

ECONOMIC IMPROVEMENT IN FARM BREEDING OF ANTELOPES IN THE CZECH UNIVERSITY OF LIFE SCIENCES FARM IN LÁNY

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Abstract. Antelopes provide highly nutritious, tender meat, high quality hides and their milk has a higher protein and milk fat content than cow milk. Farming these animals could help enrich the diet in countries with insufficient animal protein. Meat from wild animals is still an important source of nutrients for people throughout Africa. For this reason, the Food and Agriculture Organisation recommended *Taurotragus oryx* as a species suitable for domestication in 2000. This became a challenge for experts at the Czech University of Life Sciences in Prague. Eland farming physically began on the University Farm in Lány in 2006. The farm faces severe financial problems. The loss from eland farming has increased since slaughtering began. Financing is on the threshold of sustainability and the rational use of the entrusted funds. The aim of this study is to propose measures to stop spiraling cumulative losses and specify target demand for antelope meat. The methodology used in this study is an analysis of available literary sources, internal material and legal acts. For the market research structured interviews were used.

Keywords: common eland, costs, revenues, stock, marketing approach, structured interviews.

Introduction

The common eland is a relatively trainable animal. It is relatively undemanding, docile and trusting in captivity, which is why there have been efforts to domesticate this species. Antelopes provide highly nutritious, tender meat, high quality hides and their milk has a higher protein and milk fat content than cow milk. Farming these animals could help enrich the diet in countries with insufficient animal protein. Meat from wild animals is still an important source of nutrients for people throughout Africa [1]. For this reason, the Food and Agriculture Organisation recommended *Taurotragus oryx* as a species suitable for domestication in 2000 [2].

The domestication was a challenge for experts at the Czech University of Life Sciences in Prague. Eland farming physically began on the University Farm in Lány in 2006, following previous experience from both abroad, from Czech zoological gardens and the private Ščevlík family farm, Biotop Šidlov. The Institute of Tropics and Subtropics of the Czech University of Life Sciences in Prague began working with this farm intensively and obtained 5 adult antelopes in 2000. These were temporarily placed on a farm in Březová near Kutná Hora in autumn 2002, under the auspices of the ITS CULS, where breeding and research commenced. The herd grew to 20 individuals, which were moved to the newly constructed breeding station at the CULS University Farm in Lány in 2006.

The farm currently faces severe financial problems.

Materials and methods

The methodology used in the study is an analysis of the available literary sources, internal material and accounting statements. Initially several of previously published information was reviewed. The strengths and weaknesses of eland farming and the possible potential for the future are summarised in the SWOT analysis in Table 1. The SWOT analysis used the results into the proposal of measures to improve the economic situation.

The year – to – year loss from eland farming has increased since slaughtering began. Financing is on the threshold of sustainability and the rational use of the entrusted funds. A fundamental problem causing loss of breeding is unidentified effective demand. The aim of the present study is to propose measures to stop cumulative losses and find an optimal way of realization in the market. Marketing survey by the way of structured interviews in selected restaurants has been used to find customers interested in antelope meat.

Results and discussion

Eland meat has a positive impact on human health [3]. It is comparable with the meat of venison. Although the antelope meat is very tasty and demonstrably healthy, production has been rarely

realized in the market so far. It can be assumed that there exists a “niche market” in Prague for eland meat. Something similar Tuckwell states in his study in farm venison meat [4].

Table 1

SWOT analysis of farm breeding results

<p>Strengths</p> <ul style="list-style-type: none"> • Own breeding herd. • Uniqueness of the product. • Uniqueness of eland farming in the Czech Republic, the European Union and in the world (intensive breeding). • “Implicit” revenues – funds allocated by the University for points from publication and the completion of students’ qualification work. • Own land. 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Absence of marketing activities. • Lack of information among potential customers. • Unclearly defined competencies and responsibilities of workplaces. • High financial demands of farming – especially energy consumption (extensive farm area, need to cart feed daily). • Inability to draw information on farming from previous experience. • Pricelist of meat does not reflect the situation on the market. • Animals slaughtered without pre-arranged sales. • Meat production in storage – high storage costs. • Declining animal welfare with continually increasing numbers.
<p>Opportunities</p> <ul style="list-style-type: none"> • Sale of material for taxidermy. • Finding or creating a strategic partner for sales and marketing activities. • Inter-faculty cooperation. • Cooperation in the area of science and research on an international level. • Agro-tourism. • Acquisition of research grants. • Directing students’ practical training. • Cooperation with farmers, ability to send students outside university companies for work experience. • High quality meat with low cholesterol – opportunity for promotion in magazines devoted to healthy nutrition and diets. 	<p>Threats</p> <ul style="list-style-type: none"> • Animal disease and epidemics. • Stricter legislation. • Increase in the price of feed and energy. • Rejection by customers. • Rejected cooperation by all involved (hitherto on a verbal basis, personal relationships from the past). • Poor economic situation of our effective demand.

