

Grassland Stewardship Conservation Programming on Natural Grasslands Used for Livestock Production:

Grasslands Stewardship Certification Schemes

December 2012

Prepared by Kimberly Good and Rachelle Haddock



MIISTAKIS
INSTITUTE



Prepared for: Ranchers Stewardship Alliance Inc. and Nature Saskatchewan
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Miistakis Institute
c/o EVDS – University of Calgary
2500 University Drive NW
Calgary, AB
T2N 1N4

Phone: (403) 220-8968
Email: institute@rockies.ca
Web: www.rockies.ca

Executive Summary

Natural grasslands are on the decline on a global scale. They are an important ecosystem that is adapted to a specific climate and are home to a wide variety of wildlife and plant life that are well adapted to live there. On an ecological service scale they provide water cycling and regulation, pollination, habitat, climate regulation, food, spiritual and cultural value to name a few. Grasslands have also been very important agriculturally. Some types of agriculture (e.g., extensive grazing) are compatible with natural grassland functions but may not have as high an immediate economic return as other more intensive land uses.

Grassland regions are often referred to as working landscapes in that socio-economic activities are tightly tied to the health of the natural resources in the region. The current economic system that drives land use in grassland regions is agricultural commodity markets. These markets provide limited recognition of the ecological services produced and managed. Given this economic reality, people who live and work in these regions are often faced with choices when managing land that may result in a short term economic gain at the expense of long term ecological health. There is a need to reconcile individual economic needs with the needs of healthy functioning natural grasslands. One way to do this is to provide incentives that align long term, sustainable land management decisions with a stable and competitive economic return to alternate land uses.

The purpose of this review was to evaluate existing Certified Beef programs that are used to market beef raised on grasslands that are managed conservation purposes. Certified Beef Programs are programs that attach an attribute or attributes to an end beef product that the consumer values and therefore will select over other products and be willing to pay a premium. Four programs were reviewed for this paper: A. Grasslands Beef – Southern Cone of South America Alliance for the Grasslands, B. Country Natural Beef – Northwest US, C. Natural Beef Program of Certification of Uruguay – National Institute of Meat, Uruguay D. Conservation Beef – The Nature Conservancy, Montana. Three of these programs are active and one has been cancelled. Two are regional in scope and two are national/international.

The review identified three main considerations when contemplating a Certified Beef program for grasslands conservation purposes – scale, purpose and type. Five overall challenges were identified about specific application of such a program in the Canadian prairies:

1. Beef may not be the right farm product to market.
2. There is no evidence that Canadian consumers are aware of or interested in grasslands conservation,
3. The structure of the Canadian beef industry may only support regional programs,
4. The premium associated with certification programs seems to be insufficient and
5. There is little evidence to support the practices associated with these programs actually support the conservation goals.

The review also identified 15 questions that would need to be answered if a program was to be further investigated.

1. What ecological services are supported by the beef product being produced?
2. Do consumers care about these ecological services? Do they see the connection between extensive natural grasslands grazing and the end beef product they consume?
3. Does the science match the objectives? Is what will be measured/monitored/audited reflective of the intended outcome?
4. How can the detailed intricate science of ensuring the program is robust and accomplishing what it is planned to accomplish be reduced to a simple and effective system for joining the program, monitoring / auditing over time and communications purposes?
5. What are the purposes/objectives of the program? What other attributes does the product have that can be bundled with the ecological services?
6. What kind of education campaign about the ecological services and how beef production supports those ecological services is necessary?
7. Who are the people needed to assist in the start-up, planning and design of the program (e.g., sellers (livestock producers), scientists, industry, supply chain experts, government, non-government organizations, processors, customers (retail outlets))?
8. Who can lead the development of the program? A stakeholder partner, paid staff, etc.?
9. Will there be land management support, auditing support, etc. for producers?
10. Does the required infrastructure exist (e.g., tracking systems, slaughter facilities, food storage and distribution systems)?
11. Do reliable, credible certification programs that support the purposes/objectives of the program already exist?
12. How will external market forces be dealt with? Certification programs are predicated on the existence of disposable income. How will a changing economy affect this opportunity?
13. How much premium is required?
14. How could beef supply chains in Canada be adapted to accommodate grasslands conservation beef products?
15. How will the initial scientific, market and feasibility research and program design be funded?

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1.0 Introduction

Grasslands ecosystems cover thirty-one to forty-eight percent of the earth's surface (Gauthier et al., 2003). They are an important ecosystem that is adapted to a specific climate of relatively low precipitation, regular winds, cold, long winters and hot, short summers (especially in the northern parts) and often deep, fertile soils. Being one of the most productive and diverse terrestrial ecosystems they are also one of the most threatened in the world. Canadian grasslands are no exception. It is estimated that less than a quarter of Canada's natural grasslands remain^{1, 2}. Despite increased awareness of the importance of properly managed natural grasslands for the provision of ecological services (e.g., water cycling, biodiversity conservation, soil conservation, wildlife habitat, pollination, carbon sequestration, etc.) the decline continues. The decline is due to the invasion of exotic plants, cultivation, a change in the fire regime, urban expansion, climate change and overgrazing³. As a result of such dramatic changes, the grasslands regions are home to the majority of species at risk in each of Alberta and Saskatchewan (Saunders et al. 2006; Michalsky et al. 2009). These species at risk have survived in this region alongside livestock ranching since European settlement.

Grasslands that are still intact are in areas where there is or has been an economic activity (e.g., livestock grazing) that is compatible with their maintenance. Well managed grazing of livestock provides a natural and desirable disturbance that is compatible with the conservation of natural grasslands. It is now known that most endemic grasslands wildlife benefit from a certain level of grazing that results in a heterogeneous vegetative cover⁴. Therefore continued land management by livestock producers who manage their grazers in a way to enhance the ecosystem services of natural grasslands may be the best way to conserve the remaining natural grasslands.

The greatest obstacle to ranchers conserving natural grasslands is that the market forces livestock producers work within generally provide incentives that are at odds with practices that protect and enhance ecological services. Competitive land uses (e.g., recreational and residential development, annual cropping) increase land prices over what is cost effective for livestock production. As input costs (e.g., feed, transportation) rise and domestic red meat markets decline, conversion of grasslands to other land uses becomes more profitable.

The value of the ecosystem services provided by intact natural grasslands, such as biodiversity and carbon sequestration, are not currently captured by land values or livestock markets. Management practices that benefit ecosystem services require time and effort, and often capital,

¹ Hinterland who's who – Grasslands website, accessed Sept 13, 2012 <http://www.hww.ca/en/where-they-live/grasslands.html>

² Overview of Native Prairie in Canada, 2011, Prairie Conservation Action Plan, Resources and Literature www.pcap-sk.org/docs/15nprwpresentatio/2_Overview-of-Native-Prairie-in-Canada_Jeff-Thorpe.pdf

³ Overview of Native Prairie in Canada, 2011, Prairie Conservation Action Plan, Resources and Literature www.pcap-sk.org/docs/15_nprwpresentatio/2_Overview-of-Native-Prairie-in-Canada_Jeff-Thorpe.pdf

⁴ The Value of Biodiversity to Ranching on the Prairies. Agriculture and Biodiversity Fact Sheets: Nature Saskatchewan http://www.naturesask.ca/rsu_docs/ranching-and-biodiversity.pdf

over and above input required to raise livestock. These costs are currently unrecoverable by livestock producers. While grassland conservation has progressed significantly in recent years, conservation efforts have foundered on this market obstacle.

To address these issues, Nature Saskatchewan and the Ranchers Stewardship Alliance Inc. wanted to investigate the potential for a broadly applicable market-based incentive such as grassland stewardship certification. This paper reviews four Certified Beef Program (CBP) case studies. CBPs are programs that attach an attribute or attributes to the end beef product that the consumer values and therefore will select over other products and be willing to pay a premium. Three of the programs are active and one has been cancelled. Two are regional in scope and two are national/international.

2.0 Methodology

Livestock production on natural grasslands, including beef production, is a complimentary land use to maintaining the grasslands ecosystem including the species at risk (SAR) that live there. Challenges to keeping ranchers on the land include the economic uncertainty of beef markets. One possibility to reduce this uncertainty and to support management activities that maintain and improve the grasslands ecosystem is the creation of a Certificated Beef Program (CBP). To that end five Certified Beef Programs were identified for review. Three are active or under development, one was not successfully implemented and one was a feasibility study of the concept for BC's grasslands. Due to unforeseen circumstances with the author organization, the feasibility study was unfortunately not attainable and so was not reviewed.

The Global Roundtable for Sustainable Beef (GRSB) was also considered but not selected for review. The GRSB is a relatively new multi-stakeholder initiative that started as a result of a World Wildlife Fund global conference on sustainable beef held in Colorado in 2010⁵. Their objective is to improve sustainability within the beef industry by involving the whole beef supply chain. GRSB does not have a natural grassland raised cattle focus. While GRSB has not yet clearly described what "sustainable beef" means, they are considering ways the beef industry can reduce land use, water use, energy use and greenhouse gas emissions, while protecting natural habitat⁶. They seem to be focusing, at least in North America, on climate change and reducing the physical footprint of livestock production. It has been suggested this would result in more feedlots and greater intensification of the beef industry. This does not align with Ranchers Stewardship Alliance Inc.'s and its partner, Nature Saskatchewan's, vision of biodiversity conservation through well managed cattle grazing on natural grasslands. It should be noted, there is significant debate about which is more sustainable – cattle that spend time in CFOs versus those that spend their life-cycle on grass⁷.

