in the success of the farmer, and this seems to be the case with raising sheep as new information was being passed on to the farmers to aid in their success.

NC Cooperative Extension was willing to assist farmers in whatever way necessary. In an article in the *Watauga Democrat* from 1946, a sheep shearing school is announced. The final sentence of the announcement reads: "The county agents will be glad to fill their cars with farmers or farm boys who want to go to the school but who do not have transportation" ("Sheep Shearing School" 8). Not only were they providing classes on shearing, but they were willing to transport anyone that wanted to attend. Simply by offering rides, they were showing their level of commitment to the farmers in the county.

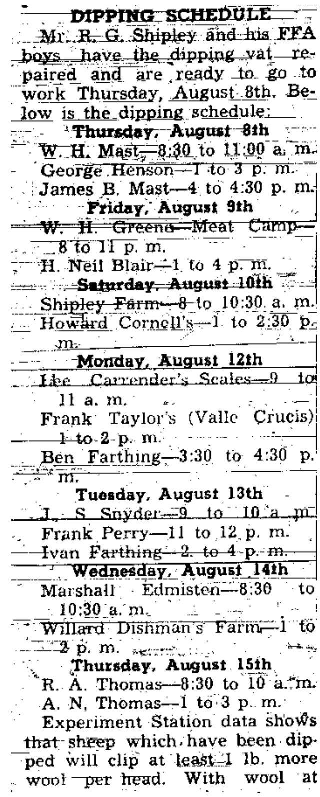
In addition to agriculture extension, vocational agriculture classes were taught at local high schools to better prepare young farmers. Agricultural education during this time focused on introducing boys and men to advances in farming. Instruction was “based on local agricultural experience and opportunities for better farm family life” (Lee 404). Vocational agriculture classes were taught at the high schools in the High Country. One of the Future Farmers of Cove Creek meetings in October of 1932 dealt with sheep. The *Watauga Democrat* outlined the program which had presentations called “Breeds of Sheep” and “Selecting the Flock.” In addition to learning about the different breeds of sheep and how to choose the correct flock for a farm, the eighth grade class participated in judging sheep, which were obtained for practice from a local farmer (“Future Famers” 5). This type of hands-on experience, in addition to classroom knowledge in a subject such as judging sheep, provided young people with vital tools that they could take back to their farms and communities.

Robert Shipley, who taught vocational agriculture, also provided high school students with plenty of opportunities to gain experience with sheep, as well as providing a service to the community. He cites one such example that dealt with controlling pests that plague sheep. He remembers:

> The vocational agriculture teacher before I came to Cove Creek had realized the need for controlling the parasites in sheep and they made this portable sheep dipping vat and toured all over the county. We used a DDT compound to dip the sheep and we would pretty well guarantee that if a sheep owner dipped his sheep and did not add any new sheep or bring any new sheep in, why he would have freedom of lice and ticks for a year. We would do that

> once a year, and he wouldn't be bothered with ticks and lice. Particularly ticks; we didn't have much lice with sheep but ticks could be a major parasite. And we would just schedule a dipping and…it took maybe a month or longer to get over the county and we would go over to one farmer's place and then bring in the sheep to his place at that one time because it was a little time consuming and all to set up and get ready for a dipping and so on. But it was a nice little vat that was portable that… had a ramp that the sheep went up and you helped them down into the vat and then there was a little ladder that they could climb up and a holding vat that let them drain so they didn't carry all their dip out with them and a ramp for them to go down. It worked out real well. (Shipley)

This was done over a period of ten to fifteen years and Shipley's students helped with the operation. It "was partially a fundraiser. We only charged I think 15 cents a head to do it and we didn't make any great amount of money. It was more of a service to the community and to the growers than it was as a fundraiser. We little more than broke even and if we paid the students for the labor then we wouldn't have broken even" (Shipley). The schedule for this event in 1946 can be seen in figure 6 from the August 8 issue of the *Watauga Democrat* ("Dipping Schedule" 8). This support to the community shows that there was a vested interest in seeing farmers succeed and be profitable in their endeavors, and it also shows that young people were willing to gain experience without pay as they had a vested interest in the future of farming.



DIPPING SCHEDULE

Mr. R. G. Shipley and his FFA boys have the dipping vat repaired and are ready to go to work Thursday, August 8th. Below is the dipping schedule:

Thursday, August 8th

W. H. Mast—8:30 to 11:00 a. m.

George Henson—1 to 3 p. m.

James B. Mast—4 to 4:30 p. m.

Friday, August 9th

W. H. Greene—Meat Camp—8 to 11 p. m.

H. Neil Blair—1 to 4 p. m.

Saturday, August 10th

Shipley Farm—8 to 10:30 a. m.

Howard Cornell's—1 to 2:30 p. m.

Monday, August 12th

Lee Carrender's Scales—9 to 11 a. m.

Frank Taylor's (Valle Crucis) 1 to 2 p. m.

Ben Farthing—3:30 to 4:30 p. m.

Tuesday, August 13th

J. S. Snyder—9 to 10 a. m.

Frank Perry—11 to 12 p. m.

Ivan Farthing—2 to 4 p. m.

Wednesday, August 14th

Marshall Edmisten—8:30 to 10:30 a. m.

Willard Dishman's Farm—1 to 2 p. m.

Thursday, August 15th

R. A. Thomas—8:30 to 10 a. m.

A. N. Thomas—1 to 3 p. m.

Experiment Station data shows that sheep which have been dipped will clip at least 1 lb. more wool per head. With wool at

Figure 6. Schedule of Sheep Dipping from August 8, 1946 issue of the *Watauga Democrat*.

Another example of involving young people in farming as a way to provide services to the farmers in the community is outlined in the May 11, 1944 issue of the *Watauga Democrat.* It reads:

> To assist sheepman of the county, the vocational agriculture departments of Boone and Cove Creek high schools are being equipped with electric shearers and power grinders for sharpening combs and cutters and men are being trained in using this equipment.
>
> Jack Kerley, of Blowing Rock R.F. D., will use the equipment of the Boone school in the east end of the county. Any farmer in this area wishing to have sheep sheared on a

> custom basis should contact him. In the west end of the county the service will be available to farmers through Ernest Hillard, vocational agriculture instructor at Cove Creek High School. (“Sheepman of County” 1)

Involving the young people of the county in activities that not only gave them experience but also provided a service to farmers was an important aspect of the High Country.

The cooperative nature of the markets that sold the wool and lambs also contributed to the success of sheep growers in the area. The fourth purpose of the lamb pool states: “to show the farmers that by co-operation they could succeed in the sheep business” (“Lambs for First” 1). The major recurring theme in the articles about the wool and lamb pools is that the organizers of the pools truly wanted the farmer to receive the best possible price for all their hard work. By pooling together resources, these organized events proved that they would be stronger together than separate, and this communal work ethic seemed to be very much a part of the culture in the first half of the twentieth century in this area. These markets were not about cut-throat economics, trying to give the farmer the smallest possible profit margin. By realizing that as a group they could control the market, the farmers had the advantage and were able to get a fair price for their products.

Support also came from other sources that encouraged farmers to raise sheep. In 1929, a company in Lenoir, North Carolina, Almond B. Chapman & Co., advertised in the *Watauga Democrat* that they were

> Offering to place one thousand or more fine Hampshire and Shropshire ewes among Watauga County farmers on a share basis. Local producers will share in the profits on some stated basis and will be out absolutely nothing for the

> sheep other than their keep. The sheep raising industry could easily be made one of Watauga County's greatest sources of revenue and it seems that Mr. Jones [part of Almond B. Chapman & Co.] is offering the solution to the problem of stocking the mountainsides. ("1,000 Sheep" 1)

Though this is a business deal, Chapman & Co. felt their potential share of the profit warranted giving the sheep to farmers at no cost, tying the company's success in this venture to the success of the farmers. This could be viewed as an early example of Community Supported Agriculture (CSA) in which the consumer (Chapman & Co.) paid farmers up front for their production. Though the terms of the share basis are not clear, it seems that the interests of the farmers were taken into consideration, and receiving sheep for free was a way a farmer could start a livestock operation if he did not have cash to purchase animals.

The infrastructure that was provided by NC Cooperative Extension, training to young students through vocational education in the county public schools, and the cooperative nature of the wool and lamb pools created a situation that aided the farmer and provided support while acknowledging the important work of the farmer. This is an example of how the High-Payoff Inputs model offered localized information and technical services to help area farmers become successful. Market power was given to the farmers by allowing them to pool their resources so that they were able to get better prices for their goods than if they sold their wool on an individual basis. An article in the *Watauga Democrat* from 1937 states that "farmers selling lambs through the pool get every cent their lambs are worth on the day the lambs are sold. This usually is a better price than is paid outside the pool" ("Pooled Lambs" 1). All of these supports for the farmer magnified the profitability of the dual nature of the sheep, thus making sheep production an excellent venture for a farmer in the High Country.

CHAPTER IV: THE DECLINE OF SHEEP IN THE HIGH COUNTRY

The 1930s and surrounding decades appear to be the height of sheep production in Watauga and Ashe counties. Sheep production began to decline quite significantly after World War II, and there seems to be a number of conditions that led to this decline. The Committee on the Economic Development and Current Status of the Sheep Industry in the United States (CEDCSSIUS) comments that "the dominant feature of sheep production in the United States…has been the steady decline in sheep and lamb inventories since the mid-1940s" (1). This decline is a combination of many factors relating to the globalizing markets for fiber and meat, changes in consumer preferences for these products, and predators and parasites.

In the state of North Carolina, the number of sheep declined from a maximum number of 90,000 head of sheep in 1931 to around 52,000 head in 1939. The number of sheep in the state basically stayed around this number until the mid-1960s, when the number began to drop to its lowest number of 7,500 head in 1980 and 1981. It has risen slowly since then, and has leveled off at around 20,000 head at present (USDA, NASS, "Sheep and Lambs"). This shows that sheep are still economically important in some parts of the state even though a decline has occurred. Though these are numbers for the entire state, the post-World War II decline is telling of the trend that was also happening in the High Country.

A decline in sheep numbers was noticed as early as 1946. A columnist in the *Watauga Democrat* declared “North Carolina needs more sheep…There was a time in the history of this state when many more sheep were to be found on the farms of North Carolina than are there today” (“We Need More Sheep” 4). The article goes on to point out the profitability of sheep was based on a farmer’s experience, and calls for a substantial increase in the number of flocks of the “animal with the golden hoof and a mortgage lifter” (“We Need More Sheep” 4). The author’s desire for more sheep in the state was not realized, however, as sheep production continued to decline in the decades up to the present. A confluence of many factors led to this decline, and raising interest in farmers could not combat the many issues that the sheep industry faced.

Fiber

Robert Shipley remembers that in the 1950s he “had 12 neighbors here in this immediate area and all 12 farms had sheep on them so that we had supposedly 7,000 to 8,000 ewes in the county” (Shipley). Sheep production was still very much an integral part of farming at that time. He also commented that the decline in sheep “was a fairly rapid decline.” One of the reasons for the drop was “the decline in the value of wool. It declined from where at one time we sold wool for $1.50 a pound and then it declined to where the wool would not even pay the cost of clipping, getting the sheep sheared” (Shipley). Without having income earned from wool to pay for the feed bill, the fate of sheep production was sealed.

In the state of North Carolina the number of sheep being sheared in 1931 was 82,000 head, with a decline to 46,000 head in 1940. This number remained fairly constant until the late 1960s, when the number dropped; by 1979, only 6,000 head of sheep were sheared in

North Carolina (USDA, NASS, "Wool"). This decline in the amount of wool being processed seems to correlate with the increased production of man-made fibers, particularly polyester. The USDA's article "Economic Impact of the Elimination of the National Wool Act" states that "in the U.S., wool use has declined dramatically since World War II. The principal reason has been the widespread consumer acceptance of noncellulosic manmade fibers, such as nylon, polyester, and acrylic" (3). Manmade fibers revolutionized fiber production, and with the invention and acceptance of these fibers, the use of wool decreased.

