
The breeding association role in the development of the Bulgarian Rhodope Cattle

V. Nikolov & Z. Duchevev

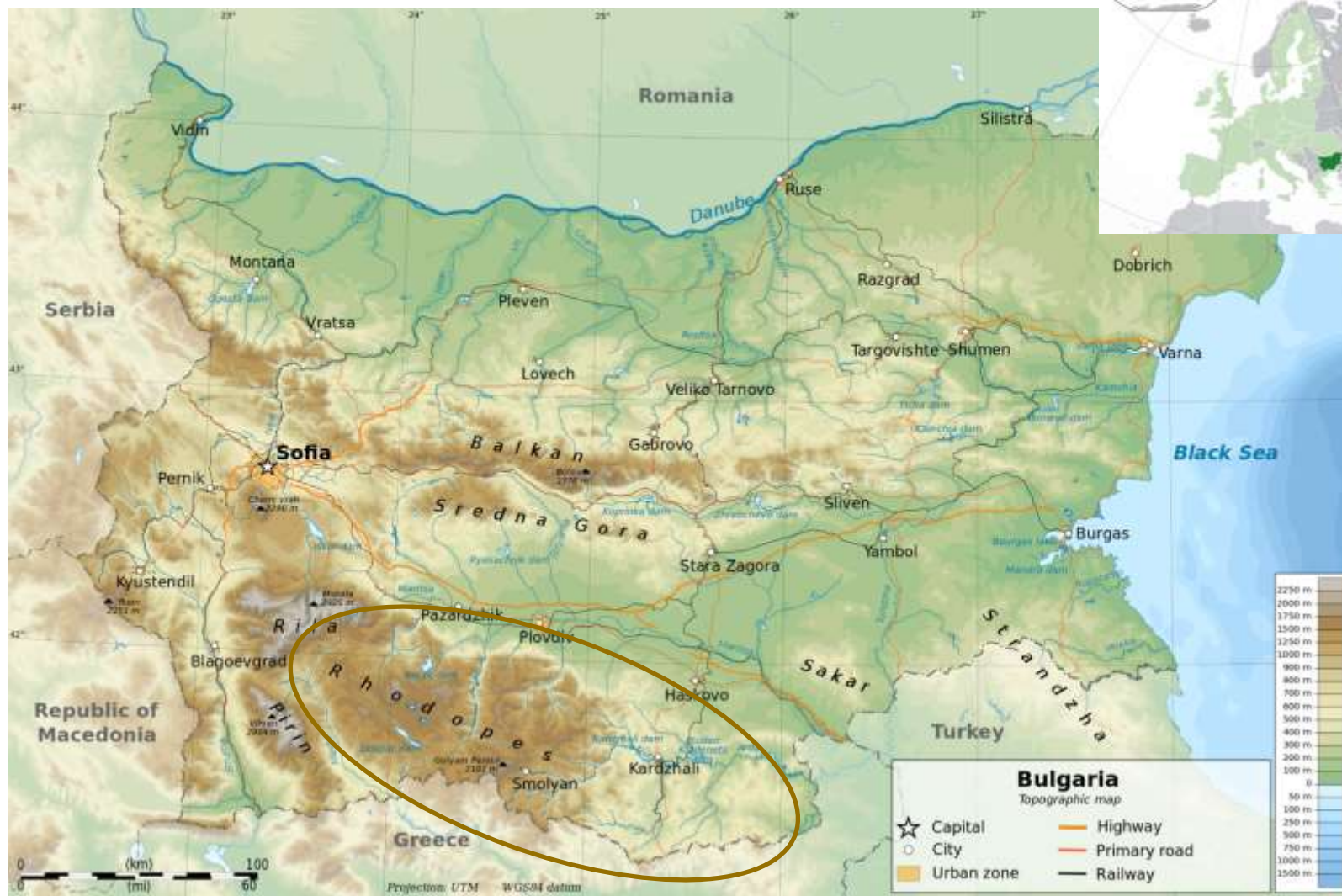
Executive agency for selection and reproduction in animal breeding

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The Bulgarian Rhodope Cattle



Areal



Rhodope Mountain

- Max elevation – 2191 m.a.s.l.
- Average annual temperature
 - East – 13° C
 - West – 9° C
- Poor soils
- Scarce pastures
- Steep slopes



