

**METHODOLOGICAL FOUNDATIONS FOR THE ORGANIZATION OF THE
USE OF PASTURE LANDS****Yuldasheva Tursinoy Gofurjonovna - PhD Student**«Tashkent Institute of Irrigation and Agricultural Mechanization Engineers» National
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Abstract. Land resources are one of the irreplaceable resources in agriculture, considered one of the most important economic sectors of the country. These basic rules for the operation of land, including pastures, define a wide range of problematic issues, the solution of which determines the effective use of land in agriculture. This article is devoted to the methodological foundations of the organization of the use of pasture lands.

Key words: land, land use, pasture, herd, agriculture, organization, farm.

Introduction. The tasks of establishing pasture areas are to increase their productivity; improve the Botanical composition of plants; rational use; create a solid feed base for livestock. Before working on the project for the establishment of pasture areas, their current situation and use are studied. It is held to determine the further order of use of each plot, to work activities for improving pastures, to draw up their territories [1]. It is necessary to study the existing organization of pasture areas (attachment of pastures to farms, herds, groups of cattle, the presence of pasture exchanges, their location, the location of water sources, reserve or outlet of water) [2]. The main attention should be paid to the natural condition of plots intended for irrigated cultural pastures, their suitability and rational use to create a layer of high-yielding meadow grasses, in terms of their conditions for irrigation [3].

The issues of the organization of the territory of pastures are solved in a differentiated way, taking into account the exact natural and economic conditions of different regions, districts, types of pastures, their location in terms of relief [4]. The main requirements in this are the following: compliance of the quality of the grass cover of the plots of the herd with the biological characteristics of moles of different types and ages, preventing the expulsion of moles far away

and bringing green feed production sites in alternating plantings closer to the places where the moles consume them during the grazing period [5]. The attachment of pastures to livestock farms and complexes is carried out taking into account their suitability for feeding various types of cattle, the features of keeping cattle in summer, the quality of grass cover [6].

When determining the area of pasture attached to a livestock farm (Π), it is necessary to depend on the demand for green feed of cattle (H), the project yield of pastures (Y), as well as the area of pastures allocated for hay reaping, resting, and grass layer restoration, used for plowing paths, summer camp, water springs and irrigation network (for irrigated pastures:

$$\Pi = \frac{H}{Y} + \Pi_1 + \Pi_2, \quad (1)$$

In this: Π_1 - in the process of pasture exchange, the area of pastures allocated for hay mowing, resting and restoring the grass layer is equal to 20% ($0.2 H:Y$) of the average calculated area; Π_2 - the area of grazing land allocated for cattle drives, summer camps, water springs and irrigation network is equal to 5% ($0.05 H:Y$) of the estimated area [7].

As a result, the expression will have the following appearance:

$$\Pi = \frac{H}{Y} + \frac{0,2H}{Y} + \frac{0,05H}{Y} = \frac{1,25H}{Y}, \quad (2)$$

On farms that lack pasture land (in high districts with high land ratios), the issue of the expediency of attaching them first to farms, types of cattle is solved, the reason is that the increase in the productivity of cattle will directly depend on the quality of pastures allocated for certain types of cattle [8]. Attempts are made to allocate irrigated cultural and improved pastures for dairy farms and complexes. For the cultivation of cattle calves, pastures of a more arid type, mainly with different types of grass, are suitable [9]. Low-lying, poisonous pastures will be unsuitable for the coves, the reason is that they serve as a favorable environment for the development of vomiting diseases. Suitable for horses, has a cover of leguminous grass, pastures are allocated close to the settlements and their workplaces [10]. The goods on the property are provided with a green mass at the expense of pastures next to the villages, at the disposal of the village administration [11].