⁵ <http://grsbeef.org/?q=home>

⁶ <http://www.marcgunther.com/how-to-green-a-hamburger/>

⁷ <http://www.animalwelfareapproved.org/2012/05/16/national-trust-%E2%80%93-%E2%80%98what%E2%80%99s-your-beef%E2%80%99-report/>

The program selection criteria were designed to choose programs that were variable in scope, were implemented in a grasslands ecosystem, and were marketing beef with an ecological service attribute (e.g., species at risk). The third criterion was the most difficult to find: instead of explicitly considering ecological services, each of the programs considered some form of environmentally sustainable land management practices that may or may not be specifically linked to an ecological service(s).

The programs reviewed were:

1. Grasslands Beef, Southern Cone Alliance for the Grasslands – South America – National/International
2. Country Natural Beef – Oregon, USA - Regional
3. Natural Beef Program of Certification of Uruguay – National/International
4. Conservation Beef – Montana Chapter of The Nature Conservancy - Regional

Once the programs were selected an interview was designed to address a number of questions about the programs. A list of contacts for each program was compiled from program websites or through mutual contacts for each of the programs. The contacts were emailed a request for an interview and a copy of the interview guide. The email also requested that if they were not the appropriate person to interview could they suggest someone else that would be more suitable. There were some limitations in communicating with each program (e.g., time zone differences, language barriers, changes of key personnel, etc.) to gather information from each of the programs in exactly the same way. Spanish speakers were engaged to conduct the interviews for the Grasslands Beef and Natural Beef programs in Argentina and Uruguay respectively. All programs provided verbal interviews (see Appendix A for list of interviewees). After the first round of interviews, further interviews and email exchanges with the program contacts were also carried out for clarification or additional information. Published articles and websites on some of the programs also proved to be valuable resources. The interview guide was used to ensure all the points were covered but each respondent did not respond to every question verbatim.

After an initial review of programs it was recognized that without some basic knowledge of the structure of the Canadian Beef industry the review of other programs would be difficult to assess in a Canadian context. For that reason the next section of this report will give a brief description of the current situation in Canada.

3.0 Beef in Canada

There are 83,000 cattle producers in Canada⁸ who are represented by provincial beef and cattlemen groups who then participate at the national level through the Canadian Cattlemen's Association⁹. Fifty percent of beef produced in Canada is consumed domestically and fifty percent is exported to 70 countries, three of which are Canada's key export markets¹⁰. Canada

⁸ www.cattle.ca

⁹ www.cattle.ca

¹⁰ www.canadabeef.ca

Beef Inc. is an independent national organization that represents the marketing and promotion of the Canadian cattle and beef industry worldwide. This is done in large part by promoting the following attributes referred to as the “Canadian Beef Advantage”¹¹:

- Canada's A, AA, AAA and Prime grades are your assurance of the highest quality beef. Grading of beef carcasses is performed in accordance with strict national standards for attributes such as meat and fat color, carcass muscling, texture (firmness), maturity and fat coverage.
- Grain-finished beef from superior cattle genetics provide an outstanding eating experience.
- Food safety is the most important priority with systems for beef production on farm and at the processing level which are based on the internationally recognized Hazard Analysis and Critical Control Points (HACCP) model.
- Recognized globally for exceptional flavor, tenderness and juiciness.
- Business development programs from Canada Beef Inc. to help you market and maximize the value of Canadian beef.

The most common path in Canada from “farm to plate” starts with primary cow-calf operators where calves are born and raised until about nine months old, next they enter a feedlot for finishing (e.g., 90-200 days) and finally are processed into marketable products, which are then exported or transported domestically to a retail outlet and then to the end customer. All of this is supported by federal and provincial legislation that provide rigorous production standards. There are other paths for consumers to acquire beef. These may include farmer’s markets; local and regional meat shops, specialty grocery stores or restaurants; or directly from a farmer or rancher.

There are a limited number of federally inspected slaughter plants in the Canadian prairies. There are 19 in Canada, the majority of which are specialty or company specific (e.g., vertically integrated). There are only five on the prairies and they are all in Alberta (i.e., Lacombe (two plants), Brooks, High River, and Innisfail)¹². Sixty-five percent of all Canadian beef is processed in Alberta, 4% in Saskatchewan and 4% in Manitoba¹³. Only meat processed in a federally inspected plant can move between provinces and out of the country. There are provincially inspected slaughter plants in each province. Meat processed in provincially inspected facilities can only be sold in the province in which it was slaughtered.

Canada currently has a well-established animal tracking system that using ear tags and bar code technology that traces an animal between farm and slaughter. This system is designed to provide animal identification, premises identification and to track animal movement¹⁴. Recently the cattle industry, through the Canadian Cattleman’s Association, has launched the Beef Information Exchange System (BIXS)¹⁵. BIXS is a voluntary web-based database designed to capture and

¹¹ www.canadabeef.ca/ca/en

¹² www.agrci.gc.ca/redmeat/rpt/11tb/23.eng.htm

¹³ www.canadabeef.ca/ca/en/rt/industry/Trade/default.aspx

¹⁴ www.cattle.ca/leadingedge-initiatives-traceability

¹⁵ <http://bixs.cattle.ca/bixs-overview>

exchange data linked to individual animals. BIXS is a tool to help gather, track and exchange useful information (e.g., production, performances, health, genetic, and carcass data, plus other differentiating aspects the animal(s)) across the beef chain.

4.0 Certification

As a way to alleviate the volatility of low-priced commodity markets producers often look for ways to differentiate one product over another. They do this to provide a value or attribute associated with that product to the consumer for which the consumer is willing to pay (Tronstad et al., 2005). Differentiation can be communicated in a number of ways. Depending on the product being sold and the market it is being sold into this may be done through personal relationships between the producer and the customer. It may also be done on a broader scale through branding. Branding is a very broad concept that involves identifying one product or service as distinct from another. Branding is communicated to the public through marketing. Certification is a form of branding which results from the establishment of a set of standards that the product must meet.

Differentiation has generally occurred through appearance attributes (i.e., sight, touch, smell) and experience attributes (e.g., taste, flavour, tenderness, etc.) (Tronstad et al., 2005). However interest in less obvious attributes is emerging. These are referred to as credence attributes and may include animal welfare, hormone or antibiotic use, land management practices, traceability, region of origin, etc. As credence attributes are more difficult to discern, certification can help the consumer decide if a specific product meets the characteristics they want.

There are many different kinds of certification programs and systems (Cohn and O'Rourke, 2011; Tronstad et al., 2005). The type of program/system is dependent on who (e.g., government, non-government organization(s)) designs the standards and who audits the producers. There are third party certification programs where the certifying body has no vested interest in the direct sale of the product, and first party or self-certifying programs where the producer organization establishes and promotes standards of production. In some situations the government sets the standards. In other cases independent organizations set the standards. Certification and auditing may be done by trained assessors that may or may not be directly connected to the standard setting body.

4.1 THE CUSTOMER

Regardless of the type of certification program the value of a certification is dependent on the reputation of the certifier. Tronstad and others (2005) reported on research done at Utah State University comparing United Kingdom consumers' and US consumers' attitudes about certification programs. The results showed that Americans were more likely to trust government certification programs than UK citizens were. The UK government's handling of the Bovine spongiform encephalopathy (BSE) crisis in the 1990s was blamed for this difference, as their citizens lost trust in the system.

Tronstad and others (2005) identified five questions consumers ask themselves when making decisions about products:

- 1) Does the product affect my/our health?
- 2) Does the production of the product treat animals humanely?
- 3) Are the production processes environmentally “safe” or “friendly”?
- 4) Are others treated in a socially responsible manner (well) during production and processing?
- 5) Does consumption of the product conform to my religious beliefs?

Kline and others (2012) carried out a survey aimed to understand preferences regarding the purchase of animal products. Over 1800 people from 22 states participated. A majority of respondents reported that taste, quality, US origin, local origin, food safety, health, grass-fed, pasture-raised, natural, no added hormones, no unnecessary antibiotics and high standards of animal welfare as “very important”. Price, knowledge of the farmer, and organic were ranked by a majority as “important”.

4.2 THE PRODUCER

If a product can fill a niche market and the certification process helps attract and retain customers certification programs can help to create a more consistent market. However, producers really need to review the cost/benefit aspects of participating in a certification program (Tronstad et al., 2005). On the benefit side producers may receive a premium for their product, have increased market access and stabilized prices. On the cost side producers need to consider: the costs and fees to obtain certification; any financial requirement associated with management changes; the time and resources to maintain records to meet the standards; and the increase in marketing efforts. If there is already a local market where the producer has personal relationships the value of certification may be low. However if the producer has identified a new or larger market that is interested in what the producer has to sell and there is a certification body that matches the market and the product, the choice to certify may be simple.

On occasion there may not be an existing certification body for the attribute of interest. If a need is identified the producer could get involved and help create the standards, certification body, and auditing process.

