SOCIO-ECONOMICAL ASPECT OF SZTUMSKI AND SOKOLSKI COLD BLOODED HORSE CONSERVATION PROGRAM IN POLAND

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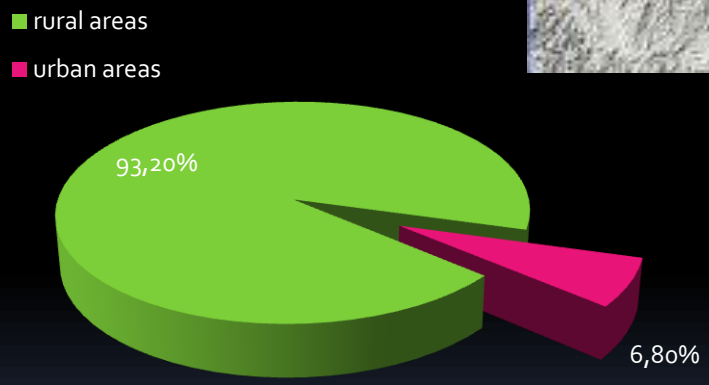
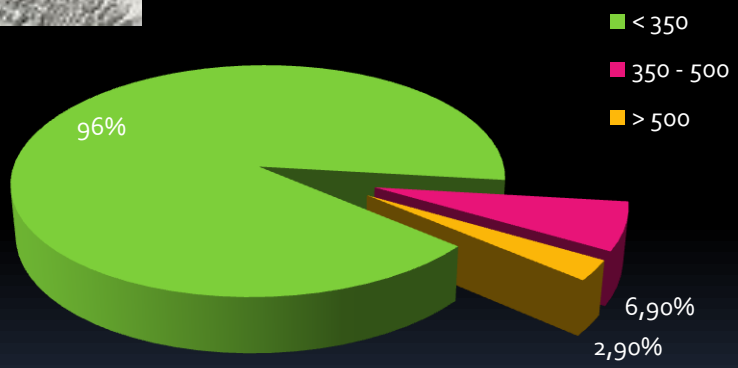
Poland

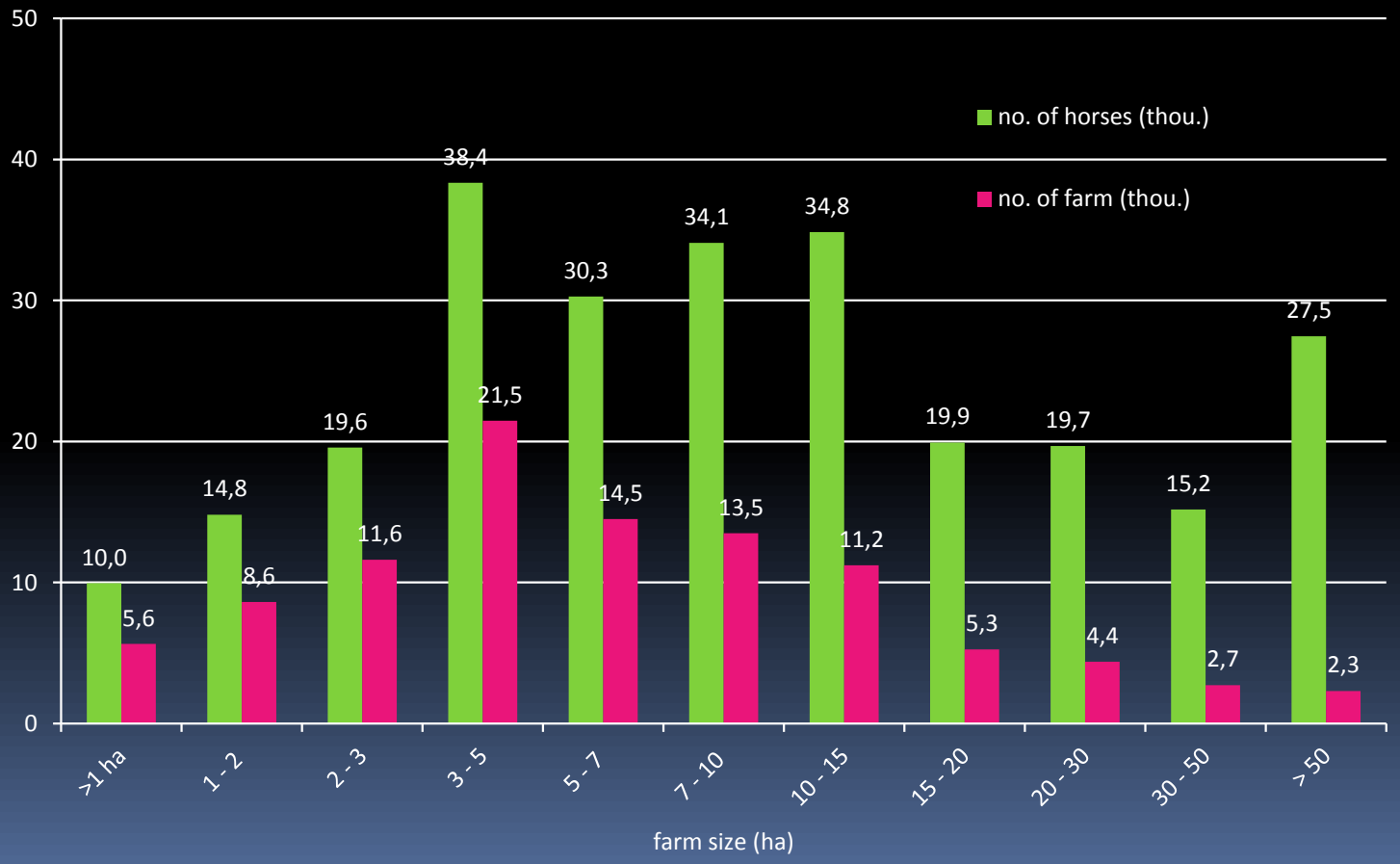




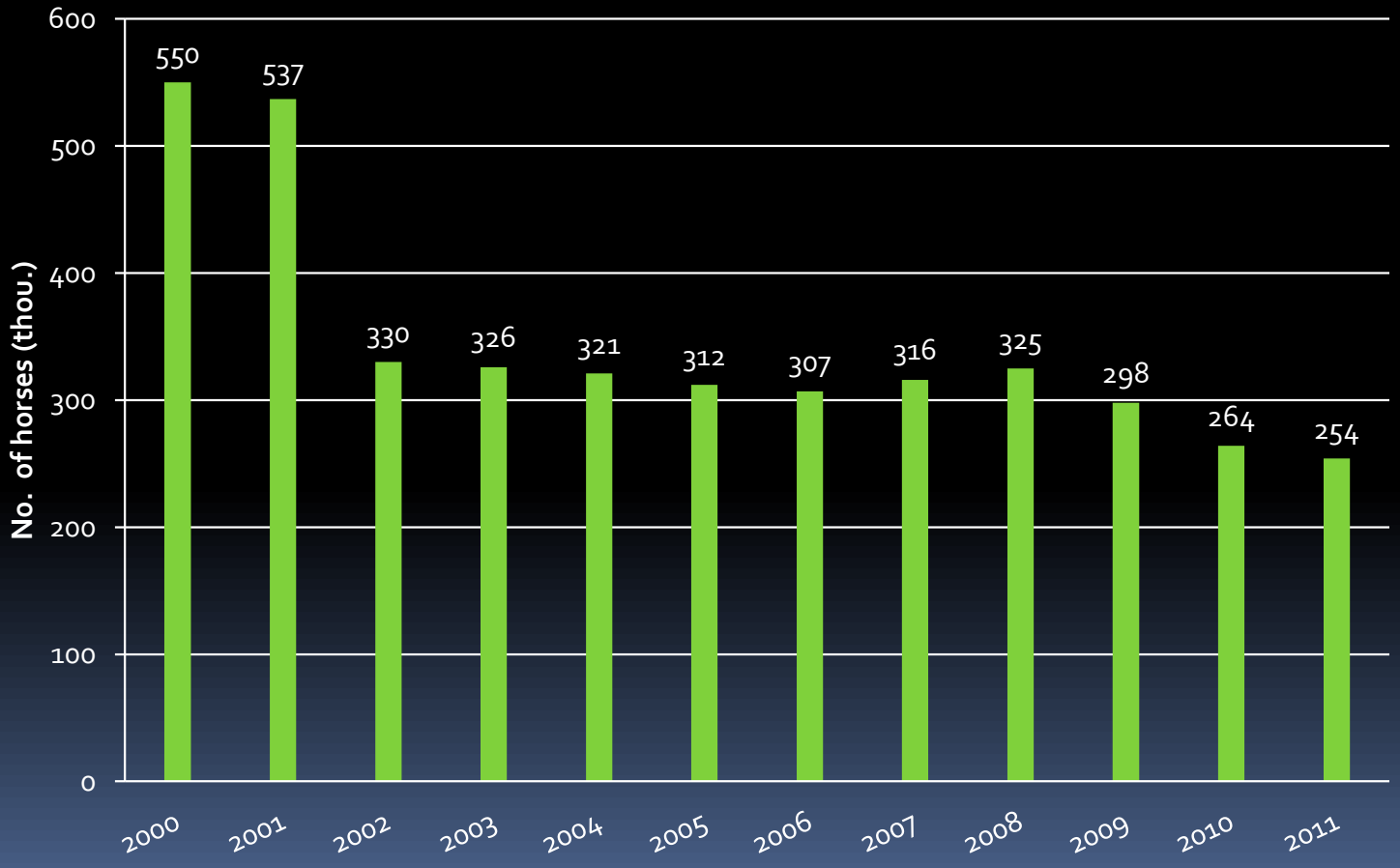
In Poland rural area are more than 93% of the country, and their importance in terms of economic, social and environmental development is very high.

