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LIVESTOCK PRODUCTION OF HUNGARIAN GREY CATTLE IN OUR DAYS

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Abstract

Because of in our days evolved environmental and hygienic problems appeared in the animal husbandry again the livestock ones which can be applied excellently in the extensive livestock production. To this those breeds of animals the most suitable ones, which adapted to the local environmental conditions since centuries, so livestock production of him on the potential less high-quality pasture does not cause production decrease in this manner. Hungary's characteristic indigenous bovine kind the Hungarian grey horned cattle, for which one – although his breeding was sidelined because of the kinds with a big yield in the past century – his significance was growing lately, increasingly more breeders started dealing with him. We examined it with various statistical calculations and the making of diagrams in the course of our work the kind the establishment of past and present national number, his livestock production related ownerships, in Hungary's single regions truth their incidence rate, the reason of this, concerning it, that the substance is divided between the economies proportionally, or it only on single places is concentrated.

A magyar szürke szarvasmarhatartás helyzete napjainkban

Összefoglalás

A napjainkban kialakult környezetterhelési és egészségügyi problémák miatt az állattenyésztésben ismét megjelentek a külterjes tartásban kiválóan alkalmazható haszonállatfajták. Ehhez azok az állatfajták a legalkalmasabbak, amelyek évszázadok óta alkalmazkodtak a helyi környezeti adottságokhoz, így az esetleges kevésbé jó minőségű legelőn való tartása nem okoz termeléseszköket. Magyarország jellegzetes őshonos szarvasmarha fajtája a magyar szürke szarvasmarha, melynek – bár tenyésztése a múlt



században háttérbe szorult a nagy hozamú fajták miatt – jelentősége az utóbbi időben növekedett, egyre több tenyésztő kezdett el vele foglalkozni. Munkánk során különféle statisztikai számításokkal és diagramok készítésével vizsgáltuk a fajta múltbeli és jelenbeli országos létszám alakulását, tartásával kapcsolatos tulajdonviszonyokat, Magyarország egyes régióiban való előfordulási gyakoriságukat, ennek okát, illetve azt, hogy az állomány arányosan oszlik-e meg a gazdaságok között, vagy csak egyes helyeken koncentrálódik.

Introduction

Of late years have appeared again claims related on native livestock production. These breeds of animals are suitable for the realisation of organic farming excellently through their single characteristics. But breeders have reservations about the extensive kinds with a smaller output. The significance of these breeds of animals is sidelined behind the kinds with a bigger output. Their significance is growing since joining European Union in any case, because they play a honoured role on EU's markets. There could be breakout point if our historical breeds of animals would spotlight his breeding for the Hungarian stockbreeders, their keeping would be spread in a wide circle, and they would prevail with their products on the foreign country markets. The breeders could breed a so unique, competitive product, which would appear on the market with new features, and would be marketable on a long price in the member states. Because of this it's very important examination, what kind of role plays these breeds of animals in the alley breeding in Hungary currently, and what are they chances in the future?

Objective

We examined it in the course of our work, that the Hungarian grey cattle – like native livestock one – what is typical of his keeping in Hungary. How developed in the past, and how the national stock of the kind take shape in the future? What kind of farms deal with the keeping of these animals rather? In which regions of Hungary is frequenter the incidence of the kind, and what's the reason of this? Is the livestock is divided between the farms proportionally, or it's concentrated on places only?