5.1 Program reviews

A. GRASSLANDS BEEF – THE SOUTHERN CONE OF SOUTH AMERICAN ALLIANCE FOR THE GRASSLANDS CERTIFIED BEEF PROGRAM

a)Context

Grasslands Beef is a program of the Southern Cone of South America Alliance for the Grasslands. The Alliance for the Grasslands is a collaborative organization of conservationists and producers (Sbert, 2012). It was promoted by BirdLife International and includes the grassland regions of Argentina, Uruguay, southern Paraguay and southern Brazil. The Southern Cone grasslands, like all others in the world, are being lost at an alarming rate to competitive land uses, such as more intensive forms of agriculture, plantations and urbanization. Only half of the region remains as natural grasslands and conversion continues (Sbert, 2012).

The main purpose of the Alliance for the Grasslands is “the conservation of native grasslands in harmony with the development of the region” (Sbert 2012). Mauricio Moresco with Asociacion Cultural para el Desarrollo (ACDI) noted that in 2007 the members of the Alliance for the Grasslands recognized that livestock production on natural grasslands provided an important economic activity that worked to maintain the natural grasslands. Anibal Parera (formally the coordinator of the Southern Cone of the Alliance for the Grasslands) explained the idea behind the program was if a certification program could improve the economic performance of livestock production, then producers could continue to ranch extensively on natural grasslands, reducing the temptation to abandon natural grasslands for other more lucrative activities. This concept brought together producers, conservation organizations, and a government social development department (ACDI) to start the planning and design phases of Carnes del Pastizal (Grassland Beef) certification (Moresco, pers. comm.). The goal of the certification program is to prevent natural grasslands conversion and loss of associated ecological services by recognizing and supporting livestock production by producers who make their living on this land. While not fully operational yet, activities started in 2009 to test the concept in Argentina and Brazil as pilot projects. The intention is that the beef certified through this program will be sold locally, regionally, nationally and internationally.

The Carnes del Pastizal is a voluntary certification program. It is a non-governmental program that is not supported by any government legislation or regulation. This approach was selected to help develop good land and livestock management practices, make natural grasslands ranching more profitable, and provide consumers with a way to recognize and support good practices (Moresco, pers. comm.). It was not modeled after any other programs (Parera, pers. comm.). However, as the specific certification protocols were developed general norms and standards from other certification programs (e.g., organic, dolphin-safe tuna) were taken into account (Moresco, pers. comm.).

b) Program Evolution

The program designers wanted to make sure that the certification process is not complicated and that it will be compatible with other certification and branding efforts (e.g., breed specific claims) (Sbert 2012). Beef raised and certified according to the certification protocols will be labeled with a Carnes del Pastizal logo. The logo will indicate to consumers that the beef they are purchasing is:

a grassland friendly product, which supports important areas of natural farmland at their place of origin, where species characteristic of these natural lands are preserved, including wild plant and animal species whose very existence is threatened. The products branded with the (certification) seal will also endorse the mitigation of greenhouse gas emissions (responsible for Global Climate Change), contribute to the welfare of the animals during their life on the farm, encourage permanence and the sense of belonging

of rural families connected to traditional farming systems and guarantee consumers a healthy and harmless product.¹⁶

The Carnes del Pastizal logo has just been approved for use in Argentina but does not yet have approval in the remaining three partner countries (Moresco, pers. comm.). There has been no specific market research to determine buyers for the certified product in part due to limited financial resources (Moresco and Parera, pers. comm.). The interviewees both identified that the countries involved all have strong domestic and export markets and that the program designers feel there is good reason to assume there is demand for a Grasslands Beef type product with all its attributes.

Recently there was there was public outcry in South America against a company accused of selling meat linked to Amazon deforestation (Moresco, pers. comm.) The Alliance for Grasslands intends to work with large, international meat processing companies like MARFRIG who they have identified as having a strong interest in this type of product, to help promote the certified product to the end consumer. MARFRIG reports a strong commitment to environmental sustainability on their website¹⁷ and have sponsored one of the pilot applications of this program (Parera, pers. comm.).

While the Alliance for the Grasslands administers the program and owns the logo, producers who apply to the program and are accepted will be audited regularly by an independent certification firm called Grassland Beef Certification Council (Parera, pers. comm.; Sbert 2012). To be certified producers will have to meet the following standards/criteria (Sbert 2012):

1. Have legal title to land;
2. Adhere to the vision and mission of the Alliance for the Grasslands;
3. Animals have free access to sufficient sources of water and shade;
4. Grass-fed with up to 30% of concentrate feed or up to 1% of the animal's weight. No confined lot feeding; and
5. Have a minimum 50% of total lot area that is natural grassland.¹⁸

Depending on the proportion of natural grasslands on a property the landowner may have additional requirements. Producers with less natural grasslands will be restricted against any further grassland conversion and will have other scoring requirements related to the natural condition or their management. Producers with more grassland may be able to convert a small portion to other uses in the future and will not have as many requirements around supplemental scoring.

¹⁶

http://www.pastizalesdelconosur.org/images/stories/biblioteca/Protocolo_Carnes%20de%20Pastizal_Alianza%20del%20Pastizal_04_Ingles.pdf

¹⁷ <http://ir.marfrig.com.br/eng/grupomarfrig/sustentabilidade.asp>

¹⁸ There are quite specific terms around how "natural grasslands" are defined. See:

http://www.pastizalesdelconosur.org/images/stories/biblioteca/Protocolo_Carnes%20de%20Pastizal_Alianza%20del%20Pastizal_04_Ingles.pdf.

Establishing these standards and monitoring indicators took significant time, effort and input from professionals to figure out “what is a sustainable practice?” and “how do we know that?” (Moresco, pers. comm.). It was important that the right things were being measured / monitored to ensure that the program was actually certifying what was intended. For instance, biodiversity, carbon capture and hydrological regulation were initially measured. Based on the assumption that maintaining natural grasslands would also maintain or improve these ecological services, they used birds as an indicator of good management practices that maintained natural grasslands. Birds were noted as a valuable indicator because they are very sensitive to change and are easier to measure than other possible indicators (e.g., soil quality, composition of grassland communities, height, etc.) (Moresco, pers. comm.).

There have been significant communications efforts to build trust and find common ground between the non-governmental conservation organizations and producers (Moresco, pers. comm.). These included newsletters, producer events, news articles, workshops, and annual meetings (Parera, pers. comm.; Moresco, pers. comm.). Some producers were at the design table early on in the process but others needed to be included as the program developed. Most research and outreach focus to date has been centered on working with producers to establish and promote best practices (Moresco, pers. comm.).

At the time of writing it was estimated there are 100-300 producers participating in the pilot programs in Santa Fe, Argentina and Rio Grande du Sul, Brazil. MARFRIG is the main buyer in these pilots (Moresco and Parera, pers. comm.). This is only a fraction of the several thousand producers in the region. At this point, the program does not have a good understanding of the number of potential participants. Based on the current pilot program participants, there appear to be three main motivating factors for producers:

- 1) Maintaining native grasslands has a strong cultural and traditional value;
- 2) Employing best practices does not sacrifice productivity, but the opposite – providing better financial sustainability; and
- 3) Potential better price for end product.

With only a small application of two pilot programs, it is too early to know if there are significant changes in overall income levels of producers.

The Alliance for the Grasslands, with funding from the World Bank, will continue to fund the planning, design, development and implementation of the program until January 2013. The Alliance for the Grasslands has been working diligently to ensure the project will be self-financing. Many links between academics, producers, protocols, and certification processes have been established (Moresco, pers. comm.). There may be a need for further training and capacity building as the program moves forward but there are so many institutions involved now that finding funding for specific needs will be more straightforward than before.

While there has not been a significant effort made to communicate with the end consumer at this point, there has been significant effort dedicated to establishing the logo to help the consumer

identify grasslands friendly beef. While Argentina and Uruguay have not yet approved the logo, they both have well developed and reliable beef tracking systems that this certification program could work within and that could provide the consumer confidence in their purchases. Meat processing facilities that are set up for export have very rigorous systems that make it possible to trace meat to the lot from which it came. Some producers have implemented their own tracing systems through using computer chips¹⁹.

c)Programs Reflections

The interviewees provided insight into aspects of the planning and design that have worked well so far, as well as some challenges to date and some advice for others considering creating a similar program (Moresco, pers. comm.; Parera, pers. comm.):

HIGHLIGHTS

- Participation by diverse organizations and individuals (e.g., producers, research centers, conservation groups, etc.) helped identify and accommodate many different views and ideas early in the process.
- Scientists were involved early in the development of the protocols to help ensure that all decisions would support the basic scientific assumptions and decisions.

CHALLENGES

- Meat processing industry not brought into the process at the early stages.
- Consumer/public awareness of the program is low; while not a focus of the project to date, have learned it is important to involve the whole value chain (e.g., retailers, industry, etc.)
- Official validation of the certification in some countries has been slow and therefore implementation has been slow - this is a problem because it was conceived of as a regional (Southern Cone) program
- Changes in leadership: a recent change in the coordinator resulted in the slowed momentum

ADVICE FROM GRASSLANDS BEEF

- Take the whole value chain into account in the early design and activities (would require more resources than what they had) (Moresco, pers. comm.).
- Work simultaneously to create consumer demand and promote producer best practices.
- Work with producer organizations rather than just individual producers; take advantage of existing networks and groups for greater outreach. Focus on those groups interested in technical capacity building (this is a lesson learned from watching the agriculture industry which focuses on these groups because of their requirement to contact so many individuals in a cost effective manner)they require high contact volume).
- Producers must be involved from the start and the program must adapt to local reality/conditions.

