Some Questions of the Competitiveness of Hungarian Sheep-breeding

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SUMMARY

The authors did economic calculations examining the possibilities for the raise of rentability in Hungarian sheep-breeding sector. It was been counting with a flock of 300 ewes. While analysing four models were set up. The first represents the economic parameters of the present average and in a certain way traditional sheep-farming. This model, which symbolises the present situation, is able to provide maximum 47,827 HUF income for a sheperd, parallel with a loss of 843,495 HUF. The second model shows the possible production of the Hungarian merino flocks determined by its genetically limited productivity and technology. It ensures the opportunity to spend 550,000 HUF to expansion above average rental. This amount might be increased with a yearly subsidy of 450,000 HUF plus the 831,610 HUF extra EU payments. The third model is based on the results of an upgrade with prolific breeds in order to better meat performance. The possible result in this case was 1,324,412 HUF, which sum would be supplemented with the subsidies and direct EU payments. The professional management of milking stocks may raise the net income with extra 600,000 HUF. (Model number four).

KEY WORDS

breed, sheep, production, income

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INTRODUCTION

The geographical and climatic conditions of Hungary have been providing ideal circumstances for the development of sheep-breeding. However, this development, which was controlled by economic considerations above all, was not undiminished in retrospect to the last centuries and decades. Nowadays most of the sheep-breeding farms are producing with deficit. This tendency has gradually been prevailing since the change of the political regime in Hungary due to the drastic decrease (or sometimes total reduction) of subsidies and the unlimited entry of the world market's effects. The present state of the sector is not sustainable with especial regard to the European Union membership being realized in 2004. We have to search for the solution, which may lead us to the increase of competitiveness and profitable production. The authors of this study offer possible accomplishments by introducing four alternatives based on economical calculations according to the probable effectivness of the models.

MATERIALS AND METHODS

The experiment was conducted by model calculations; the yield and production value of the model were set against the production costs. The first model represents the average yield of a present sheep farm. The second shows a potential output using the appropriate technology and the genetically limited productivity of the Hungarian merino flocks (which are typical in our country). The third model is based on the results of an upgrading, carried out with prolific breeds in order to improve the meat production. The fourth represents the dairy sheep races.

We calculated the yields and income based on the real prices of the autumn of 2002. Feeding costs were calculated with the unit price registered at the training farm of the university in 2002 according to the theoretically needed and practically experienced consumption of nourishing substance; other costs of production were estimated in the proportion of this based on literature and own experiences. The rentability of the model was displayed by comparing the income to the costs; first feeding and other costs from income (gross earnings remained) were subtracted then the labour costs from the gross earnings were subtracted in order to get the sum of the net earnings as the profits of the enterprise. This sum can be used for development or paying efficiency wages. Labour costs were calculated with a monthly salary of 80,000 HUF supplemented with rates and taxes of 45%, which is the achievement of labout expenditure. We have not counted on the value of the ewe hoggs replacing the culled ewes and manure used inside the farms. (KSH, 2002; Mezőgazdasági és statisztikai évkönyv, 2001)

RESULTS AND DISCUSSION /

The competitiveness of sheep-breeding in Hungary is determined by the genetic potential of stocks, the applied technology in order to put this into practice and the tendency of costs and income.

Genetical abilities of sheep-stock

The proportion of ewes in the 182 breeding stocks is the follows (37,713 ewes):

Hungarian merino	61,0%
German meat merino	13,0%
Prolific merino	3.5%
Racka	5,8%
Cigája	3,5%
Awassi	5,0%
Bábolna tetra	1,2%
Other meat and dairy types	10,5%

(Nábrádi and Jávor, 2002)

However, Hungarian merino can be found in much greater proportion in the total sheep-stock. This strain is capable of reaching a 130% live lambing rate in case of right housing circumstances and one lambing per year. Out of this 130% it can rear 120% till weaning and is able to give 20 litres milk during the 2 or 3 months milking period after delactation. Despite, because of the lack of appropriate knowledge and attention, the lambing rate is about 100% in practice; the proportion of weanling is only 95% and the average quantity of given milk after delactation is not more than 4,5 kg per ewe in nation-wide level (Toldi and Ember, 2003).

However, merino ewes crossbreeding with prolific rams we can receive 160-180-200% lamb crop from F1 ewes. Using the method of „three-lambing-per-two-years", the Hungarian merino ewes are also able to reach 180% live progeny rate in stock average. For this, ewes must be prepared before the period of mating and lambing and they need satisfactory stockfeeding during lactation and milking. The safe rear of the greater lamb crop requires special lodging where the ewe and its lambs are provided a separate place at least for a week. Later we should ensure a so-called „lamb-kindergarten" where the progeny can be favoured with proper supply appropriate to their needs.