More than 95% of the territory lies below 350 meters above sea level. Despite this, Poland is a country diverse in terms of conditional natural and climatic conditions.

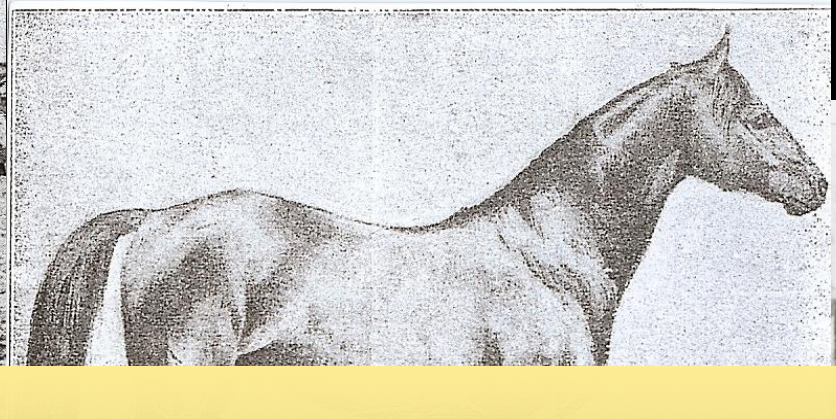
More than 56% of the overall populationIn is kept in very small individual households (up to 10 hectares) and frequently on the farm there are only one horse (54% of cases).

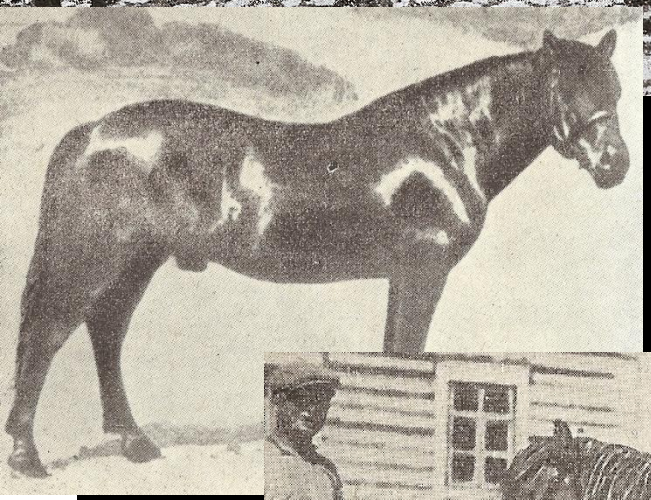


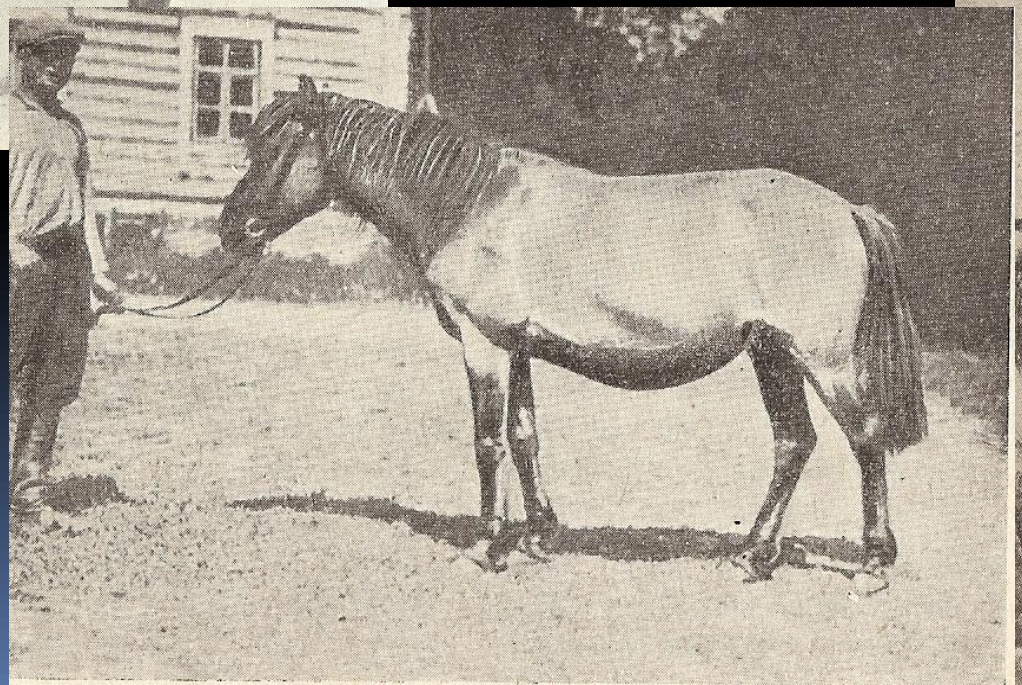
According to official data between 2007 and 2010 the number of horses in Poland fell by almost 20%. In 2010 compared to the year 2007 the number of farms with horses has decreased by more than 50 thousand.