¹⁹ www.trazor.org.ar

- The certification program can work to influence government to accept the best practices of the program and encourage the government to promote them to all producers.

d)Reference List

Sbert, Carla. 2012. The Alliance for the Grasslands of the Southern Cone of South America at 5: What Lessons for North America? Unpublished, Nature Canada

Personal communications references are listed in the Appendix A: Interviewee List

B. COUNTRY NATURAL BEEF

a)Context

Country Natural Beef started in Oregon in 1986 when 14 ranching families with a desire to remain economically and environmentally sustainable, agreed to form a consumer-driven beef marketing cooperative²⁰. Country Natural Beef is more appropriately described as a “brand” than as a “certification” program however as a cooperative their products are certified through third party certification programs. Country Natural Beef’s approach to certification will be discussed later.

Country Natural Beef started at a time when the ranchers were finding little to no financial reward selling cattle through the regular commodity based system. In fact, Doc Hatfield, one the founding members, said in an interview with Beef Magazine²¹ “we weren’t broke yet, but we could see it coming.” Another founding member, Connie Hatfield learned through a conversation with a local health instructor that the instructor was recommending his clients eat Argentinian beef three times a week. The instructor was recommending this because the beef had little excess fat (i.e., was raised on grass) and was raised without antibiotics and growth hormones. Each of the founding members already knew that how they raised their cattle and managed their land was different than a lot of other people selling cattle, and now they also knew there was a demand for what they were doing. However, they had no way to differentiate their product in the current system.

b)Program Evolution

When interviewed for this report, Dan Probert (current executive director and member rancher with Country Natural Beef) said they saw the consumer-driven cooperative approach as a new way to differentiate and promote the beef bring produced in a certain manner and for which there was a consumer demand. They would do this by working together, changing the way they were paid and ultimately helping their ranches survive.

PROMISES AND CERTIFICATION

Country Natural Beef is a regionally branded beef product that sells into two dominant markets: the West Coast market from Seattle, Washington to Fresno, California and the Rocky Mountain market including Colorado, Kansas, New Mexico, and Utah (Probert, pers. comm.). Throughout

²⁰ www.countrynaturalbeef.com

²¹ <http://beefmagazine.com/markets/marketing.0801-matching-consumer-rancher>

these two regions Country Natural Beef is marketed through retail partners as healthy, sustainable beef.

RAISE WELL, GRAZE WELL PRINCIPLES

Country Natural Beef products are sold to the retailers by Country Natural Beef, but in the retail market the products are identified by the individual ranch rather than a Country Natural Beef brand (Probert, pers. comm.). The end consumer is interested in knowing who grew the beef they are purchasing and where it came from, while the retailers are assured that beef bought through Country Natural Beef meets specific standards. Those standards include cattle raised without added hormones or antibiotics²² and according to Country Natural Beef's Raise Well and Graze Well principles (see Appendix C and D for the principles in full).

The Raise Well and Graze Well principles are a standardized and documented approach many of the members were already practicing and all members pledge to uphold. Raise Well principles outline Country Natural Beef's animal welfare standards. These principles are in place to ensure the animals are treated humanely in the most natural, stress-free environment possible. Graze Well principles describe Country Natural Beef's commitment to healthy and biologically diverse land as well.

The Graze Well principles solidify statements made by Doc and Connie Hatfield respectively: "We embrace values that are built on healthy animals, healthy food, communities and healthy land," and "We're not hurting the land; we're working with it."²³

FOOD ALLIANCE

In response to consumer concern about animal husbandry activities²⁴, Country Natural Beef worked with Dr. Temple Grandin, a renowned animal behaviourist dedicated to humane livestock handling, to write "animal welfare standards" for each ranch. Dr. Grandin also worked with Country Natural Beef as an entity to create a three tiered animal welfare audit process. The first tier is the Food Alliance²⁵, an independent third party that audits all processes related to raising cattle. The second tier involves Country Natural Beef auditing the humane handling processes of the processors, truckers and feeders that handle their animals. Finally Country Natural Beef self-audits its own members.

All Country Natural Beef ranches have their grazing management reviewed by the Food Alliance to ensure they are strengthening the environment, not weakening it. The principles are fairly general and do not provide specific beneficial/best management practices (BMP) as the members cover such a large geographic area and the environmental concerns and issues can vary quite dramatically (Probert, pers. comm.) For example, with reference to biodiversity, a biologically diverse environment is recognized as a healthy and productive landscape and one of the Graze Well principles suggests that management is adapted to fit the environment but does not, nor can it, say how or what adaptations are to be made.

²² www.countrynaturalbeef.com/Animal_Health.php

²³ www.countrynaturalbeef.com/graze_well.php

²⁴ www.countrynaturalbeef.com/raise-well.php

²⁵ www.foodalliance.org

GLOBAL ANIMAL PARTNERSHIP

To further support their commitment to good animal husbandry, Country Natural Beef members are starting to become participants in the Global Animal Partnership certification program (Probert, pers. comm.). Global Animal Partnership²⁶ grew out of Whole Foods Market²⁷ recognizing they could have a greater impact on animal welfare by sharing the intellectual property they gained through years of establishing higher animal welfare standards for its own organization with others. Global Animal Partnership, working with a broad group of stakeholders, creates five-step Animal Welfare Rating Standards that are used to evaluate individual agricultural operations who apply for certification. Global Animal Partnership is the standard setting body, while independent companies, like IMI Global, EarthClaims and Steritech, carry out the audits. Global Animal Partnership currently has five-step programs completed for beef cattle, broiler chickens, pigs, and turkeys.

PROCESS VERIFIED PROGRAMS

The USDA offers Process Verified Programs through which they provide agricultural product and supply companies the opportunity to assure customers of their ability to supply consistent quality products or services²⁸. One of these programs is Age and Source Verification. All Country Natural Beef animals are Age and Source verified at Beef Northwest. Country Natural Beef has also considered participating in the IMI Global Verified Green²⁹ certification (Probert, pers. comm.). Verified Green is also a USDA Process Verified Program that was developed to promote producers participating in sustainable agriculture and environmental practices³⁰. When asked if Country Natural Beef has ever considered creating their own certification program, Probert (pers. comm.) indicated that they have not because of the need for a third party auditor for credibility purposes.

CONSUMER DEMAND

While land management and sustainability are important to the members and they will continue to be certified for environmental practices through the Food Alliance and perhaps other avenues, Probert (pers. comm.) indicated that from their direct experience in retail settings it is difficult to extract a premium from the market for sustainable practices. Consumers seem more willing to pay for taste, healthiness and animal welfare attributes than for environmental ones according to Country Natural Beef.

BUSINESS STRUCTURE

Country Natural Beef began and has evolved on relationships and people talking to people. It was not created as a result of formal market research (Probert, pers. comm.). They have a very grassroots approach of talking to retailers and consumers to find out what they want. Connie Hatfield took the personal approach described above when she first went to Portland, Oregon to meet with retailers. She is said to have opened the retailer meetings with the statement "I represent a group of ranchers with 10,000 mother cows. What form could we put that beef into

²⁶ www.globalanimappartnership.org

²⁷ Whole Foods is a natural and organic grocer and an important Country Natural Beef retail partner

²⁸ www.ams.usda.gov/AMSV1.0/processverified

²⁹ www.imiglobal.com/downloads.VerifiedGreen.pdf

³⁰ www.imiglobal.com/cowcalf.asp

that would fill a need you are unable to meet?”³¹ No one had ever asked that question that way before. Following in that tradition, it is a cooperative membership requirement for a rancher to be paired with a retail outlet and to spend at least one weekend annually doing store visits, in-store meat demonstrations, and interacting with customers. Cooperative members also participate in annual on ranch customer appreciation days. As a result, members are always connected with their customers. Country Natural Beef also relies heavily on their retail partners to tell them what the consumer wants and the cooperative members work diligently to provide that (Probert, pers. comm.).

Country Natural Beef’s success is often attributed to its structure. Fifteen to twenty other “natural beef niche” programs started around the same time as Country Natural Beef and only Country Natural Beef remains (Probert, pers. comm.). Probert (pers. comm.) thought the founders may have borrowed some ideas from the other programs but that the cooperative structure and supply chain was very unique. Country Natural Beef is a very flat organization that works within current food and certification regulatory systems. Country Natural Beef works with outside partners (e.g., processing, retail, and supply chain experts) but administrative and executive positions are held by co-op members. There are also committees used to accomplish a number of organizational roles³². To help with the challenge of leadership succession, three to four year mentorship and transition periods occur prior to a leadership change. All members in these roles work from their home ranches and essentially fit these jobs into their daily operations. Key personnel are compensated by the co-op thru a portion of a 4% fee on sales.