The first commercial production of polyester in the United States was in 1953. Polyester contained many qualities that would make the fabric desirable, such as being easily washed, wrinkle resistant, resistant to stretching and shrinking, and no itching. It is also well known that man-made fibers, especially polyester, became quite fashionable in the late ʽ60s and ʽ70s, and production of these materials increased during this time.

According to the *Man-Made Fiber Fact Book*, the United States produced 1,812,100,000 pounds of man-made fiber in 1959, compared with 5,061,800,000 pounds in 1969 (Man-Made Fiber Producers Association 34). Wool consumption in 1960 was about 40 million pounds per month, dropping to about 27 million pounds per month in 1970. Man-made fibers, in comparison, started at about 125 million pounds per month in 1960, and by 1970, the rate had increased to about 325 million pounds per month (Man-Made Fiber Producers Association 2). The increase in the use of man-made fibers seems to correlate with the decline of wool use.

The increase in the production of man-made fibers seems to have had a significant impact on wool production, which in turn decreased sheep production. This not only deals with clothing, but other materials that one may not realize, such as carpet. The USDA comments that the "U.S. wool use would be twice as large if carpet use of wool were the same as in the decade following World War II" ("Economic Impact" 3). Man-made fibers are driving the wool market, even through the carpet that we walk on.

Another factor related to the decline of wool production post-World War II has to do with the military demand. Most of the uniforms for soldiers were comprised of domestic wool due to the Buy American Act during World War II and the Korean War, and this demand diminished after those wars. These wars were fought in colder climates, necessitating warm uniforms. Subsequent wars, however, have been fought in hotter climates, such as Vietnam and the Middle East. This not only had an effect on wool producers but also on woolen mills. The CEDCSSIUS comments that "the decline in domestic mill use of wool began after World War II due to the reduction in use by military service personnel. Mill use of wool has also suffered from the continuing decline in sheep numbers…and a shift in consumer tastes and preferences toward lighter-weight casual clothing" (258).

Prior to World War II, there was an additional demand for wool uniforms for fire fighters. In the mid-1800s, wool was used to outfit firefighters because it was a heavy material that offered protection against both hot and cold environments and would not readily burn. Firefighters wore wool pants, a wool shirt, and a long trench coat with a collar made of wool (Hasenmeier). After World War II, other materials such as rubber and vinyl replaced wool as standard attire for firefighters even though these materials could melt. With the decline in demand for uniforms, the wool industry as a whole has suffered, and that has resulted in fewer farmers raising sheep.

A more recent hit to the wool industry occurred in the early 1990s when President Clinton requested that Congress repeal the National Wool Act. Even though this act allowed for incentive payments to farmers, the sheep numbers continued to decline even after the act was signed in in 1954. As a result, in 1992 Congress approved a 2-year phase-out of this act, ending 42 years of federal support to the wool industry (CEDCSSIUS 280). Even though wool production had declined since World War II, the phase-out of the National Wool Act further exacerbated the issue. The USDA found that after the Wool Act ended, wool production decreased by 15 percent ("Economic Impact" 5). Charles Young says it rather succinctly: "when you take away the method to pay your feed bill, sheep are not nearly as profitable," and the popularity of synthetic fibers as well as the repeal of the National Wool Act caused profit margins to decline for wool producers.

Meat

Lamb and mutton used to be a much more common item on the dinner table than they are today. The per capita lamb consumption in the U.S. grew from 1.8 kilograms in 1917 to 3.0 kilograms in 1945 at the end of World War II. In the years following the end of the war, the per capita lamb consumption dropped by more than half to 1.4 kilograms in 1951. After a slight recovery during the 1960s, lamb consumption has steadily declined to around 0.50 kilograms in most years since 1996 (CEDCSSIUS 201-202). Much in the same way that the U.S. Government purchased a large portion of the country's wool for the war effort, they also purchased a large portion of mutton in order to feed troops, which would account for the peak of lamb consumption around World War II. In fact, during the 1940s, the emphasis on sheep production shifted from wool to meat in response to the demand for protein to feed the troops during the war (CEDCSSIUS 17).

The mutton that was served to the troops, however, was less than palatable. Mutton is the meat from older animals that contains more fat and has a stronger flavor, which is said to be an acquired taste. The CEDCSSIUS comments that the "experience of American GIs with poor-quality and poorly prepared mutton during the war negatively affected lamb consumption in the households of returning military veterans" (18). Though this does not seem like a major reason for lamb consumption to decrease in the U.S., there is anecdotal evidence pointing to poor tasting mutton as a major force behind this decline. In a New York Times article, "Much Ado about Mutton, but Not in These Parts," R.W. Apple, Jr. described Erica Rose of the Livestock Marketing Information Center tracing the decline of mutton in the U.S. to the canned mutton that was sent overseas to help feed the soldiers during World War II. They despised the mutton and did not want to see it on the table ever again (Apple, Jr. 2).

Charles Young recognizes this as part of the decline in sheep production in the United States. He remarks:

> A lot of the food that the GIs ate overseas was mutton. It wasn't lamb, it was mutton. The U.S. was used to eating lamb back then, but that ain't mutton, and if you were able to talk to any of the guys coming back they did not develop the taste for mutton. So anytime anyone mentioned eating sheep, naw, that left the dinner table pretty fast. That was another fairly major reason why the meat prices on lambs went down. They associated it with mutton and to be honest back then a lot of the lambs were getting a little big, still are, so they were on the borderline of that muttony taste. That generation didn't like it. That was another nail in the coffin. (Young)

Winston Kinsey also attributes the GI experience with mutton as a reason for the decline in sheep consumption in the U.S. He explains:

> People did eat a lot of mutton in the past. Now soldiers who were in World War I and World War II would not eat mutton because the government bought that to make C-rations even in World War II. That's why the price of lambs was so high. So no ex-soldier would ever eat a sheep. I have barbecued lambs for church picnics and at first no one would go eat it. And then they would say okay, I'll just take a little sample, and first thing you know, the lamb would disappear. But from the ʿ50s, ʿ60s, ʿ70s, they just lost that experience with lamb. (Kinsey, personal interview)

Many men in this country were involved in World War II, so it is not surprising that their bad experiences with mutton would have a lasting effect on the consumption of lamb in the nation as a whole long after the war ended.

In addition to the GI experience lowering lamb consumption, many area abattoirs, or slaughter facilities, closed. As a result of comparative advantage, the small slaughter facilities could not compete with larger facilities and were forced to close. This limited farmers in their ability to sell in the local and regional markets. Winston Kinsey describes how the abattoir in Watauga County closed in the 1980s and the one in Ashe County, located in Jefferson, closed around 2000 (Kinsey, personal interview). Kinsey utilized the abattoir in Ashe County and describes his experience:

> In the ʿ70s and ʿ80s we kind of enjoyed getting lambs butchered over in West Jefferson that we would butcher for individuals …Sometimes ten to fifteen I'd butcher over there and carry a load over there. They were great. I hated to see them

> go out of business. But I'd tell them who it was for, they'd write a name on a box, they'd put all that meat in that box. And that way if Charlotte Frost out in Vilas wanted a rack of ribs tied in a circle, they'd do it that way and it had to be done in that way or you'd hear from her. And they finally got it right. But anyway, we did that and we would deliver it. It would take us about half a day to get them delivered but they had been in the freezer so they were still fresh. And I got a little more for them that way. (Kinsey, personal interview)

From Kinsey's description of the abattoir, it is apparent that farmers were able to utilize this facility in order to sell to a local market. The orders were individualized for the customer, and in the end, the famer made more money from going through this process. The direct connection between the producer and consumers allowed the market for local meat to be profitable and foster community kin networks.

This is part of the communal atmosphere that made sheep profitable, and being able to sell directly to neighbors, offering them exactly what they wanted, was a benefit for everyone involved. Once the local abattoirs closed, a farmer would have to travel to Wilkesboro (the closest slaughterhouse to Boone) in order to process his lambs to sell. This added travel may not have been worth the trouble or expense, and could have added to the decline of raising sheep for meat in the High Country.

Globalization

The communities that comprise the High Country up to the 1930s utilized kin ties within a subsistence-first based economy. The transition to a cash economy, however, would change the way economic interactions occurred. In 1933, state laws were passed to regulate bartering in stores, primarily by subjecting bartered material to a sales tax. The *Watauga Democrat* outlined the rules that applied to an exchange that had been unregulated, stating store keepers were required to document “all second-hand or used articles or repossessed articles on hand”; any items in the store after July 1, 1933, were subject “to the three percent sales tax if they are sold at retail and the wholesale rate if sold at wholesale” (“Articles of Barter” 4). Regulation of bartering in a way forced community stores to participate in the cash economy and in doing so, diluted the subsistence-first economy. Perhaps this is why trading wool at the general stores fell out of practice during the mid-1930s.

In addition to state laws, there were many other reasons the local economy in the High Country transitioned into a primarily cash based economy, including increased development in the region. John Alexander Williams explains that the New Deal legislation of the 1930s that brought regional development initiatives and jobs to this region in the form of National Parks and other tourist destinations was the last sign of the “communal features of the farm-and-forest economy” (298). Everyone can recognize the latest additions to the High Country due to the tourist draw: ski slopes and gated communities for second homes. These, however, are the culmination of a long line of regional development ideas that began back in the 1930s when the economy made a shift from subsistence to cash-based.

Along with development to attract tourists to the area, corporate development and industrialization occurred. Patricia Beaver wrote “between 1900 and 1930, over six hundred company towns sprang up in the southern Appalachians, drawing mountain families from the farm and into factory towns” (29). People began to work outside of the home or the family farm at factories and other industries that took people out of the subsistence based economy into the cash based economy. In Boone, Blue Ridge Shoe Company and Shadowline Lingerie

Company were factories that brought manufacturing jobs to the county. World War II reinforced the need to work outside the home as many women had to go to these factories to work while their husbands or fathers were away fighting the war.

The community stores also began to disappear during this time. Edgar Eller remembers "Well, the first thing that happened was they done away with all the small post offices. Then [they built] supermarkets, first one, then another, and nobody came to the country store no more. Everybody got an automobile, so that just about wiped out the country store" (Eller). Since people were making cash outside of the home, the need to trade at community stores seemed obsolete. Anne Chesky comments that

> The community stores once prevalent throughout mountain communities have long since closed, and many are now merely memories of collapsed buildings. With an increasingly mobile population who found work off the farms and outside of Meat Camp [in Watauga County], the subsistence economy that relied on these stores for barter and a few cash items, transitioned into a cash economy during the period from 1940 to 1960 that no longer needed stores nearby their homes for survival. (22)

Only the dilapidated shells of community stores remain today as a reminder of a different time, one that almost seems ancient, where people would trade goods for the items they needed and trade gossip with the shopkeeper.

Although there are physical reminders of the shift in the community that took place after the 1930s, the simultaneous changes within the people themselves cannot be overlooked. Elvin Hatch writes:

> The earlier system of subsistence farming was not simply a means for supplying what the family needed to survive, but instead it was a total way of life that infused the actions of men, women, and children with moral worth. From the level of everyday actions to overall life trajectories, people were oriented by community expectations that defined what it meant to be an honorable person, and they sought to achieve respectability within that framework. But modernity and the money economy challenged—or, rather, discredited—the moral beliefs by which they constructed their lives in the subsistence economy, consequently their sense of who they were was challenged. The struggles between progressives and conservatives, and between the earlier patterns of subsistence farming and the new modernity, were largely struggles among locals over how to define or frame their identities as persons. (8)

The very foundation on which the High Country communities operated had been changed, seemingly overnight, and the community members were left wondering how they would fit in to the new way of life, or feeling optimistic about the future.