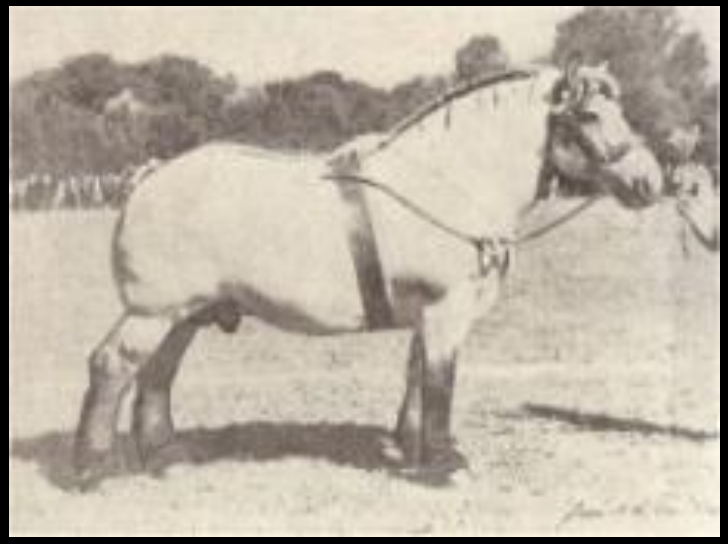
Polish horse in XVII-XIX century







Importation of coldblooded horses in the end of XIX century



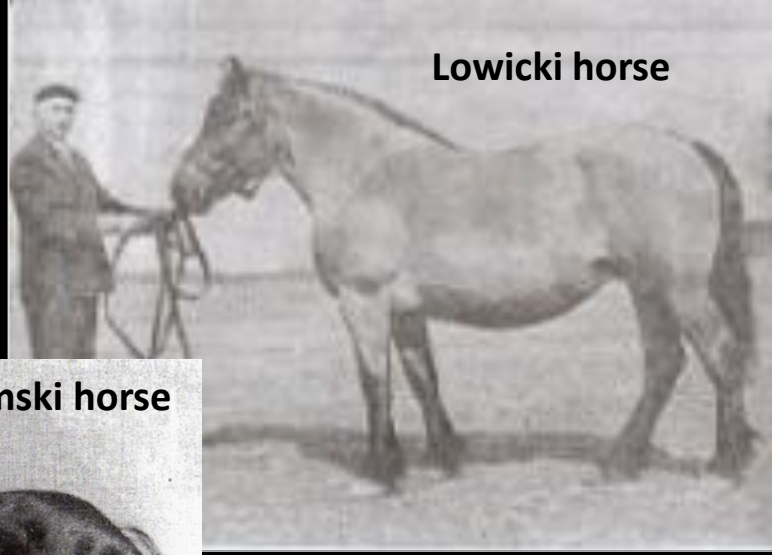
Ardennes

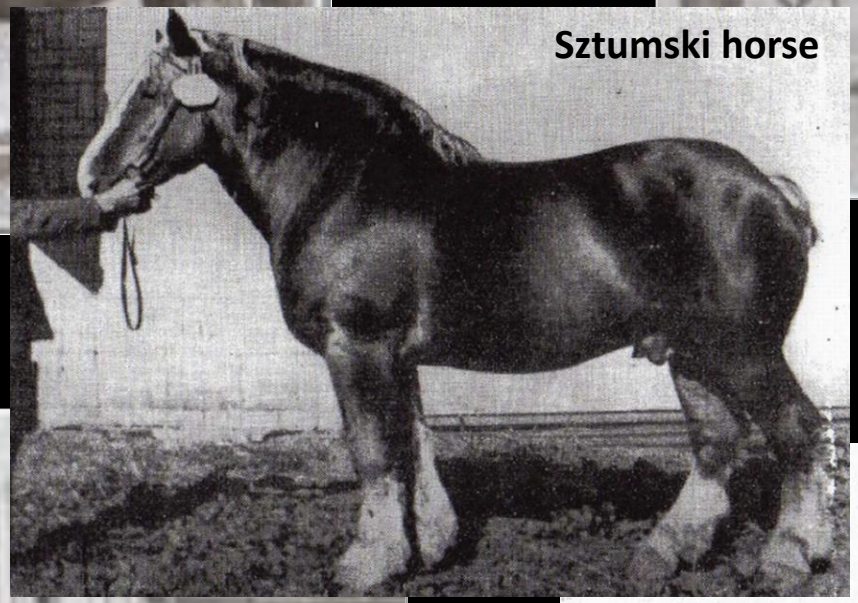
Belgian

Breton

Five local types of cold blooded horses in Poland were typical horses for agricultural work between XIX and the second part of XX century.

