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UPSCALING THE MARKETING OF SMALL RUMINANT PRODUCTS IN THE CARIBBEAN – THE CHALLENGES

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ABSTRACT: Small ruminant products marketed in the Caribbean may be classified as primary products - live animals, undifferentiated meat cuts --and value added products -- prime meat cuts, processed milk products, and leather products. Prime meat cuts and processed milk products are usually distributed through upscale markets. Traditionally, the primary products have been marketed through personal arrangements, itinerant traffickers and butchers, auctioning, parochial markets and roadside butchers' stalls. However, a pilot test-market project undertaken in Trinidad in 1997 and a survey of acceptability of local goat meat by chefs in Jamaica in 2001 showed great potential for upscaling the marketing of small ruminant products to the supermarkets and the hospitality industry. In order for the local small ruminant industry to tap into the upscale markets a number of constraints have to be addressed. This paper discusses the avenues for marketing small ruminant products in the Caribbean and the challenges for upscaling the marketing (e.g., inadequate production base, consistency of supply, farmer loyalty, product quality, support services such as master butcher service, product development and packaging and presentation).

INTRODUCTION

Small ruminants are considered to be an established and important feature of Caribbean agriculture (Lambie et al., 1992). They not only play a significant role in the economy of the small farmers, but also in agricultural diversification initiatives geared to reducing the dependence on a narrow range of export crops (Lambie et al., 1992; and McLean, 2002). Despite this importance, however, local production satisfies only a small percentage of demand. In Trinidad and Tobago, for example, McLean (2003) indicated that the local small ruminant industry accounted for between 1 to 7.5% of total lamb and chevon consumption during the period 1991 – 2000, with the residual demand being satisfied with imports from New Zealand and Australia. Regionally, too, shortfalls in demand are satisfied with imports from these major sources, which account for 64% of global exports (Singh et al., 2006). In 2004 the CARICOM region imported 11.3 million kilograms of goat and sheep meat, accounting for approximately 75% of total consumption (Singh et al., 2006).

Although the imported product is cheaper and generally targeted at lower income groups (Craig, 1993a), there is a growing and unmet demand for the fresh local product (CARDI, 2001; Hosein et al., 1995). The fresh product is perceived as being a healthier product and regarded as having quality and flavor characteristics not found in the imported one, something that augers well for the increased production and marketing of this commodity. It is therefore clear that the potential exists for increasing production locally not only to satisfy consumers who procure small ruminant products via traditional markets, but also the niche identified, which consists of those consumers who are skeptical about purchasing small ruminant products from traditional sources. This paper, in addition to discussing the avenues for the marketing of small ruminant products in the Caribbean, will also identify the challenges for upscaling the marketing of these products.

MATERIALS AND METHODS

In order to address the issues at hand, and to identify the challenges hindering the marketing of small ruminant products in the Caribbean, a review was undertaken of two studies conducted in Trinidad in 1997 and in Jamaica in 2001. In the former study, an attempt to develop a niche market for the supply of fresh, chilled local lamb to supermarkets in Trinidad was undertaken. Hi-Lo, the largest supermarket chain in Trinidad, was approached by the Caribbean Agricultural Research and Development Institute (CARDI) and some small ruminant farmers (eight in phase I and seven in phase II) to collaborate on a project to supply fresh chilled lamb to a total of 10 of their 17 outlets. Live sheep were delivered to the abattoir on a Monday evening, fasted overnight, slaughtered on Tuesday, chilled and delivered to the supermarket outlets on Wednesday and Thursday. The carcasses were divided into retail cuts such as whole legs, leg chops, shoulder chops, loin chops, lamb ribs and lamb stew in the supermarket, and payment for the meat was based on the weight of cold, plastic-wrapped carcasses delivered to the supermarket. Farmers initially received a price of US$ 3.42 per kg, which was increased to US$ 3.76 per kg when the supermarkets became convinced that the project farmers could satisfy their needs.