Country Natural Beef’s production partners include Beef Northwest and AB Foods (Probert, pers. comm.). Beef Northwest finishes all the animals going into the Country Natural Beef retail system³³. The owner of Beef Northwest is also a ranching member of Country Natural Beef who knows and understands their philosophies. Country Natural Beef pays Beef Northwest directly for feeding 80-head lots of cattle. They are fed a finishing ration (cooked potatoes, sunflowers mids and dry distillers grains) but are not confined to feedlot pens at Beef Northwest. AB Foods is the abattoir and financial/logistical partner of Country Natural Beef. With a mission to “produce the highest quality meat products with a commitment to superior service, value, and innovation,” AB Foods follows ISO 9001 standards to ensure quality control measures are in place and follows their “Guidelines for Animal Well-being and Humane Handling” procedures which are evaluated and annually certified by an independent auditor. Member ranchers sell live cattle to AB Foods and then Country Natural Beef buys back the boxed beef to sell to their retail partners. AB Foods retains and sells any beef as commodity beef that Country Natural Beef does not buy back for the retail chain. Only beef from cooperative members that meets all the standards and principles of Country Natural Beef can be sold through the cooperative’s retail system (Probert, pers. comm.). For example, if an animal requires antibiotics it is sold off the ranch through the regular commodity system.

³¹ <http://beefmagazine.com/markets/marketing.0801-matching-consumer-rancher>

³² www.agofthemiddle.org/pubs/cnbcasestudyfinalrev.pdf

³³ www.agofthemiddle.org/pubs/cnbcasestudyfinalrev.pdf

There is an application process for new members to join the cooperative. Most new members are recommended by current members. There are no upfront costs to join the cooperative however there may be a change to cash flow as members do not receive full payment for their beef until the boxed meat is sold. This is different than a traditional auction sale approach, so members have to be prepared for this change in cash flow. (see explanation in pricing section). To participate all members sign affidavits agreeing to follow all the principles and standards of Country Natural Beef. As business owners they are fairly motivated to always follow the principles and not jeopardize their collective futures.

PRICING

Country Natural Beef uses a “cost of production” model to set their price (Probert, pers. comm.). Prices are established using a formula that considers production costs (including a 4% fee to operate the co-op), a return on investment and a reasonable profit³⁴. They calculate their production costs annually using a sampling of Country Natural Beef ranches (Probert, pers. comm.). Ranchers are paid in six installments for each lot that leaves their ranch. The installments are paid:

- 1) When the animals go to Beef Northwest to be finished;
- 2) When animals go for slaughter at AB Foods;
- 3) & 4) based on carcass quality;
- 5) Through the age and source verified program; and
- 6) By dividend from Country Natural Beef after annual administrative costs are paid³⁵.

It can take between 12-18 months to receive full payment for an animal. Between 2003 and 2006 the commodity market was higher than the average Country Natural Beef price³⁶. Some ranchers left but most stayed (Probert, pers. comm.). As one long-time member put it over a 15-year period he averaged \$75 more per head through Country Natural Beef than outside the cooperative³⁷. Outside of the financial benefit of being a co-op member, Country Natural Beef provides its members with educational opportunities (e.g., genetics, health issues (especially since they do not use antibiotics), carbon credits/life cycle analysis, etc.) and members have a network of people to rely on, exchange pasture with, and learn from.

There are currently 80 members in Country Natural Beef (Probert, pers. comm.). This number has been higher but fluctuates over time. Some members are lost to successional change on the ranch (i.e., first generation is committed but next generation is not). Occasionally others may find the standards too difficult to meet and they weed themselves out. In the late 1990s Country Natural Beef did a membership blitz that basically doubled their membership. At the time of this report, Country Natural Beef recognized the need for more members to meet the current retailer demand.

³⁴ www.agofthemiddle.org/pubs/cnbcasestudyfinalrev.pdf

³⁵ 4% of the net beef sales cover all administrative costs (e.g., staff, accounting, legal, marketing, website, etc.) (Probert, pers. comm.)

³⁶ www.agofthemiddle.org/pubs/cnbcasestudyfinalrev.pdf

³⁷ www.agofthemiddle.org/pubs/cnbcasestudyfinalrev.pdf

Country Natural Beef focuses its communications efforts among members and partners rather than consumers (Probert, pers. comm.). At this point in time they work very hard to keep up with current demand and so have no need to increase their market. However, their retail partners advertise the beef products and the members support their current retail partners by being in store and through maintaining a website that is available to the public. Internal communications with members are through newsletters, weekly membership conference calls, annual meetings and team lead communications. Eighty percent of all members participate on weekly calls.

c)Program Reflections

HIGHLIGHTS

- Flat business structure, where every member regardless of land base or cattle numbers has an equal say at meetings and with decision making.
- There are no capital assets which keep overhead costs relatively low.
- Solid strategic partnerships that finish, truck, store and distribute beef.
- Ranchers own and represent the company.
- Price stability and predictability as compared to volatile commodity beef markets.

CHALLENGES

- Being flexible enough to respond to consumer demands – they are expecting more requests around animal welfare and traceability.
- Being flexible enough to adapt organizationally as needed.

ADVICE FROM COUNTRY NATURAL BEEF

- Identify market need first. In the early stages of program development, production is the easy part while marketing and “getting the word out” was more difficult.
- Need to know what the customer wants. Have learned a rancher cannot efficiently produce a product and then go find a buyer. “Talk to end purchaser first!”

d)References

Personal communications references are listed in the Appendix A: Interviewee List

C. NATURAL BEEF PROGRAM OF CERTIFICATION OF URUGUAY (NBPCU)

a)Context

The Natural Beef Program of Certification of Uruguay (NBPCU) is a national program that was created to differentiate Uruguayan beef on the international market and to increase national and international consumer trust in Uruguayan beef products³⁸ (Boland et al., 2007). Felipe D’Albora, the Coordinator of Standards, Protocols and Programs in the Direction of Control and Development of Quality with the National Institute of Meat (INAC), indicated it was initially created by INAC to address food safety concerns, particularly bovine spongiform encephalopathy (BSE). INAC is an arm’s length from government organization established by the Executive Power (led by the President of Uruguay) with the mandate to advise on National Meat Policy and to execute such policy that is enacted by the Executive Power³⁹. INAC is directed and administered by a council of six members. The president of INAC is appointed by the Ministry of Livestock,

³⁸ www.inac.gub.uy/innovaportal/v/1731/1/innova.net/program

³⁹ www.inac.gub.uy/innovaportal/v/4051/1/innova.net/the_national_meat_intitute

Agriculture and Fisheries. The vice president is appointed by the Ministry of Industry, Energy, and Mining. The remaining four members are from the private sector. Representatives of rural producers choose two individuals and representatives of industry organizations choose two individuals to make up the four private sector members.

b) Program Evolution

Work began on the NBPCU in 2001 as a pilot program. INAC began their market research by considering global trends for beef consumption (D’Albora, pers. comm.). They recognized a global trend for safe, natural beef that was not fed animal proteins and was free of hormones, antibiotics or any element that could affect the safety of the product. Uruguay was well set up to move towards a “Natural Beef” certification as they: are declared free of foot-and-mouth disease by the World Trade Organization (WTO), are classified in the lowest risk category for BSE, and have a very strong traceability system (Boland et al., 2007). Further, most Uruguayan cattle are fed primarily on native grassland pastures⁴⁰.

NBPCU was officially recognized after the United States Department of Agriculture (USDA) “Process Verified” it in August 2004 (Boland et al., 2007; D’Albora, pers. comm.). The USDA’s “Process Verified” program reviews and approves a variety of claims made by food producers against predesigned standards and then certifies the activities and processes with a USDA Process Verified Label (Figure 1).

Figure 1: Uruguay’s USDA Process Verified Certified Natural Beef Label



The main components of NBPCU are food safety, traceability, animal welfare, and environmental sustainability⁴¹ (Boland et al. 2007). Each of these is supported by the following claims:

- 1) Source verification of animals and products – all cattle can be traced from ranch to harvest, fabrication and packaging. Identification is done with plastic ear tags.
- 2) No added hormones - no growth hormones or equivalent growth promotants administered to the animals. These have been prohibited by national law since 1984.
- 3) Not fed antibiotics – no sub-therapeutic antibiotics have been fed or administered as supplement in feed or water for the purpose of growth promotion.
- 4) No animal proteins in feed – never been fed protein of animal origin except maternal milk. Animal proteins in feed have been prohibited by national law since 1996.

⁴⁰ www.naturalbeefdistribution.com/id25htm

⁴¹ www.inac.gub.uy/innovaportal/v/1731/1/innova.net/program

- 5) Grass fed – All animals have been grown, raised, and fattened on a grass diet. Restricted supplementation is accepted to support grazing.
- 6) Open range – never been confined to yards or feedlots at any time in the animal’s life, raised in open pastures year round.
- 7)

Environmental sustainability in this program refers to the cattle being grass fed and on open range while for most cattle this means on natural grasslands this is not a stated requirement of the certification program. There is no interest in or direction around any specific ecological services (D’Albora, pers. comm.).

The program is voluntary for producers to join (D’Albora, pers. comm.). If a producer or slaughterhouse would like to join the program they let NBPCU know and then respond to requests for information from NBPCU regarding the program claims of food safety, traceability, animal welfare, and environmental sustainability. There is no cost to the producer to participate in the program and if they meet the standards they are eligible to use the “Natural Beef” certified logo. The motivation for participating in the program is that a better price for certified beef could be negotiated. Unfortunately since the program was initiated certified beef is selling for a similar price to non-certified beef due to the global increase of beef prices.