Material and methods

To the accomplishment of the examinations we leant on secondary data sources. From CSO (Central Statistical Office) agrarian time series the horned cattle – inside this the cow – data concerning stock, and the 2007 yearly meaning given out by Association of Hungarian Grey Cattle Breeders,

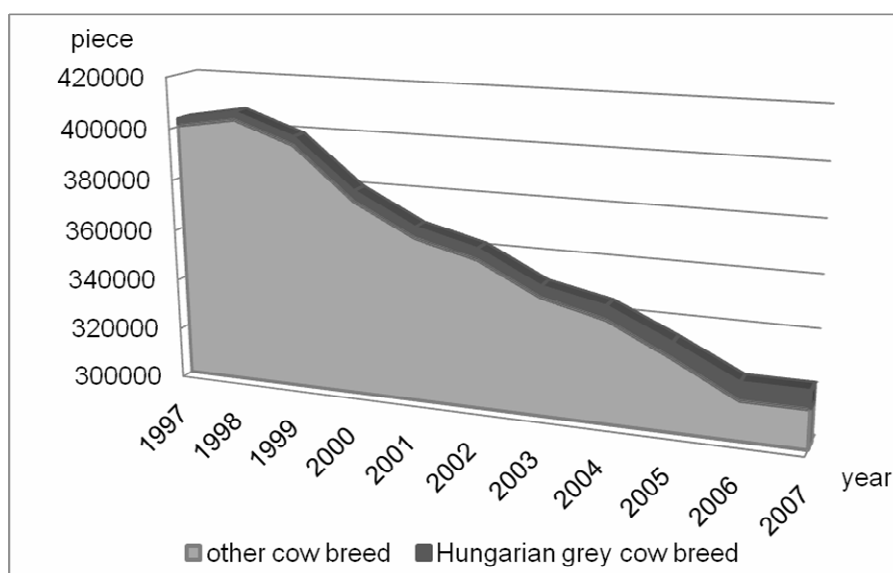
furthermore the data of the vocational publication being about the Hungarian grey cattle was supplied the basis of the analysis.

From these documentations chose we our work necessary data, we contracted them, and we created farm groups, and stock groups, and we assigned the cultures to regions of Hungary. Then we did the necessary calculations (trend-, ratio-, scattering calculation). We used Microsoft® Office Excel 2007 programs to these and the completion of the diagrams.

Results

Examined the data of cows' stock from Association of Hungarian Grey Cattle Breeders, and from CSO, and counted dynamic ratios, we established that the establishment of the cows' stock showed a diverse picture in Hungary in the 20. century. From turn of the 20. century was growing, but as of the fifty years decreased gradually. Lately in all years averagely 2-4 per cent fewer cows were counted compared to the previous year. From 1997 under 10 years in 20 per cent decreased the national cows' stock, while the number of Hungarian grey cows increased 2,5 fold (figure 1.)

Figure 1: Stock of cows establishment in Hungary between 1997-2007 years



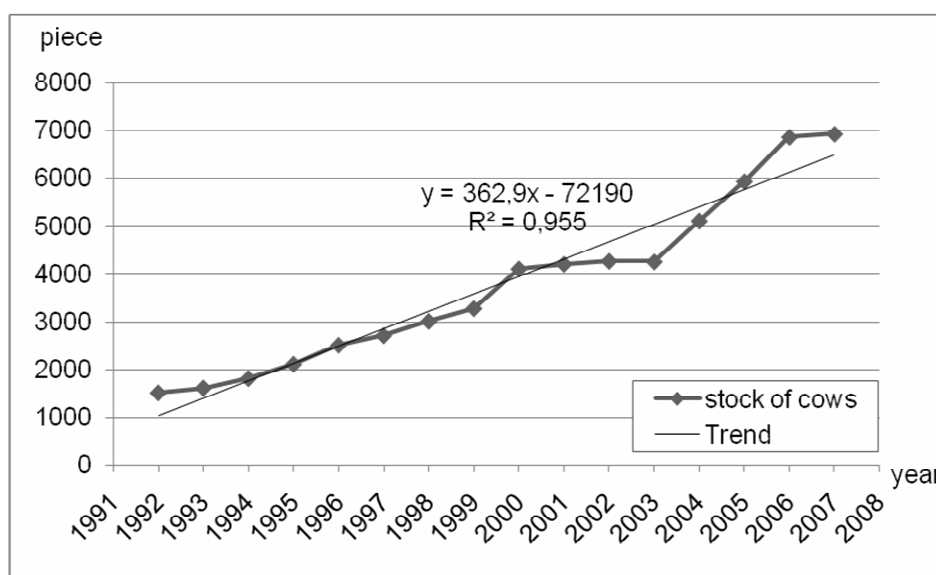
Resource: Association of Hungarian Grey Cattle Breeders, created by own