In the 2001 study conducted in Jamaica, the goal identified was that of negotiating an increase in the utilization of locally produced chevon. The CARDI Marketing Unit, CARDI Jamaica, in conjunction with the Jamaican Goat Breeders Society undertook a project funded by the CTA to determine the acceptability by the hospitality sector of the meat prepared from Jamaican breeds/types goats. To facilitate this study 11 Jamaican hotel chefs were asked to evaluate, both visually and on the basis of taste, different cuts of chevon from the following breeds/types: pure Nubian, pure Boer, Nubian/Boer, Boer/Nubian and Nubian/native. The cuts for visual evaluation were racks, French trim crown chops, saddle (on the bone), double noisettes, easy carve leg, stretched leg, giggot steaks and chine and end. Attributes on which each cut was evaluated included marbling, color and portion size.

A review was also made of the findings of the 1990 Caribbean Sheep Production and Marketing (CSPM) project. This project focused on improving the production and marketing capabilities of small ruminant farmers in Guyana, Barbados and Trinidad and Tobago, along with the competitiveness and industry development study of the small ruminant meat industry in CARICOM by Singh et al. (2006).

RESULTS

(i) Consumption of goat and sheep meat

As noted above, high levels of imports from New Zealand and Australia characterize consumption of sheep and goat meat in the region. Singh et al. (2006) have noted that the CARICOM region imports approximately 75% of its consumption requirements, which in 2004 were valued at US $23.3 million. These authors have estimated CARICOM consumption to be in the region of 15,000 t (Table 1), with consumption of sheep meat being twice that of goat meat – i.e., 0.6 kg as against 1.4 kg. Table 2, on the other hand, provides an overview of the per capita consumption of sheep and goat meat for CARICOM countries for 2004. From this table one can appreciate the variation that exists within the region. The highest consumption of sheep and goat meat was recorded for the Bahamas (6.0 kg), followed by that of Barbados (5.7 kg) and St. Lucia (5.5 kg), economies that are largely dependent on tourism.

Table 1. CARICOM consumption of goat and sheep meat (2003 and 2004)

Commodity	Year	Production (kg)	Imports (kg)	Total Consumption (kg)	Per Capita Consumption (kg)
Goat and sheep	2003 2004	3,661,000 3,668,000	11,123,889 11,287,856	14,784,889 14,955,856	2.086 2.111
Goat meat	2003 2004	2,579,535 2,591,800	1,948,338 1,769,812	4,527,873 4,361,612	0.639 0.615
Sheep meat	2003 2004	1,081,465 1,076,200	9,175,551 9,518,044	10,257,016 10,594,244	1.447 1.495

[1] 2003 excludes Antigua & Barbuda, Bahamas and Montserrat, 2004 excludes Antigua & Barbuda and the Bahamas. Source: Singh et al. (2006)

Table 2. Per capita consumption of sheep and goat meat in CARICOM (2004)

Country	Per capita consumption (kg)		
	Goat and sheep	Goat	Sheep
Antigua & Barbuda	0.504	0.220	0.284
Bahamas	6.046	0.176	5.330
Barbados	5.666	0.136	5.530
Belize	0.073	0.024	0.048
Dominica	1.789	0.875	0.915
Grenada	1.520	0.316	1.205
Guyana	1.029	0.339	0.691
Jamaica	2.222	0.821	1.401
Montserrat	2.714	0.350	2.364
St. Kitts & Nevis	4.548	0.190	4.358
St. Lucia	5.484	0.413	5.072
St. Vincent	0.809	0.191	0.618
Suriname	0.149	0.068	0.081
Trinidad &Tobago	2.595	1.127	1.468

[1] Antigua & Barbuda based on 2005 data available; Bahamas based on 2001 data available. Source: Singh et al. (2006)

(ii) Marketing channels for small ruminant products

The major forms in which small ruminant products are marketed in the Caribbean include live animals, undifferentiated meat cuts and value added products such as prime meat cuts, processed milk products and leather products. In Trinidad and Tobago and Guyana for example, the use of local sheep meat has strong ethnic and cultural linkages (Craig, 1993a) with demand being linked to religious holidays on the Muslim and Hindu calendars (Hickson, 1997a). It is also possible to observe an increase in demand at Christmas time (Craig, 1993b). Along with the products identified above, there is also some by-product utilization,[1] but as Keens-Dumas (1993) has indicated, there seems to be a general lack of awareness of the great potential that exists with respect to the use of this particular output. Keens-Dumas has also noted that apart from the skin, there are limitations to using many of the other body parts in the present systems of production.