The program was created as a tool to access new markets (D’Albora, pers. comm.). Boland and others (2007) identify Uruguay beef as an example of an industry effort to obtain international certification for its grass fed beef similar to that of global marketing efforts of New Zealand Lamb. The main difference being New Zealand has markets without a formal certification program while Uruguay is using a broad certification program based on USDA standards. Ultimately Boland and others (2007) reported that the intent in Uruguay is to create a quality assurance program to certify the whole country conforms to producing high-quality grass fed beef. D’Albora (pers. comm.) did not identify this as a goal, saying this program is completely voluntary.

Uruguay has a significant beef export market through which they export about three times as much as they consume domestically (D’Albora, pers. comm.; Joseph, 2012). INAC supports Uruguayan differentiated beef by organizing promotional activities and trade missions to several countries and participation in major food shows around the world (Balbi, 2011). Uruguay beef products are differentiated based on their clean disease status, on their traceability program and its “natural” production system (Joseph, 2012).

While much of the beef produced in the country fits the criteria, it would appear that a fairly low amount of beef is sold through the NBPCU program. Joseph (2012) identifies 14 million hectares in Uruguay are utilized for cattle production. Boland and others (2007) identified approximately 19,000 cow-calf operations and 6,000 calf-to-beef type operations in existence in Uruguay. Boland (2007) also reported there were 277 certified farms in 2006. There are currently 110 participants in the NBPCU program representing 400-500 thousand hectares of land (D’Albora,

pers. comm.)⁴². The decline to current numbers is related to producers not extracting a premium from the market.

NBPCU is a public program but does not take in any public funds. It receives a fee of 0.6% of the earnings from beef exports and 0.7% from domestic sales. There are two INAC staff people who maintain the program. There is very little outreach and communication related to the program occurring now compared to when the program started. Resources are now being prioritized to other marketing tools. The main form of communication is now the website. If people are interested in more information, they contact the NBPCU office for assistance..

c)Program Reflections

HIGHLIGHTS

- The pilot program was designed to identify any challenges to the approach. It was small enough that it could be amended. The pilot took 12-18 months to plan, implement and evaluate. At the end of the pilot, they determined it was successful enough to expand throughout the country.

CHALLENGES

- Premium extracted is not great enough to maintain involvement in the program. However, the program is considered successful because it has had influence on beef production and sales in particular through the USDA process verified certificate.

ADVICE

- Focus on your future goals, emphasize the quality of the product, and be attentive to the signals of the global market.

d)References

Balbi, M.J. 2011. Uruguay, Livestock and Products Annual. Gain Report – Global Agricultural Information Network. Sourced from http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Livestock%20and%20Products%20Annual_Buenos%20Aires_Uruguay_8-31-2011.pdf on September 12, 2012.

Boland, M.A., L. Perez, and J.A. Fox. 2007. Grass-fed Certification: The Case of the Uruguayan Beef Industry. Choices. 1st Quarter 2007, 22(1). Sourced from www.choicesmagazine.org/2007-1/foodchains/2007-1-03.htm on June 14, 2012

Joseph, K. 2012. Uruguay, Livestock and Products Annual. Gain Report - Global Agricultural Information Network. Sourced from http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Livestock%20and%20Products%20Annual_Buenos%20Aires_Uruguay_9-7-2012.pdf on September 15, 2012.

Personal communications references are listed in the Appendix A: Interviewee List

⁴² www.inac.gub.uy/innovaportal/v/1752/1/innova.net/members

D. CONSERVATION BEEF – THE NATURE CONSERVANCY, MONTANA

a)Context

Brian Martin, Director of Science with the Montana Chapter of The Nature Conservancy (TNC), explained that the Conservation Beef program is no longer functioning. It was started in the late 1990s and lasted for four years. Martin (pers. comm.) agreed to describe the program and provide some of the learnings they gathered through the process.

The Conservation Beef program had a regional focus and was designed and implemented by Artemis Foundation, a conservation focused non-profit in Montana, the Montana chapter of TNC, and Madison Valley Ranchlands Group (Martin, pers. comm.). The program was set up to offer a premium price for beef to ranchers in the Madison Valley. The Madison Valley is located near Ennis, MT in Madison County which is west of Yellowstone National Park in the southwest part of the state. The Madison River is one of the top blue-ribbon trout rivers in the USA.

The American Farmland Trust identified the ranches of Madison County at high risk of low density subdivision. This type of development would negatively affect the ranching industry and the conservation value of the Greater Yellowstone Ecosystem of which it is part⁴³. The Madison Valley is home to large landscape scale species (e.g., bears, cougars, wolves, elk and deer). Maintaining large open landscapes for these species is important for overall biodiversity and function of the ecosystem (Martin, pers. comm.). Large viable ranches are complementary to keeping this landscape open and maintaining these large ranging animals.

The main competing land use in the area is country residential acreages or estate ranches (i.e., 2000-3000 acres) and smaller rural residential subdivisions (Martin, pers. comm.). Land prices for low density subdivisions in the area are in the upper twenty percent of all areas of Montana; however, larger acreages (i.e., the ranch estates) are still reasonably priced for someone looking for a hobby operation. While there is some subdivision in the Valley it is still largely intact (Martin, pers. comm.). The Upper Madison also has a fair number of conservation easements held mostly by a local land trust and some by TNC. The main concept behind the program was that if ranchers were more profitable by selling a niche beef product from cattle raised extensively on the open range, then they could better afford to keep the land as fully intact ranches.

b)Program Evolution

Artemis Foundation staff approached land owners in the Madison Valley to explain the program and encourage them to join. The program involved the Artemis Foundation finding customers for the Conservation Beef and the land owners making specific commitments to how they would manage their land after three years in the program the landowners would enter into a conservation easement. Land owners who entered into the program were able to sell beef through the Conservation Beef program immediately and were committing to three years of guided and cooperative stewardship efforts with the Madison Valley Ranchlands Group. TNC provided technical expertise and was to hold the conservation easements at the end of the three years. Specific ecological services were not measured, although monitoring was implemented

⁴³ www.farmland.org/programs/states/documents/AFT_Strategic_Ranchland_in_the_Rocky_Mountain_West.pdf

through “Land EKG”, a previously developed range management methodology. General landscape health was the target, and in particular TNC was interested in quality riparian and range habitat and related biodiversity. The three years of stewardship activities generally involved landowners implementing management techniques to maintain healthy riparian and range areas on the ranch as well as biodiversity.

Three ranches signed up for the program (Martin, pers. comm.). Ranchers could immediately start selling beef through the Conservation Beef program. A baseline biophysical study was done by a consultant on each participating ranch in the first year. In the second year a TNC staff person reviewed the baseline and toured the ranches with land owners and provided guidance on how to improve general landscape health on the ranch. The intention was to create ranch management plans with the ranchers but the program ended before this was completed. After year three, a conservation easement should have been donated. In the end, there were no conservation easements donated through this program.

There were marketing and production challenges with the approach. Choice cuts were sold online to individuals through a “farm-gate to plate” approach. But there was a limited market for the non-choice cuts. A local restaurant in Helena sold Conservation Beef burgers marketing them as “local food.” There was also an effort to sell the ground beef more broadly as Conservation Beef burgers in public venues (e.g. sports stadiums). However the required premium in this market was not palatable.

The majority of producers in the Madison Valley are cow/calf producers. The animals sold through the Conservation Beef program were grass finished. This extends the amount of time the meat animals are on pasture from approximately nine months to 22 months. On a ranch that has a limited supply of grass this approach reduces the number of cows that can be kept on the ranch, which in turn reduces the number of calves produced annually. Another challenge for ranchers is the first year of transition to keeping animals an additional 13 months as there is no inventory to sell and so cash flow is affected. An additional production challenge is the requirement to provide fresh beef throughout the year – not just when the calves are weaned. The premium the program was able to achieve proved to not be enough to account for opportunity costs and potential future land value increases.

TNC recognized that as a land trust perhaps they did not understand the beef value chain or the end customer well enough to play a lead role in this kind of program. Another challenge with a certification program approach for a land trust is that they were entering into a business relationship with the rancher, which raises the question how much should the certification programmer be involved in the business metrics of the producer? If a ranch business were to fail there could be a significant ripple effect in the ability of the program to supply beef. This was not a place TNC wanted to go.

c)Program Reflection

HIGHLIGHTS

- Learned that a different approach might be more appropriate. Recognizing their strengths in land management TNC Montana has since focused on a grassbank program. In brief, landowners who sign onto the program receive forage at a reduced cost from a large TNC owned ranch in exchange for implementing stewardship activities on their own operations. TNC has found this to fit better with the type of cattle operations in their area of focus. The certification program required cattle producers to change their business model by moving up the value chain and dealing directly with the end user. Cow-calf producers generally sell cattle into a commodity market where there can be high volatility. The grassbank program provides a cost cutting measure that can support the ranchers' current business model.

CHALLENGES

- There was no identified buyer for non-choice cuts.
- Cow-calf operations are not well aligned with a year round beef sales approach.
- As a land trust, TNC was not familiar enough with beef supply chains or food systems.
- Perpetual conservation agreements may have reduced participation especially at start-up when there were many unknowns.