It can be visible, that the number of cow started drastic decrease lately. This did not take shape so however in the case of the Hungarian grey breed. In the earlier centuries it signified, sith because of its body construction on the one hand it turned into an important export article, on the other hand it could be

grazed in a whole year. In 19. century they were sidelined however with the spreading of the tillage cultivation, because the grazing areas decreased, and the breeds with a bigger output came into the foreground. On the front of the 20. century it already played as a beast of burden, but this waned gradually with the spreading of the mechanised. Although the significance of the breed was booming again the end of the 20 years, after the Second World War was forced back finally so much, that only three state farm herds, also altogether 6 bulls and cca. 200 cows were left over. In the years of sixty the specialists recognised the value of the old domestic animal ones, there was beginning a dynamic maintainer and genpreserving breeding work, subsequent upon it the number of the Hungarian grey breed were growing gradually (Bodó et al., 2002), in our days already nearly 7000 pieces is from it in Hungary.

We observed the trend of stock the latest nearly 20 years, and we illustrated it in the 2. figure. It can visible, that their number rose significantly – from a year onto a year 10-20 per cent. We fit a lineal trend line onto the increase curve, its fitting for good one can be said (0,955), the joint of the function pass.

Figure 2: The establishment of Hungarian grey cows' stock in a period between 1991-2008 years



Resource: Association of Hungarian Grey Cattle Breeders, created by own

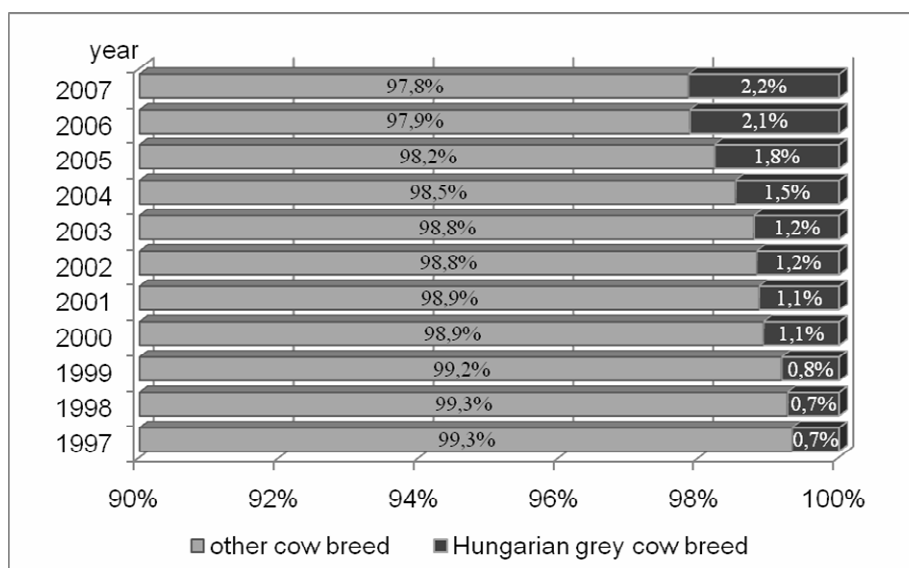
By means of trend equation did we prognosis. If the tendency continues so, in five years the number of Hungarian grey cow exceed it the 9000, and if all of the cows' stock in the future 2-4 per cent decreases annually, then inside this the Hungarian grey cow's proportion attains it before the Second World War again 5 per cent. Because of the foresaid reasons the proportion of Hungarian grey stock of cows grew up significantly inside the national stock of cows (figure 3.) While this proportion did not attain in 1997 1 per cent, till then onto 2007 exceeded it already the 2 per cent. It may be sound based on

these 5 per cent valuing onto 2013. Of course many other factors play a role in the establishment of this (breeder mood decrease, or increase, the withdrawal of supports, on a newer title announced supports, economic crisis, or recovery, market losing, newer markets' acquisition...etc) which influencing effect of this do not know to define.