Rhodope Mountain



Breeding goal – small dairy breed

- Live weight – 200-300 kg
- Milk yield – 1500 kg
- Milk fat content – 4.6%



Development of the Bulgarian Rhodope cattle

The breed was developed by reproductive crossing between the autochthonous Rhodope shorthorn cattle with a range of breeds: the local Gray cattle; Sofia brown cattle; Oberinntal Grey; Ayrshire cattle and, at later stage, with Jersey



Breed development – 5 stages

- 1920s – 1958 – crossing of Rhodope Shorthorn cattle with Local Grey and Sofia Brown
- 1958 – 1962 – crossing with Jersey bulls
- 1963 – 1976 – appointed team of scientists to develop a new breed
- 1977 – 1989 – establishing lines and recognition as a new breed
- 1990 - improvement of the breed

Situation in 1989

- Around 40000 animals
- Several large state farms
- Bull production in the state farms
- Routine use of AI
- Multiple small private farms

The collapse

- Change of the political system in 1989
- State farms in the mountain closed
- Only the experimental station in Smolyan remained, with reduced number of animals
- Private large farms not started
- Bull production decreased
- Still the selection and reproduction are mainly state driven

The problem

- The private farmers were not aware of the importance of the proper organization of the livestock breeding
- The selection was considered above their level, always done by somebody else
- Due to the large generation interval they could not see the improvements, and they wanted results now

