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Fodder Value and Use of Bulbbar Barbar for Pure and Mixed Seeds with Catran Perfect Under Conditions of Adyr Of Uzbekistan

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Abstract: *When introducing into the culture of a wild fodder plant, it is necessary to study and characterize its forage advantages in detail. For this, first of all, it is necessary to study the chemical composition of the plant fodder mass, determine the amount of nutrient organic substances and their digestibility, silage, etc. only then can conclusions be drawn about the possibility and expediency of its use, introduction to culture.*

Keywords*: Fedder Value, Bulbbar Barbar, Uzbekistan*

Introduction

Onion barley and pleasant katran have been studied to a certain extent in clean crops. The literature contains information on the chemical composition of each plant [1, 75-s., 2, 20-s., 3, 333-s.].

According to L.S. Ivanova [8, 11-12-s.], B.S. Likhachev, N.V. Leonova, V.V. Osmolovsky, A.N. Kistnev [11, 31-35-s.] Onion barley is well eaten to ear by most farm animals.

According to the results of studies by E.A. Bekmukhamedov, A.A. Torekhanov [4, 304-s.], In the air-dry mass of barley grass 10.2% protein, 2.4 fat, 21.9 fiber, 7.4 BEV , 17.73 spare polysaccharides, 8.50 soluble sugars, including reducing -1.49 and sucrose-7.01.

According to NP Goncharov [5, 561-574-s.], The onion barley hay from Varzob gorge had the following chemical composition (%) water -14.0; protein - 12.4; fat -2.0; fiber -19.2; Bev -47.6; ash -4.8. 100 kg of such hay contains 59 feed units of 6.8 kg of digestible protein.

N.A. Ibadov, N.A. Amirkhanov, I.N. Janulionis [7, 276-285-s.] Showed that a significant amount of crude protein and fat is contained in the green mass of pleasant katran. Moreover, the highest protein content was noted (% on absolutely dry matter) in the budding stage (28.8%), the lowest (15.2%) - in the fruiting phase. The aboveground mass of katran exceeds alfalfa hay in calcium and phosphorus. The analysis showed that the content of potassium and phosphorus in alfalfa hay does not exceed 1.6% and 0.18%; in the green mass of catran pleasant 2.9 and 0.94%, respectively.

The nutritional value of 1 kg of pleasant Katran hay is 0.45 feed units. As feed, katran seeds can be used. After extraction of fat from seeds, the cake is obtained, which contains up to 58.1% of protein substances, which gives the right to consider it a protein concentrate that is not inferior to soy (29.4-50.4%).

Thus, the chemical composition of onion barley hay, as a rule, is characterized by a high content of polysaccharides (17.73), there is relatively little protein in it (10.2-12.4%). Katran is pleasant, on the contrary, contains a significantly larger amount of protein (up to 25-28%) and less carbohydrates. In this regard, we carried out joint sowing of pleasant katran and onion barley to obtain feed and mass of the best quality, where protein, carbohydrates, and other nutrients would be sufficient. We studied the chemical composition of the forage mass of onion barley in clean and mixed crops with katran. The dynamics of the content of nutrients was studied depending on the phase of plant development.

The first chemical analyzes were carried out to determine the hygroscopic moisture content in the feed mass (% on absolutely dry matter):

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Vegetation phase			
Tillering	heading	bloom	seed content
seed content)			
6,86	6,68	9,43	9,56
Onion barley - pleasant katran (mixed sowing)			
7,8	10,33	9,63	9,88

The hygroscopic moisture content varies depending on the phase of plant development. In the feed mass of onion barley in clean crops, the maximum content of hygroscopic moisture is observed in the phase of flowering and ripening of seeds (9.43-9.56%). In the phase of tillering and heading, the amount of moisture is much less (6.68-6.86%).

When determining the nutritional value of the feed mass, it is important to have data on the organization and ash composition of plants. The results of a chemical analysis of the forage mass of onion barley in pure and mixed with katran pleasant crops are presented in Table 1.