Organization of grazing exchanges. The Botanical composition of the grass cover deteriorates in the continuous use of pastures for raising cattle for the same periods, its productivity decreases [12]. In order to increase pasture productivity and improve the grass cover content, it will be necessary to replace grazing and grazing with full or partial improvement of pastures, hay reaping, and removal of the grass cover from cattle grazing to renew. This is achieved with the introduction of pasture sharing [13]. Pasture sharing refers to the use of pastures and their maintenance system, which aims to keep and raise their productivity by successive exchange, together with other activities aimed at re-establishing and improving the grass cover over the years on certain plots [14].

Pastures left behind to rest and restore grass cover also serve as insurance funds, meaning that in years when grasses come unfavorable for growth, they can also be used to feed cattle. The Order (scheme) of pasture exchanges differs from each other depending on the natural characteristics, area and productivity of the pasture plot, the type of grass cover, growth Times and intecivity, the system of cultivation of green and coarse nutrients. Pasture exchanges are worked out at the same time as the design of lot plots or plots in which the goods are alternately reared and combined with them. On plots of lots with a large area, such pasture exchanges are designed, which, in turn, provide for the use of pastures and activities for their maintenance within the plots on which the lock is grazed.

A grazed (herd) plot on plots that are not large in area, where it is not possible to design a calculated number of alternately grazed plots, is pasture. In the organization of pasture exchanges in the system of grazed (herd) plots, their number is increased by 2-3 to carry out activities for the restoration and improvement of the grass cover in the rotational order, mowing the grass for hay or green feed. The remaining fields are grazed by moles. Grazing plots used for a type of cattle are combined into pasture exchanges. The number of years of grazing exchange determines in advance the number of grazing plots and the area of pastures, which can be reared annually after hay harvest in late autumn, allocated for rest and fertilization. Grazing rotation will depend on climatic conditions, soils, pasture types.

The length of the pasture exchange rotation will be equal to 3-6 years in arid desert districts (Tables 1, 2).

Table 1

The procedure for adding pasture sharing plots with lots of plots

Usage Year	Pasture sharing plots					
	1	2	3	4	5	6
1	1*	2	3	4	Ya	P
2	2	3	4	Ya	P	1
3	3	4	Ya	P	1	2
4	4	Ya	P	1	2	3
5	Ya	P	1	2	3	4
6	P	1	2	3	4	Ya

*1,...,4 - it is the turn to use plots;

Ya - plot to improve in this year;

P - plot used to mow hay;

Table 2

Grazing procedure in dry deserts

Usage Year	Pasture sharing plots					
	1	2	3	4	5	6
1	1*	2	3	4	D	P
2	2	3	4	D	P	1
3	3	4	D	P	1	2
4	4	D	P	1	2	3
5	D	P	1	2	3	4
6	P	1	2	3	4	D

*1,...,4 - it is the turn to use plots;

D - rest to improve and renew the grass cover;

P - plot used to mow hay.

The following grazing areas can be designed on heavily grazed and wind - eroded pastures: 1 year is full - time, 2 years is one - time summer cattle grazing, 3 years is one-time spring cattle grazing, 4 years is two-time cattle grazing, and additional planting of grasses in the fall. Placement of lots and otar plots. The formation of feeding groups for keeping cattle on pasture is carried out as follows: cattle are attached to herds, sheep to herds, various types of cattle (mixed cattle) - horses, horses are combined into heaps, to which constantly reared pasture plots, called herd plots, are attached for a long time.

Cattle herds are organized from 100-200 heads, calves under 6 months of age - up to 100 heads, young cattle in the marsh-from 200-300 heads, sheep herds - from 600-1200 heads, horse nests - from 30-100 heads. Herds of individual cattle are organized depending on the location of the settlement and the size of the herd. In the full supply of pastures, they are distributed among all herds, and when they are not enough - depending on their quality and type of cattle. In the herd, the calculated area of the plots will depend on the demand of one mole for green feed overnight, the number of cattle head in the herd, the length of the grazing period and the productivity of the pastures. This should take into account the pasture area used to reap hay, rest and restore grass cover in the annual grazing procedure, as well as the areas reserved for cattle drives, summer camps and water springs.