Expanding the cash-based economy outward, globalization has offered many conveniences and choices to consumers, yet it has also left many producers without a comparative advantage and left many feeling lost in the new modernity. Just like the general stores and the local abattoirs that were forced to close, many sheep farmers could not compete with the global market for lamb and wool, and were forced to end their sheep enterprises.

Australia and New Zealand have long been known for raising sheep, and it is the expanded global market that makes it possible for their products to compete with domestic wool and meat. These countries hold a comparative advantage in sheep production over the

U.S., and as a result pose risks to the domestic sheep industry. The CEDCSSIUS observes that despite the decline in the U.S. lamb production since the 1940s, it has only been recently that imports have become a force in the industry. In the 1960s and early 1970s, imports of lamb grew to twenty percent of the level of domestic production. However, by 2005, the level of imports was nearly equal to the level of domestic production (CEDCSSIUS 214-215). This signals that as our world becomes more globalized, imports have increased significantly, causing the number of sheep in this country to decline.

The importation of wool follows a similar story. During the 1980s and 1990s, support prices in Australia, New Zealand, and South Africa were set well above market levels, creating stockpiles of wool. This wool was gradually placed on the world market which weakened world wool prices through at least 2000 (CEDCSSIUS 19). Winston Kinsey recalls this flooding of the market, and comments that the market for wool has been flooded by those countries until this year as they are now finding shipping to be too expensive (Kinsey, "Interview Questions"). Facing a flooded market, domestic producers found it difficult to compete.

To further compound this issue, the National Wool Act was eliminated in 1993. This act allowed wool to be a profitable part of raising sheep until it was repealed. The elimination of this program resulted in a loss of a guaranteed portion of income for sheep producers. According to USDA analysis, sheep and lamb inventories fell 22 percent and wool production declined 15 percent between 1994 and 1998 following the elimination of the act (USDA, "Economic Impact" 4-5). By removing the main price support for farmers, they could not compete in the domestic or foreign wool market, and the number of sheep declined as a result. This falls perfectly into the globalization, neo-liberal, and comparative advantage ideologies.

Domestic raw wool processing also decreased due to globalization. In 1995, the Multi-Fiber Agreement (MFA) was replaced by the World Trade Organization's Agreement on Textiles and Clothing (ATC). The MFA called for quotas on textile and clothing exports. However, with the ATC, the quotas were to be eliminated over a ten year period, which resulted in increased imports of textile products as raw fiber milling shifted to China, India, and other countries where labor costs are lower (CEDCSSIUS 259-260). The cost of labor in these countries is a fraction of that in the U.S. ($1 to $2 per hour compared to $15 to $20 per hour in the U.S.), and the environmental regulations are less restrictive (CEDCSSIUS 260). This is an example of comparative advantage in the global realm. Because of these cheap and exploitative labor practices, factories in the U.S. can no longer afford to operate. This overseas raw fiber milling and textile production has further limited the sheep industry because many domestic mills are no longer in existence to purchase wool in this country.

Another factor related to globalization that has affected the sheep industry in the U.S. is the small number of meat processors in relation to the larger number of producers and consumers. As our world becomes increasingly more globalized, large companies buy up smaller ones and form large conglomerates. The same is true for the lamb industry as producers sell their lambs to a relatively small number of relatively large commercial feeders. Author and activist Raj Patel describes this as a bottleneck in the distribution chain which is linked to power. He comments:

> As far as power is concerned, the bottleneck is the central clue. Somehow, we've ended up in a world with a few corporate buyers and sellers. The process of shipping, processing and trucking food across distances demands a great deal of capital—you need to be rich to play this game. It is also a game that has economies of scale. This means that the bigger a company is, and the more transport and logistics it does, the cheaper it is for that company to be in the business…And when the number of companies controlling the gateways from farmers to consumers is small, this gives them market power both over the people who grow the food *and* the people who eat it. (Patel 12)

This bottleneck allows the buyers and sellers to exert their power over both the farmers and the consumers. Although the situation with the sheep industry is likely not as severe as other areas of agriculture such as grains, this bottleneck still exists and puts farmers at a disadvantage.

As the local abattoirs went out of business, the larger packing companies began handling more business. The CEDCSSIUS states that "the four largest slaughtering firms accounted for almost 70 percent of the federally inspected lamb slaughter in 2005" (7), and "as a consequence, commercial feeders have some potential market power relative to [small] producers" (7). These feeders and packers hold the power in these transactions, which is a far cry from the kinship based interactions that allowed a farmer to sell directly to consumers with both parties benefitting from the transaction.

There are many examples of how globalization has affected the sheep industry in the United States, and each has taken a hand in furthering the decline in sheep numbers. This is only part of the story, however, and other factors have also played a role in changing an industry that was so important for this country for many decades.

Predators and Parasites

Two factors that affect the raising of sheep most on the farm level are predators and parasites. Coyotes, bobcats, and dogs are common predators of sheep, and according to Edward Norris Wentworth, writing in 1948, "dogs have always been most difficult to combat because of their familiarity with human habits and their superior sagacity…[and] some dogs kill only one or two in a flock, others cripple or destroy all" (487). Sheep are notoriously defenseless, and without the extra protection of a tight fence and a guard animal, predators are easily able to wipe out flocks.

Much like during the time of Wentworth's writing, dogs continue to be a main predator problem for sheep. The source of this problem for the High Country is often attributed to second-home buyers or others that move to this area who are oblivious to the workings of predator-prey relationships. Not only do they bring dogs, but the development needed to build homes has also displaced wild predators of sheep. Charles Young comments that after World War II, "we got people up here, and people brought their dogs, and dogs killed the sheep. That's one reason we don't have sheep anymore, a big reason" (Young).

Winston Kinsey agrees with Young because he has experience with this type of predation. He states "I've had predators from the beginning. Mainly dogs in the beginning. That creates friction because when your neighbor dog gets in and kills ten sheep it's hard to tell him that it was his dog. Feelings get hurt" (Kinsey, personal interview). Kinsey also comments that "neighbors with just a house in the country have dogs, but they do not understand the damage they can do unless kept under control" (Kinsey, "Interview Questions"). This issue is difficult to navigate because most people feel a strong bond with their dogs and may not want to take responsibility for a dead sheep or flock by better controlling their animals.

Another relatively new predator to this area is the coyote. Kinsey comments that coyotes moved into this area around 1998 to 2002 and "they are clever and can trick a guard dog, or guard llama, or guard donkey. They take the entire lamb (leave nothing). They are hard to keep out, even with excellent fences" (Kinsey, "Interview Questions"). Having an extremely clever predator is difficult for sheep farmers as it is hard to protect against attacks. Other predators include wolves, cougars, bears, and eagles, all of which "love to eat lamb…and nobody knows which one it is because they can all go over the fence. And they don't leave anything" (Kinsey, "Interview Questions"). It is not uncommon to catch a sighting of any one of these wild animals, and a pasture full of defenseless sheep might draw the predators to a particular farm. It is because of this predator problem that many have given up on raising sheep as it becomes too costly to regularly lose one or more from the flock.

Another problematic issue relating to the health of sheep is parasites. Sheep are very prone to internal parasites and they prove to be deadly. Winston Kinsey comments:

> What has ruined the sheep industry is internal parasites and the lack of drenches that will take care of them…Valbazen won't work anymore. The white drenches will not work. The parasites have gotten an immunity to them. And here you have to drench every month whereas we used to drench twice a year growing up in Texas. It was drier, they grazed on larger pastures. So the parasites here have become a real

> problem and evidently they have gotten resistant to drenches. A lot of people are using organic drenches, but they will get an immunity to them too. (Kinsey, personal interview)

The drenches used to be a viable solution to control for internal parasites; however, the resistance that is now being displayed to the drenches shows that there is no silver bullet for controlling parasites. Even organic drenches are not safe from parasitic immunity.

Another problem sheep experience is foot rot that can be costly to the farmer and deadly for the sheep. Kinsey describes that sheep pick up foot rot

> …because you're dealing mainly with small pastures with sheep having to graze too long on a small pasture. So if there is a wet spot, if they lay around in a wet spot, they pick up [foot rot]…there are two strains of bacteria that cause foot rot and get between the toes and the foot really gets messed up and you have to trim, it's a lot of trouble. You have to trim the feet a lot. They get to where they just crawl on their knees. (Kinsey, personal interview)

This debilitating disease is compounded by the moist environment in the High Country, and could be another reason why farmers discontinued raising sheep.

The confluence of predators, parasites, and diseases is one of the main reasons the sheep industry is not at the level it once was. Continuously fighting other animals or parasites in order to keep a flock alive can seem like an uphill battle and this further compounds the reasons why sheep declined in the High Country.

Sheep Today

In comparison with today, sheep production was a much more integral part of farms in Ashe and Watauga counties during the 1930s and 1940s. In the 2007 Census of Agriculture—County Data, which is the most current agriculture data, Watauga County only had 14 farms that raised sheep, with a total number of 202 sheep. This is less than half the number of sheep in the county in 2002, which was 456 (USDA, NASS, "2007 Census, Watauga"). Ashe County had more sheep, with 936 sheep in 2007 and 964 in 2002, (USDA, NASS, "2007 Census, Ashe"), but these numbers paint a very different picture of sheep being a profitable venture for every farmer as people like Woodrow Winebarger and Dave Main described the situation in the 1930s and 1940s.

In Ashe County in 2007, 10 farms produced 2,528 pounds of wool and 21 farms sold 493 sheep and lambs. Watauga County had 13 farms that produced 993 pounds of wool and 13 farms sold 120 sheep and lambs (USDA, NASS, "2007 Census, Ashe"; "2007 Census,Watauga"). Though wool is still a byproduct of raising sheep, it is not the profitable income that will pay for the feed bill anymore. The community market aspect of raising sheep, such as the wool and lamb pools, still exists on some level, but not to the degree they once did.

Robert Shipley states that "they still have a wool pool there in the county now, but it is so small it is nothing compared to what it once was. Now it's very difficult to find someone to shear the sheep" (Shipley). In 2010, there was a state wool pool that pooled wool from all over the state in four different locations, and sent it to the Mid-States Wool Growers Cooperative Association based in Canal Winchester, Ohio. Eddy Labus, an Associate Extension Agriculture Agent in Watauga County, describes the current process as "just a day set aside when growers deliver their wool. It is hauled to Alleghany County and picked up by Mid-States Wool Growers Association. They weigh the wool at the truck and then a payment is sent later. I think with the cost share and the price of wool, growers received about 35 cents per pound of wool. They will harvest from 6-10 [pounds] of wool per mature sheep" (Labus, "Re: Sheep Research").

For the 2010 wool pool, Labus sent out an informational letter. This letter mirrors information that was once put on the front page of the *Watauga Democrat*, informing growers of the wool pool, set for Wednesday, July 7 from 8 am to 12 pm at the Agricultural Conference Center in Boone. Wool bags could be purchased for $3 each. Prices had been set by Mid-States Wool Growers for North Carolina and Virginia pools at the following rates: Staple A (clear wool) at $0.37 per pound; Off Color, Short and Reject at $0.28 per pound; and Black at $0.03 per pound (Labus, "To Sheep Producers"). The wool collected in Boone is then sent to Allegheny County where a larger collection is made for the region. Then all of the wool is sent to Mid-States as they have the bid on the collection each year.