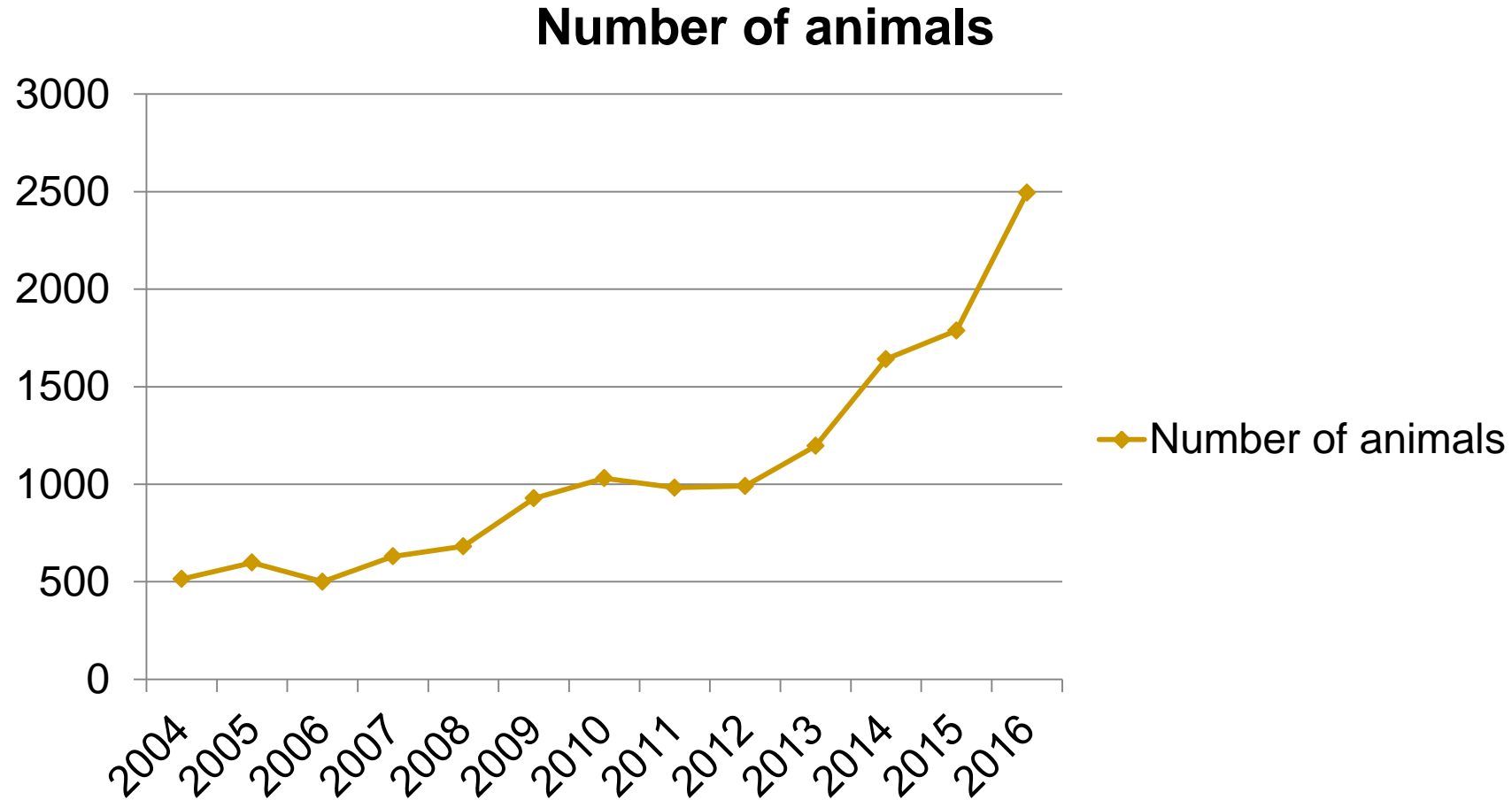
Development of breed organization

- Initiated by the state in 2000s
- One of the first established – breed organization for the Bulgarian Rhodope Cattle and Jersey
- Started with some 300 cows
- Only 5 farms have more than 20 cows
- Almost fully suspended activities in 2002, due to conflicts between the institutions