ADVICE

- Need to understand the market and how production must be adapted to sell to that market.
- A land trust or similar organization could be involved as a third party auditor and/or information source in a program run by people who are better suited to participate in the food market.

d)References

Personal communications references are listed in the Appendix A: Interviewee

6.0 Analysis and Recommendations

The main intention behind this project was to review a number of Certified Beef Programs in order to assess the potential of a certified beef program for Canada's natural grasslands in which the attributes would include cattle raised and finished on natural grasslands managed for biodiversity, species at risk and general overall health. The idea being that consumers, by using their purchasing power, would recognize and reward producers for providing ecological service benefits to society. While there is a large amount of variability between the programs reviewed, in particular in terms of scale, purpose and type, these case studies highlight areas for consideration and challenges associated with a natural grasslands conservation certification program in Canada.

6.1 SCALE

Two of the programs (Country Natural Beef and Conservation Beef) are regional in scale while the other two (NBCPU and Grasslands Beef) are national/international.

SCALE CONSIDERATIONS: When considering scale for a “natural grassland” certified beef program in Canada, the context of Canada’s beef industry must be contemplated. The Canadian Beef Advantage includes a national and international reputation based on the palatability of beef from grain finished cattle – most of which are finished in feedlots. Of the international grassland conservation beef certification programs reviewed, one of the key attributes they highlighted was the animals being raised and finished on an open range of natural grasslands thus targeting an additional attribute of animal husbandry. Grasslands conservation beef could be grain finished in an open range situation, similar to the Country Natural Beef Program, to accommodate this additional attribute; however, differentiating this on a global scale may be challenging. Customers who understand the credence attribute (i.e., grasslands conservation) being sold and why it is important are essential for a certification program to work.

Considering fifty percent of Canadian beef is exported and recognizing there are global trade agreements and quotas on importing and exporting beef an understanding of Canada’s beef export responsibilities is necessary if an international scale is to be considered. Knowing who Canada’s customers are and understanding what attributes they desire in an end product would go a long way in focusing the marketing efforts of a grasslands conservation beef program on an international scale.

Given the low number of federally inspected slaughter facilities in Canada there is a limited opportunity for processing a differentiated beef product that can leave the region within which it was processed. There may be more opportunity locally or regionally to initiate a grasslands conservation beef certification program where there is a provincial abattoir and where a more direct connection with customers is possible.

Another consideration is that Canada has limited acres of natural grasslands that have a certain grazing capacity available in order to support most ecological services. To the authors’ knowledge there is no research available to indicate what kind of grazing capacity may exist on the natural grassland acres in the Canadian prairies to supply a grasslands conservation beef market.

6.2 PURPOSE

While two programs involve cattle raised on predominantly natural grasslands and all promote the environmental benefits of open range grazing there is a nuance in the way they were initiated. Two programs (Country Natural Beef and NBCPU) recognized that there was consumer demand for the product they were producing and so created a program to support and potentially increase sales. The other two programs (Grasslands Beef and Conservation Beef) were both designed with the intention to promote and influence grasslands conservation.

PURPOSE CONSIDERATIONS: Essential to the success of any certification program is determining who is interested in purchasing the attributes that are attached to the food product being sold. Country Natural Beef does a very good job identifying what the customer wants and ensuring those demands match with the management practices they employ and the end product. The Conservation Beef program and the Grasslands Beef program have identified that one of

their main challenges was not spending enough effort determining who wants the product they are offering.

While some willingness to pay studies show that consumers are looking for food produced in an environmentally sustainable manner, not all consumers may be aware of what practices in beef production are environmentally friendly. Education and outreach, essentially creating demand about the value of the product are necessary. Program managers need to define clear attributes so consumers know what they are buying. Many programs “bundle” these attributes. Many attributes are complementary but the consumer may only understand a few of the attributes. However when the customer purchases the product the entire suite of attributes benefits as a result of the purchase.

A general challenge with credence attribute based certification programs is the consumers understanding of the link between the influences of their purchase on the credence attribute. These are often not intuitive connections. For example, healthy natural grasslands provide many ecological services, well managed cattle grazing on natural grasslands promotes and supports healthy natural grasslands. Purchasing natural grasslands beef supports the grazing activity and in turn maintains healthy natural grasslands. Significant effort would be needed to promote and market these new attributes.

6.3 TYPE

Two of the case studies (Country Natural Beef and NBCPU) created a program based on establishing a brand and using other certification programs to add credibility to their efforts. The other two case studies (Grasslands Beef and Conservation Beef) worked to create their own brand, standards and certification process. Certification programs can be created and administered internally or externally. External certification programs can be managed by either non-government organizations or by government.

TYPE CONSIDERATIONS: The biggest factor in choosing the type of certification program is likely related to the credibility of that program to the end user. Internally created and administered programs will need to ensure they are transparent and straightforward.

With respect to external programs, it has been shown that consumers in different regions and countries vary in their trust levels of non-government and government certification programs. When determining potential customers this should be acknowledged.

All certification programs, regardless of who the certifier is need to be science-based and need to be credible. They need to be easy for producers to join and stay involved with, while being robust enough to deliver results that achieve the overall program goals.

The communication requirements for a new brand or certification compared to one that is already established are significant; however the costs to participate in already established certification programs can also be significant. It may also be challenging to find an already existing certification program that recognizes some of the attributes the producers want to promote.

6.4 OVERALL CHALLENGES

1. A significant problem with grasslands conservation programs is that the wrong farm product is being certified. Instead of the beef product being certified the grassland could be certified and then the grassland stewardship and management practices would be linked to the benefit of the grasslands. Certifying the beef creates a variety of problems because the animal effectively needs to spend all its life on the certified property in order to stay certified. As was the problem in the Conservation Beef program this results in producers needing to retain animals to an older age, therefore they need to reduce their breeding herd, which means they have less calves. All of which equals reduced marketing options, which increases risk.
2. Grasslands conservation is not dependent on grass finished beef. Grasslands can be just as well conserved raising calves on grass and shipping them off to be finished on grain. In fact, one could argue cow-calf is better for conservation as producers have a greater option to adjust herd size with weather changes because they can choose to background calves, raise long yearlings or sell calves immediately after weaning. However then there are issues related to land stewardship cadence attributes as addressed in the next point.
3. There is no known evidence to suggest Canadian consumers are asking for prairie conservation in a way similar to forest conservation demand. Country Natural Beef and the consumer surveys reviewed indicated that land stewardship falls below human health and animal welfare on the list of desired attributes. This means that any successful certification program would have to engage in significant communication efforts to “sell” the consumer on benefits of grasslands conservation before producers could benefit from the program through beef sales.
4. Existing certification programs have gotten around this lack of consumer support by bundling other attributes that may be related. For example, certification may work in South America because most beef is grass fed and finished and is already marketed as such. The market is driven by the health benefits of grass fed over grain fed beef and grasslands conservation can be tacked on. Country Natural Beef also does this by bundling open range raised, humanely managed livestock with biodiversity conservation.
5. Considering the Canadian beef industry it is likely only a regional program is feasible. Based on the Canadian Beef Advantage, there is likely little to no Canadian government support for grasslands conservation beef so such a certification could not be used to access new markets. Similar to South America the Canadian government supports what the majority of producers do.
6. There are challenges with a regional program as well. When considering the two regional programs reviewed it is important to note the need for proximity to the market place and need to own or control the entire value chain right from production to retail. Most conservation grasslands in Canada are very far from urban markets. A high level of value

chain involvement by livestock producers in Canada has not proven successful in the past; likely a result of the relatively small Canadian population, the relatively few processing facilities and relatively few retail opportunities.

7. There appears to be an absence of sufficient premium linked to certification programs. Little is known about whether certification actually affects producers' economic performance. A meta-analysis of research into the effects of sustainability certification (Blackmore & Rivera 2011) indicates that most studies could not show that certification benefits producers. Of the few studies that indicated economic benefits, two indicated that the benefits were either idiosyncratic or inconsistent.

None of the certification schemes reviewed for this report could demonstrate economic benefits. The Nature Conservancy's Conservation Beef program indicated that the premium was insufficient to encourage ranchers to make the necessary changes to their operation and workload to sustain a successful program. Uruguay's Natural Beef Program provided no premium over commodity beef. Country Natural Beef's anecdotal premium of \$75/head translates to \$.07.5/lb for a 1000 lb steer in a program that has proximity to its market and significant control of its value chain.

8. Conservation practices that lead to grasslands conservation in the programs reviewed were not particularly well defined. Only the Grasslands Beef program was somewhat results-based; in the rest it is not possible to measure how much the programs actually benefit conservation. In the design of a certification program that effectively benefits conservation there needs to be a strong link to the science that supports the conservation goals of the program.

6.5 GENERAL CONSIDERATIONS

The following is a list of questions that arise from the program reviews and require careful consideration when a Certified Beef Program is being proposed.

16. What ecological services are supported by the beef product being produced?
17. Do consumers care about these ecological services? Do they see the connection between extensive natural grasslands grazing and the end beef product they consume?
18. Does the science match the objectives? Is what will be measured/monitored/audited reflective of the intended outcome?
19. How can the detailed intricate science of ensuring the program is robust and accomplishing what it is planned to accomplish be reduced to a simple and effective system for joining the program, monitoring / auditing over time and communications purposes?
20. What are the purposes/objectives of the program? What other attributes does the product have that can be bundled with the ecological services?