It doesn't matter, whose this stock of the grey cows, what type of farms deal with the keeping and breeding of these animals. Therefore we contracted data, which were given free run of by Association of Hungarian Grey Cattle Breeders, we divided the cultures into groups. To this we brought on three groups:

1. private entrepreneurs, primary producers
2. economic organizations (social undertakings)
3. national parks, natural conservation organizations

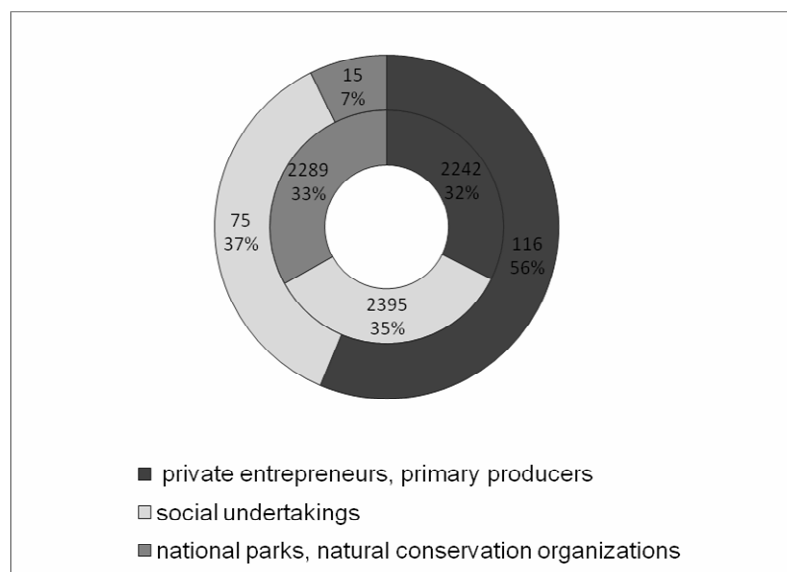
Figure 3: The change of the Hungarian grey cow's proportion inside the national stock of cows between 1997-2007 years



Resource: Association of Hungarian Grey Cattle Breeders, created by own

By means of distribution ratios we examined, how number of national grey cow are divided between the single farm groups, and in a what kind of proportion the single farm groups are on a sign (figure 4).

Figure 4: The distribution of grey cattle keeping farm groups according to the number of farms, and according to number of cow (2007)



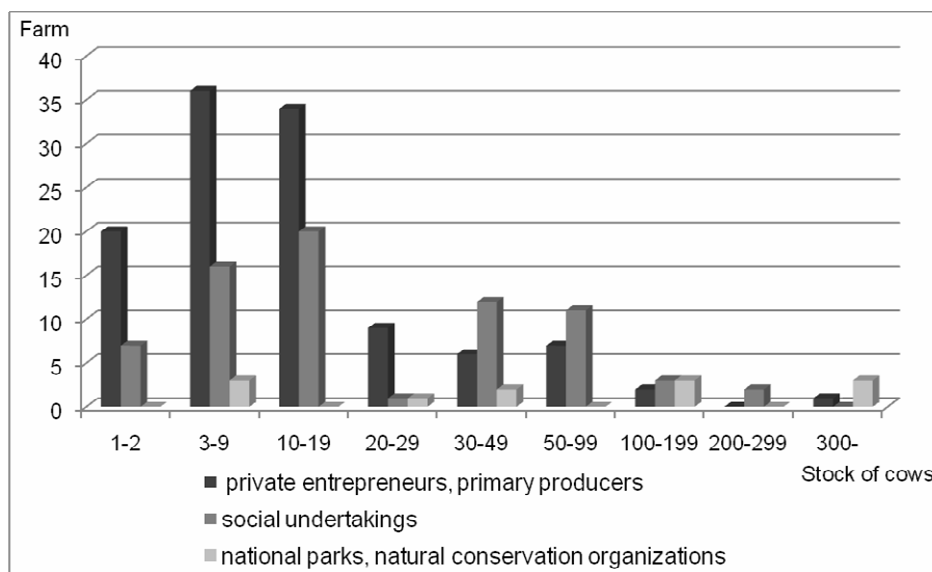
Resource: Association of Hungarian Grey Cattle Breeders, created by own