The matter of „three-lambing-per-two-years" needs special care and attention and it can only be carried out successfully and economically in suitable stock size. About the half or two thirds of Hungarian merinos are capable of mating out-of-season and these animals also should build up rational manageable flocks size.

The F1 generation of ewes crossbred with dairy type rams can easily give 100 kg milk after weaning but of course, the appropriate technical background

is necessary for this. From 300 ewes we can milk 240-260 kg milk hygienically. This needs dairy machines, coolers and bulk milk tanks for the following treatments and transportation or for the possible processing. It can be profitable in case of rational stock size and appropriate professional background.

Economical efficiency

Sheep farms are still subsidised with direct payments in the European Union. Hungarian farmers - as newcomers - will only get the 25% of this subsidy. Our future competitiveness among EU farmers will not have to be based not on direct payments but on the economical efficiency of production.

Sheep husbandry is a kind of an activity, which demands full attention, professionalism and practice. It requires working at full blast continuously if one chooses this job to live on. Therefore a flock consisting minimum 300 or more ewes is necessary. For this reason we conducted our economic calculations based on a model for 300 ewes. The production yield and income of the four models are shown in table 1 and 2.

The cost of grassland cannot be found among feeding costs of the suckling and fattening lambs marked for slaughter as the quality of our pastures is so poor that it is impossible to fatten lambs based on them.

The table 3 shows the total costs and the financial achievements of the models.

CONCLUSIONS

According to the table 3 the model which represents an average level of present yield can provide maximum 47,827 HUF profit for the employee of a sheep farm. If the 1,500 HUF/ewe subsidy to this sum are added, it may increase the gross salary of a

Table 1. Produce of a flock of 300 ewes

Items	Modell I	Modell II	Modell III	Modell IV
Weaned lamb, db	285	360	500	360
Maiden ewe, db	90	90	90	90
Fattening lamb (30-35 kg), db	77	110	164	110
Milk, kg	1350	6000	6000	30000
Wool, kg	1350	1350	1350	1350

Table 2. Results and returns of a flock of 300 ewes

Items	Modell I		Modell II		Modell III		Modell IV	
	kg	HUF	kg	HUF	kg	HUF	kg	HUF
Suckling lamb	1755	1379430	2400	1886400	3690	2900340	2400	1886400
Fattening lamb	3080	1727880	4400	2468400	6560	3680160	4400	2468400
Cull ewe	4050	1215000	4050	1215000	4050	1215000	4050	1215000
Milk	1350	178200	6000	792000	6000	792000	30000	3960000
Wool	1350	163350	1350	163350	1350	163350	1350	163350
Total income	4663860 HUF		6525150 HUF		8750850 HUF		9693150 HUF	

Table 3. Total costs and achievements

Items	Modell I	Modell II	Modell III	Modell IV
Feed costs.	1876585	2344756	2818313	3096773
Other matter costs	195000	195000	253500	292500
Semen costs.	90000	90000	90000	90000
Excess value between stud and cull animals	300000	300000	450000	450000
Machinery, energy, fuel	150000	150000	195000	225000
Depreciation	90000	90000	117000	135000
Other costs	715000	715000	715000	715000
Total non-labour costs	3416585	3884756	4638813	5004273
Income	4663860	6525150	8750850	9693150
Gross income	1247275	2640394	4112027	4688877
Labour price with tax	2090770	2090770	2787615	2787700
Deficit - surplus	-843495	549624	1324412	1901177

(NOTE: In the first and second model were calculated with one and a half full-time workpower with a monthly salary of 80,000 HUF while in case of the third and fourth models with two employees under same conditions.)

sheperd with 25,000 HUF but there will not be any money left for expansion. A yearly 665,280 HUF EU subsidy helps these kind of sheep farms with such poor results. That is hardly about 215,000 HUF more than the present amount and only those farms can be subsidised which have at least 300 ewes. Smaller farms can provide just supplementary takings. As the only source of income these farms are unable to ensure enough profit to live on. With concentration and appropriate stockfeeding the gross income can be doubled and above the average salary almost 550,000 HUF could be expanded on development. Our well-managed sheep-farms achieve about this result. The 450,000 HUF yearly subsidy may even contribute to the expansion and rise in living standards. This amount - as we are new members of the Community- will be supplemented with 831,610 HUF by the EU. Increasing progeny and hiring two full-time employees for a year, 1,324,412 HUF subsidy plus the direct payments may raise the net income of a sheep-farm. The rational management of milking stocks could increase the net profit with extra 600,000 HUF.

REFERENCES

Nábrádi, A., Jávor, A. (2002): A juhászati ágazatok gazdasági szervezési kérdései. Szaktudás Kiadó. Budapest.

Toldi, Gy., Ember, J. (2003): Perspektive madjarskog ovcarstva u Europskoj Uniji.

Mezőgazdasági és statisztikai évkönyv. (2001). KSH (2002) Budapest.

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