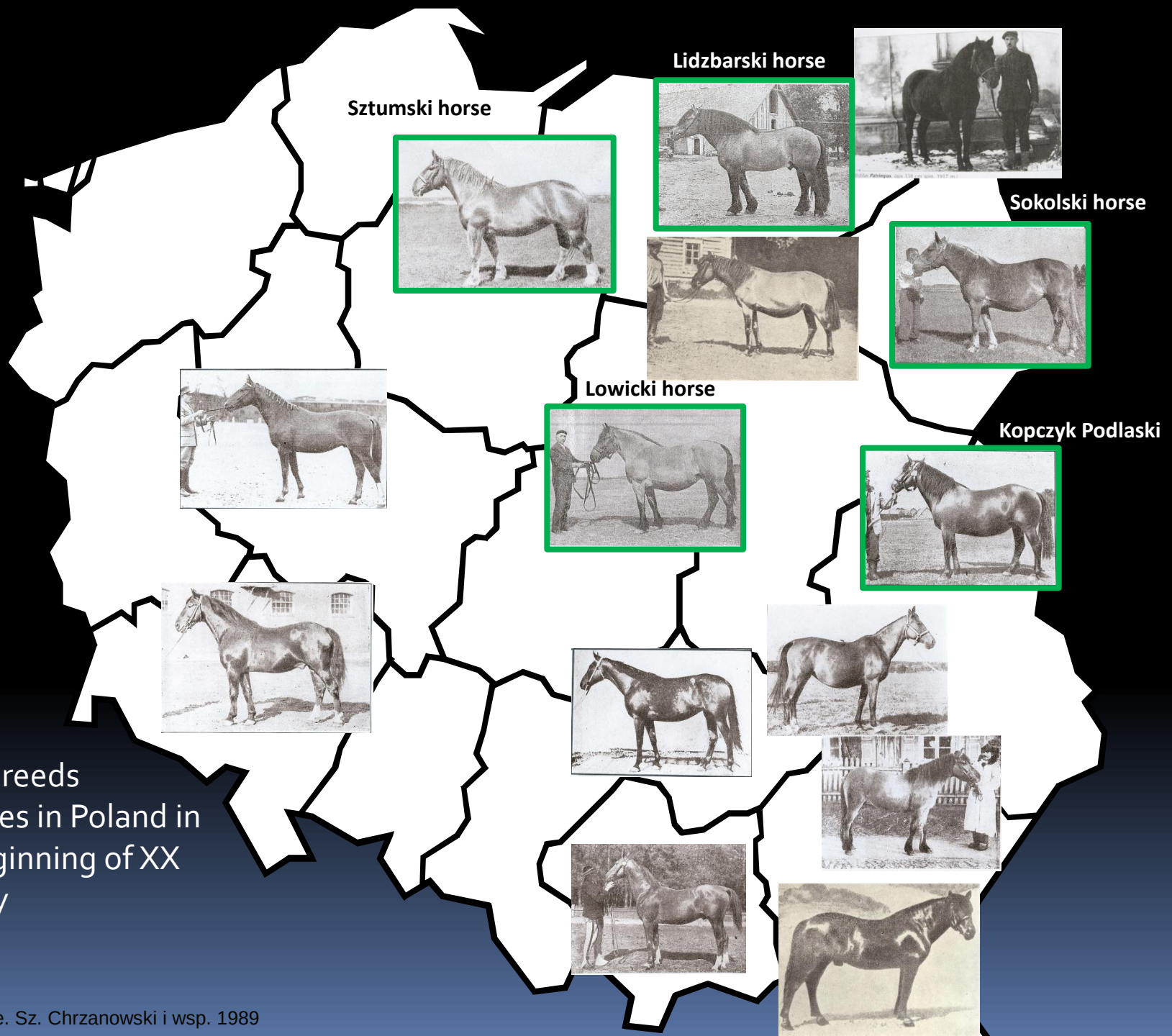

Kopczyk Podlaski


Lowicki horse


Sztumski horse


Lidzbarski horse


Sokolski horse



Local breeds of horses in Poland in the beginning of XX century

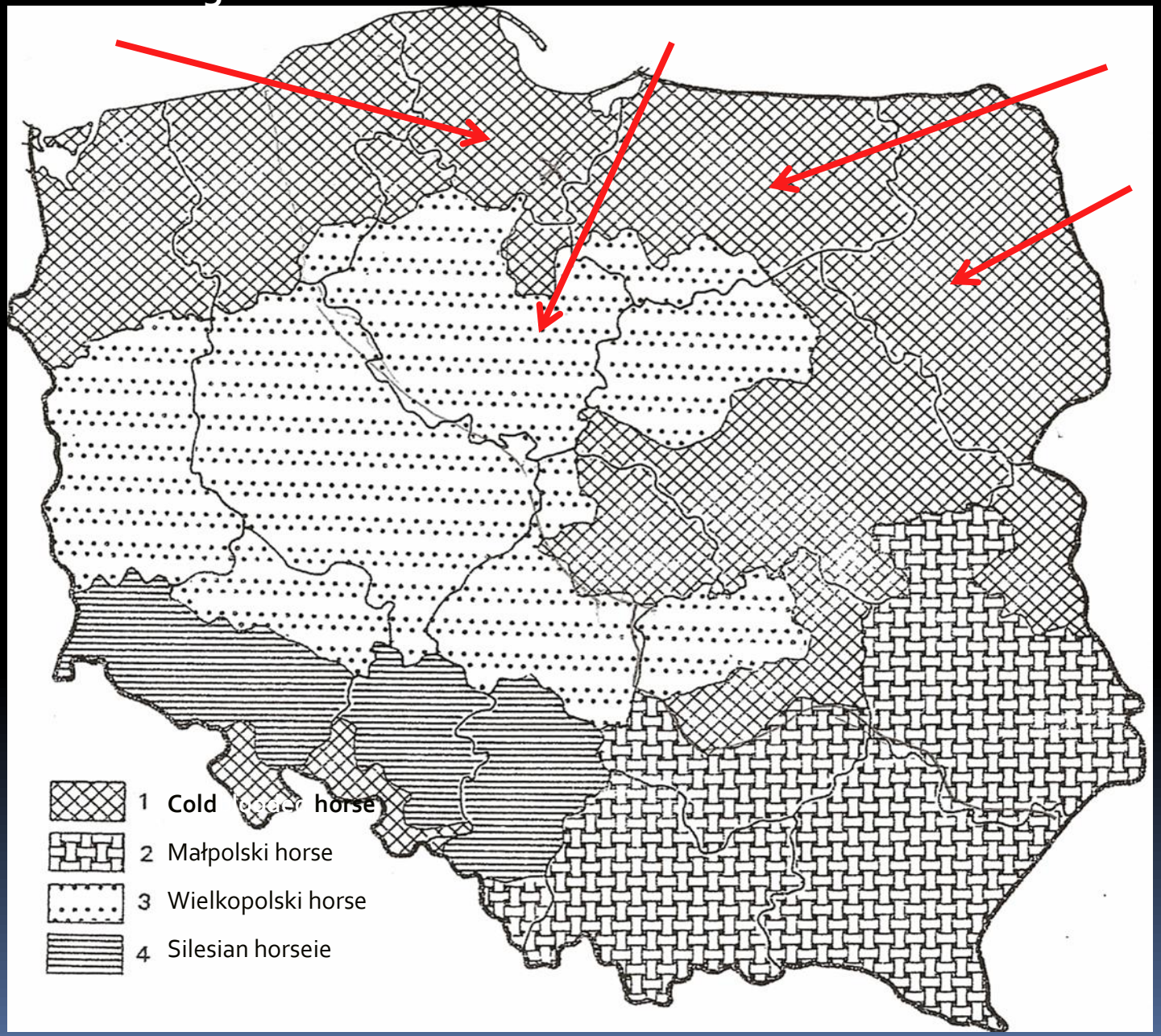
Konie zimnokrwiste. Sz. Chrzanowski i wsp. 1989

Pomerania region

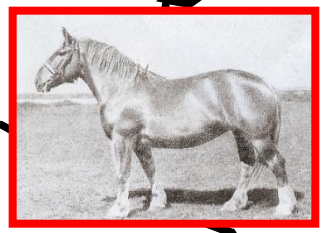
Kuj-Pom region

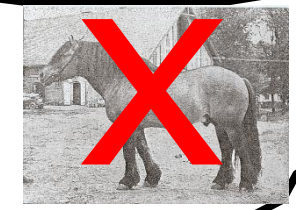
Warm-Maz region

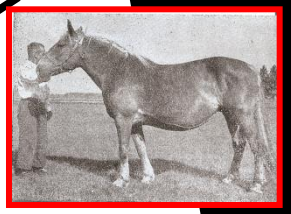
Podlasie region



Konie zimnokrwiste. Sz. Chrzanowski i wsp. 1989

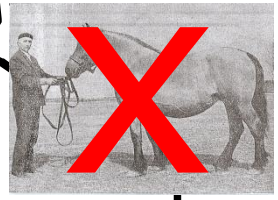


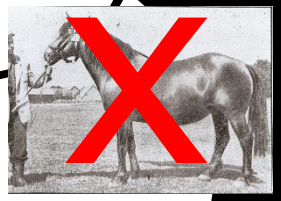




Sztumski

Sokolski





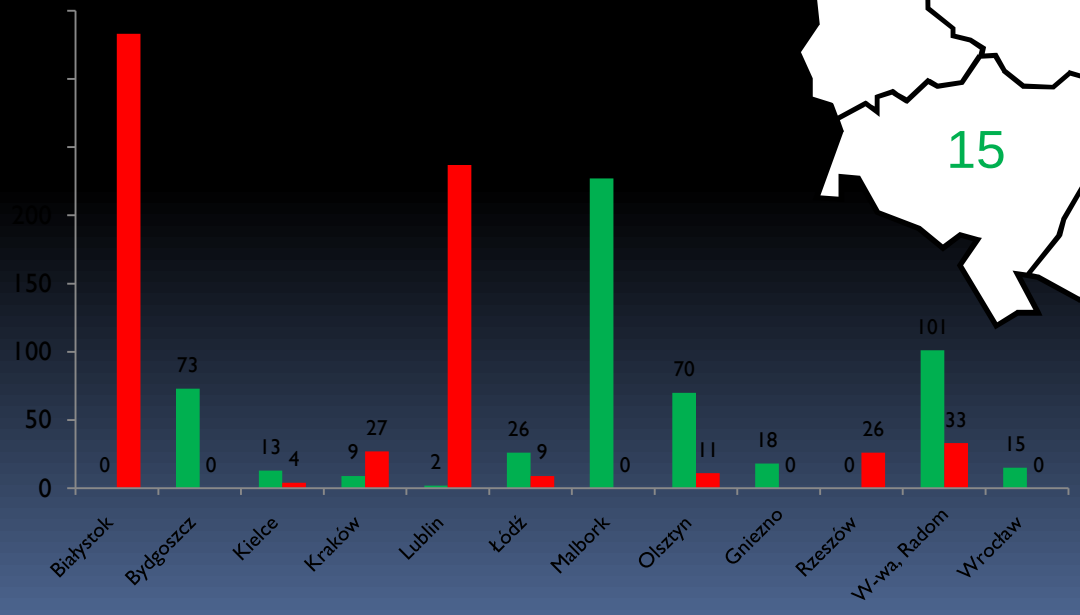
Further development and mechanization in agriculture resulted in disappearing of these types .

