

BUSHA CATTLE IN THE R. OF MACEDONIA

Origin and history

Macedonian Busha cattle is indigenous breed which has been bred in the R. of Macedonia for centuries. It belongs to a group of primitive shorthorn cattle (*Bos brachyceros europaeus*). These cattle used to be dominant and most important breed in almost all Balkan countries until 50s and 60s of the XX century but today in lowland areas with intensive farming they are already replaced with more productive and specialized cattle breeds. In Macedonia this breed has officially been classified as triple purpose breed (for meat, milk and work) but nowadays mainly for beef by the cow-calf system of fattening. In the past several decades, as a result of uncontrolled crossing of this cattle with some more productive breeds, the number of purebred Busha animals is permanently being reduced which imposes an urgent need for setting up *in situ* and *ex situ* conservation program for this breed.

Breeding standards, productivity characteristics and reproduction

The main standards for Busha cattle in the R. of Macedonia are presented in the following table.

Parameter	Standards
Horns	Short, with light base and black endings
Colour	One-colour (grey, brown, black, red) or tiger
Average wither height, cm	90-115 cm for cows, 95-120 cm for bulls
Average body mass, cm	150-350 kg for cows, 180-450 kg for bulls
Maturity for breeding	Late maturity
Average milk production, kg	700-2000 kg milk with 4,0% fats
Average daily gain, g	200-600
Average body mass of calf at delivering, kg	12-20
Constitution	Strong to crude
Health and resistance to microclimate conditions	Very good health, big resistance
Fertility	Very good
Adaptation and accommodation	Excellent
Longevity	Big

In the National Breeding Program for Busha cattle in the R. of Macedonia, the following breeding objectives are determined:

Trait	Breeding objective
Population size	Its increasing!
Body mass of cows, kg	200-350
Wither height of cows, cm	Above 110
Body mass at bulls, kg	250-450
Wither height of bulls, cm	Above 115
Exterior characteristics	- improving the body frame, with bigger chest, improving of the back line, well-settled rump leg position, selection towards better udder index and bigger udder capacity
Other characteristics	Healthy animals with good adaptation ability, good longevity, good fertility and better daily gain

Pic. 1-4 Different strains of Busha cattle in the R. of Macedonia

	
Picture 1 – Grey strain (photo – Bunevski G.)	Picture 2 – Tiger strain (photo – Bunevski G.)
	
Picture 3–Brown strain (photo – Bunevski G.)	Picture 4 – Black strain (photo – Bunevski G.)

Tab. 2 Milk control from busha cows

	Fats %	Dry Unfatted matters %	Protein %	Kg milk/day
Grey strain	3,89 (3,65-4,45)	9,49	3,57	3,8 (2,8-5,3)
Brown strain	4,04 (3,79-4,61)	9,62	3,62	4,1 (3,1-6,2)

Tab. 3 Morphological traits of Busha cattle in Macedonia

Trait	Grey strain	Brown strain	Black strain	Total x
No. of cows	11	15	4	30
Wither height	107 (104-111)	105 (99-113)	105 (103-108)	106
Back height	107 (103-111)	105(101-114)	105 (103-109)	107
Rump height	109 (103-114)	108 (102-117)	107 (104-115)	108
Length of head	38 (33-42)	37 (31-40)	37 (35-41)	37
Length of horns	16 (14-21)	16 (12-19)	15 (14-18)	16
Born weight	15 (12-18)	14 (11-17)	15 (12-17)	15

Tab. 4 Reproductive traits of Busha cattle in Macedonia

Trait	Male	Female
Age at first calving	/	28 months (19-39)
Weight at first mating	125 kg (95-155)	150 kg (125-200)

Age at first mating	After 12 months	After 24 months
Fertility (%)	/	55%
Birth weight (kg)	17	13,5
Body weight (kg)	275 (245-390)	230 (180-360)
Age at 12 months of age	125 kg (95-155)	115 kg (90-132)

Breeding status

There are several Busha strains in the R. of Macedonia. Generally, two main classifications of Busha strains exists in our country:

- **Classification of strains according to locality:** Povardarie strain, Polog strain, Orgazden strain, Prespa (Ohrid) strain, Mariovo strain, etc.
- **Classification of strains according to colour:** Black strain, Brown strain, Red strain, Grey strain, Tiger strain, etc.

In January 2012 was established the NGO Busha – Skopje, from the bigger farmers of busha cattle, with the main objective to protect and improve this breed in our country. The main Breeding Program for Busha cattle exist from 2011, for the period of 5 years. Up to date, there are under the control of the main traits and under the book-recording approximately 800 heads of Busha cattle in the R. of Macedonia.

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