



Introduction improved methods of livestock management in the farms and households of Kirgizstan (on example of Alimseit farm and Akbeket households)

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- As a result of an economic reform conducted in the rural areas, the structure of rural commodity producers in Kyrgyzstan has changed radically. Owners of household farms (personal household farms of the population) share of which makes 53,6 % of meat in lethal weight, 55 % of crude milk, 49,4 % of egg and 48,7 % of a wool act now as the basic manufacturers of cattle-breeding production.
- Owners of household farms because of limitation of land resources, hence, and a forage reserve, have different quantity of animals, from 10-15 to 100-150 sheep. They own a minimum knowledge on technology of the maintenance, breed and selection of animals, do not own information on the technics and technology of animal industries, treatment-and-prophylactic actions. As a result of absence of technological culture and efficient control of animals, there is a low efficiency of animals, smaller benefit from their production, which has only consumer nature.

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- Planned analytical and research work in the field of sheep breeding has been carried out during 2007-2009 under the project «ICARDA». The main objective of conducted work was increase of knowledge of owners of household farms and farmers on management of animal industries both in small, and in average farms by practical demonstration of advanced methods of breeding, technologies and systems of conducting animal industries.
- Researches of existing technology of managing animal industries and introduction of the improved elements of the "know-how" of livestock products were carried out among a farm of "Alymseit", and 5 household farms of village Akbeket of Keminsky area

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- The advanced technology of animal industries includes:
 - - An optimum combination of pasture sheep with additional feeding during the winter and early-spring periods;
 - - The winter feeding of animals balanced on nutritiousness;
 - - Monitoring lambing of ewes;
 - - Monitoring of growth and development of lambs;
 - - Viewing and ranging low-productive sheep;
 - - Training of farmers and owners of household farms to diagnostics, preventive maintenance and treatment of infectious, parasitic and noncontagious illnesses of sheep.
- According to the accepted technology fine-fleeced and coarse-haired sheep of a farm of "Alymseit" were contained on a winter pasture of "Zhelargy" separately. Under our recommendations the weakened sheep were contained separately, and were fed in addition on 0,5 kg of hay, and 200 gramme of a concentrate on a head.
- Sheep of household farms Akbeket of Keminsky area were grazed at near settlement pastures and twice a day were fed by a fodder mix - hay and straw, and Rysbekov Shaken added haylage. A concentrate of ewes were fed during the lambing period.
- Training courses have been carried out on a theme «Veterinarno-sanitary actions for improvement of safety and growth of lambs, including preventive maintenance brucellosis in animals» before planned lambing with farmers of a farm "Alymseit" and a community Akbeket. Thus norms and structure of diets for high-grade feeding ewes, incalver cows and the received off-spring have been recommended to participants of a seminar. Participants were acquainted with requirements to a microclimate in premises, where adult animals and young growth should contain. Farmers were trained in methods of treatment in case of disease of animals, and also preventive maintenance infectious and invasive diseases. From among infectious diseases the special attention was turned on brucellosis in agricultural animals with the recommendation of measures about its non-admission. Farmers and owners of household farms were given the recommendation about a theme of seminar training «Zoohygienic bases of feeding, the short description of infectious diseases and a calendar of health of agricultural animals ».

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- Monitoring of farms by appraisal of sheep and studying of working conditions has revealed:
- Feeding and the maintenance does not correspond to the established requirements, especially during the winter period;
- Zoohygienic requirements do not correspond to standards;
- Crossing and cultivation is conducted in a chaotic order (i.e. in-breeding takes place);
- Low live weight, weak growth and development;
- Non-uniform wool, with poor quality;
- As a sheep, bred in a farm, do not correspond to standards of Kirghiz finefleece breeds;
- Wool efficiency and its quality indicators are on a low level (length, fineness, density of standing of fibres, equality, fat, an output of a free wool, etc.).
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- On the basis of the above-stated lacks, the ICARDA project put a task in view - to improve management of animal industries, that is forage reserve improvement, creation of the maximum conditions for the maintenance of sheep, carrying out of breeding work, veterinary-sanitary works, rendering assistance to farmers on getting knowledge on technology of the maintenance, feeding and cultivation of agricultural animals.
- Eight rams-manufacturers were bought from the state breeding factory "Orgochor" in 2007 for improvement of quality indicators of a wool.

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Average live weight on age groups of fine fleece sheep

Breed	Group	Age, year	Average live weight, kg		
			2007	2008	2009
Fine-fleece	Sheep-producers	2,5-3,5	57,5	74,9	97,5
	Ewes	2-7	53,9	51,5	52,7
	Young ewe	1	41,1	43,7	42,9

Income out of realization of wool of fine fleece shhep

Direction	Currency	For all head			Per 1 head.		
		2007	2008	2009	2007	2008	2009
Fine fleece	som	35000	88000	115310	120,4	264	228,8
	\$	804,5	2023	2650,8	2,76	6,06	5,25

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Average live weight on age groups of coarse haired sheep

Breed	Group	Age, year	Average live weight, kg		
			2007	2008	2009
Coarse haired	Sheep-producers	2-7	63,6	76,8	98,7
	Ewes	2-7	54,6	52,4	53,5
	Young ewe	1	44,2	46,8	45,7

Income out of realization of wool of coarse haired shhep

Direction	Currency	For all head			Per 1 head.		
		2007	2008	2009	2007	2008	2009
Coarse haired	som	1480	2190	2535	6,75	9,95	9,25
	\$	34	50,3	58,2	0,15	0,22	0,21

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- The head of a farm Asanov Ryspek realises sheep in the market of Tokmok live at the price from 2 to 5 thousand som for a head (46-115 \$\$) regardless on a breed.
- Average market cost mutton meat makes of 1 kg 230 som (5,3\$).
- At exchange rate of 1\$ = 43,5 som.
- Having carried out the analysis on the given work, it is possible to draw following conclusions:
 - Breeding work has yielded positive result. The wool received from sheep crossed to rams-manufacturers, delivered from "Orgochor" farm is higher both on sheer, and on quality indicators, that represents great value in fine fleece sheep breeding;
 - Adjustment of veterinary, preventive and medical work is shown in increase of live weight, and also on results of reproduction of herd.