SWOT analysis results

It is clear from the points of the SWOT analysis that we need to focus on improving areas of weakness and utilising potential opportunities. Effective from May 1, 2011, antelope farming was officially transferred under the management of the Institute of Tropics and Subtropics. The Institute bears financial responsibility for the results of farming. Losses or potential profits will be debited (credited) to this workplace. The proprietary and financial organisation of eland farming at the University Farm in Lány is addressed in a new Chancellor’s resolution. [5]

As already mentioned, the loss was mainly caused by non existing sales. Marketing approach was omitted.

The problem is that only a small number of animals, i.e., 2 – 4 heads are slaughtered. If more animals were slaughtered, it would not be possible to satisfy the potential customers based on demand (we expect interest in the continuing supply of meat). Large capacity abattoirs cannot process such a small number of animals – to comply with hygiene regulations, sanitisation would be required after antelopes are processed, that would mean slaughtering could not continue for the whole day. This would cause the abattoir considerable losses. The location of the abattoir is also affected by the area in which the demand was surveyed and contacts established with the customers.

Due to the lack of a standardised establishment, it is not possible to sell meat in individual butcher's cuts. Cooperation with a butcher would mean an additional financial burden, in which case farming becomes unsustainable.

The main product: meat on the bone, in half and quarter carcasses, sold directly from the experimental abattoir.

The lower degree of processing of our product is compensated by the low price of realisation. The criterion of buying meat in slaughterhouse halves or quarters fundamentally limits to the number of realistic customers. Due to the fairly small number of animals farmed and the relatively low maximum production of animals for sale, the influence of this criterion is not total. For sustainability of breeding, it is sufficient to find two or three establishments with a potential continual purchase of ½ - 1 whole antelopes over a 1 – 2 month period.

Marketing survey

The marketing survey in Prague and surroundings was realized from May to August 2011. Structured interviews were used to obtain important information from potential customers. The survey was realized in 30 picked restaurants in Prague. The questions were designed in accordance to Brace 2004 [6].

Restaurants were initially screened according to the following criteria:

- limited need for complex and costly transport in refrigerated vehicles pursuant to the Veterinary Act;
- located in Prague or its immediate vicinity;
- preparation of game or exotic types of meat;
- located in attractive tourist areas.

The results of the marketing survey

For the market research restaurants were selected which in some way declared that they serve game – either selected according to keywords on the Internet or according to the title “game” on their signboards and on the first page of their daily menus – in the answer to the question No. 1 in the personal survey, on whether these restaurants serve game, only 73 % of the respondents replied positively (of an expected 100 %). The questions were answered by the operation heads of restaurants, their managers or head chefs – i.e., persons who should have an exact knowledge of restaurant operations, what they offer and the typology of the clientele. The most frequently served game meals are venison and wild boar. Most restaurants have had bad experience with serving exotic types of meat, 63 percent of the respondents answering that they do not have any untraditional types of meat on the menu. Only a third of the restaurants approached are considering expansion of their range of more exotic types of meat or game. The main reason for expanding their range of meats was, for all those asked who want to expand their range, to offer customers something unique, special which their customers would come back for and even bring new clients with them. .

Two thirds of the restaurants answered that they are not intending to expand their range. 20 % of all respondents stated that their premises specialise in something else, for instance, they offer purely Czech home cooking, in spite of this fact not being stated elsewhere and not being obvious from the menu. 13 percent of the respondents stated that they have their own suppliers of meat and game and that their relationships are considerably personal and that they do not intend to make any other contacts in the future. 10 % of the respondents have negative experiences with serving meals made of

game or exotic types of meat; 7 % of those asked stated that nobody had ever asked for eland antelope meat and so they do not expect any future interest in food made with this type of meat. For three percent of those asked the offer of antelope meat even seemed absurd. Approximately one third of the restaurants which are planning on expanding their range of meat meals also by game and untraditional types of meat are interested in a trial batch of antelope meat. They expect regular purchase. In fifty percent of the restaurants, their clients request game seasonally (traditionally in the autumn). In 23 % of the restaurants, the demand for game is all year round. Approximately two thirds of the restaurants which are interested in antelope meat (20 % of total respondents), expect monthly purchase of meat, 3 % of those asked expressed interest in weekly deliveries and 3 %, deliveries once every six weeks.