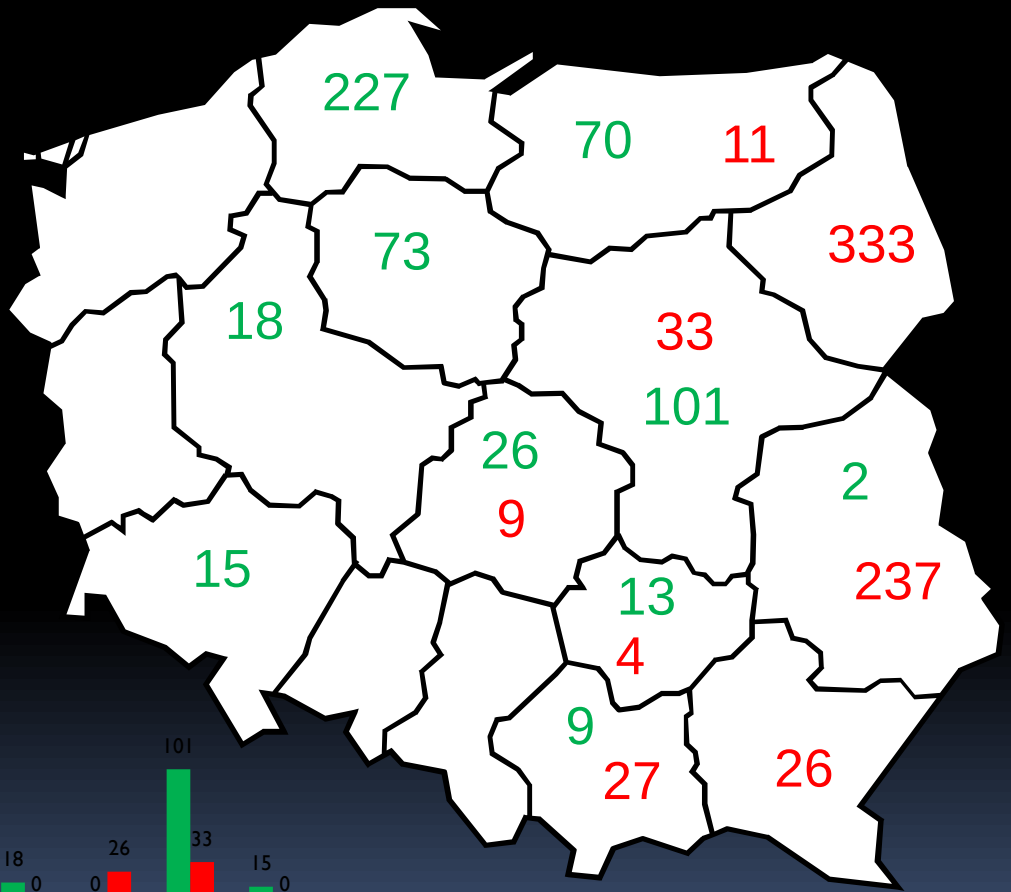
The coldblooded horse breeds at the beginning of XXI century

The process of breed erosion was stopped thank to a genetic resources conservation program, which was carried on from 2008 by National Research Institute of Animal Production

- Sztumski coldblooded conservation program
- Sokolski coldblooded conservation program

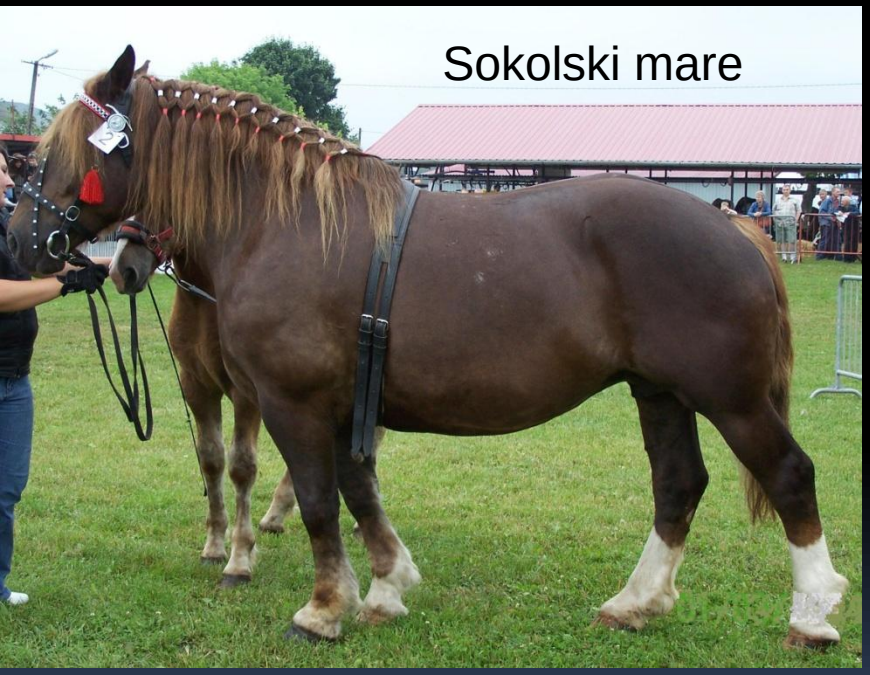
In 2011 in Poland there are 555 Sztumski and 680 Sokolski mares included in the genetic resources conservation program. The herds belong to 379 breeders.





The general criteria for participation in the conservation programme include:

- typical morphological traits;
- desired well defined pedigree requirements.


Sokolski mare


Sztumski stallion

Every breeder must have at least two mares of a given breed recorded in the Stud Book of cold blooded horses.

Breeds standards for genetic resources conservation programs for Sztumski and Sokolski horse

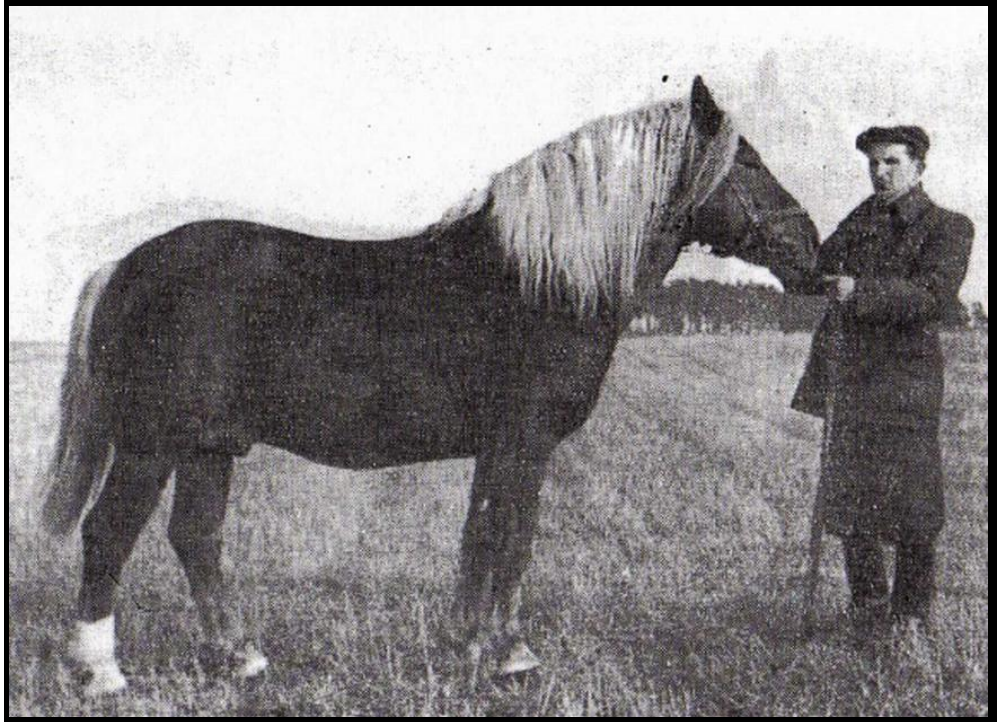
Sokolski coldblooded horse

- drier constitution compared to other cold-blooded horses
- head should be of medium size, well formed, with lively, medium-sized ears and well-muscled neck. The trunk should be barrel-shaped, longer than in other cold-blooded horses. There is a large disproportion between strong and massive trunk and drier legs compared to other types of cold-blooded horses.
- stallions withers height: 155 – 162 cm, cannon circumference 25 – 27 cm,
- mares withers height: 148 – 162 and cannon circumference 24 – 26 cm
- body colours: all are acceptable except grey, skewbald and leopard.