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- Monitoring of resources of owners of household farms has shown that the village "Akbeke" is located in a zone of intensive agriculture of the Chujsky valley, the land is irrigated, near village pastures are almost absent, and summer pastures are located far from settlement on distance from 50 to 150 km. An available livestock of animals in the spring and in the autumn is grazed on flood plain of the rivers Chu, inter farm irrigating networks (channels, canals) and on remnants of plants till ploughing of land, in the winter - on stalls under poor conditions of feeding and the maintenance, and expelled on summer pastures on a hire basis in the summer.
- For a community from agricultural-production co-operative "Aykol" of Tonsky area 4 rams of aykol breed were bought. A fatherly basis of aykol breeds were thoroughbred rams of gissar breeds. Thus the task in view to receive posterity from these rams with the raised live weight, and precocity. Before copulation selected 87 were selected referring to the higher and average category.
- Rams of aykol breeds at 1,5 summer age have appeared large enough to what testify more low resulted exterior measurements, in centimetres: the height in shoulder - 76,3 sm, height in sacrum - 76,3 sm, slanting length of a trunk - 75,3 sm, depth of a breast - 35,8 sm, width of a breast - 24,0 sm, a breast grasp - 97,8 sm and a grasp metacarpus - 9,3 sm.
- Average live weight and exterior indicators of the delivered rams of manufacturers corresponded to requirements of the standard of pedigree group. Their live weight at delivery in October, 2007 has made 72 kg, and in September, 2008 - 79,5 kg.
- As the control for comparative studying of efficiency of introduced technology on genetic improvement of herd in the same village Akbeke owners of the house farms, having sheep have selected: T.Duyshev T - 27 sheep, Moldaliev T - 10 sheep and Ajdaraliev K - 20 sheep. On our supervision in 2008 under the existing technological scheme (without introduction of elements of management by breeding business) rams and ewes were together all the summer, therefore ewes have gone down from pastures being in year. Rams and ewes of different colour, ill-matched with a fat tail of the small size and without it.

Live weight of lamb of 2009 birth, kg

Sex	Group	Number	At birth (March)	April 15, 2009 (25-30 days)	May 9, 2009 (40-45 d)	August 25, 2009 (5 months)	October 27, 2009 (7 months)
Young ewe	Improved	39	3,31	10,34	21,8	35,09	47,1
	Control	29	3,25	10,14	22,1	31,37	45,1
Ram	Improved	27	3,76	10,4	21,4	37,26	50,9
	Control	16	3,51	10,34	22,3	34,31	48,6

- At weighing of lambs on August, 25th, 2009, obviously there is advantage of the improved young ram over not improved. So average live weight of young ewe, received from rams of aykol breeds has made 35,09 kg, that is higher than in control on 3,72 kg, or 11,9 %, and rams - 37,26 kg and above than contemporaries of local population on 29,5 kg of 8,6 %. The superiority on live weight, both males, and females of skilled group over control is statistically authentic.
- Indicators of live weight of young rams of skilled and control groups after the pasturable maintenance (on October, 27th, 2009) show that young ewes, received from rams of aykol breeds, surpass local on 2 kg or 4,4 %, and rams - accordingly on 2,3 kg or 4,7 %.
- According to CARIS, financed by the World Bank (the project agricultural investments and services), to the beginning of September, 2009 the average price of mutton of 1 kg in the markets of Chuy area has developed at level of 160 som or 3,6 US dollars. In group of males the farmer gains from realisation of one improved ram 67,68 US dollars ($37,26 \times 0,5 \times 3,6$), that is more than in control for 5,76 US dollars, or above on 9,3 %, and from sale of one young ewe (63,0 US dollars against 56,5 US dollars) - 6,5 US dollars, or 11,5 % accordingly..

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- According to the plan of carrying out training - course, members of communities were trained on:
 - - Carrying out de-helminthosing against intestinal strongilatozes;
 - - Taking blood from rams-manufacturers for serology researches on brucellosis;
 - - Prophylactic medical examinations of animals, to formation of ewes, preparation of rams-manufacturers for copulation;
 - - Carrying out bathing of sheep against an itch, preparation of a premise for animals to the stall keeping (mechanical clearing, disinfection);
 - - Organisation and carrying out of copulation of ewes;
 - - Training of owners of animals to rational use near village pastures with additional feeding of sheep during the winter and early-spring periods;
 - - Treatment of sheep against clostridiozes according to the instruction.
- Owners of house hold farms, having united in rural communities, studied a health calendar, methods of preventive maintenance and treatment of infectious and invasive diseases, veterinary-sanitary rules of care, feeding and the maintenance of animals. Also they studied methods of breeding and pedigree improvement of animals for the purpose of increase of their efficiency. Listeners remained happy with level of teaching and are ready to introduction of the innovative beginnings in other communities of the villages..

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