Wool production in the High Country and surrounding areas used to warrant a wool pool in each county, but this is no longer the case. Charles Young comments on the change in the wool pool and amount of wool collected:

> We have the Alleghany pool, we have one in Williamston, down East, one in Albemarle, and one in Asheville, to cover the whole state. To be honest, with wool bringing 30 cents a pound, you can't haul it very far as a producer. Your guys from Watauga will get all their wool and bring it over in one long gooseneck trailer. And generally in Watauga the last 2 or 3 years, [they collected] 8 or 10 bags, times 150

> [pounds], that's how much wool is coming out of Watauga—not much. And part of Watauga's wool is actually Ashe County wool. The guys that live out in Creston will go to Boone instead of haul it to Sparta…The Sparta pool last year, we might have had 4,000 to 5,000 pounds, somewhere in that range, and that was from all of North West North Carolina and South West Virginia. North Carolina total, we might have had 20,000 pounds of wool last year, maybe, I don't think so. I think it was closer to 16,000 [pounds]. And when you consider average, each ewe would have about 5 pounds of wool, if we had 20,000 pounds for the state, that's only 5,000 sheep for the state. (Young)

It is apparent that a drastic drop in the amount of wool collected over the years has occurred, and even the process has changed due to the small amount of wool that is being sold through the pools.

There were once many companies that would make a bid on the wool, assuring the farmer the best price possible. Now there is only one group bidding. This is likely because most of the wool companies now operate where it is cheaper to produce goods. Charles Young describes the progression of wool pools:

> As time went on all those companies started dropping out, they went overseas, and they didn't need wool here. Back in the early to mid-'90s we were down to five companies bidding on wool…and it got to where a couple years ago the only people that would buy our wool was the Mid-States wool co-op out of Ohio…Now Mid-States buys all of our wool on consignment or just buys it, so the wool pool now is just a collection point for Mid-States. Used to during the wool pool, the farmers

> would bring the wool in and NCDA guys would be up here and would grade all of the wool as in every fleece that came out those guys would stick their hands in it and tell if it was long wool, short wool, the grade, how coarse it was, if it had a couple burrs in it, and rebag it…You weighed it as each producer came in and then had to grade each one, so they had so many pounds of each grade. We generally had 5 or 6 different grades and then we'd bag it all separately and ship it to the company. Now, we take it over to Sparta at the fairgrounds, unload it off their pickup, weigh it, put it on mid-states truck, it goes to Ohio, and they grade it and reweigh it. It is so much easier. (Young)

Though the current process is much easier and less work than in the past, some see the newer process as more problematic. Winston Kinsey describes that Mid-States does "the grading and you have to trust it's the right grade and that is a problem. Used to, NC State would send up a grader, every year. We'd grade it all right here. Now Mid-States Co-op does their own grading, which is somewhat of a problem, a buyer is grading it and could send you a low check" (Kinsey, personal interview). The power has been taken out of the hands of the farmers over time, and the possibility does exist for the farmer to receive a check that is lower than expected. This is a definite change from the height of sheep production when the highest price was guaranteed, and there were safeguards, such as on-site graders, to ensure each person was being fairly graded and receiving their fair share.

Whether receiving a fair share or not, wool does not bring in income like it once did. Winston Kinsey described that he "got a thirty dollar check from the government which I have to report on my income taxes. It came in the mail last week. Thirty dollars, and I sheared about 20 sheep" (Kinsey, personal interview). The check the producer receives is lower than in the past, and this does not take into account other expenses that are incurred during the wool production process. Sheep must first be sheared, and this is a dying art as not many people can do this today. Though this area produced shearing champions in the past, not many can shear presently.

In Watauga County, a professional shearer comes each year to shear many sheep from different farms in one location. The shearer, Stewart Mathermy, begins shearing in New Zealand, then goes to Australia, Britain, the South East United States, and through the Western U.S. (Kinsey, "Interview Questions"). He can shear a sheep in about three minutes, and is providing a service to farmers that is becoming harder to come by. This service is not free, however, so costs associated with shearing as well as the transportation to the pool collection point are extra costs that are not reflected in one's check from Mid-States. Charles Young states it is "going cost you $2.50 to $5.00 a head to get them sheared for regular sheep. If you get five pounds of wool off of them, sell it for 30 cents a pound, that's a $1.50, you just lost a couple dollars a head shearing" (Young). Clearly selling wool through the current wool pool is not a profit-maker, and it will certainly not pay for the upkeep of the sheep as in the past.

The same is likely true of selling lambs. Part of the process of selling lambs is still the same as "the markets to sell the lambs haven't changed a whole lot, you're still looking at your local livestock markets, and most of those will actually have a buyer from New Holland, and that's where they all end up, in Pennsylvania at the livestock market" (Young). This is the easiest way to sell lambs today, and it does mirror the past as lambs are pooled and sent up North. Other parts of how people sold lamb have changed, such as the many local abattoirs that have closed, making it difficult to butcher for consumers in this immediate region without driving over an hour away.

Since wool is no longer profitable, lamb is now the main product of raising sheep. Though the lamb industry is not at the point it once was either, it has grown over the past few years as consumption has risen. U.S. lamb consumption hit a low of 134 million kilograms in 1996 and has grown slowly ever since (CEDCSSIUS 169). Even though this amount is much lower than other sources of protein, there has been growth in this area recently. This breaks the trend of the downward spiral of lamb consumption and offers a glimpse of growth in this transitioning industry.

Perhaps raising sheep will never return to the level it was during the 1930s and 1940s due to the many factors that led to its decline. It will on some level, however, continue; yet this will only be accomplished through new ways of marketing and exploring alternative markets for sheep products.

CHAPTER V: THE FUTURE OF SHEEP IN THE HIGH COUNTRY

The High Country has a rich history of raising sheep. Thousands of sheep dotted the mountainsides, and farmers had many choices for marketing their products, creating an arena where farmers held the power. A glimpse of the history of this one animal illustrates the markets that existed in the past and how these markets operated in order to secure community ties. It also provides an example of the decline of agriculture and manufacturing as a whole in the High Country. Although this draws up feelings of nostalgia for the past, one must not focus on this romanticized view of this era. Sheep numbers drastically declined in this area, yet there are still markets for sheep and lamb products. Instead of trying to recreate the past, one must take lessons from the past, but also look to the future.

History shows that the High Country supports sheep very well, yet this is not accomplished today without hard work and innovation. A person must really want to raise sheep as they must deal with many issues including predators and parasites, low prices at regular marketing outlets, and the global market. In order to overcome the comparative disadvantages facing sheep farmers in the High Country, farmers should not try to compete in the global market, but instead focus on local community connections.

I am not advocating that all farmers in this area begin raising sheep, but I am simply suggesting that by marrying some aspects of tradition with innovation, a farmer could add sheep to his or her farm to earn some extra income or to make the farm more diverse and dynamic. Grazing specialists Alice Beetz and Lee Rineholt suggest that adding livestock to a farm widens the economic base by providing additional marketable products and presenting alternative ways to market grains and feed produced on the farm (1) as animals convert feed or grains into meat, wool, or milk. Sheep could make a farm more dynamic by providing an additional enterprise to safeguard against crop failure, livestock death, or any other unforeseen event that could be detrimental to a farm. It returns the farm to the multi-livelihood strategies of yore that made farming possible in the past, and may do so again in the future.

Dealing with Predators and Parasites

Innovation in marketing first requires that the sheep live long enough to reach the marketing stage. Predators and parasites are one of the main factors affecting sheep production, yet dealing with these issues can also be approached in creative ways. Although predators can be guileful, certain safeguards can be in place to help prevent predator attacks. Good fencing for sheep is a priority, and the recommended type is woven wire fencing that is electrified, either powered conventionally by electricity or solar-powered. Charles Young endorses this as "the only fence [he] would consider would be woven wire, which is not real cheap, combined with electric. And the reason for that is to keep the dogs out and to keep the sheep in" (Young). Winston Kinsey also applauds this type of fencing: "The great control of predators is with electric fencing, good woven wire fencing and barb wire, but with sheep you do it to keep the coyotes out. You've got to have a wire with electricity… All they have to do is get stung once and that's the end of it" (Kinsey, personal interview). Young and Kinsey both are describing a popular fencing system—woven wire that is electrified. The tight spaces between woven wire fence systems keep predators out and sheep in. Electrifying the fence further ensures that predators will not try to make their way into the field as they will receive a shock. Fencing is of upmost importance, and is the first barrier against a predator reaching sheep.

Fencing is a priority for raising sheep, and a potential barrier for someone entering sheep production is the high cost of fencing. Sheep require a much tighter fence than a larger animal, meaning the space from the bottom of the fence to the ground needs to be smaller than for horses or cattle, for example. Because of this, older fencing that might already exist on a property may not be sufficient. Robert Shipley comments that “sheep require a tighter fence than cattle do and a lot of our fences have declined where they just haven’t been maintained to be sheep tight and fencing is a pretty expensive process” (Shipley). Woven wire fencing is not the most affordable type of fencing, and coupled with an electric charger, the entire fencing package could prevent someone from raising sheep. Nevertheless, it is an essential component to raising sheep and good fencing is crucial to help prevent predator attacks that would likely be even more costly. It is also said that the upfront cost pays for itself over time due to its effectiveness of keeping out predators (Simmons and Ekarius 118).

Combined with good fencing, it is recommended that a guard animal be in the field with sheep at all times. Guard animals are usually dogs and one of the most common breeds for guarding sheep are Great Pyrenees. Guard dogs work well for some, but there are some issues to consider which may lead to the decision for a different species. Charles Young believes guard dogs “are a good idea if you’ve got enough land. A lot of the problem with guard dogs comes when we try to talk a Pyrenees into guarding 20 acres and they want 1000. You can’t change genetics very much. That’s a big problem, and the fencing has to keep the guard dog in as well as keep the other dogs out. If you keep the other dogs out, why do you need a guard dog?" (Young). Paula Simmons and Carol Ekarius, sheep experts, write that guard dogs are most effective on small farms with good perimeter fences, preferably electric or electric added to woven wire (156). Guard dogs work well for many farmers, but there are other options for smaller farms that do not have a large acreage or farms that are located in areas that could be dangerous for dogs, such as being adjacent to a major highway.

Other animals that serve as guard animals include llamas and donkeys. Winston Kinsey comments that "llamas help, they'll kill a dog. Donkeys, [they are also a] pretty good guard animal" (Kinsey, personal interview). The California Department of Food and Agriculture produced a pamphlet on guard animals for sheep. They comment that llamas provide an effective, long-term, and economical choice for a guard animal as they require little training, graze the same pasture as sheep, require similar vaccinations, and instinctively dislike canines (California Department of Food and Agriculture 2). In a study initiated in 1990, 145 sheep farmers utilizing llamas as guard animals from around the country were asked about their annual sheep loss due to predation prior to and after obtaining a guard llama. The average loss prior to the guard llama was 11% while the loss after obtaining a guard llama was 1% (Iowa State University 4). From this study, it seems that llamas can be effective guard animals for flocks of sheep.

Donkeys are also becoming a popular choice for a guard animal as they are intelligent with acute hearing and sight and will drive off a predator by braying, baring teeth, chasing, and attempting to bite or kick (California Department of Food and Agriculture 2). As with llamas, donkeys graze the field, requiring little to no extra feed. They can also serve as a guard animal for more than a decade. Though these animals may not be the most obvious choice for a guard animal, they are used to help control predators along with good fencing.

Parasites can also be approached in a different light. Since chemical controls are no longer working as well as they once did, farmers are trying different control measures. Rotational grazing is heralded as a way to cut down on parasites and make a farm healthier as a whole. Rotational grazing is a "grazing management strategy characterized by periodical movement of livestock to fresh paddocks to allow pastures time to regrow before they are grazed again" (Beetz and Rinehart 1). This is a result of having the correct number of animals grazing in an area that is appropriately sized, which prevents overgrazing. Rotational grazing mimics natural grazer behavior where there are a high number of animals on a small piece of land for a limited time period, then giving the land sufficient rest to recover. The short duration high grazing pressure ensures a more even eating of the pasture and prevents less wanted or less palatable species to start dominating over the pasture.

