

HUNTING COMPLEX – MODALITY FOR INCREASING THE ECONOMICAL EFFICIENCY OF A DIDACTIC HUNTING GROUND

Ceuca Vasile*, Colisar Alexandru*, Covrig Ilie*, Gliga Iulia Diana*

*University of Agricultural Sciences and Veterinary Medicine, Forestry Department, Manastur way, no. 3-5, Cluj-Napoca, Romania, e-mail: alexandrucolisar@gmail.com

Abstract

The hunting complex, located in Somesul Cald's basin, will have an area of 350 hectares dedicated to hunting, 9 hectares for farming and breeding boar, 20 hectares for the fallow deer and mouflon, while for farming and breeding mature boars will be allocated an area of 7 hectares.

The total area of the complex will be of approximately 386 hectares.

Viable ways to increase economic viability and development of the didactic base of a hunting fund with educational destination, by establishing a complex hunting within it.

The economic analysis of the current activity within the hunting fund.

The identification of the location for the future hunting complex.

Correlations between stationary and vegetation conditions and environmental and ethological requirements of the species to be grown in the complex.

Key words: hunting complex, viability, fallow deer, phenotypic characters

INTRODUCTION

Transforming hunting activities into a profitable business in the current socio-economic context represents a priority in the management of hunting funds.

A particular case is represented by the hunting funds in which future professionals in the field of hunting are active, as all revenues resulted from commercialization of hunting activities are limited by the current legal framework (Călinescu, 1931).

Given that the administration costs of a hunting fund are the same, regardless of its destination, creating a hunting complex within a hunting fund is a real and viable concept for income growth and development of the didactic ground, all these converging towards facilitating training and improving the experience of future specialists (Cotta, 1982).

MATERIAL AND METHOD

Hunting fund with didactic purpose.

Analysis of setup opportunity for the hunting complex as well as of the hunting species that could exist within it.

Drafting the project for a hunting complex which meets the concrete requirements for the development of the didactic ground and for economic optimization of the activities occurring within the hunting fund.

Viable ways to increase economic viability and development of the didactic base of a hunting fund with educational destination, by establishing a complex hunting within it (Cotta et al., 2001).

The economic analysis of the current activity within the hunting fund. The identification of the location for the future hunting complex. Correlations between stationary and vegetation conditions and environmental and ethological requirements of the species to be grown in the complex.

The development of the construction project for the complex, estimation of the payback period and the economic analysis of the activities after commissioning the exploitation of the complex.

RESULTS AND DISCUSSION

To have a more objective view on the best solution for the establishment of a hunting complex, there will be proposed several possible situations and all will be analyzed in economic, ergonomic and possibility terms (Călinescu, 1931).

Situation I: fencing the complex will be made with wire mesh commonly used in households, the advantage being the lower purchase cost of the net; however, costs will increase for the timber used in the structure, due also to the possibility of its degradation in a relatively short period of time (5-7 years) (Cotta, 1982).

In case the net is not replaced timely, there will be problems with keeping the specimens inside the fenced area, damaging actions of hunting, losses being recorded in case of the fence as well as in case of the specimens.

Situation II: Using wire mesh specially designed for such fencing, type of fencing which costs more but comes with long term advantages, such as a long lifespan (over 25 years), saving on the wood used for support, the interval between the pillars being of 5 meters, so that the necessary is only half than for conventional wire mesh (Cotta et al., 2001).

After analyzing the two situations, it is recommended, both economically and in terms of manpower required, to apply situation no. 2.

Fencing will be constructed as follows:

- wood poles for the fence's structure, designed according to the concrete requirements of terrain;
- fencing net, specially designed, depending on the species to habitat the enclosed space it will have different heights;

- electrical wire system fueled by several generators, intended to prevent the livestock to go outside the space;

- system of access roads within the complex.

The hunting complex, located in Somesul Cald's basin, will have an area of 350 hectares dedicated to hunting, 9 hectares for farming and breeding boar, 20 hectares for the fallow deer and mouflon, while for farming and breeding mature boars will be allocated an area of 7 hectares.

The total area of the complex will be of approximately 386 hectares.

For an optimum functioning of the complex will be taken into account the following (Piegert, Uloth, 2005):

Creating breeding livestock, establish its size and sexratio, then according to the breeding livestock, setting the harvest quota related.

As far as the boar is concerned, the main breed suitable for intensive growth, the entire population will put in the intended growth area, so that, in October, breeders selected according to phenotypic criteria phenotypic will be moved into the breeding area, the number of females breeding will be of 18-20 and the number of males will be 3-4, this being the reproduction core for the boar, not being affected by organized hunting.

Also for the boar, there will be arranged 3 compartments of boars growth, where a number of 12-15 males will be brought to aging and, implicitly for trophy hunting (Micu, 2004).

Once the hunting season is closed, the breeding area will be opened again, and the entire livestock will have access to the growth area, the cycle being resumed all over again in October.

Regarding the breeding of the fallow deer, the livestock will be divided into two categories: breeders of both sexes, these categories including the most valuable specimens of both sexes in terms of phenotypic characters, and the rest of the livestock which will occupy the growth area, an area common with that of the wild boar.

Of these deers, there will be selected only the harvest specimens, subject of a careful selection, being considered also the freshening blood regularly carried out.

The production cycle will be of 6 years for the wild boar and 9 years for the fallow deer, aiming that the specimens selected to reach optimum condition for trophy hunting reported to maintenance expenses.

Density growth for the wild boar will be a sow for every 2.5 ha, here being included also the piglets, and for vintagers, the density will be 1 vintager at 1 ha (Micu, 2004).

