Stocker cattle: Using underutilized grasslands to improve economic viability of the Southern Tier while providing viable careers for beginning farmers

1. Summary Statement

With abundant high quality forage made possible by adequate rainfall and suitable soils, New York State, and the Southern Tier Counties in particular, are well suited to grazing ruminants. Due to drought in western states and high feed prices, the value of cattle and beef is at an all-time high. Demand is strong for cattle to finish on either grain or grass and for local beef, especially from institutional buyers interested in ground beef.

A class of cattle known as "stockers" utilize pasture to add weight inexpensively. These are generally young light weight calves that graze during the summer and are sold at the end of the grazing season to farmers that finish them to market weight. Growing stocker cattle requires minimal investment in machinery and buildings compared to other types of agricultural enterprises. This low barrier to entry provides an exciting opportunity for beginning farmers, whether they be new to agriculture or farmers interested in diversifying. Access to land which can be leased and capital to purchase cattle are the major requirements.

This initiative proposes to increase awareness of the business opportunity, train a workforce, provide personnel to assist in marketing, and conduct research to support farmers and agri-service personnel.

2. Current situation.

The northeast US has ideal weather for pasture and forage crops. As the dairy industry in NYS continues to move to land more suited to row crop production, it is estimated there are 1.5 – 3.0 million acres of idled or underutilized land (2011). This is especially true for the Southern Tier Counties of NYS. While much of this land is not suited to intensive agriculture, research at Cornell University has shown that much of it has excellent potential for growing grass for hay and pasture for supporting beef cattle production (Fox et al. 1992). As the major challenge for beginning farmers is access to land and capital (SHUTE 2011), the availability of land for lease in the Southern Tier provides an opportunity for not only beginning farmers but also former dairy farmers and/or those that want to diversify their operations.

It is commonly accepted that the stocker enterprise is the most economically feasible entrance for young and new cattle producers (2007). The term "stockers" refers to animals purchased in the spring and used to "stock" pastures. The goal is to add weight economically using relatively inexpensive, excess pasture. Stockers are typically placed on pasture weighing 300-600 lbs. They graze for 90 – 150 days and gain 1.5 – 2.0 lb/day and then transition into a finishing program to reach market weight.

The stocker enterprise has several advantages: no buildings, virtually no equipment, no overwintering, and cattle are more easily sorted into efficient marketing lots.

Marketing feeder and stocker cattle is a concern due to the perception that the price of feeder cattle in NYS is not competitive. However, according to data collected over a 3 year period, when managed correctly and packaged into efficient market groups, New York cattle can receive prices on par with national average (BAKER 2013). Yet, this competitive pricing is only received on 10-15% of the cattle sold. Beef producers in NYS are at a competitive disadvantage to neighboring states that have access to USDA trained personnel that evaluate and sort cattle into similar load lots that are recognized by buyers throughout the major feeding areas of the U.S.

Given the cost of land, ownership may not be a viable option unless it is inherited or significant outside income is available. However, leasing may be an option in parts of the state where land has recently gone out of production. Most of the land available for leasing has no fence, water system or handling facilities. This can be a barrier to using the land but more needs to be known about cost of building this infrastructure and lease agreements that would be viable financially for the cattle owner and acceptable to the landowner.

Capital requirements to purchase cattle can be an additional barrier to entry by new farmers. In New York there are a few feedlots that purchase cattle and pay stocker operators to graze them on a custom basis. Farms that finish cattle, whether they use grain or grass are interested in maintaining a steady supply of heavier feeder cattle from stocker operations. This can negate some of the capital required by beginning farmers.

The NYS dairy industry produces approximately 250,000 bull calves annually, the majority of these leaving the state to be fed for veal or grain finished. While Holstein steers can be finished for beef that goes into all cuts (steaks, roasts, and ground beef), it might be possible that this resource could be raised specifically for ground beef. There is a strong demand for ground beef from local institutional markets (schools, prisons, hospitals). However the economics of using Holsteins as stocker cattle for the ground beef market is unknown.

The stocker cattle enterprise has the potential to be a viable business model to utilize unused land, available markets and an interested workforce. Yet, many are unaware of the opportunity and how to turn it into an economic driver for the rural communities where these lands are located.

3. Activities.
    a. Stocker Cattle Summit.

Creating awareness of the opportunities to utilize locally available resources – water, land and markets is the first step in invigorating an interest in the stocker enterprise. To increase this awareness a tour of stocker enterprises in West Virginia was held in September 2014. A series of articles was written and published on the Cornell Beef Cattle Management website. http://blogs.cornell.edu/beefcattle/. In addition the NY Beef Producer's Winter Management dedicated a daylong session to exploring this enterprise, http://www.nybpa.org/. Given the stature of the NYS Department of Agriculture and Markets, a Summit to bring additional awareness to this opportunity would reach a larger and influential audience. Similar to the Downstate/Upstate Summit, successful strategies in production, marketing and infrastructure/logistics would be highlighted. Local stocker operators, buyers of stocker cattle, end users and land owners would be participants to "connect the dots" evaluating opportunities for their given resources and businesses. In addition attendees would have the opportunity to talk about the challenges to this enterprise which would inform education and research efforts. The

Stocker Cattle Summit could take the form of a single statewide meeting, or a series of roundtables in targeted areas (Southern Tier, Northern New York).

b. Stocker Cattle Short Course: Creating a trained workforce.