Sztumski coldblooded horse

- large and heavy head, in proportion to the body weight, with a straight or ram-headed profile. The trunk should be strong and deep with a gently sloping, split croup, somewhat lymphatic legs, short cannon bone, and strong hooves. The coat should be slightly more abundant than for the Sokolski type
- stallions withers height: 160 – 168 cm, cannon circumference 26 – 28 cm,
- mares withers height: 155 – 165 cm and cannon circumference 25 – 27 cm
- body colours: all are acceptable except grey, skewbald and leopard.

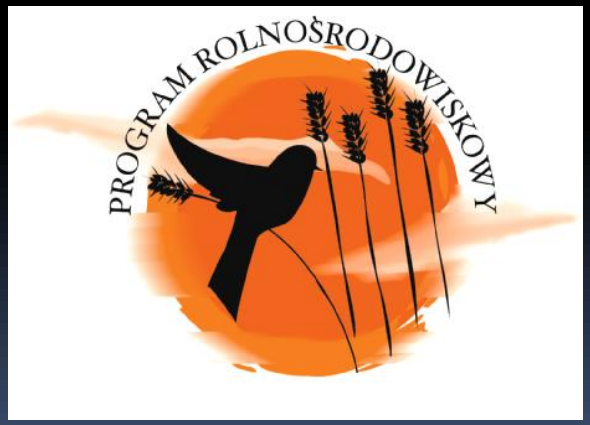
Breeders who want to join the programme must own at least 2 mares registered in the Polish Coldblooded Horse Stud Book.



Sokolski horse in the first part of XX century (1926) end in the begining of XXI (2012)

The important aspect of the conservation programe is the possibility to conserve the predisposition of traditional working use of these horses.

The breeders receive subsidies within agi-environmental measures of European Agricultural Fund for Rural Development.



Minimal number of felames at the farm participate in conservation programme:

- 4 cows
- **2 mares (1500 zl/mare)**
- 5 Olkusz sheep, 15 Podhale Zackel, 30 Old type Polish Merino, 10 other breeds
- 10 Pulawy pig or 8 Zlotniki pig,

The aim of the study was to better understand motivation of breeders to participate in the conservation programme.

Sztumski and Sokolski coldblooded horses in conservation programmes

Year	2008	2009	2010	2011
Sztumski horses				
mares	220	278	421	555
breeders	83	87	121	157
no of mares/stud	2.65	3.2	3.48	3.4
Sokolski horses				
mares	320	370	564	680
breeders	134	132	197	229
no of mares/stud	2.39	2.8	2.86	3

HYPOTHESIS

- In small farms, with a long tradition of breeding / rearing appreciates the advantages of native horses breeds, and used them most often as working horse.
- In large farms, recently existing breeders are focused on profit: subsidies within agi-environmental measures , sales of livestock and production of slaughter horses.

The questionnaire

A questionnaire was prepared for all breeders including six questions:

1. How big is your farm?
   a. 1 - 10 ha b. 11 - 50 ha c. over 50 hectares
   what is the area of pastures?

2. What species are you breeding on the farm?
   a. horse b. cattle c. sheep d . pigs

3. How many years we have been breeding horses?
   a. 1 - 4 years b. 5 - 15 years c. for over 15 years

4. Do you participate in the program of protection due to:
   a. family tradition
   b. advantages bred horses (eg .suitability for agricultural work, good health, good feed conversion, etc.)
   c . possibility of obtaining payments under the RDP 2007-13
   d . desire to protect indigenous breeds / types
   e . other (please specify)

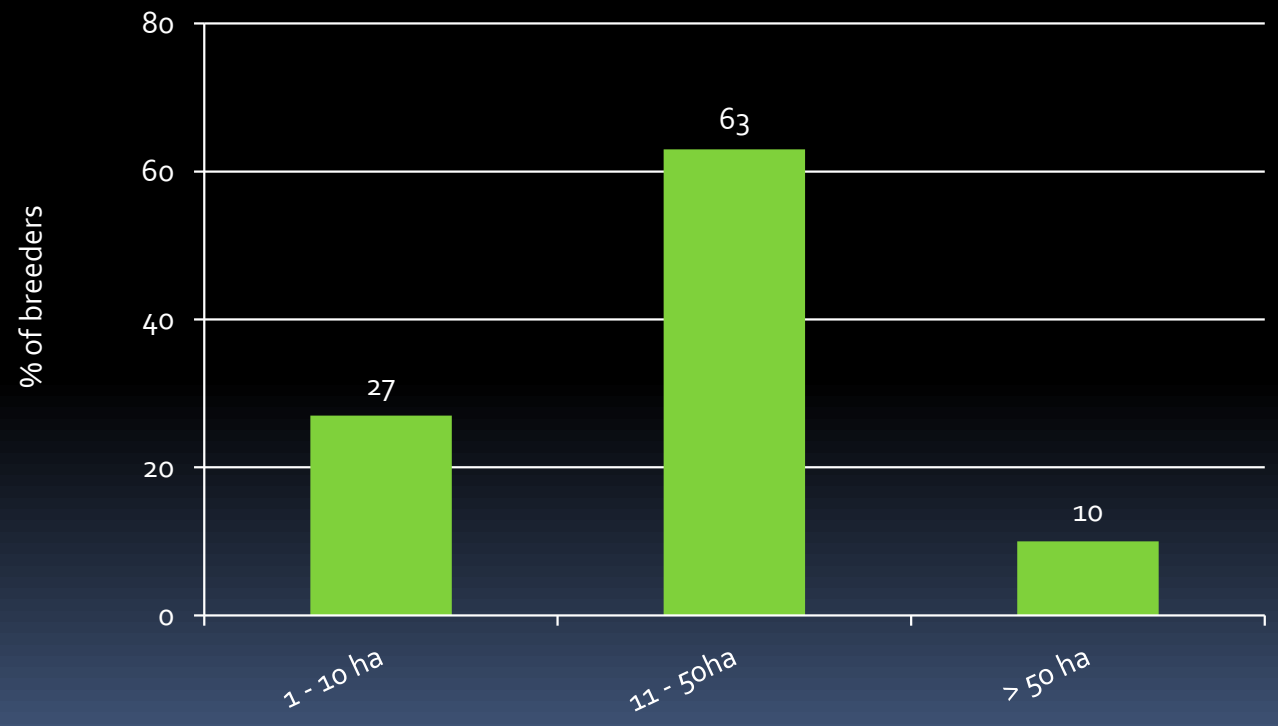
5. What is the purpose of your breeding?

   a. the use of a work, the working
   b. sale to other farms
   c. animals for slaughter
   d. hold for pleasure