21. What kind of education campaign about the ecological services and how beef production supports those ecological services is necessary?
22. Who are the people needed to assist in the start-up, planning and design of the program (e.g., sellers (livestock producers), scientists, industry, supply chain experts, government, non-government organizations, processors, customers (retail outlets))?
23. Who can lead the development of the program? A stakeholder partner, paid staff, etc.?
24. Will there be land management support, auditing support, etc. for producers?
25. Does the required infrastructure exist (e.g., tracking systems, slaughter facilities, food storage and distribution systems)?
26. Do reliable, credible certification programs that support the purposes/objectives of the program already exist?
27. How will external market forces be dealt with? Certification programs are predicated on the existence of disposable income. How will a changing economy affect this opportunity?
28. How much premium is required?
29. How could beef supply chains in Canada be adapted to accommodate grasslands conservation beef products?
30. How will the initial scientific, market and feasibility research and program design be funded?

7.1 Appendices

APPENDIX A – INTERVIEWEE LIST

- A. Grasslands Beef – The Southern Cone of South America Alliance for the Grasslands – Interviewees: **Mauricio Moresco** – Asociacion Cultural para el Desarrollo; **Anibal Parera** – Southern Cone of the Alliance for the Grasslands, former coordinator and rancher in Argentina
- B. Country Natural Beef – **Dan Probert** – Country Natural Beef , Executive Director
- C. Natural Beef Program of Certification of Uruguay (NBPCU) – **Felipe D’Albora** – National Institute of Meat (INAC) in Uruguay, Coordinator of Standards, Protocols and Programs in the Direction of Control and Development Quality
- D. Conservation Beef – **Brian Martin** – TNC-Montana Chapter, Director of Science

APPENDIX B – OTHER REFERENCES

- Blackman, A. and J. Rivera. 2011. Producer-Level Benefits of Sustainability Certification. *Conservation Biology*. 26: 6, 1176-1185.
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APPENDIX C – RAISE WELL PRINCIPLES

Country Natural Beef was founded for the purpose of providing customers with a healthy and wholesome product for their families at a price that supports sustainable ranching. In doing so, CNB created more than a quality product for its retail customers; it created a unique relationship based on shared values.

Country Natural Beef ranchers are dedicated to sound agricultural practices and graze their livestock in a sustainable manner which is compatible with the environment of their specific region, as certified by Food Alliance. CNB ranches are scattered throughout the west and range in size from as small as 800 acres to as large as 500,000 acres. The ecological setting of these ranches is as varied as their size. This diversity prompts CNB ranchers to select cattle that are genetically well suited for the particular environment of their ranch. These cattle are rotated through pastures on the ranch and graze as long as weather and range conditions permit doing so in a sustainable manner.

Because of our diversity in ranch size and location, the ranchers of CNB work continually to ensure that each of our ranches meet the strict standards required of our group. These standards reflect the fundamental values of CNB members--how we treat the land, our employees, and our animals. We have always been committed to compassionate care of our cattle. This document, written in collaboration with our retail partners, further defines that standard of compassionate care.

OWNERSHIP

Philosophy: Country Natural Beef calves are born on our member ranches. They are under the ownership of CNB ranchers from birth to retail market. This allows us to monitor and control all aspects of animal welfare and animal handling during the entire life of the calf.

CNB Ranchers take responsibility for the compassionate care of their cattle throughout their entire lives

BREEDING

Philosophy: Country Natural Beef ranchers show preference for breeds adapted to local conditions and production systems. Breeding programs are developed to promote the welfare of the animal and careful consideration is placed on the environment in which the cattle will live.

This includes considerations for heat, cold, humidity, rainfall, likelihood of drought, prevalence of dust, types of predators, travel distance, and stocking rate.

Calving – With the philosophy that animals will take care of themselves if given the right conditions to do so, Country Natural Beef cattle are born and raised on member ranches in as natural conditions as possible.

HANDLING

Philosophy: Low stress animal handling techniques are very important for our animal's well-being. CNB's practices are based on the work of and personal instruction from the nation's leaders on low stress handling. Producers realize that it is fear that stresses the animal more than the production practice and take into consideration the animal's natural response to stimuli. The highest quality beef is produced when cattle are handled quietly and calmly; so the quality of CNB beef is the final audit.

FACILITIES

Philosophy: Members design and construct new (or renovate existing facilities) to take advantage of cattle's natural instincts (including flight zone), thus enhancing cattle movement. However, facilities on member ranches often predate our most recent animal handling knowledge and skill. Country Natural Beef ranchers recognize that the handler's expertise and education is more critical and has more influence on the stress levels and correct handling of the animals than the design of facilities.

HEALTH AND WELFARE

Nutrition – Producing cattle in a naturally raised program is dependent on proper nutrition during the life of the animal.

TRANSPORTATION

Philosophy: Understanding of the loading and transportation process is critical in assuring the safety and comfort of cattle and protection of ranchers. Properly designed and maintained trucks, loading facilities and chutes are important for easy and safe animal movement.

BUNKER/STOCKER

Philosophy: In order to provide a 365 day supply of beef to our customers, a variety of programs are used for calves transitioning from cow- calf to final feedlot. Calves may go directly to pasture, to supplemental feed on pasture or rangeland, or to bunker programs where full feed is supplied. A combination of options may also be used.

FEEDLOT

Philosophy: The CNB cattle gathering program is unique for its short fed, low corn diet. Any feedlot that feeds CNB cattle is third party verified and audits are conducted under a quality control program for humane handling that is approved by CNB and its retail partners

PROCESSING STANDARDS

Philosophy: Humane processing is a priority and is carried out with great respect. It is sudden, immediate and complete without generating fear or pain in the animal's final moments.

APPENDIX D – GRAZE WELL: PRINCIPLES OF LIVESTOCK MANAGEMENT THAT LEAD TO HEALTHY LAND, LIVESTOCK AND PEOPLE.

The following principles are an affirmation of what the members of Country Natural Beef strive for in the management of their resources.

1. We believe good management is goal driven. Each member ranch in Country Natural Beef has a written set of goals that describes the desired health and appearance of the land they manage and live on; the desired products they hope to derive from the land, their livestock and themselves; and the type of lives they wish to lead. In addition the members describe the actions they are taking to achieve these goals.
2. Water is our most limiting natural resource. We manage the land to get the precipitation we receive into the soil that it falls upon and make it available for plant growth for as long as possible. To achieve this we strive for a dense stand of perennial plants with the spaces between plants occupied by decaying litter. When water enters streams we want the streams to flow year-round and have a minimum of sediment in them. We want the streams to be lined with riparian plants and shrubby vegetation.
3. Grazing by our livestock during the times of year when grass plants are growing is done in a manner that encourages root growth, stimulates plant growth and promotes healthy ground cover, minimizes the re-biting of plants after they have been grazed and maximizes the time of rest between grazing. On our non-irrigated rangelands, we minimize the amount of time we are in a particular area when plants are growing. Once cattle leave an area they have grazed we maximize the period of time before they return. In areas where re-biting occurs, we defer enough vegetation behind that the plants have photosynthetic area with which to re-grow.
4. We recognize that truly healthy and productive land is biologically diverse. We prefer a diversity of grasses, forbs shrubs and trees over a monoculture. Rodents, insects, birds, predators and other grazing animals all have their role in a healthy ecosystem. We adapt our management to fit our individual environments rather than fitting the environment to our management. Grazing is planned in advance to coordinate livestock presence and forage removal with watershed, wildlife and human needs.
5. Our land management decisions are based on the long-term health and productivity of the land rather than the maximization of short-term gain. In order to make sound decisions we make sure our decisions are in accord with our long-term ranch plans and that they are economically, ecologically and socially sound.
6. By grazing livestock on land that is ecologically healthy and in a manner that is compatible with the environment, we rarely have the need for antibiotic treatment and eliminate the use of growth hormones and feed additive antibiotics. Routine immunizations and sound management are all our cattle require to flourish.
7. By grazing well we hope to benefit not only the land and our families but our society as well. We want our final product to be good food at a reasonable price that is an integral part of a healthy diet. We want our customers to know that their purchases are helping the land as well as people.

APPENDIX E – ACKNOWLEDGEMENTS

We would like to acknowledge all of the individuals who kindly shared their time and expertise:

- Carla Sbert – Independent Policy Analyst who has studied the Southern Cone of the Alliance for the Grasslands on behalf of Nature Canada
- Mauricio Moresco – Asociacion Cultural para el Desarrollo
- Anibal Parera – rancher in Argentina and the former coordinator of the Southern Cone of the Alliance for the Grasslands
- Dan Probert – executive director, Country Natural Beef
- Gabriella Good – Spanish translator
- Felipe D’Albora – Coordinator of Standards, Protocols and Programs in the Direction of Control and Development Quality, National Institute of Meat (INAC) in Uruguay
- Brian Martin – Director of Science, TNC – Montana Chapter

The programs were selected through consultation with the project committee including Sue Michalsky, Michael Burgess and Orin Balas with the Ranchers’ Stewardship Alliance Inc. The funding for this program was provided by the Commission for Environmental Cooperation.

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