While there are pockets of stocker operators in NY, it is a relatively unknown enterprise. The basic skills needed to succeed in the stocker business is to buy the right kind of cattle, at the right price, keep them healthy for the initial receiving period, add inexpensive gain through the summer and sell them right. These are a set of skills lacking in beginning farmers and experienced farmers interested in diversifying. Unlike the dairy, fruit, vegetable and crop enterprises there is not a network of extension and other agricultural service professionals to guide and support the stocker business. An in depth stocker short course is proposed that would train persons interested in entering the stocker business. The goal would be that graduates of this program would acquire the skills needed to succeed and reduce the risk of failure. In addition to the production and marketing skills that would be taught, the curriculum would include an economics component to be used in building a business plan. Currently Cornell Cooperative Extension educators are collecting economic and production data to conduct financial analyses. Data from these analyses would be used in the course instruction. Lenders would be involved not only to increase their understanding of the stocker business but also to provide assurance that the proposed business plan was economically viable. This should increase access to operating capital. An important component of this training would be a meaningful structured internship to reinforce the education that occurred in the classroom and lab. Participants would be placed on successful stocker operations in New York and surrounding states.

c. Cattle marketing.

The Agricultural Marketing Service (AMS) a branch of USDA has developed three general value determining characteristics - frame size, thickness and thriftiness which can be used to describe or grade feeder cattle (USDA 2000). These feeder calf grades are accepted across the US and allow cattle to be purchased sight unseen. The research conducted in NY (BAKER 2013) which collected data on feeder cattle, in part described using these AMS criteria documented value differences. This indicates that buyers in NY have also accepted these grades to determine the price they will pay.

Feeder cattle are graded in one of two locations: at the auction barn or on the farm. Using the auction barn approach, cattle are delivered the day before the sale, graded and penned based on feeder calf grade, breed and gender. They are then auctioned by uniform commingled groups. When graded in the field, the cattle are aggregated (based on feeder calf grad, breed and gender) on paper, auctioned, delivered to a central location, weighed and picked up by the buyer. Both methods increase the efficiency of marketing by auctioning the cattle in large uniform groups as compared to small non-uniform groups. This is especially important in NY as very of our farms produce enough calves to market large groups on their own. As a result, buyers have been shown to pay a higher price for this service.

Surrounding states engage in a cooperative effort with AMS to provide funding for graders that are either hired as state employees or as contracted specialists for the state. AMS provides training and oversight and may also invest supplemental funding to the state when available. New York does not have this service putting local producers at a competitive disadvantage. Cornell Cooperative Extension educators have been trained which helps their

education efforts with producers but they do not have the time to provide this service on an ongoing basis. If New York beef producers had access to this service smaller producers could add value to their calves through aggregation of cattle into similar breeds, type and body condition into efficient market packages. Based on feeder calf prices collected in NY (BAKER 2013), cattle that were properly managed, were more similar in body type and weight, and possessed known genetics brought nearly $130/head more than the average steer.

It is proposed that we would pilot a three year project hiring two graders to provide the grading service. As part of the research project described below, a doctoral candidate will document the value of graders to the NY beef industry and evaluate different scenarios for continuation of financial support beyond the third year.

The third year of this proposal projects that 5000 feeder cattle could be graded and sold in load lots resulting in additional revenue of $650,000 to NYS beef producers.

These personnel also would assist in marketing similar type cattle from stocker operations. This third party description and verification has been shown to increase the price of feeder and stocker cattle in West Virginia (OSBORNE 1998).

Additionally, these personnel would report prices at selected livestock sale facilities throughout the state. Currently local sales facilities do not have the labor to report prices based on a narrow weight range, cattle types and condition. This makes it very difficult for producers to extract useful price information leading to poor price discovery. This would not only benefit beef producers interested in the stocker business, but the dairy industry wishing to understand value differences in market cows and calves.

d. Research.

A research component to identify barriers to profitability and/or opportunities that will assist farmers would more completely support a viable stocker industry in New York. The Cornell Beef Advisory Council has developed a list of challenges and opportunities. Some of these can be addressed with studying the industry as it evolves and identifying practices and technologies that work. Others will need to be addressed with a more academic approach.

- <u>Identification of barriers</u>. Given that USDA/AMS graders/market reporters are a key component of increasing competitiveness of NYS beef operations and government agencies are constrained by budget, research is required to explore methods to make this service sustainable. Scenarios need to be developed and evaluated involving user fees and industry support along with a structure to collect and administer the program. The cost of providing a grading/reporting service will be compared to the benefit of increased value to NY beef operations and the allied industry.

- <u>Identification of opportunities.</u> Currently the demand for ground beef is at an all-time high (personal communication, Tom McCombie, JBS). The Holstein steer may present an opportunity to meet this demand locally, especially for institutional needs (schools, prisons, hospitals). Research conducted at Cornell University provides insight into growing Holstein steers on pasture and high forage diets and then finishing on a conventional grain diet (AINSLIE *et al.* 1992). No research is available on the animal, carcass and economic performance of Holstein steers for the

production of ground beef. Using a modeling approach with research based data, we would identify alternative production and marketing systems (Holstein steers for ground beef and traditional stocker enterprises) that are economically, environmentally and socially sustainable. Once identified, these systems can be trialed in the field to confirm their effectiveness.

4. Outcomes
    a. Stocker Cattle Summit. Fifty participants will become more aware of the opportunities in the stocker enterprise. Ten will further investigate the business more thoroughly.
    b. Stocker Cattle Short Course: Creating a trained workforce. Twenty will enroll and 15 will graduate. Ten will enter the stocker business.
    c. Cattle marketing. One thousand cattle will be graded in year 2 and 5,000 in year 3. Producers will learn more about their genetics and make breeding and management changes. Graded cattle will receive a premium over ungraded cattle. Livestock prices from 6 livestock market facilities weekly will be reported by USDA trained personnel.
    d. Research. A PhD candidate will conduct research and write a dissertation.

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