Extension agent J. Craig Williams and agronomist Marvin Hall offer four steps to rotational grazing: 1. Determine the number of animal units that will be in the grazing system, 2. Estimate how many acres will be needed throughout the grazing season, 3. Estimate how large each paddock should be, and 4. Estimate the number of paddocks needed (1-3). Rotational grazing requires upfront calculations and work; however, in the end the pastures and livestock will likely be healthier.

Agriculture specialist Margo Hale comments that pasture management should be a primary tool to control internal parasites in sheep because they ingest parasite larvae that have crawled up plants one to two inches from the ground (5). If the pasture rest periods are sixty days or more, it allows infected pastures to return to a low level of infectivity. This strategy for managing pastures is effective in helping to manage parasites because most of the worm larvae that infect sheep can be found in the first two inches of grass, and the rest periods allow the pasture to grow. If sheep rotate out of a pasture with grass two inches tall into a pasture with taller forages, they will have fewer parasite problems (Hale 5). Having a plan in place for where the sheep will go once the grass becomes too short in one pasture is important as overgrazing could be deadly in terms of the parasites that could infect the livestock. Therefore, the grazing strategy that is utilized is of utmost importance, especially with parasites becoming resistant to chemical control methods.

Another grazing strategy that could be implemented along with rotational grazing to reduce parasites in livestock is multi-species grazing. Sheep and goats are generally not affected by the same parasites as horses, cattle, chickens, or turkeys. Therefore, pastures first grazed by cattle and horses are safer for sheep and goats and vice versa. Cattle consume sheep parasite larvae which helps clean the pasture for the sheep, thus potentially reducing internal parasite problems (Hale 5). When chickens or turkeys are placed in a field after sheep, they eat the larvae and worms as well as spread the manure throughout the field. Charles Young recommends rotational and multi-species grazing to help manage parasites. He comments:

> I am fairly well convinced that rotational grazing is the only method that you can use to help control parasites and not just rotational grazing as in sheep changing pastures, but I think you've got to have cattle behind the sheep to eat sheep parasites. I don't think drugs are the answer, mainly because the parasites are resistant to all the drugs we've got…When you think about the life cycle of parasites, the eggs hatch out in manure and the larvae climb up the grass, and the next critter that eats them is the one that supposedly gets infected with them. Well cattle and sheep don't share parasites so cattle eat all the sheep parasites, and once they're gone, they're gone. Then you

> should have a clean pasture—you'll have cattle parasites, but they won't affect the sheep. And then the sheep can eat all those. So you just keep rotating back and forth and if you can handle it right, you're okay. (Young)

If a farmer had enough land to handle more than one type of livestock, multi-species grazing seems to create a symbiosis between and among animals and the soil.

Another tool to reduce the incidence of internal parasites in sheep is to conduct fecal tests regularly. In areas where worms are bad, such as in the humid climate of the Southeast, regular testing of fecal counts indicates to a farmer when a supplemental chemical control might be necessary (Simmons and Ekarius 206). The hope is that chemical controls will not have to be used often due to pasture management because of parasite resistance; however, fecal tests will indicate when these control measures are necessary due to high worm counts.

Raising heritage breeds of sheep could also be a partial solution to the overall health of a flock. Rare and heritage breeds have fallen out of favor in high-input, industrialized agriculture, yet heritage breeds were dominant breeds only a few generations ago. For farmers interested in small-scale, low-input farming, heritage breeds can be more hardy and versatile. Many are dual purpose, producing a combination of meat, wool, or milk. Some are acclimatized to regional environments as well as resistant to diseases and parasites (Simmons and Ekarius 40). Examples of heritage breeds are Cotswold, Leicester Longwool, Shetland, Shropshire, and Southdown. Many of these breeds have a history in the High Country (with Cotswold, Leicester, and Southdown being breeds the English settlers in the Appalachians herded), so it is possible that they could be better suited to the mountain environment and more disease resistant.

Even though chemical controls of parasites are not as effective today, other methods can be utilized. Rotational and multi-species grazing requires some thought and planning, but result in healthier soils. With healthier soils come increased health of livestock, and though sheep will never escape parasites, grazing methods are inventive ways to help deal with illnesses in the era of parasite resistance to drugs. Raising heritage breeds that might be best suited to the High Country is another idea that could potentially reduce the incidence of illness.

Emerging Markets

There are a number of new emerging markets or alternative ways that people could utilize sheep for today. This is the future of raising sheep in the High Country. Phillip Hasheider, livestock scientist, observes that "in recent years, many small-scale sheep-raising programs have emerged either as a result of, or in conjunction with, niche markets involving artisan wool, cheese, and meat products" (9). The emerging markets for sheep products today allow many people to raise sheep at a small scale.

With the emerging and alternative markets, consumers may be local friends and neighbors or buyers that have interest in local products, including restaurants and local retail outlets. These markets reinforce ideals presented in the theories of a local food economy, civic agriculture, and a culture of the table. Farmers' markets are places where direct marketing is quite effective and allows for a direct connection between producer and consumer. Products could also be marketed on the internet or by direct mail-order to meet demand in a broader geographic market that still acts as a small niche market. Though these markets are relatively small compared to the conventional markets, they are "sectors that are experiencing growth and are creating new markets for lamb" (CEDCSSIUS 310).

Many elements from past eras are part of the emerging markets, but the key to raising sheep today is innovation and marketing. Charles Young puts it well when he said: “I still think the big thing is figuring out how to market. Raising the sheep is not a big deal. Marketing the sheep is the challenge and [it is] a big challenge” (Young). The following niche markets, if accessed effectively, could allow sheep to add to a farm’s profitability.

Sheep Dairy

Sheep dairies fill an up-and-coming niche market in the United States. The CEDCSSIUS even calls dairy sheep production “a new agricultural venture in the early stages of becoming an economically important agricultural industry in the United States” (295). This new agricultural venture in the United States has been common in Europe for centuries, mostly for the cheese that is produced from the milk such as feta, parmesan, and Roquefort (Coleby 1). Even though sheep dairy production has a long history in Europe, in the United States, the first sheep dairy farms were established in the mid-1980s and true sheep dairy breeds were first imported into North America in the early to mid-1990s (CEDCSSIUS 295).

There are fewer than one hundred sheep dairies in the United States, far fewer than cow or goat dairies (Thorpe 68), and the largest concentrations of sheep dairies in the U.S. are in the Upper Midwest (Wisconsin and Minnesota) and New York and New England (Vermont, New Hampshire, and Maine, in particular; CEDCSSIUS 295). These areas are usually thought of as cheese-producing regions, so it is not surprising that most of the sheep dairies are located there. Others continue to be established, such as Locust Grove Farm near Knoxville, Tennessee.

Sheri Palko, owner and operator of Locust Grove Farm, initially entered the sheep dairy business because she had purchased sheep to train her herding dogs as she placed the dogs into competitions as a hobby. As time went on, she decided that this was an expensive hobby and the sheep needed to "earn their own way" (Palko). As dairies are very expensive ventures up-front, Palko and a business partner applied for a Tennessee Agriculture Enhancement Program grant in 2005 and received their licenses in 2006.

Though marketing is a crucial point in alternative markets, Palko seems to have found her niche. Locust Grove farm sells four types of sheep milk cheeses which are made on-farm by hand. They sell at many different farmers' markets each week from spring through the fall. They also sell wholesale and have a website where orders can be placed. Cheeses are shipped all over the country every Tuesday, and soon they will be moving to a larger farm where they hope to develop various agri-tourism options. In this way the farm is practicing civic agriculture, by intentionally engaging with customers as a way to have economic dealings through communal ties. The farm will also be diversifying its operation by offering soft cheeses in May (Palko). Most sheep dairies only offer hard cheeses, so offering soft cheeses is a way to open up their market.

By marketing effectively, Locust Grove Farm has become a profitable venture for Palko. The dairy is the main farm business, but additional income is obtained from selling excess lambs for meat, adding business profitability (Palko). The cheeses sell for between $17 and $19.50 per pound, yet Palko needed to connect with the right markets in order to become a profitable enterprise. Economic stability was not achieved overnight, and much planning and work goes into the dairy. Sometimes achieving profitability includes hiring people best suited for certain aspects of the operation, such as their Production and Sales

Manager, who is also an experienced cheese maker (Palko). Effective marketing also includes having access to a variety of markets including farmers' markets and wholesale. The entire business is not depending on one market, and this is beneficial if it is a rainy day at a farmers' market or if wholesale sales are down one week.

This new endeavor of sheep dairies in the United States is growing and is proving to be a profitable business, as illustrated by Locust Grove Farm. The sheep milk itself, in part, is to thank for the success. Phillip Hasheider describes qualities of sheep milk that translates into profit for farmers:

> Sheep milk accounts for about 1.3 percent of the world's total milk production and most of it is made into cheese, including the well-known feta, ricotta, and Roquefort. Sheep milk is highly nutritious and richer in vitamins A, B, and E; calcium; phosphorous; potassium; and magnesium than cow milk. It is also more easily digested than cow milk because it contains smaller fat globules. Sheep milk can be frozen and stored without affecting the cheesemaking qualities. This allows the milk to be stored until a sufficient amount is available for transport, sale, or cheesemaking. Because of the higher solids content in sheep milk, more pounds of cheese can be made from an equal volume of cow or goat milk. Sheep milk will yield 18-25 percent cheese, while cow and goat milk typically yield about 10 percent. Although you will get significantly less milk from sheep than from goats or cows, sheep milk can sell for four times the price of cow milk and the price will also be reflected in the price of the cheese…sheep milk can also be made into ice cream and yogurt for value-added products. (161)

Besides the nutritional qualities that set this milk apart, one aspect of sheep milk that makes it unique and conducive to small-scale farming is the fact that it can be frozen. Flocks can be milked with the milk to be frozen until there is enough to produce the end product, whether that is cheese or shipment to a larger dairy. This is quite an advantage for anyone with only a few sheep wishing to enter this arena.

There are two avenues for selling sheep milk, since it is generally processed and not consumed raw. The first is to ship raw milk to a processor who will process the milk into cheese or yogurt. This is when freezing milk is a benefit, as processors can be far away or need a minimum amount for processing. One sheep dairy cooperative, the Wisconsin Sheep Dairy Cooperative, collects milk from members and markets it to processors (CEDCSSIUS 300). This is an anomaly in sheep dairy marketing, likely due to the already existing dairy infrastructure in Wisconsin that does not exist elsewhere on a large scale. In the High Country, the most obvious avenue for marketing the milk would be to process it on-farm and sell the value-added product, whether that be cheese, yogurt, or even ice cream.

Many small farms opt to process the milk on site, and often sell at local venues such as farmers' markets. Of the sheep dairies in the U.S., 71 percent of those in the East processed milk on-farm into value-added products, while only 10 percent of those in the Western region processed milk on their farm (CEDCSSIUS 302). This could be the result of the Wisconsin Dairy Cooperative marketing fluid milk for farmers in the West, while an organization such as this does not exist in the East. In many places in the Eastern U.S., making value-added products on the farm is the only way to process the milk.

Liz Thorpe, vice president of Murray's Cheese in New York, highlights seven sheep dairies in her book *The Cheese Chronicles*, and all of the farms process their milk on the farm. The fact that a substantial section of Thorpe's book about cheese in general is devoted to sheep dairies shows that the sheep dairies are becoming a viable new farm industry in the U.S. Some farms, such as Vermont Shepherd in Vermont, by virtue of being one of the first sheep dairies in the U.S., have become a place where aspiring cheesemakers visit (Thorpe 73). Each farm has its own distinct product, and the dairies are able to coexist.