Table 1: The chemical composition of onion barley and pleasant katran in clean and mixed crops

Sample	Flowering phase	Flowering phase	Ash	Fat	Fat	Protein	BEV	Mannose	Sucrose
Onion barley	tillering	6,68	13,22	3,75	31,10	11,34	40,59	4,20	2,73
	heading	6,68	9,14	2,89	36,00	8,09	43,08	4,03	2,41
	bloom	9,43	10,93	2,76	38,00	11,97	36,34	6,51	4,62
	seed ripening	9,53	11,42	3,40	37,00	10,15	38,03	6,51	3,57
Onion barley + katran pleasant	tillering	7,80	15,70	7,17	26,00	12,37	39,29	8,18	6,30
	heading	10,33	10,17	4,30	30,00	11,97	41,56	7,14	1,68
	bloom	9,63	13,87	2,89	31,82	15,16	36,29	3,57	2,31
	seed ripening	9,88	12,00	3,28	31,40	10,43	42,89	7,98	5,67
Flakeless barley seeds		11,68	9,83	1,95	23,90	16,30	48,02	6,84	4,73
Barley seeds with scales		10,72	5,72	2,05	35,40	9,29	47,21	6,21	4,23
Bulbs of barley onion		10,52	9,35	3,54	18,00	7,41	60,70	5,42	3,70

The forage mass of onion barley (in clean crops) contains the largest amount of protein (11.9%) in the flowering phase, the smallest (8.09%) in the heading phase. The maximum ash and fat content is observed during tillering (13.22-3.75%). Bev most of all (43.98) in the earing phase. During the flowering period, the amount of fat and BEV decreases (2.76-36.34%).

In the feed mass of mixed crops, where pleasant katran amounted to 35% of the total mass of grass, the protein content noticeably increases (in the flowering phase) to 15.16%, while in the feed mass of pure barley crops its amount did not exceed 11.97%. The same pattern is observed in relation to other nutrients (fat, fiber, BEV).

Thus, as shown by the analyzes, the nutritional value of the fodder mass of barley during joint sowing with pleasant katran significantly increases due to an increase in the protein content in the first place. In the second year of vegetation, when pleasant Katran starts reproduction and its green mass increases in the total herbage of mixed crops, the amount of protein and other nutrients in the total feed mass is much larger. All this testifies to the prospect of conducting mixed crops of onion barley with katran not only pleasant for increasing the yield of fodder mass, but also for increasing its forage advantages.

One of the most important indicators of the usefulness of fodder plants is their vitamin content. The body needs a number of vitamins with food. The absence of the latter causes a deep disturbance in the metabolic processes and leads to a serious illness - vitamin deficiency, which often ends in the death of animals.

When studying the composition of the green mass of barley in clean and mixed crops with pleasant katran, we determined the presence of vitamin C (ascorbic acid) and provitamin A (carotene) in them. In addition, we studied the dynamics of vitamins in a plant depending on the phase of vegetation in order to recommend the most rational terms for mowing green mass for food.

The content of vitamin C in plants, according to published data, varies depending on various factors, including the phase of plant development. Some plants are characterized by a high content of ascorbic acid in the early stages of development [12, 203-s.], While others, like fenders, consider its significantly smaller amount at the end of the

growing season [4, 304-s., 6, 21-24-s.] , that the dynamics of vitamin C depending on the phase of plant development requires further research, since there is no consensus on this issue. According to the instructions of VA Kolesnikov [10, 17-19-s.], The accumulation of ascorbic acid, glucosides and tannins in the wormwood depends not only on the vegetation phase, but also on the growing conditions.

The dynamics of vitamin C in onion barley is not well understood. Literary information on this issue is very insignificant.