With specific reference to the marketing of sheep meat in the countries under investigation in the 1990 CSPM project - Guyana, Barbados and Trinidad and Tobago -- Hickson (1997a) identified the following channels:

- Traffickers/ butchers
- Direct sales to private households by producers
- Butchers who slaughter in the abattoir and sell in public markets or roadside stalls
- Meat shops
- Supermarkets
- Private abattoirs
- Marketing agency
- Backyard slaughtering

Despite the existence of these common marketing channels, Craig (1993b) has identified country differences as follows: (i) live sheep - farmers to private households (Guyana); (ii) sheep meat - farmers to consumers (Barbados); and (iii) live sheep - farmers to traffickers/ butchers (Tobago).

Additionally, country differences were also observed with respect to the niche market opportunities that exist for enhancing the consumption of fresh and fresh, chilled local lamb in the following market segments (Hickson, 1997b):

- Barbados – providing the supermarket, hotel and restaurant trade with prime, fresh lamb carcasses for sale/serving as fresh, chilled, quality differentiated cuts of lamb.
- Trinidad – servicing the premium end of the prime, fresh, differentiated lamb cut trade to the supermarkets and food service sectors.
- Guyana – for the short and medium term, satisfying the 'captive' local market for local, fresh, undifferentiated cut sheep and goat largely for the Hindu and Muslim communities.

(iii) Promotion of the utilization of sheep and goat meat

The results of the 1997 study conducted in Trinidad revealed the following (Hickson, 1997; Hosein, 1997; Hosein et al., 1995):

(i) There was a market for fresh chilled local lamb even without advertising or any promotional activity.

(ii) Demand for this product from Hi-Lo food stores alone was up to 29 tons per annum.

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[1]The main by-products of small ruminants include skin, hair, bristles, blood, bones, feet, hooves, intestines and ruminal and intestinal contents and faeces.

(iii) The research laid the groundwork for the development of niche marketing arrangements with Hi-Lo food stores.
(iv) The project provided a structured marketing arrangement that allowed farmers to access an upscale clientele that did not patronize municipal markets or roadside vendors.
(v) Fresh-chilled local lamb was packaged and marketed through a system that had greater appeal to middle and upper income earners.
(vi) The niche market was not constrained by price but demanded high standards of hygiene, easily available and cut and packaged in reasonable sized quantities for easy and fast consumption.

Hosein (1997) noted that based on the fact that consumers were willing to purchase lamb at the existing prices, this was perhaps an indication of the good quality service and product that had been supplied.

With respect to goat meat, the findings of the 2001 study conducted in Jamaica towards increasing the quantity of locally produced chevon for the hospitality sub-sector are relevant. It was found, for example, that the chefs currently use chevon on their menus weekly, in quantities ranging from 9.1 kg to more than 27.3 kg. Although most of the chevon utilized originates from Australia, New Zealand, and to a lesser extent the USA, 60% of the respondents indicated that they would add locally produced chevon to their menus. Specialized cuts such as French trim crown chops, racks and easy care leg were the preferred cuts based on visual assessment. The cuts that were found to have the most visually acceptable attributes came from 12-month-old Boer/ Nubian animals.

As far as taste was concerned, samples that contained Nubian as the dominant breed were preferred over those from the Boer animals. Carved leg was found to be a more acceptable cut than rack by the chefs. It was also determined that the younger the animal, the better the texture of the meat. CARDI (2001) has, however, indicated that further investigations are required to determine the precise breeding and age conditions that will provide acceptable visual and taste characteristics in chevon earmarked for the hospitality sector.

(iv) Challenges to upscaling the marketing of small ruminant products in the Caribbean

(a) Meat and meat products

As noted previously, and based on the studies reviewed, the major constraints to upscaling the marketing of small ruminant products can be summarized as follows (Hickson, 1997a; Hosein, 1997):

- Lack of certified abattoirs at the regional level.
- The relatively high price of local sheep meat coupled with the apparent poor quality in terms of the low yield of meat to bone.
- Underdeveloped marketing systems for sheep and the absence of marketing institutions that contribute towards the advancement of the industry.
- The price of the imported meat is substantially lower than that of local meats, thereby contributing to mass consumption of the imported product.
- The fragmentation of the industry and the absence of any strategic direction have elicited very little support from the government.
- Shortage and irregularities of supplies.