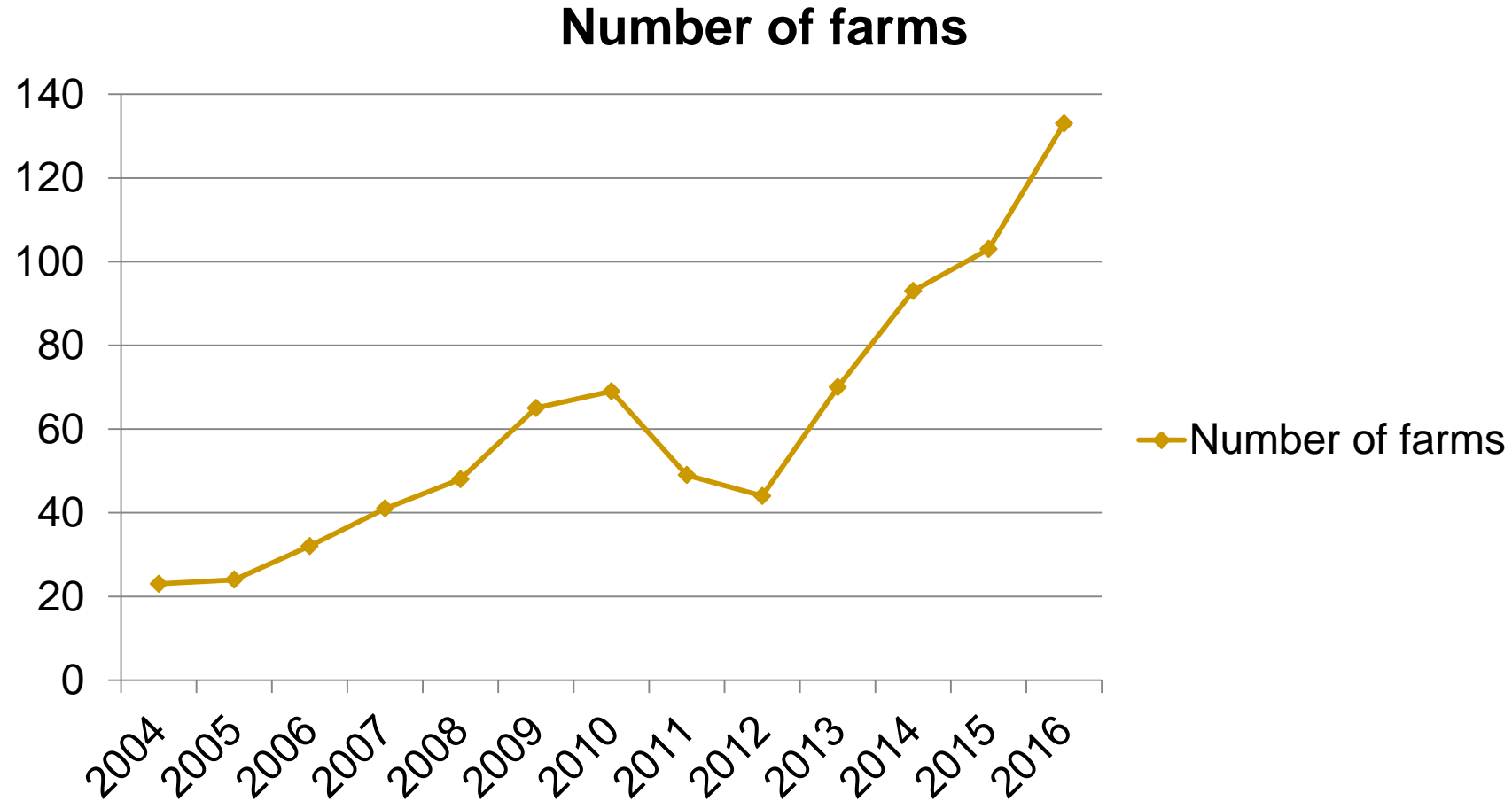
The positive moments

- AI still intensively used in the mountains – around 70% in the Smolyan region
- In the villages where AI is not possible, cows are serviced by selected bulls
- Slow, but steady progress in the next years, e.g. the milk performance of selected cows increased from 3615 kg in 2008 to 4048 in 2010

Number of animals



Number of farms



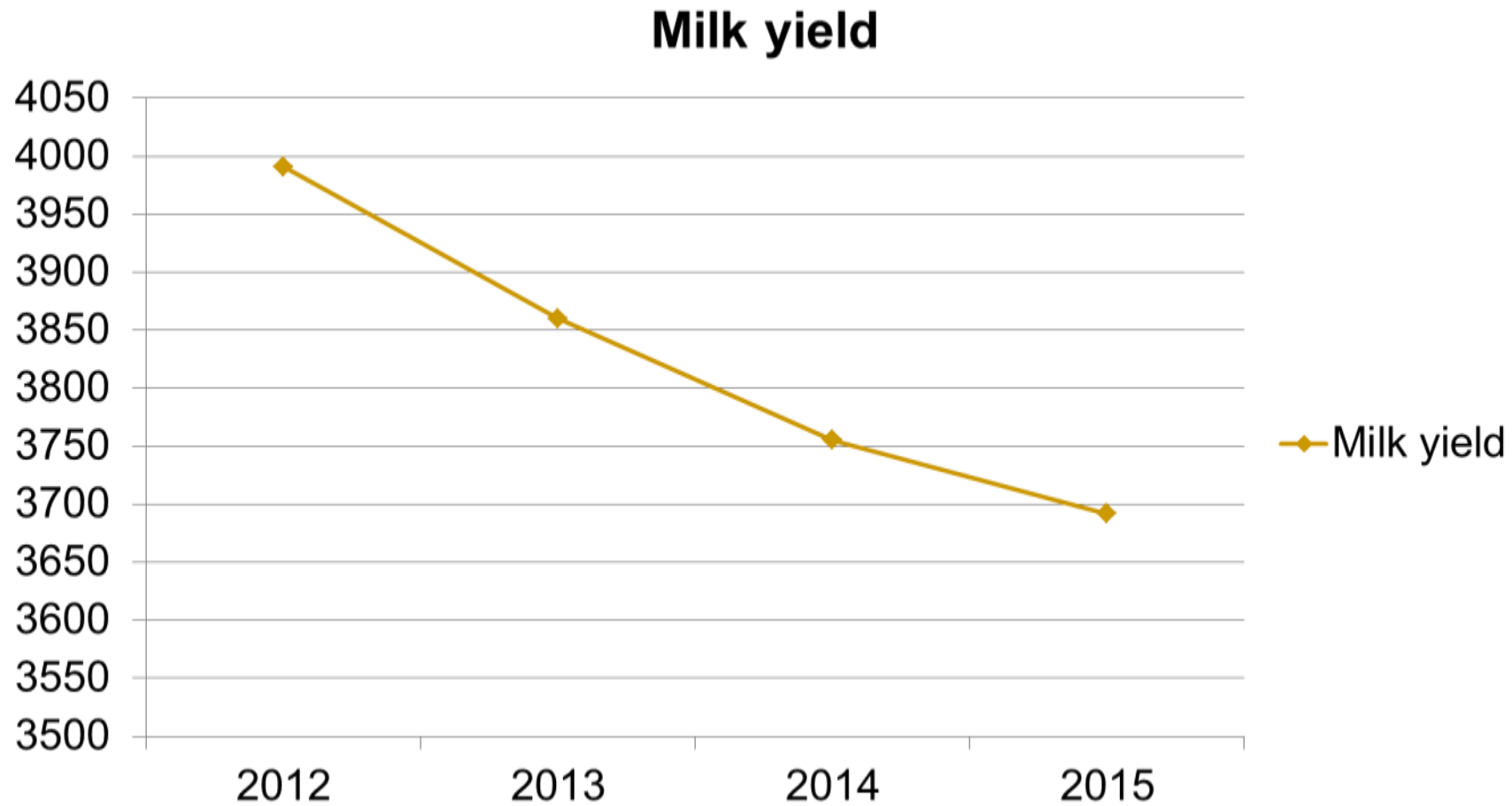
Selection criteria

- Milk protein content, preserving at the same time the fat content
- Lactation length (lactation shortened by 13.4% to 8.5 months in the last 26 years)
- Somatic cell count
- Additional criteria
 - Exterior
 - Functional traits