The results of our studies showed (Table 2) that the amount of ascorbic acid in the fodder mass of bulb barley both with clean and mixed crops with katran varies during the vegetation phases, and gradually increases from the tillering phase to the heading phase (5.22-5, 57 mg%). During the heading period, the amount of vitamin C decreases in barley of clean crops to 3.83 mg%, by the end of the growing season to 5.05 mg% when the seeds ripen.

In mixed crops of barley with katran in the dynamics of accumulation of vitamin C, the same pattern is observed as in pure crops of barley, however, the amount of vitamin C in this case increases significantly. Depending on the phase of development, the amount of vitamin C in the green mass of mixed crops ranges from 5.92 to 6.61 mg / kg.

The carotene content in the aerial parts of plants is not constant and varies depending on the phase of vegetation. So, N.A. Ibadov, N.A. Amirkhanov, N.N. Yanulionis [7, 276-285-s.] Notes that the largest amount of carotene in the aerial parts of wheatgrass before flowering, and by the time of yellowing of the leaves it decreases in 2.5 times. According to V.I.Dmitriev et al. [6, 21-24-s.], The highest carotene content in the leaves of some varieties of skewer is observed in the phase of mass flowering.

I.A. Karimova, I.S. Belyuchenko [9, 92-94-s] indicate that carotene accumulates in the green parts of plants during the period of greatest photosynthesis, but then its content increases even more (up to 5.05%), to At the end of the growing season, its amount decreases sharply. The authors attribute this to the fact that carotene, which accumulates in the aroma and chloroplasts of plant cells, is actively involved in the processes of photosynthesis.

The results of analyzes of the carotene content in the feed mass of barley in pure and mixed with quatran crops are given in table 2

Table 2: The content of vitamin C and carotene in the forage mass of onion barley in clean and mixed crops (% on absolutely dry matter)

Culture	Culture	Vitamin C mg /%	Carotene mg / kg
Onion barley	**Onion barley**	**5,22**	**2,080**
		3,83	**4,16**
		5,57	**1,248**
		5,05	**4,570**
Onion barley + katran pleasant	**Onion barley + katran pleasant**	**6,61**	**1,040**
	Culture	**5,92**	**8,32**
	Onion barley	**6,44**	**2,068**
		5,92	**8,32**

The carotene content, as can be seen from Table 2, in the feed mass in mixed crops in the phases of heading and ripening of seeds is much higher than in pure. At the same time, in both samples of the fodder mass, the carotene content gradually increases from the beginning of the growing season to the phase of heading and ripening of seeds (1,040-8,32 mg / kg).

Ripening of Silage and Silage from Barley-Katrana Mixture and their Quality

In the country's livestock farms widely use new advanced technologies for the production, procurement, conservation and storage of various types of feed. A particularly large effect was obtained when applying such methods of preparing feed for feeding, silage, haylage and grass meal.

Silage is one of the most common and reliable methods of preserving, which allows you to save feed with minimal losses and properties close to the feedstock. At the same time, not only the valuable properties of green plants are preserved [6, 21-24-s.], But their nutritional qualities are also improved, many types of herbs become edible, and some dangerous plants are harmless to animal health. In addition, silage makes it possible to provide livestock with high-quality juicy feed throughout the year.

In recent years, everywhere in our country and abroad, more and more attention has been paid to increasing haylage, which is due to many positive factors. Firstly, unlike silage, any forage grasses can be used for haylage regardless of their sugar content, moreover, several times more sugar is stored in haylage than in silage, and protein safety is improved. Hay production makes it possible to additionally obtain 1.0-1.5 thousand feed units and 350-500 kg of variable protein per hectare [2, 20-s.].

Herbal flour is also a valuable protein-vitamin concentrated feed in the diet of farm animals.

Currently, the green mass of species of the genus Katran is used for silage [6, 21-24-s., 7, 276-285-s.]. Many authors recommend silage of katran with drier carbohydrate feeds [1, 75-s., 7, 276-285-s.].

We have studied the possibilities of preparing silage and haylage from onion barley in clean and mixed crops with katran. We have laid down various options for experiments on siloing and senazhany green mass of barley in its pure form and with a katran (table 3).