- Absence of 'farmer loyalty' in the context of securing long-term relationships with established retailers. This was particularly the case in Trinidad, when farmers started getting more money from butchers. The supermarket was approached to increase its offer and when this did not happen, farmers opted to sell to butchers and traffickers once more.

(b) Milk and milk products

In Jamaica the developments in the small ruminant industry are monitored annually through informal surveys at meat shops, major markets, slaughterhouses, roadside butchers and supermarkets (CARDI, 2005; 2006). These surveys show that goat milk in liquid pasteurised and powdered forms, as well as goat cheeses, are available in some supermarkets and pharmacies in the major towns, an indication that goat dairy products are already available to the upscale clientele. They are however imported, usually from France, Germany and the United States. The price of the liquid milk is about US$5.00/litre whereas the powdered milk is being sold for some US$16.50/kg. The cheeses, which come in different brands and weights, are available at a cost of approximately US$42.00/kg (CARDI, 2005, 2006). The local small ruminant industry, therefore, needs to diversify the enterprise base to include dairying in order to tap into this lucrative upscale market. A pilot project of the Ministry of Agriculture and Rural Development in Barbados on the production and marketing of fluid goat milk indicates that this is a feasible proposition (Thomas, 2004).

(c) Skin and skin products

Skins of goats and sheep present invaluable by-products to the regional small ruminant industry. Leather manufactured from skins of tropical breeds of small ruminants, especially sheep, is second to none in pliability and tensile strength. Most local craftsmen attest to the workability of these leathers in preparing quality leather products. It is estimated that the potential value of products derived from the skins of small ruminants is more than 75% of the slaughtered animals (Keen-Dumas 1993). If the industry is to be capitalized and upscaled the production of skins and the resultant leather of a high quality is absolutely necessary. In order to achieve this production, husbandry practices that result in skin damage such as branding as well as ectoparasite infestation, should be avoided.

Two other major constraints to organized skin processing are volume concentration and tanning. Most small ruminants are not usually brought to established abattoirs for slaughter; therefore, it is usually difficult to get the number of skins to sustain a sub-industry. The techniques of proper tanning must also be disseminated so as to guarantee the sustainability of the quality of the end product. Tanning may utilize chrome or vegetable processing, the latter producing semi finished but real leather often referred to as 'bazil'. If a complete finish (which some markets require) is needed, then chrome methods are to be pursued (Keens-Dumas, 1993).

DISCUSSION AND CONCLUSIONS

The foregoing has shown that there exists a market within CARICOM for fresh chilled local sheep and goat meat, along with other products. However, local production generally cannot meet the demand, which is satisfied via imports from New Zealand and Australia. In addition, a number of other constraints/challenges plague the industry; these challenges must first be addressed prior to the upscaling of the marketing of small ruminant products within the context of niche markets. As a means of doing so, Hosein et al. (1995) have proposed the following model for the production and marketing of agricultural commodities for which niche markets can be identified:

1. Determine the demand for the commodity
2. Identify existing marketing opportunities
3. Determine strategies for exploiting opportunities
4. Identify alternative marketing strategies
5. Determine the role of the marketing functions
6. Identify the marketing support system required
7. Access and develop the production systems and link with the selected market
8. Test and validate the production and marketing system
9. Select appropriate models to service specific market needs
10. Develop an integrated production and marketing system
11. Apply the tested and validated production system to the development of commercial enterprises
12. Monitor the system

Hosein et al. (1995) have noted that the model should serve to utilize the market for the introduction of special products that are required by special consumers. In this regard, tourism culinary markets for example, could be explored from the context of Caribbean cuisine. The major challenge, however, will lie in understanding the market, successfully coordinating and sustaining entry, building farmer loyalty and robustly boosting supply through investment in genetic resources and favorable government policy prescriptions. Avenues should also be explored to add value to the offal, hides, horns and hooves, which are generally sold 'as is'. Here too, links to the tourism sector (e.g., craft and novelty items) could be explored. There are of course other non-meat products such as goat's milk, cheese and yoghurt for which niche markets can be developed. The opportunities provided by markets for organic meat and milk products from small ruminants represent another yet untapped area.

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