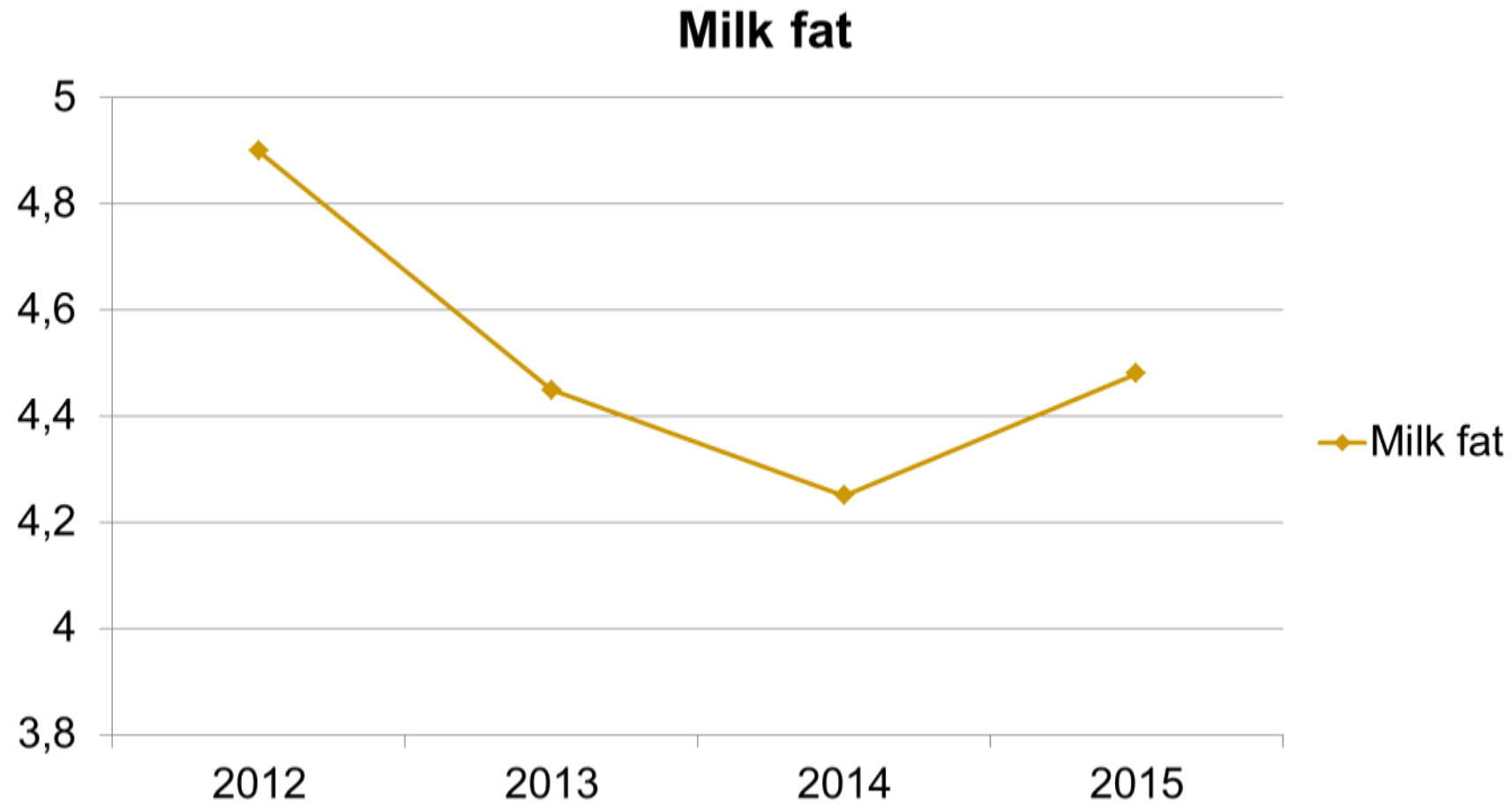
Still problems to solve

- Undeveloped main breed lines
- Lack of preserved genetic material from most of the bulls
- Selection on full lactation milk yield