We found, that the number of grey cow is divided between the three farm groups near in an identical measure (figure 4, inner circle). However if we look at its number (figure 4, exterior circle), it can be visible, that number of private entrepreneurs are the biggest, economic organizations observe this, and according to the meaning the natural conservation organisations' number the smallest one. It means, that if we examine stock of cows managing to get onto a unit, then onto a natural conservation organization 153, onto a social undertaking 32, and onto an individual smallholder 19 cows manage to get, so the largest proportion is in the natural conservation organisations' property always yet, who are not profit-oriented. So we may not talk about a competitive sector yet by keeping grey cattle, in spite of the fact that the substance was growing lately.

We examined it in additional ones, that how homogeneous the multitude, onto how much can be declared unambiguously, that how large a stock manages to get averagely onto the single farm groups, meanly the number of cows falling on the single farm unit are identical near. To this we assigned the stock groups applied by CSO the cow belonging to the breeders.

We mentioned it already, that if we examine the number of cows falling on a farm unit, then onto a natural conservation organization 153, onto a social undertaking 32, and onto an individual smallholder 19 cows manage to get. This is not so in the reality however, because there are big differences – also in farm groups – in the look of the cows' stock belonging to the single farms. This is illustrated in the *figure 5*.

Figure 5: The number of farms keeping Hungarian grey cow according to the stock, and according to farm groups (2007)



Resource: Association of Hungarian Grey Cattle Breeders, created by own

At the private entrepreneurs and the economic companies the 3-9 and 10-19 cows' stock is the frequentest one, however the rest of the categories occur at both. It can be said, that as many national parks are there, there are so much cows' stock category. We applied a standard deviation calculation to the examination of the variability of the data, which one at all three farm groups we did. The standard deviation was 41 at individual smallholders, 46 at social undertakings, and 234 at natural conservation organizations. The relative standard deviation was – in the same order - 212,1%, 143,9% és 153,4%. We may deduce it from these data, that the multitude is very heterogeneous, meanly the farms' cows' stock is very variable.

Conclusions

The national stock of cows decreased drastically in the latter years in Hungary, meanwhile the stock of Hungarian grey cows started a considerable increase. From this we deduce it, that however the animal husbandry (inside this the bovine breeding) is in an adverse situation currently in our land, despite this a claim arose for the grey cattle. By right of our evaluations after five years the grey cattle may reach 5 per cent distribution proportion inside all of the bovine stock. It can be said favourable to the grey cattle, maybe is growing on the significance of this indigenous kind in the future in Hungary. It's very important on the one hand because of the utilisation of the grazing areas of which advantage is not taken on Hungary, on the other hand because of indigenous livestock keeping preferred on EU's markets. But the considerable proportion of national stock belongs to national parks and various natural conservation



organisations yet until, who aren't profit-oriented. Their objectives are the maintenance and environmentalism. Like this the producers of our homeland – and together with this Hungary – may lose markets like that exports an opportunity would be reported towards EU. What is more adverse even at this on the other hand the number of grey cattle keeping by breeders is very much difference. The number of stock may run from 1 to 300, and all stock categories occur on this interval quasi within. It causes difficulties in terms of the statement of the supports though on a national economic level.

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