Onion barley is well silted and senzed both in pure form and in a mixture with katran. In all variants of the experiment, a silo prepared from a barley-katran mixture received 10 points, and haylage 8–9 and a good mark.

The data on the chemical analysis of silage and haylage of barley-katran fodder mass are presented in Table 3.

The content of protein and other nutrients in the silage is greater than in the silage, which indicates the best quality of silage. The acid content in the silage and haylage of barley-katran fodder mass showed that haylage is a better feed than silage (Table 4).

Table 3: The results of assessing the quality of silage and haylage of onion barley and pleasant katran in clean and mixed crops

Experience option	pHthe soil	ball	Smell	ball		Colour	Total points	Overall rating
Silage								
Barley	4,3	4	flavored bread, fruit	4	green	3	11	very good
Barley (70%) + Katran (30%)	4,3	4	acetic acid	3	gree	3	10	very good
Barley (60%) + Katran (40%)	4,5		acetic acid	3	green	3	10	very good
Barley (50%) + Katran (50%)	4,5		уксусно-кислый	3	dark green	3	10	very good
Barley (40%) + Katran (60%)	4,6		уксусно-кислый	3	dark green	3	10	very good
Barley (30%) + Katran (70%)	4,6		уксусно-кислый	3	dark green	3	10	very good
Haylage								
Barley	5,0	2	fragrant, fruit bread	4	light brown	3	9	Good
Barley (70%) + Katran (30%)	5,3	2	fruit bread	4	green	3	9	Good
Barley (60%) + Katran (40%)	5,4	2	fruit bread	4	green	3	9	Good
Barley (50%) + Katran (50%)	5,2	2	fruit bread	4	yellowish greenish brown	2	8	Good
Barley (40%) + Katran (60%)	4,9	2	fruit bread	4	brown green	2	8	Good
Barley (30%) + Katran (70%)	4,9	2	fruit bread	4	dark green	3	9	Good

Table 4: The chemical composition of silage and haylage from onion barley and barley together with the quatran (nutrient content,%)

Experiment option	protein	fat	Cellulose	BEV	Ash	Water (total.)
Silage						
Barley	4,88	1,70	7,84	11,00	1,58	73,00
Barley (70%) + Katran (30%)	4,80	1,62	7,80	10,30	1,78	73,00
Barley (60%) + Katran (40%)	4,80	1,58	7,00	9,80	2,22	74,60
Barley (50%) + Katran (50%)	4,72	1,40	7,60	10,50	1,78	74,00
Barley (40%) + Katran (60%)	4,40	1,42	8,30	9,00	1,70	75,20

Barley (30%) + Katran (70%)	4,08	1,50	7,90	8,70	1,52	76,30
Haylage						
Barley	6,93	1,75	13,88	23,00	3,04	51,40
Barley (70%) + Katran (30%)	6,54	1,60	13,67	23,30	4,57	50,20
Barley (60%) + Katran (40%)	6,57	1,63	12,80	23,00	6,40	49,60
Barley (50%) + Katran (50%)	6,06	1,45	12,40	25,00	5,50	49,60
Barley (40%) + Katran (60%)	5,62	1,38	12,45	25,74	6,00	48,80
Barley (30%) + Katran (70%)	5,28	1,37	12,86	24,00	4,39	52,10

According to the analysis of feeds, it can be concluded that when preserving the feed mass of barley-katran haymaking, it is more expedient to carry out haying, as haying is more nutritious than silage.

Freshly eaten barley of fresh bulbous Karakul sheep

The experience was provided by Jam farms. Therefore, to find out to what extent freshly cut onion barley is eaten by sheep. Three sheep of the Karakul breed at the age of three years, a strong constitution and average fatness were selected for the experiment. When setting the experience

The animals were clinically healthy. The pulse, respiration and body temperature were determined by conventional methods. Observations showed that the experimental animals were within the physiological norm.