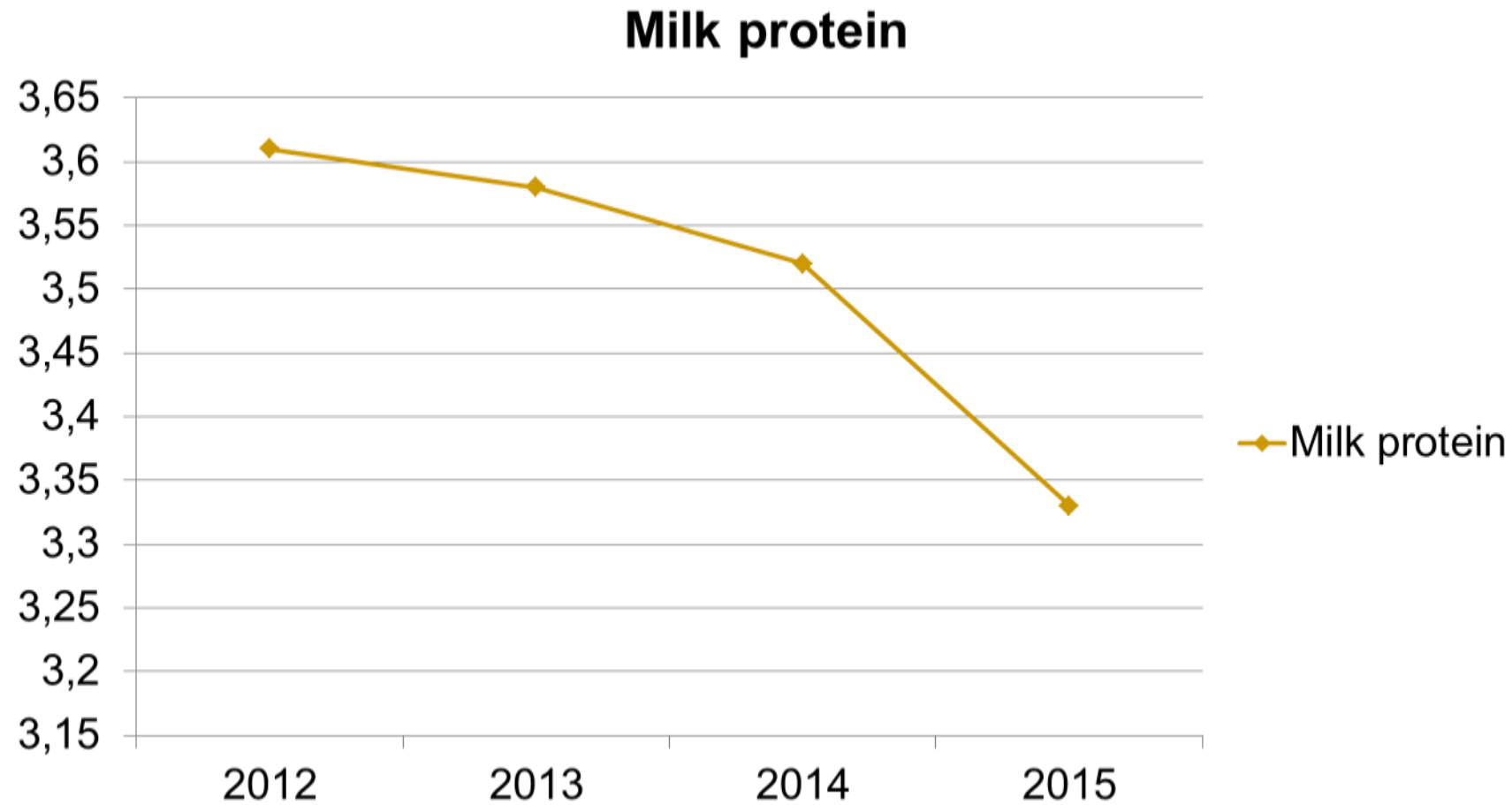
Milk performance



Milk performance



Milk performance



The future

For the further development of the Bulgarian Rhodope Cattle, a reasonable balance between the performance and the adaptability of the breed has to be found.

**Thank you
for your attention!**