Table 3

Grazing order in the Sahara region

Usage Year	Pasture sharing plots			
	1	2	3	4
1	spring	winter	summer	autumn
2	«	«	«	«
3	winter	spring	autumn	autmun



4	«	«	«	«
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S.Volkov and a number of other experts agree that the calculated area of the herd, the grazing plot, can be determined by the following expression, [S.Volkov et al]:

$$\Pi = \frac{1,25 \cdot H \cdot K \cdot D}{Y} \quad (3)$$

In this: H- is the requirement of the mole for green feed for one-night, K is the number of moles in the herd, herd; D-is the length of the grazing period, day; coefficient 1.25; Y-is the project yield of the pasture, 1 kg of feed unit.

In insufficient grazing provision, the above expression includes a grazing contribution coefficient, which is equal to the ratio of the available grazing area to the calculated area ($K=P_m:P_h$). The demand of one head of cattle for green feed overnight is the following: cows and heifers for desert regions - 45-55 kg; cattle calves older than one year, for desert regions - 25-30 kg; calves under one year old, for all regions - 15 kg.

The length of the grazing period will depend on natural regions and will be 135-250 days. The distribution of pastures among groups of cattle is carried out depending on their attachment to farms. In this, the most effective solutions for the use of pastures and the organization of the maintenance of cattle are selected. In order to provide the cattle evenly with fodder during the grazing period, a green feed balance must be established by month per herd, especially when there is not enough pasture. In the months when herbs grow intensively, excess green mass is used for hay, silage, grass for its preparation and is taken into account in the overall nutrient balance. The lack of green mass is compensated for by harvested hayfields, fodder crops planted in crop fields and other resources.

Placement of water springs and watering places. For the normal development and increased productivity of moles, it is of great importance to adequately provide them with good quality waters. To organize the pasture water supply, it is necessary to have materials for the study of water sources, watering places and structures in them. These materials should include information about the type and location of the source, its capacity to water (useful volume, consumption, water

supply), the condition and measures to improve it, and the quality of the waters. The data obtained are compared with the demand for water for watering cattle and other necessities, when they are far from pastures - with the permissible distance of driving cattle to the place of watering. In this case, the productivity of water sources is calculated based on the minimum water output per unit of time, and the demand for water - taking into account the unevenness coefficient of water supply by hours.

Pasture water supplies include springs (rivers, streams, wells, lakes, poison escape and irrigation channels, piped conduits, etc.) placement is carried out taking into account the distance to which the track is poured to drive the cattle to the irrigation areas. They are equal to: 1.0-1.5 km for cows, 0.5-1.0 km for young calves, 2.0-2.5 km for young cattle, 2.5-3.0 km for sheep, 4.0-5.0 km for horses. Water supply sources are placed in the Centers of the plots of the lot served, and when storing goods in camps - in summer camps. In order to come to the watering place, it is necessary to create rough conditions and follow sanitary and preventive rules. The placement of water sources on battered, flooded and contaminated plots and the number of cattle irrigated at one watering place should not exceed 250 head of cattle or 2,000 head of sheep. This is considered the best conditions if the moles can come to the water and drink it when they choke. In the organization of stagnant watering places, watering grounds are built with a solid coating, equipped with car washers and concrete, ditches. They are placed below the water sources in relief, at a distance of 20-30 m from it. Irrigated cultural pastures use water in pipes and canals for irrigation, and when their quality is poor, it is implied to build water pipes or bring water in cisterns equipped with car drinkers.

Cattle drives are divided into main - cattle drives from farms, complexes, or summer camps to pastures, and intra - pasture-cattle lockable fields to cross-link roads. The approximate width of the main cattle arable roads will be 15-20 m for cattle, 25-35 m for sheep, and the width of the cattle arable roads inside the pasture will be 8-10 m.