Seventeen percent of those asked expressed interest only in the luxury cuts such as fillet, sirloin or leg; only seven percent of the respondents are capable of processing meat in halves or quarters. The results of the marketing survey are summarised in Figures 1 – 4.

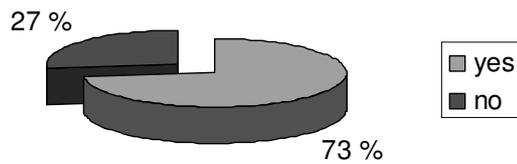


Fig. 1. Answers to question: Do you serve dishes with game?

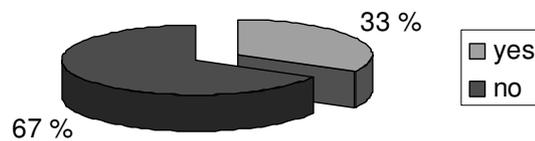


Fig. 2. Answers to question: Are you considering expanding your range of more exotic meats or game?

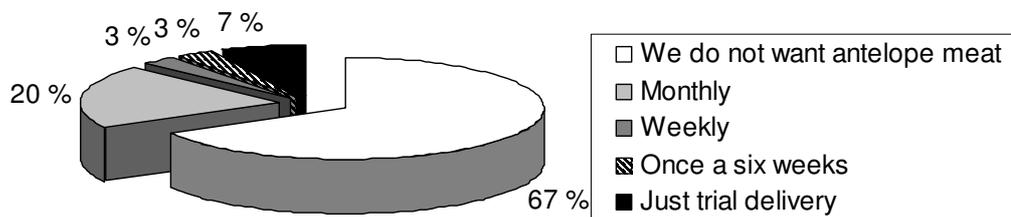


Fig. 3. Answers to question: How often could you take delivery of antelope meat? (estimate)

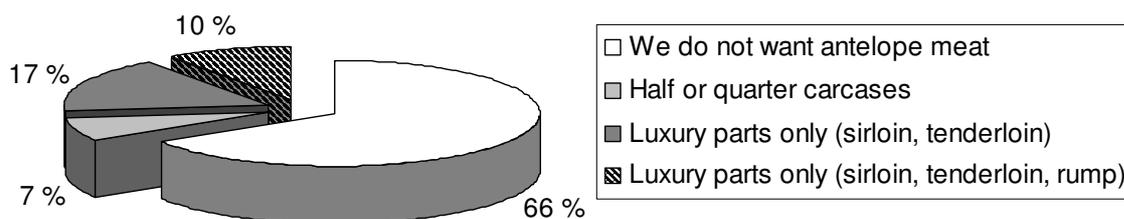


Fig. 4. Answers to question: How would you prefer meat to be dressed (lowest price - half or quarter carcasses or packed in cuts - high price)?

Conclusions

It seems to be extremely difficult to implement regular business activities in university environment. Based on the marketing survey results and testing market activities in practice it can be recommended to find a mediator for business with antelope meat – mediator that will respect the needs of the research and offer cooperation in marketing activities, especially in common promotion of research, breeding and implementation of products to the market. Sustainability of breeding is currently tested in practice. The market niche for antelope meat in Prague is limited but exists. In the situation of an improved access to information on antelope meat a growth in the effective demand can be expected.

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References

1. Ndibalema G. V., Songorwa, N. A. Illegal meat hunting in Serengeti: dynamics in consumption and preferences. *African Journal of Ecology*. Vol. 46, Issue 3. 2008. ISSN 1365-2028.
2. Woodford M.H. Wild Relatives of Domestic Livestock. Some Suggestions for New Domesticants (Part 3). In: Scherf B.D. (ed.): *World Watch List of Domestic Animals Diversity*. FAO 2000. Washington, USA, pp.647–716, ISBN 92-5-1045119.
3. Bureš a kol. Antilopa losí – perspektivní druh na talířích českých strávníků? Organoleptické vlastnosti masa antilopy losí. *Maso* 2010. roč. 21, č 6. s 42-45.
4. Tuckwell C. D. Niche European Venison Markets. RIRDC Publication No 00/172. Barton, ACT 2000.
5. Ackermann Blažková L. Changes in management and new marketing approach to farm breeding of common eland in Czech University of Life Sciences Farm at Lány. Books of abstracts, 5th Scientific conference of Institute of Tropics and Subtropics Czech University of Life Sciences Prague, 2.12.2011. ISBN 978-80-213-2233-2.
6. Brace I. Questionnaire design: how to plan, structure and write survey material for effective market research. Kogan Page Limited, 2004. United States. ISBN 0-7494-4181-X.