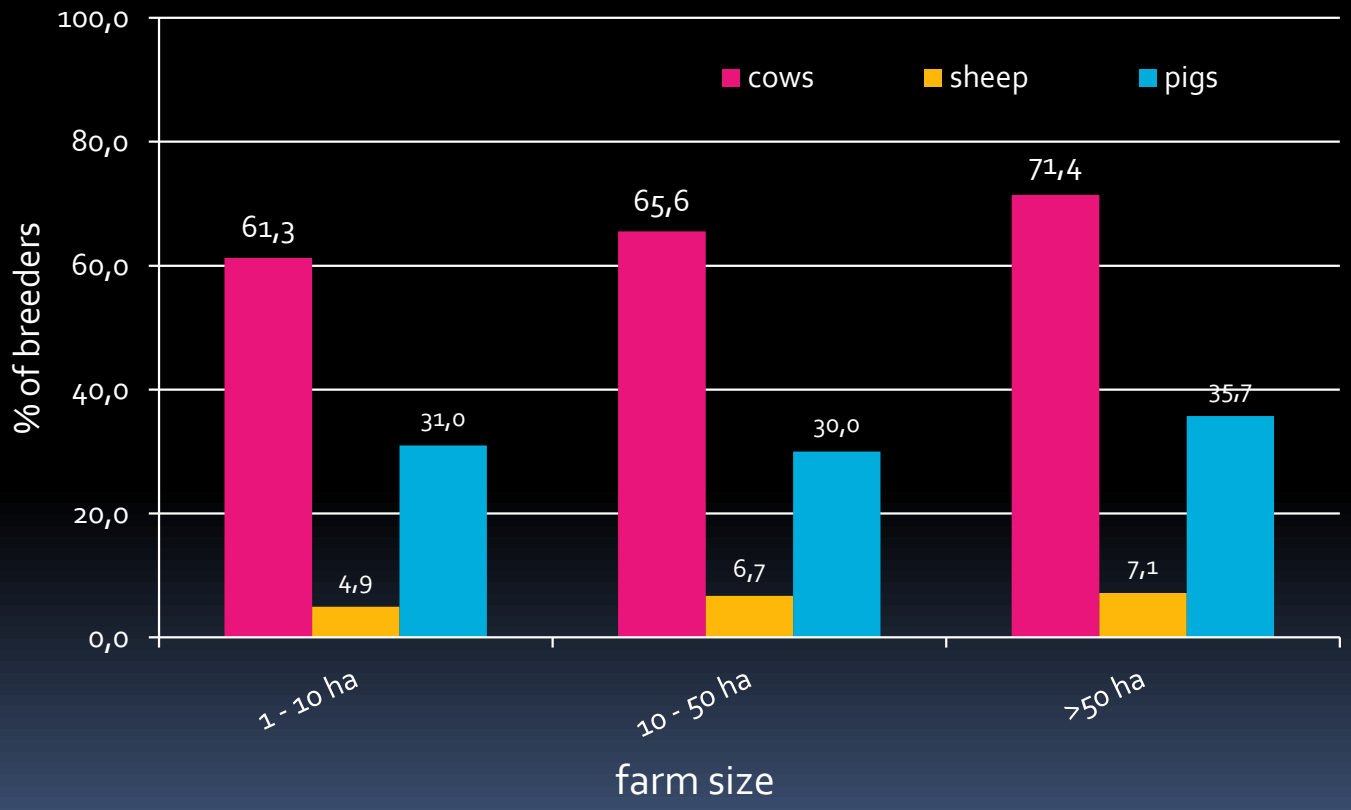
6. Do take you / your participation in exhibitions breeding?
   a. yes b. no

Results

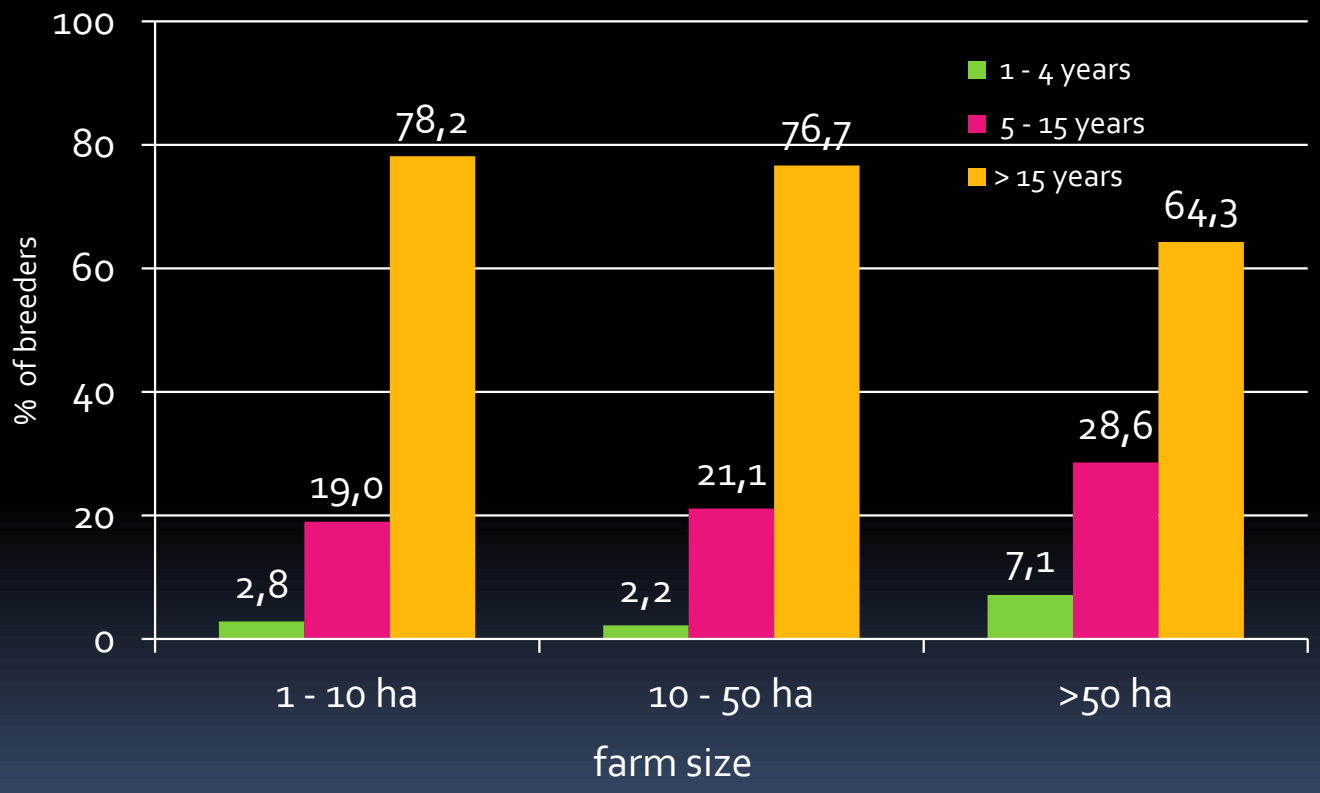
The analysis based on information obtained from 142 breeders show that more than 90% have a small and medium size farm (<50 ha).



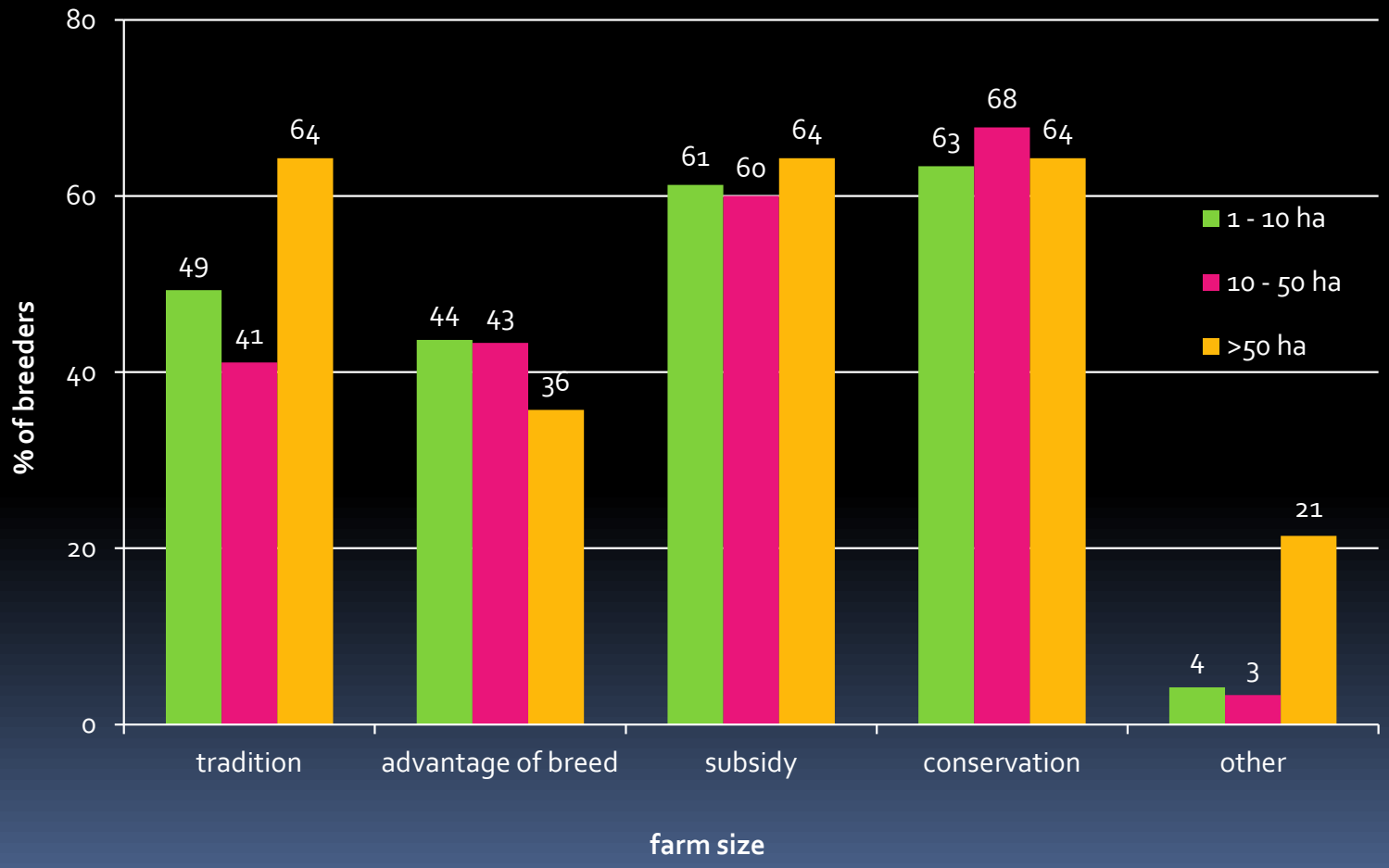
High number of breeders keep another species of domestic animals: cows and pigs and very rarely the sheep