The wild boar livestock will include 220 specimens, of which 80 will represent the breeding livestock, and the natural population growth will be of 125 specimens.

The harvesting share will be represented by about 125 specimens, the quote consisting of 12 mature boars, 8 mature sows, and the remaining of 105 will be the youth.

Annual incomes will be (EUR):

For piglets:

Shooting fee - 105 specimens x 80 EUR = 8 400 EUR

For venison – 25 kg x 105 x 1,5 EUR = 3 937,5 EUR

Hunt organization – 7 hunters x 5 actions x 90 EUR = 3 150 EUR

For sows: shooting fee - 8 specimens x 150 EUR = 1 200 EUR

For venison – 65 kg x 8 x 1,5 EUR = 780 EUR

For vintagers – shooting fee - 12 specimens x 450 EUR = 5 400 EUR

For venison – 100 kg x 12 x 1,5 EUR = 1 500 EUR

Hunt organization – 12 specimens x 100 EUR = 1 200 EUR

Total incomes resulted from the exploitation of the wild boars livestock is 25 567,5 EUR.

For the fallow deer, the livestock will be 75 specimens, of which:

- 45 males, 15 – 17 specimens are strong males, the rest of 28 – 30 being bulls of different ages;
- 35 females.

The natural increase will be of 30 specimens, and the production cycle for the fallow is of 9 years.

Harvesting share will be represented by 2 bulls aged nine, 4 mature does, and the remaining 24 specimens will be represented by males and females of different ages in equal proportions.

Annual revenues will be:

For alpha males:

Shooting fee – 700 EUR x 2 specimens = 1 400 EUR

For venison – 65 kg x 2 x 2,5 EUR = 325 EUR

Hunt organization - 150 EUR x 2 = 300 EUR

For mature females: shooting fee – 25 EUR x 4 specimens = 100 EUR

For venison – 35 kg x 4 x 2,5 EUR = 350 EUR

Hunt organization - 50 EUR x 4 = 200 EUR

For males 1-8 years: shooting fee – 380 EUR x 12 specimens = 4 560 EUR

For venison – 50 kg x 12 x 2,5 EUR = 1 500 EUR

Hunt organization - 50 EUR x 12 = 600 EUR

For females 1-8 years: shooting fee – 25 EUR x 12 specimens = 300 EUR

For venison – 25 kg x 12 x 2,5 EUR = 750 EUR

Hunt organization - 50 EUR x 12 = 600 EUR

Revenues from fallow deer exploitation – 10 985 EUR

Expenses with the livestock in the hunting complex, maintenance and employees amount to about 10 000 EUR/year, revenues from the

exploitation of the complex will be of 36 417.5 EUR annually, resulting in a profit of 26 417.5 EUR.

Analyzing the value of the investment and the annual revenues, it appears that the investment will be amortized over a period of 6 years, the average exploitation period of the complex being of 25 years, and hence the rentability of the complex (Piegert, Uloth, 2005).

Currently, without the hunting complex, revenues amount to approximately 6500 EUR, expenses about 5000 EUR, and the profit about 1 500 EUR, when it is permitted the sale of half of the attributed harvest.

The fact mentioned above supports the need of setting up a hunting complex within the hunting didactic base, the economic viability and the further development of the didactic base being unquestionable.

CONCLUSIONS

The establishment of the Hunting Complex welcomes the need to achieve a higher level of harvest as compared with the current due to the existing high demand in terms of hunting activity in Somesul Cald Hunting Fund. It gives:

- ergonomic performance and safe exploitation;
- environment respect and protection;
- economic efficiency and profitability;
- social considerations for regional development, in the cultural evolution of different communities.

Diversification of the hunting offer for current and prospective clients;

- Increasing the supply of jobs locally;
- Increasing the supply of venison;
- Create opportunities for students of UASVM Cluj-Napoca to participate at internships within the complex as well as to learn more on the foundation and management of a hunting complex.

REFERENCES

1. Călinescu R., 1931, Mamiferele României. Repartiția și problemele lor biogeografice-economice. București, pp.52-53
2. Cotta V., 1982, Vânatul, cunoaștere, ocrotire și recoltare. Ed. Ceres, București
3. Cotta V., Bodea M., Micu I., 2001, Vânatul și vânătoarea în România. Ed.Ceres, București
4. Cotta V., Bodea M., Micu I., 2008, Vânatul și vânătoarea în România. Ed. Ceres, București
5. Micu I., 2004, Etologia faunei cinegetice. Ed. Ceres, Bucuresti
6. Negruțiu A., Șelaru N., Codreanu C., Iordache D., 2000, Fauna cinegetică și salmonicolă, Ed. A.R.E.D., București
7. Piegert H.& Uloth W., 2005, Der Europäische Mufflon. Ed. Naturlife, Hamburg

8. Popescu -Micloșanu E., 2009 /2010, Fauna cinegetică și salmonicolă, Note de curs și lucrări practice, USAMV București.
9. Poșan P., 2012, Reproducția animalelor sălbatice. Note de curs. Volumul I. Aspecte generale privind biologia reproducției animalelor sălbatice. Ed. Bibliotheca Târgoviște
10. Richard B. Primack et col., 2002, Conservarea diversității biologice. Ed. Tehnică București
11. Stoica M. A., 2003, Biologia și patologia reproducției animalelor. Ed. Granada, București
12. Stoica M. A., Șonea A., Tăpăloagă P., Poșan P., 2003, Metode de intensivizare a reproducției la mamifere și păsări. Ed. Ganada, București