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## Buffalo breeding in Armenia

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Due to the absence of animal recording, it is difficult today to know in detail the potential of buffaloes. Scientific research has been conducted in the past in the Republic of Armenia. However, it is worth noting that no other research and no selection have been carried out in Armenia in recent times. Since 1991 after the collapse of the former USSR all livestock of Armenia including buffaloes became totally privatised. After privatisation no precise livestock recording has been held and the data we now possess are merely the statistical data which were collected in the past. There are now about 1 000 buffaloes in Armenia.

The following is the most complete list and location of buffaloes in Armenia, although it is still incomplete:

- Kotayk region – 8 heads
- Synik region – 20 heads
- Lori region – 15 heads
- Ararat region – 89 heads
- Gegharkounik region – 30 heads
- Armavir region – 103 heads
- Tavush region – 205 heads.

For the present Workshop, a detailed survey was conducted, either by mail or by telephone. The purpose was to know the present situation of buffalo farmers looking for possible cooperative improvement projects that can be started within the activities of ICAR and the FAO Buffalo Network, as listed below.

1. Ararat Region – 80 buffaloes, one bull; all other age and gender groups are kept together, they all belong to one farmer who lives in the Masis Region and is considered to be the village chief (this information is received by telephone).
2. Synik Region, Sisian, farmer – Vova Azoyan, has 42 buffaloes, one bull; all animals are kept together.
3. Tavush Region, Noemberyan Subregion, Shavarshavan village; Vano Siradeghyan has 157 buffaloes, two bulls in the farm belong to him.
4. Armavir Region, Echmiadzin Subregion, Zeiva village. The farmer has 30 buffaloes and two bulls.

There are other buffalo farmers but it has been impossible to get in touch with them due to difficulties of communication. We believe that a development project on buffalo in Armenia is a fruitful goal to pursue. At present, buffaloes in Armenia are reared with the purpose of producing milk and meat; they are no longer used for draught. The following descriptive statistics indicate the type of animals.

## **Liveweight**

*Table 1. Liveweight of female buffaloes in Armenia (Madoyan O.A.).*

Age	Liveweight	Livestock in the study
7 and more years old	484.4	356
6 years old	444.2	71
5 years old	423.8	84
4 years old	410.4	122
3 years old	360.4	61

*Table 2. Liveweight of female buffaloes in different regions Armenia (Madoyan O.A.).*

Regions	Liveweight, kg	Livestock in the study
Flat	492.4 (380-709)	289
foothills	460.0 (380-540)	34
Mountain, highlands	438.6 (300-540)	33

*Table 3. Young buffalo liveweight (Madoyan O.A.).*

Age, in days	Male			Female		
	Livestock	Fluctuations of liveweight	— X	Livestock	Fluctuations of liveweight	— X
New born	13	28-45	36.0	11	26-40	32.5
15	13	35-47	42.0	11	31-42	35.4
30	13	36-50	44.0	11	37-47	40.7
45	13	44-61	53.8	11	40-52	47.9
60	13	50-87	62.5	11	46-62	53.8
90	13	58-98	74.7	11	56-77	64.9
180	13	64-150	99.6	11	64-100	79.6
365	13	94-210	143.1	11	67-140	121.6

Buffaloes in Armenia have relatively low milk productivity. Below are the results of milk productivity research held in Armenia. At present, milk productivity has not increased as compared to the mentioned data, because no selection has been done in this respect.

## Milk Productivity

The milk productivity of buffaloes at first calving is 930 kg, at second calving is 1 115 kg, at third and above, 1 120 kg.

Table 4. Milk productivity of buffaloes in kg (Madoyan O.A.).

Month of lactation	1 <sup>st</sup> lactation		2 <sup>nd</sup> lactation		3 <sup>rd</sup> lactation and above	
	No. animals	Avg. milk yield (kg)	No. animals	Avg. milk yield (kg)	No. animals	Avg. milk Yield (kg)
1	6	79	7	130	50	133
2	6	90	7	132	50	145
3	6	105	7	196	50	147
4	6	108	7	160	50	143
5	6	110	7	128	50	135
6	6	102	7	124	50	126
7	6	90	7	131	50	120
8	6	90	6	116	47	95
9	6	71	6	92	29	89
10	4	77	4	92	19	83

Table 5. Milk fat (percent) (Madoyan O.A.)

Month of lactation	1 <sup>st</sup> lactation	2 <sup>nd</sup> lactation	3 <sup>rd</sup> lactation or above
1	6.16	6.44	6.55
2	6.4	6.94	6.95
3	6.83	7.12	7.40
4	7.53	7.32	7.55
5	7.96	7.66	8.09
6	8.26	8.02	8.37
7	8.76	8.82	9.12
8	10.5	9.90	10.52
9	12.76	12.3	10.87
10	14.3	14.2	10.35
During the average lactation	8.26	7.73	7.88

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Calving of buffaloes during the year:

January:	1.69 percent
February:	2.25 percent
March:	1.69 percent
April:	5.62 percent
May:	14.04 percent
June:	15.73 percent
July:	21.91 percent
August:	17.98 percent
September:	7.38 percent
October:	4.49 percent
November:	3.93 percent
December:	3.37 percent

The number of days between lactations, the service period when the buffaloes are not milked is on average 46 days (fluctuations 16-14 days), pregnancy duration 328 days (fluctuations 302 -361 days). Buffalo fertility on average is 86 percent. Females are first being mated at the age of three to four years old, males start to mate at the age of 2½-3½ years. Buffaloes can be used for 14-15 years.

No artificial insemination of buffaloes has been used or is used in Armenia. We use natural mating without any recording. At present, milk yield is used for the needs of the farmers, in some cases the milk is processed into cheese and butter and is then consumed.