One service in place that has aided the sheep dairy industry is the Dairy Sheep Association of North America (DSANA). This organization was established in 2002 and serves the sheep dairy community through quarterly newsletters and a yearly sheep dairy symposium. DSANA is

> …made up of dairy sheep producers, cheesemakers, and industry supporters, including suppliers, educators, and researchers [and their] mission includes the following goals: DSANA will promote effective dairy sheep management by educating, supporting and encouraging new and established sheep milk dairies, farmsteads, and artisanal sheep milk cheesemakers; DSANA will promote cooperation and exchange of information among producers of sheep milk and cheesemakers; DSANA will also promote the products manufactured from sheep milk; DSANA will help producers organize activities for the genetic improvement of dairy sheep; DSANA will endeavor to inform and educate the public as to the merits and availability of sheep dairy products; DSANA will strive to help foster international understanding and the free exchange of ideas between North American based producers and producers abroad. (*DSANA*)

This organization serves as a Cooperative Extension of sorts for the sheep dairy community, and in this way, the sheep dairy industry displays the same communal spirit characteristic of raising sheep during the 1930s and 1940s. The community atmosphere that was felt in the bulletins to sheep farmers in the *Watauga Democrat* is also felt in the goals of DSANA's mission.

Sheri Palko, of Locust Grove Farm, comments that most of the dairy help she has received has come from local classes offered through the Tennessee Quality Milk Initiative Program. She also draws on resources and expertise from DSANA and respected sheep dairy owners who are willing to share their knowledge and time to help new farms in the industry (Palko). There is also continual research being conducted at the Spooner Research Station in Wisconsin, which is the only sheep dairy research farm in the country. In this way, Schultz's High-Payoff Input Theory is being put to use as this research information is disseminated to sheep dairies through organizations such as DSANA. Palko attests to the great information that the research station provides to help sheep dairies continually improve (Palko). The willingness to share and distribute information in a specialized operation such as sheep dairies is important to the success of the operations and allows the farmers to hold the power in their markets, much like in the past.

Though there is much support for this growing industry, there are potential barriers that might make sheep dairying a difficult enterprise to begin as a small farmer. Rebecca King, who owns Garden Variety Cheese in California, comments that the initial start-up costs for a sheep dairy can be quite expensive as the dairy facility must be entirely completed and the milking flock must be bred before any product can be produced and sold (5). Though the start-up costs can be expensive, grants, much like the one Palko received, are available to help surmount this barrier. DSANA regularly offers grant workshops at their annual symposium and encourages and offers support to farmers seeking to apply for grants.

Other barriers for farmers entering the sheep dairy business are Federal and State regulations concerning a dairy. The regulations for both are enforced at the state level, and a farmer should be in contact with the state dairy inspection office prior to purchasing equipment to make sure it complies with the latest regulations (King 3). The type of product being made determines whether the dairy should meet Grade A or Grade B standards. Aged raw cheeses are processed in Grade B dairies where wood may be used in the milking parlor and a pasteurizer is not needed as the cheese is aged for a number of months to ensure food safety. Grade A dairies are for fresh or soft cheeses and yogurt. These dairies are subject to the Food and Drug Administration's Pasteurized Milk Ordinance, requiring the milk to be pasteurized prior to processing (King 3). This means that a pasteurizer is mandatory, which is an additional cost that a Grade A dairy must absorb in addition to the need for all stainless steel construction materials in the dairy.

As regulations regarding dairies are changed and updated frequently, anyone seriously considering entering the sheep dairy business should contact the North Carolina Cooperative Extension to obtain the latest regulations and receive guidance based on the type of dairy that will be built. The Federal and State regulations regarding dairies could be a barrier to a small farmer as it requires time and resources to plan ahead for nearly every detail of the dairy. The process of planning for a dairy in line with the Federal and State regulations can be daunting as a farmer must commit to a plan and enact the plan before he or she knows if the product will sell. Sheep dairying is nearly an all-or-nothing prospect because it cannot be tried out on a small scale to test the market prior to building a milking parlor or USDA-approved processing facility. This is a major drawback to sheep dairying; however, for those committed to the idea of a sheep dairy, careful planning and patience will ease the process. In addition, DSANA is in place to aid farmers interested in starting a sheep dairy. Many farmers have experience with starting a new enterprise while applying for grants and keeping up with the regulations. This resource is invaluable for farmers thinking of entering the up-and-coming business of sheep dairying.

A sheep dairy is one option for a farmer who would like to raise sheep. Though upfront costs can be high and regulations can be intimidating, there is a large domestic market for sheep milk cheeses. The consumption of sheep milk cheeses in the U.S. has increased by 30 percent from 1985 to 2005, and in 2005 it was estimated that less than 1.3 percent of the total sheep milk cheese available was domestically produced (CEDCSSIUS 305). With an increase in consumption, more domestic sources of sheep milk cheese are needed. Also, as community members learn of sheep cheese and have an opportunity to connect with the farm, the local market for sheep cheeses will likely rise as well.

Specialty Wools

As the wool pool does not offer much in the way of compensation for shearing a sheep today, markets for specialty wool are emerging, and could be an avenue for a farmer raising sheep in the High Country. This is a small but growing market as there is a need for specialty wools for hand spinners, yarn for weavers and knitters, and other wools such as naturally colored wools. In this market, there is an emphasis on natural products as there is an increasing interest in organically grown wools (CEDCSSIUS 286). Specialty wool can be sold as individual fleeces, yarn, fabric, or finished products.

Though more elusive than other markets, Young believes

> If you've got a specialty wool, you can definitely sell to [the hand spinning guild] clientele. It takes a while to develop the market. There actually used to be a yarn store here in town that used her own wool and sold it through that outlet. She still sells [the wool]; she just doesn't have a store front right now. But again that is a limited market. [Of] course, if you can get into it, it is a lucrative limited market. (Young)

Much like any emerging markets, marketing is a key to success. The southern Appalachians are thought of as a place where people make traditional crafts, such as weavings, knit or crocheted goods, and quilts. Associated with the craft industries are various craft guilds including hand spinning and quilt guilds that have a customer base that would buy specialty wools. The challenge, again, is to find and connect with this customer base. Miss Babs, a resident of the High Country, dyes fibers. This is one component of the specialty wool market and it seems that she has found her niche and connected with her customer base in the wool market. Since 2005 she has been dyeing fibers full-time and selling her products at local yarn stores, on-line, and through fiber shows ("About Us," *Miss Babs*). Color is her passion, and her business is a success story for entering the specialty wool market.

Some people today have a few sheep for personal use of the wool. James Poole, who had a few sheep about 5 years ago, had someone shear the sheep, and he gave the wool to a neighbor. She in turn made items such as mittens out of the yarn (Poole). Robert Shipley has a neighbor that has sheep because "she wanted to have some wool to work for her knitting and weaving" (Shipley). In an area with many hand-crafters such as northwestern North

Carolina, there appears to be enough people who use hand spun wool to make a small market for sheep's wool.

On a scale larger than personal use, small wool mills or mini mills are utilized to produce wool into yarn, fabric, or finished products for specialty markets. A mini mill can process between 20 and 100 tons of scoured wool, and the finished product can then be sold. Some producers elect to sell the raw wool directly to hand spinners. This may result in sales of as much as $50 to $100 of wool per ewe per year (CEDCSSIUS 319), which is considerably more than is made through a wool pool.

It is difficult to determine the size of this specialty wool market because, even though it is an important market for both buyers and sellers, sales are usually conducted through private party sales or on the Internet (CEDCSSIUS 319). Because of this, it may be wise to start small in order to find and connect with the market before producing enough wool to send to a mini mill for processing. Once a market is established, then it is likely to grow. A place to start and to gauge interest, as with most niche products, is the farmers' market. There is a market for specialty wool in the High Country. The challenge, as Young points out, is marketing and connecting with the consumers.

Local Lamb

Though the consumption of lamb is much lower than it once was, a small niche market exists for selling lamb in the High Country. The most common and arguably the easiest way to sell lambs is through the lamb pool, however, many farmers are choosing to direct-market their lamb to sell to a local clientele base. The stigma associated with mutton from World War II does not seem to be relevant today. The most likely reason that people do not consume lamb is because they never have. It seems that “lamb is consumed fairly consistently by a small group of consumers and not at all by most consumers. Indeed, recent research shows that only 20 percent of consumers can be considered ‘lamb consumers’” (CEDCSSIUS 203), defined as having eaten lamb in the past twelve months. Thirty-five percent of consumers have never eaten lamb, 13 percent have prepared lamb in the past three months, and 16 percent no longer eat lamb (CEDCSSIUS 203). There is a small market among lamb eaters in the U.S., and this market could expand as more people are educated about lamb.

In direct marketing lamb, the most common method is to sell freezer market lambs. In the freezer market, producers sell live lambs to consumers, help make arrangements for custom slaughter, and deliver the lamb to the slaughterhouse for the consumer (Shiflett et al. 3). This is how Winston Kinsey sold some of his lamb before the local abattoirs closed, making the cuts customized to each client. The closest Food and Drug Administration (FDA) inspected slaughter facilities are Thomas Brothers in Wilkesboro, Mays Meats in Thomasville, and Joines Meat Processing Plant in Chilhowie, Virginia, all of which are over an hour away from most locations in the High Country. Travel time and expense is something to consider with freezer markets; however, the price gained from selling locally may offset these costs.

Another way to sell lamb locally is to have one of the FDA-inspected facilities package different cuts of lamb and sell these items at a farmers’ market, to a retail outlet, restaurants, or directly to customers. This method cuts out the middle man of traditional markets and allows the producer and consumer to directly connect. If the meat is sold at a farmers’ market, it must also be frozen, which may not be the case when selling to a restaurant or retail outlet. Yellow Wolf Farm, formerly of Ashe County, sold lamb at the Ashe County Farmers' Market as well as started a meat-buying club called High Country Grass Fed. This club was modeled after a community supported agriculture example where Yellow Wolf and other local farms offered shares of their natural, grass-fed meat, as well as eggs, cheese, and soap, to participants (Nicholson). Yellow Wolf Farm has since moved away from the area in order to expand operations, and it seems that the buying club disbanded with this move. However, it is an archetype for future endeavors. Connecting producers and consumers directly could be a way to educate people about eating lamb, something that was very common in the 1930s, and in doing so, the market could expand for selling local lamb.

Ethnic Market for Lamb

Although lamb is not an integral part of the diet in the U.S., consumption rates on the East and West coasts are higher than in the heartland, and this is attributed to the "ethnically and culturally diverse character" (CEDCSSIUS 310) of these coasts. Several ethnic groups within the U.S. regularly consume lamb, particularly those of Middle Eastern, North African, Caribbean, southern European, and South Asian descent. Lamb consumption among these groups seems to persist from generation to generation as well (CEDCSSIUS 310), making them more likely to continue purchasing lamb. A recent study shows that in 2008, direct marketing accounted for 48 percent of federally inspected lamb slaughter of 2.3 million head. Forty-eight percent of this direct market lamb was purchased by White buyers, 23 percent by Middle Eastern buyers, 18 percent by Latino buyers, and 11 percent by unknown ethnicities. Minority populations, which accounted for 35 percent of America's population in 2008, consume a disproportionate 58 percent of the lamb available via direct marketing (Shiflett et al. 6). For lamb producers, this should be a market to tap into as it is a steady market.

Lamb is a major consumption item for significant holidays or for regular consumption for some religious groups. Jewish and Muslim populations are

> …of particular interest to the sheep and lamb industry because lamb is the preferred meat in celebration of religious holidays. The Jewish minority comprises of 1.7 percent of the U.S. population while the Muslim population comprises about 0.6 percent. Lamb is often preferred for the estimated 5 million Jews during Passover in the spring and again during Rosh Hashanah in the early fall. Lamb is important for the estimated 1.8 million Muslims during two periods of the year. The first is during the month of Ramadan and on Eidu al-fitr, during the first day of the month following Ramadan. Second, lamb is preferred for Eidu al-adha which occurs during the last month of Islamic calendar and is in celebration of the annual Hajj… People of both the Jewish and Muslim faiths have specific demands for lamb. People of Jewish faith who maintain a kosher diet require that animals with cloven hooves like lambs be slaughtered under strict supervision and with specific instructions. Similarly, the Muslims prefer halal lamb which means the animal's throat is slit and all blood drained, in addition to a Muslim prayer and turning the animals head toward Mecca. (Shiflett et al. 39)

Food for religious purposes is an important and stable market as the holidays occur each year at a known time. Lamb can be grown and ready specifically for the religious ethnic markets.