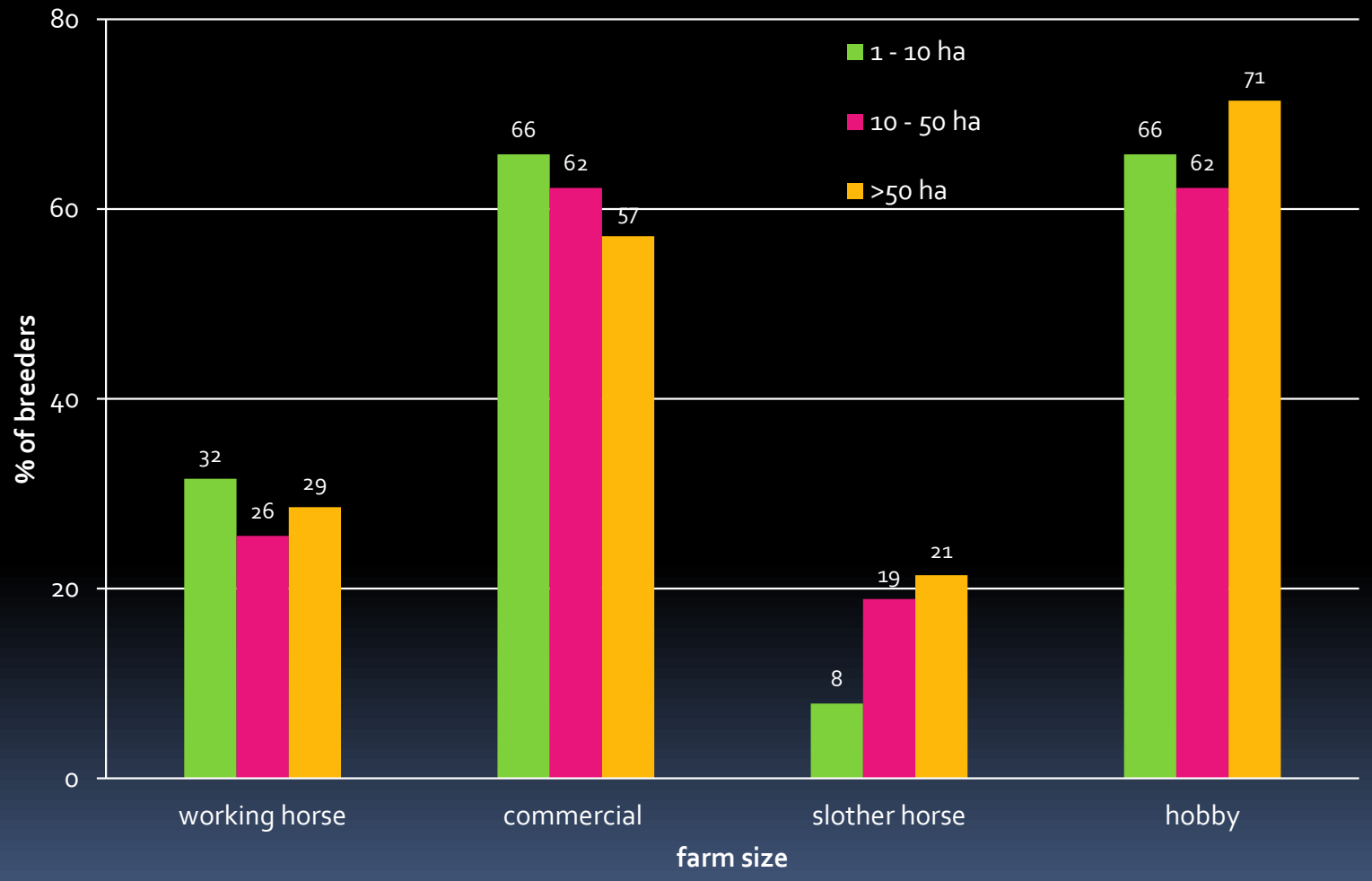
Average 70% of breeders breed horses for at least 15 years



The most important reason for participation in the genetic resources conservation program was: breed protection and possibility to received subsidies.



Most farmers responded they bred horses for hobby and commercial causes



Results

To find relations between farm size and other aspects of the maintenance of conserved breeds the data was tested with *chi-square test.*

The tests carried out in five cases showed a significant relationship between:

1. the 1st question : „ farm size” and 3rd „number of years of horses breeding” (for the test value of $\chi 2 = 11.221$ and level of significance of $p = 0.024$);

2. the largest farms owners (1st question) keep the horses due to „family traditions„ (4th/a question) ($\chi 2 = 6.592$ and $p = 0.036$);

3. having horses for over 15 years (3rd question) participate i conservation program due to family traditions (4th/a question) ($\chi 2 = 12.208$, $p = 0.002$);

4. the use of working horses (5^{th}/a question) and participation in conservation programs due to the advantages of horses (4th/b question) (highly significant correlation $\chi 2 = 39.928$, $p = 0.000$);

5. the desire to received subsidies from the agri-environmental program (4th/c question) and production of slaughter horses (5^{th}/c question) ($\chi 2 = 6.917$, $P = 0.006$).

There were no statistically significant correlations expected between:

1. the size of the farm (1st question), and the maintenance of additional species (2nd question) (self-sufficiency)

3. the size of the farm (1st question) , and the reason of participation in the conservation program (4th question in addition to 4th/a- „a family tradition”) (tradition of small farms)

2. the size of the farm and purpose bred horses, (both small and large farms are earmarked horses for commercial causes, to slaughter, to work and kept for pleasure) (tradition of small farms);

4. the length of the period of breeding horse (question 3) and the purpose of horse breeding (5th question in addition to the 5th/a question - „family tradition”) (advantages of horses - slaughter horse).

5. the length of the period of breeding horse(question 3) and cause of participation in the conservation program (4th question) (as above)

6. reason for joining in the conservation program (4th question) and purpose of horse breeding(5th question) (as above)

;

7. declared participation in exhibitions (6th question) and other questions (as above)

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Conclusion

Most of the breeders keep horses for commercial causes and for the desire to save the breed, but for 63% of breeders a key reason to participle in the conservation programme is the possibility to receive subsidies. Unexpectedly, near 1/3 of breeders declared to use the horses in agriculture for draft purposes, but it does not depend on the size of the farm.

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Thank you for attention