Conclusion. Lot plots and enclosed areas connect farms, complexes, summer camps, and water springs with cattle drives. Cattle drives are designed at the same time as the design of lots and areas where cattle are reared. Their location is determined by the territorial location of the meadow massif and the plot of the herd, their area and distance from farms, the existing organization of the territory and its engineering equipment. Cattle drives are passed through flat, dry areas, High elements of relief and lightly water-permeable soils, rough terrain for cattle to walk

at the shortest distance. It is not necessary to place them on swampy plots, on steep slopes, in the edges of streams and ravines. It is impossible to combine them even with Inter-farm and highway roads, so as not to damage traffic, not to spoil and contaminate road covers, to prevent the spread of infectious diseases. They cannot be placed near a cattle cemetery and insulators. They should be arranged in a straight line, without sharp turns.

References

- [1] Sultanovich A. A. STAGES OF THE FORMATION OF THE LAND MARKET, THE MAIN DIRECTIONS OF ITS DEVELOPMENT AND SOCIO-ECONOMIC IMPORTANCE //Ann. For. Res. – 2022. – T. 65. – №. 1. – C. 9151-9163.
- [2] A.P, B., & S.B., R. (2021). The Current State Of The Use Of Lalmi Crop Land And The Main Directions Of Their Improvement. The American Journal of Agriculture and Biomedical Engineering, 3(03), 39-45. <https://doi.org/10.37547/tajabe/Volume03Issue03-07>
- [3] Muratovich, MukumovAbdugani and Alikulovich, Usmanov Yusuf and Sobir, Ruziboyev. (2020). The ways to increase the efficiency of dekhan and household plots. International Journal of Psychosocial Rehabilitation, 24(03).
- [4] AR Babajanov, MD Mahsudov. Diversification of land fund in the district. Monograph. LAP Lambert Academic Publishing, 77-78
- [5] Avezbayev S. et al. Determination of rational areas of irrigated plots in saline and subjected lands to irrigation erosion //IOP Conference Series: Materials Science and Engineering. – IOP Publishing, 2020. – T. 883. – №. 1. – C. 012059.
- [6] Samosa R. C. et al. Methodology for Determining the Costs of Environmental Protection Measures in Land Management //European Journal of Life Safety and Stability (2660-9630). – 2021. – T. 10. – C. 39-45.
- [7] Bangayan-Manera A. et al. Problems of Cadastral Evaluation of Land Intended for Non-Agricultural Purposes //European Journal of Life Safety and Stability (2660-9630). – 2021. – T. 10. – C. 34-38.
- [8] Sayfuddin S., Muhammadbek M. Working Projects of Disturbed Land Recovery-As a Method of Land Protection //Academic Journal of Digital Economics and Stability. – 2021. – T. 9. – C. 80-84.
- [9] Abdurashid A., Muhammadbek M. Regulation of the Diversification of the Use of the District Land Fund through the General Scheme //Design Engineering. – 2021. – C. 2565-2581.

- [10] Altiev, A., & Mahsudov, M. (2020). Improvement of the regulation mechanisms of the land use diversification. *International Journal of Pharmaceutical Research*. ISSN, 9752366.
- [11] Sultanovich, A. A., & Ugli, M. M. D. (2019). Methods of forecasting and management of land fund diversification in local areas. *International Journal of Recent Technology and Engineering*, 8(3), 403-411.
- [12] Altiev, A. S., & Mahsudov, M. D. (2019). REPRODUCTION CYCLE OF LAND. *Central Asian Problems of Modern Science and Education*, 3(4), 96-102.
- [13] Alikulovich, U. Y. (2020). Mechanisms Of Establishing The Use Of Irrigated Land In The Degradation State In The Conditions Of Land Use Diversification. *The American Journal of Agriculture and Biomedical Engineering*, 2(09), 77-84. <https://doi.org/10.37547/tajabe/Volume02Issue09-13>
- [14] Abdurshid, A., & Muhammadbek, M. (2020). IMPROVING THE REGULATION OF THE DIVERSIFICATION OF LAND USE IN THE TERRITORY