Slaughter data shows that Muslim holiday periods and Christian and Orthodox Easter affect the slaughter levels of lamb and the impact of these holidays seems to be increasing with time (CEDCSSIUS 313). It is even suggested that an additional slaughter of lambs and yearlings occurs each year to coincide with religious holidays. With minority populations increasing in the U.S., it is likely that the ethnic market for lamb will exponentially increase as well. The U.S. Census Bureau reports that minorities comprise about one-third of the U.S. population; they are expected to become the majority in 2042 and grow from there (Shiflett et al. 55). This could suggest a potential increase in lamb consumption in the future as minority groups continue to grow.

The most common avenues for selling lamb for ethnic markets includes auctions, through dealers or brokers, and direct trade with the customers (Shiflett et al. 21). Much like selling lamb for regular markets, all of these venues are also ways to cater to the ethnic markets during religious holidays or for regular consumption. Magazines such as *Sheep!: The Voice of the Independent Flockmasters* alert readers for times when they might consider having lambs ready to sell. In the January/February issue for 2011, W.L. Felker writes that for the date of February 9 producers should consider a "marketing plan for Dominican Republic Independence Day (the 27th). New Lambs appeal to this market and may help reduce feed costs as Early Spring approaches. And Passover and Easter are only 10 weeks away. Estimate desired weight gains of lambs born this month for those markets" (47). A resource such as this allows producers to learn about different markets they may not know existed, such as Dominican Republic Independence Day.

This is an emerging market that has not been fully established or researched; however, it is apparent that the ethnic market consumes a substantial percentage of lamb in the United States. This market should be considered for people raising sheep in the High Country. Lamb for religious holidays would most likely need to be sold through an auction, but direct marketing of lamb for Latino populations could be a possibility in this region.

CHAPTER VI: CONCLUSION

The cultural history of raising sheep in the High Country is rich with meaning and tradition. Farms prior to World War II operated under subsistence-first economies where the family was provided for and any surplus goods were sold or traded. Webs of kinship ties within multiple-livelihood strategies allowed communities to prosper because they relied on one another while utilizing diversification to earn a living. Sheep fit into this community structure of the High Country quite well. Thousands of sheep were raised in this area, with the height being in the 1930s and 1940s. Schultz's High-Payoff Input model explains the localized information that was disseminated by extension agents which ensured that sheep farmers obtained the latest research. Careful attention was given to relaying this information, as is evidenced in articles from the *Watauga Democrat.* Communal markets were utilized to ensure farmers received top dollar for their products, which further reinforced the idea of kin based networks (where kin is expanded to include the community of sheep farmers), giving power to the farmers within their local communities.

The High Country saw a decline in sheep numbers, much like the rest of the United States, following World War II. Many factors led to this decline. Globalization coupled with comparative disadvantages in transport, climate, small farms difficult to expand and mechanize, and the mountainous terrain forced agriculture and manufacturing out of the High Country as food and industrial products could be made elsewhere for cheaper. The number of sheep also decreased as agriculture as a whole declined in this region. Sheep were no longer profitable additions to farms as wool could no longer pay for the upkeep of the animals and predators and parasites decimated flocks.

The challenge today is to meld tradition with innovation if one is to raise sheep. It is undeniable that sheep played an important role in the agricultural history of Ashe and Watauga counties. Though sheep should not be reintroduced into this area simply based on a romanticized view of history, the future of agriculture in this area touts a relocalization effort, aimed at regaining the power that was taken away from the community through the process of globalization. As vehicles of sustainable agriculture and development, the local food economy, civic agriculture, and a culture of the table place an emphasis on community interactions based around food as a way to subvert the industrial food model. It is only through these avenues that sheep can once again be integrated into farms in the High Country as part of a multiple livelihood survival strategy for small farms, an essential strategy in making farms and agriculture more sustainable.

Community markets such as farmers' markets, CSAs, and roadside stands play a prominent role in connecting producers with consumers in this relocalization movement. It is through these markets that innovative ways for using sheep are translated into income and profit. Sheep dairies, specialty wools, and local lamb all hold a place within these community markets which mimic the markets from the early 20th century. It is in the revisiting of these markets that the power that globalization took away many years ago is once again placed back in the hands of the local community. This relocalization movement is fostered through ideas such as a local food economy, the culture of the table, and civic agriculture.

Many obstacles must be overcome, such as effectively dealing with predators and parasites, and finding the correct market base in which to sell products. The general thought is that sheep can be a profitable venture, but not without a lot of hard work and creativity. Many factors are going against the small-scale sheep farmer of today, yet emerging and alternative markets give hope to an industry that is making the transition from tradition. From this research, it is apparent that one could successfully raise sheep today in the High Country; the key is to find or create niche markets for specialized products based on direct contact with consumers, catering to their tastes and wishes.

Sheep can be re-integrated into the small farms in the High Country. They are a livestock animal that can contribute to the sustainability of a farm. Grazing strategies can be implemented to contribute to the soil and pasture vitality, and by doing so, parasites can better be controlled. Since they are a smaller livestock animal, sheep can graze steep slopes causing less erosion than larger animals, eliminating harmful weeds and keeping land clean. Rotational and multi-species grazing strategies are tools to work toward overall farm health. Sheep also help in the diversification of a farm, which makes the farm more resilient.

In the High Country, a farm intending to integrate sheep into their operation would include rotational grazing strategies coupled with marketing strategies that would enhance the local food economy. The possibilities are endless as the local market is not currently flooded with sheep products. The nearest sheep dairy is located about 130 miles from Watauga and Ashe counties, near Knoxville, Tennessee. A sheep dairy is an excellent prospect for a farm in the High Country. Markets for specialty wools are also wide open, and as there is a large crafting community in the High Country, this market could be tapped and developed. Many Latino immigrants and other ethnic communities who bring a culture of lamb consumption to this area make the market for local lamb a distinct possibility as well.

By participating in the local food economy through civic agriculture and the culture of the table, sheep can be re-integrated into farms in the High Country. This melds tradition and innovation together to work toward the relocalization of markets that would once again put the power in the hands of the farmers and strengthen the connection between producers and consumers. In this way, the detrimental effects of globalization and the comparative disadvantages of this region can be healed and the High Country can work towards sustainable development through agriculture.

WORKS CITED

"About Us." *Miss Babs.* Miss Babs, n.d. Web. 22 April 2011.

"Agricultural Leader Say Sheep Raising Should Be Increased on Mountain Farms." *Watauga Democrat* 12 March 1942: 3. Microfilm.

Apple, Jr., R.W. "Much Ado about Mutton, But Not in These Parts." *NY Times* 29 March 2006. Web. 9 March 2011.

"Articles of Barter are Subject to Sales Levy." *Watauga Democrat* 20 July 1933: 4. Microfilm.

Beaver, Patricia. *Rural Community in the Appalachian South.* Prospect Heights: Waveland Press, 1986. Print.

Beetz, Alice E. and Lee Rinehart. "Rotational Grazing." *National Sustainable Agriculture Information Service*. 2010. Web. 23 March 2011.

Bennholdt-Thomsen, Veronika and Maria Mies. *The Subsistence Perspective.* New York: Zed Books, 1999. Print.

Berry, Wendell. "The Idea of a Local Economy." *Art of the Commonplace: The Agrarian Essays of Wendell Berry.* Norman Wirzba ed. Washington, DC: Shoemaker & Hoard, 2002. 240-261. Print.

---. *Tobacco Harvest: An Elegy.* Lexington, KY: The University Press of Kentucky, 2004. Print.

Best, Bill. "Farmers' Markets." *Encyclopedia of Appalachia.* Eds. Rudy Abramson and Jean Haskell. Knoxville, TN: The University of Tennessee Press, 2006. 416. Print.

Billings, Dwight and Kathleen Blee. *The Road to Poverty: The Making of Wealth and Hardship in Appalachia.* Cambridge: Cambridge University Press, 2000. Print.

Blethen, Tyler H. "Pioneer Settlement." *High Mountains Rising: Appalachia in Time and Space.* Eds. Richard A. Straw and H. Tyler Blethen. Chicago: University of Illinois Press, 2004. 17-29. Print.

Borgmann, Albert. *Real American Ethics: Taking Responsibility for Our Country*. Chicago: The University of Chicago Press, 2006. Print.

Boyer, Jefferson C., Jonas Monast, and Ray Moretz. *Toward a Sustainable Economy in Western North Carolina: Ashe and Watauga Counties.* Boone, NC: Sustainable Development Program at Appalachian State University, 1993. Print.

Calhoun, C., ed. *Dictionary of the Social Sciences.* Oxford: Oxford University Press, 2002. Print.

California Department of Food and Agriculture. "Livestock Guardians." Sacramento: California Department of Food and Agriculture. Print.

Cattaneo, Andrea. "Regional Comparative Advantage, Location of Agriculture, and Deforestation in Brazil." *Journal of Sustainable Forestry* 27.1-2(2008): 25-42. Print.

Chesky, Anne. "From Sewing to Shopping: Signals of a Shifting Economy." Seminar Paper for Appalachian Culture and Social Organization, Appalachian State University. 2009. Print.

Coleby, Pat. *Healthy Sheep Naturally*. Collingwood, Australia: Landlinks Press, 2000. Print.

Committee on the Economic Development and Current Status of the Sheep Industry in the United States. *Changes in the Sheep Industry in the United States: Making the Transition from Tradition*. Washington, D.C.: The National Academies Press, 2008. Print.

Cooper, Leland R. and Mary Lee Cooper. *The People of the New River: Oral Histories from the Ashe*, *Alleghany and Watauga Counties of North Carolina.* Jefferson: McFarland & Co, 2001. Print.

Craig, John Alexander. *Sheep Farming in North America*. New York: The MacMillan Company, 1918. Print.

Davis, Donald. *Where There are Mountains: An Environmental History of the Southern Appalachians.* Athens, GA: University of Georgia Press, 2000. Print.

"Dipping Schedule." *Watauga Democrat* 8 August 1946: 8. Microfilm.

DSANA: Dairy Sheep Association of North America. 2011. Web. 20 April 2011.

Dunaway, Wilma. *The First American Frontier.* Chapel Hill, NC: The University of North Carolina Press, 1996. Print.

"East Tennessee & Western North Carolina Railroad (ET & WNC- Tweetsie)." *Johnsonsdepot.com.* Henry Johnson Associates, 2011. Web. 3 April 2011.

el-Ojeili, Chamsy and Patrick Hayden. *Critical Theories of Globalization.* New York: Palgrave, 2006. Print.

Eller, Edgar. Personal Interview, conducted by Susan Pepper. 2005.

Eller, Ron. *Miners, Millhands, and Mountaineers: Industrialization of the Appalachian South, 1880-1930.* Knoxville, TN: University of Tennessee Press, 1982. Print.

---. *Uneven Ground: Appalachia Since 1945.* Lexington, KY: The University Press of Kentucky, 2008. Print.

Felker, W.L. "Poor Will's Sheep! Almanack." *Sheep!: The Voice of Independent Flockmasters* January/February 2011: 46-47. Print.

"Future Farmers Hold Another Interesting Meet." *Watauga Democrat* 27 October 1932: 5. Microfilm.

Guthman, Julie. *Agrarian Dreams: The Paradox of Organic Farming in California.* Berkley: University of California Press, 2004. Print.

Hale, Margo. "Managing Internal Parasites in Sheep and Goats." *National Sustainable Agriculture Information Service.* 2006. Web. 22 April 2011.

Halperin, Rhoda. *The Livelihood of Kin: Making Ends Meet "the Kentucky Way."* Austin: University of Texas Press. 1990. Print.

Hamilton, H.M. "News and Views of the Farmers." *Watauga Democrat* 8 June 1944: 5. Microfilm.

---. "News and Views of the Farmers." *Watauga Democrat* 30 August 1945: 4. Microfilm.

Hasenmeier, Paul. "The History of Firefighter Personal Protective Equipment." *Fire Engineering.* 2008. Web. 30 March 2011.

Hasheider, Philip. *How to Raise Sheep.* Minneapolis, MN: MBI Publishing Company, 2009. Print.

Hatch, Elvin. *Economies of Worth: Constructions of Wealth in the Mountain South, 1930-1960.* Manuscript. 2007. Print.

Hennen, John C. and Ronald L. Lewis. "Labor." *Encyclopedia of Appalachia.* Eds. Rudy Abramson and Jean Haskell. Knoxville, TN: The University of Tennessee Press, 2006. 551-557. Print.

"History." *Hollar & Greene: The Number One Supplier of Fresh Cabbage for the Retail Market.* Hollar & Greene Produce Company, 2011. Web. 2 April 2011.

"How to Make More Money on the Farm." *Watauga Democrat* 24 January 1929: 1. Microfilm.

IMF Staff. "Globalization: A Brief Overview." *International Monetary Fund.* May 2008.Web. 4 April 2011.

"Intestinal Parasites in Sheep Controlled." *Watauga Democrat* 16 March 1944: 3. Microfilm.

Iowa State University. "Guard Llamas: A Part of Integrated Sheep Protection." Ames, IA: Iowa State University, University Extension, 1994. Print.

"Jersey Is Proven Good Market for Watauga's Lambs." *Watauga Democrat* 11 August 1932: 1. Microfilm.

King, Rebecca. "Getting Started in Sheep Dairying." *Proceedings of the 15th Annual Great Lakes Dairy Sheep Symposium.* Madison: Dairy Sheep Association of North America, 2009. 1-7. Print.

Kinsey, Winston. "Interview Questions." Handwritten letter to the author. 25 January 2011. Print.

---. Personal Interview. 25 January 2011.

Kirkland, Taylor. "Multiple Livelihood Strategies and Economic Change in Elk Knob, North Carolina." Seminar Paper for Appalachian Culture and Social Organization, Appalachian State University. 2009. Print.

Labus, Eddy. "Re: Sheep Research." Message to the author. 3 November 2009. E-mail.

Labus, Eddy. "To Sheep Producers." Letter to the author. 20 May 2010. Print.

Lacefield, Garry D. and Monroe Rasnake. "Subsistence Farming." *Encyclopedia of Appalachia.* Eds. Rudy Abramson and Jean Haskell. Knoxville, TN: The University of Tennessee Press, 2006. 433. Print.

---. "Sustainable Agriculture." *Encyclopedia of Appalachia.* Eds. Rudy Abramson and Jean Haskell. Knoxville, TN: The University of Tennessee Press, 2006. 432-435. Print.

"Lambs For First 1941 Shipment to Be Weighed 3rd." *Watauga Democrat* 26 June 1941: 1. Microfilm.

Lee, Jasper S. "Agricultural Education." *Encyclopedia of Appalachia.* Eds. Rudy Abramson and Jean Haskell. Knoxville, TN: The University of Tennessee Press, 2006. 404. Print.

"Livestock Sale Breaks Record." *Watauga Democrat* 31 August 1944: 1. Microfilm.

Long, Murray. *Breeding Stud Sheep*. Collingwood, Victoria: Land Links, 2008. Print.

Lyson, Thomas A. *Civic Agriculture: Reconnecting Farm, Food, and Community.* Lebanon, NH: University Press of New England, 2004. Print.

Main, Dave. Personal Interview by Patricia Beaver. 23 September 2003.

Maine, Council. Personal Interview. Vicky Hayes, transcriber. 2002.

Man-Made Fiber Producers Association. *Man-Made Fiber Fact Book.* New York: Man-Made Fiber Producers Association, Inc., 1970. Print.

Mast, William Howard. "Robert G. Shipley." *Community and Change in the North Carolina Mountains.* Edited by Nannie Greene and Catherine Stokes Sheppard. Jefferson: McFarland & Co., 2006. 188-191. Print.

McNeil, Bryan. "Global Forces, Local Worlds." *The American South in a Global World.* Eds. James L. Peacock, Harry L. Watson, and Carrie R. Matthews. Chapel Hill, NC: The University of North Carolina Press, 2005. 99-110. Print.

Morris, John. "Only Memories Left as Last Burley Warehouse is Demolished." *Mountain Times* 9 January 2003. Web. 2 April 2011.

NC Cooperative Extension. "The Cooperative Extension Service Organizational Chart." *NC Cooperative Extension*. 2009. Web. 27 November 2009.

Nicholson, Scott. "High Country Grassfed Offers Fresh, Local Meats." *Ashe Mountain Times Online* 11 November 2009. Web. 13 May 2011.

Norberg-Hodge, Helena, et al. Bringing the Food Economy Home: Local Alternatives to Global Agribusiness. Bloomfield, CT: Kumarian Press, 2002. Print.

Palko, Sheri. "Re: Sheep Dairy Research." Message to author. 24 March 2011. E-mail.

Patel, Raj. *Stuffed and Starved.* Brooklyn: Melville House Publishing, 2007. Print.

Poole, James. Personal Interview. October 11, 2009. Print.

"Pooled Lambs are to be Sold." *Watauga Democrat* 5 August 1937: 1. Microfilm.

"Purebred Ram and Ewe Sale." *Watauga Democrat* 5 July 1945: 6. Microfilm.

Ruttan, Vernon W. "Productivity Growth in World Agriculture: Sources and Constraints." *The Economics of Sustainable Development.* Ed. Sisay Asefa. Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research, 2005. 65-98. Print.

Sachs, Wolfgang, et al. “Fairness in a Fragile World: A Memo on Sustainable Development.” *Creating a Sustainable World: Past Experience/Future Struggles*. Ed. Trent Schroyer Tom Golodik. New York: Apex Press, 2006. 31-58. Print.

Schroyer, Trent. “From Sustainable Development to Developing Sustainability.” *Creating a Sustainable World: Past Experience/Future Struggles*. Ed. Trent Schroyer and Tom Golodik. New York: Apex Press, 2006. 7-24. Print.

“Sheepman of County to be Assisted in Shearing their Flocks.” *Watauga Democrat* 11 May 1944: 1. Microfilm.

“Sheep Shearing School.” *Watauga Democrat* 16 May 1946: 8. Microfilm.

Shiflett, Julie, et al. “Nontraditional Lamb Market in the United States: Characteristics and Marketing Strategies.” *American Sheep Industry Association.* Prepared for the American Sheep Industry Association with American Lamb Board Collaboration, February 2010. Web. 24 March 2011.

Shipley, Robert. Personal Interview. October 23, 2009.

Shiva, Vandana. “The Great Betrayal: Why Civil Society Walked out and Withdrew Consent from W$$D.” *Creating a Sustainable World: Past Experience/Future Struggles*. Ed. Trent Schroyer and Tom Golodik. New York: Apex Press, 2006. 25-29. Print.

Simmons, Paula and Carol Ekarius. *Storey’s Guide to Raising Sheep.* North Adams, MA: Storey Publishing, 2009. Print.

“State College Issues New Bulletins on Sheep.” *Watauga Democrat* 9 July 1942: 5. Microfilm.

Sustainable Agriculture Research & Education (SARE). “What is Sustainable Agriculture?” *SARE: Sustainable Agriculture Research & Education.* SARE, 2011. Web. 4 April 2011.

Thorpe, Liz. *The Cheese Chronicles.* New York: ECCO, 2009. Print.

“Tie Wool Fleece with Paper Twine.” *Watauga Democrat* 26 April 1945: 3. Microfilm.

United States Department of Agriculture. “Economic Impact of the Elimination of the National Wool Act.” 1999. Web. 8 March 2011.

---, National Agricultural Statistics Service. “U.S. & All States Data—Sheep and Lambs 1930 to 2009.” 2009. Web. 15 October 2009.

---, National Agricultural Statistics Services. “U.S. & All States Data—Wool 1930 to 2008.” 2008. Web. 15 October 2009.

---. *Soil Survey: Watauga County, North Carolina.* Series 1944, No. 5. Washington D.C., 1958. Print.

---. "2007 Census of Agriculture County Profile: Ashe County, North Carolina." 2007. Print.

---. "2007 Census of Agriculture County Profile: Watauga County, North Carolina." 2007. Print.

van der Ploeg, Jan Douwe. *The New Peasantries: Struggles for Autonomy and Sustainability in an Era of Empire and Globalization.* Sterling, VA: Earthscan, 2009. Print.

Walsh, Tommy. Personal Interview by Michael Sheridan and Jake Altemus. 2002. Print.

Walker, Gary. *Soil Ecology.* Appalachian State University. Rankin Hall, Boone, NC. 24 January 2011. Power Point Presentation.

Watauga County Farmers' Market. Watauga County Farmers' Market, 2011. Web. 2 April 2011.

"Watauga Livestock Market." *Watauga Democrat* 27 April 1944: 3. Microfilm.

"Watauga Wool Pool to Be Formed June 5-6." *Watauga Democrat* 29 May 1930: 1. Microfilm.

Wharton, Jr., Clifton R. *Subsistence Agriculture & Economic Development.* New Brunswick, NJ: Transaction Publishers, 1969. Print.

"We Need More Sheep." *Watauga Democrat* 21 February 1946: 4. Microfilm.

"We Want 2,487,805 LBS. WOOL!" *Watauga Democrat* 18 May 1933: 8. Microfilm.

Wentworth, Edward Norris. *America's Sheep Trails*. Ames: Iowa State College Press, 1948. Print.

Williams, J. Craig and Marvin H. Hall. "Four Steps to Rotational Grazing." University Park, PA: Penn State University, 1994. Print.

Williams, John Alexander. *Appalachia: A History*. Chapel Hill, NC: University of North Carolina Press, 2002. Print.

Wilson, Kathleen Curtis. *Textile Art from Southern Appalachia: The Quiet Work of Women.* Johnson City: Overmountain Press, 2001. Print.

Winebarger, Woodrow. Personal Interview. 12 September 2009. Print.

Wolf, Eric. *Europe and the People Without History*. Berkley: University of California Press, 1982. Print.

"Wool Wanted." *Watauga Democrat* 25 August 1932: 5. Microfilm.

The World Commission on Environment and Development. *Our Common Future.* New York: Oxford University Press, 1987. Print.

Yoder, J.C. "Agricultural Development of Watauga County." *History of Watauga County: A Souvenir of Watauga Centennial Boone, North Carolina.* Ed. Daniel J. Whitener. Boone, NC: Farmers Hardware & Supply Co., 1949. 51-59. Print.

Yoder, Julian. *The Economic Geography of Watauga County, North Carolina.* MS Thesis. George Peabody University, 1938. Boone, NC: ASU, 1941. Print.

Young, Charles. Personal Interview. 27 January 2011.

Zimdahl, Robert L. *Agriculture's Ethical Horizon.* Burlington, MA: Elsevier, 2006. Print.

"48 Farmers Sell 507 Lambs in 3rd Pool." *Watauga Democrat* 14 September 1944: 4. Microfilm.

"60 Farmers Sell 558 Lambs in Pool." *Watauga Democrat* 10 August 1944: 4. Microfilm.

"533 Lambs Sold Through Lamb Pool." *Watauga Democrat* 26 July 1944: 4. Microfilm.

"1,000 Sheep for County." *Watauga Democrat* 17 January 1929: 1. Microfilm.

"54,000 Pounds of Wool Sold in Local Wool Pool." *Watauga Democrat* 9 July 1931: 1. Microfilm.

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