Table 5: The acid content in the feed mass of barley and katran in pure and mixed crops (% in natural material)

Experiment options	Ammonia	Dairy	Vinegar		Oil		Total acids	Acid ratio		
			free	dependant	free	dependant		dairy	Vinegar	Oil
Silage										
Barley	0,072	2,04	0,88	0,08	-	0,07	3,07	66,40	31,30	2,30
Barley (70%) + Katran (30%)	0,070	1,75	0,98	0,08	-	0,12	2,88	60,70	35,1	4,20
Barley (60%) + Katran (40%)	0,070	1,03	0,77	0,06	0,65	0,09	2,00	51,50	41,5	4,00
Barley (50%) + Katran (50%)	0,064	0,98	0,81	0,05	0,05	0,05	1,94	50,5	44,3	5,20
Barley (40%) + Katran (60%)	0,060	0,73	0,89	0,09	-	-	1,71	42,7	57,3	-
Barley (30%) + Katran (70%)	0,060	1,14	0,70	0,02	0,65	0,07	1,98	57,5	36,3	6,2
Haylage										
Barley	0,055	0,88	0,41	0,04	-	-	1,30	67,7	32,3	-
Barley (70%) + Katran (30%)	0,052	0,71	0,43	-	-	-	1,14	62,3	37,7	-
Barley (60%) + Katran (40%)	0,050	0,77	0,43	0,08	-	-	1,28	60,1	39,9	-
Barley (50%) + Katran (50%)	0,050	0,50	0,42	0,01	-	-	0,83	60,2	39,8	-
Barley (40%) + Katran (60%)	0,050	0,44	0,42	0,72	-	-	0,87	50,5	49,5	-
Barley (30%) + Katran (70%)	0,047	0,51	0,44	0,01	-	-	0,96	53,1	46,9	-

On colder days, sheep are more willing to eat roughage than on warm and hot ones. In order to characterize and influence external factors on the eatability of the same feed, in experiments we observed the air temperature three times a day - at 7, 13, 19 hours. The average morning air temperature for the entire period of the experiment was 18-22^0 ,daytime -28-30^0 ,night time- 18-21^0.

Before setting up an experiment on feeding freshly cut barley onion, sheep received dry alfalfa hay and concentrate in the daily diet. During the five days of the preliminary period, the sheep received green food with a basic diet. With a decrease in the amount of main feed, the supply of green feed in the daily diet increased accordingly.

Freshly cut barley and alfalfa were fed to the sheep 2 times a day - at 9 and 17 hours, the watering was double. The duration of the experimental period for feeding green feed was six days. At the beginning of the experiment, freshly cut onion barley in the heading phase in the amount of 5 kg and green alfalfa in the amount of 3 kg were fed to the sheep. then the barley content was increased to 8 kg, and alfalfa was reduced to 1 kg. In the last two days of the experiment, the sheep ate exclusively freshly cut onion barley. Over the period of the experiment, eatability averaged 84.7% for barley and 89 for alfalfa. The green onion barley used in the experiment had an initial moisture content of 74.5% (Table 6).

Table 6: Eatability by three sheep of barley onion, freshly cut in the phase of heading and fresh alfalfa

Day may	Weight of given barley		Alfalfa Preset Weight		Eatability percentage	
	it was given, kg	residue g	was given, kg	balance, gr	barley	alfalfa
11	6	600	3	400	84	47
13	6	900	3	300	85	90
13	8	1900	1	100	72,5	90
14	9	1200	0	0	75,5	0
15	10	1200	0	0	90	0
16	12	1200	0	0	90	0
average					83,5	89,0

The same experiments were carried out on feeding barley onion, mowed in the phases of tillering and ripening of seeds. They showed that the high eatability of onion barley (94-3.22%) is observed at the tillering stage, and at a later mowing period, it decreases correspondingly (84.7-75.13%)Due to the fact that the maximum accumulation of fodder mass in barley is observed at the stage of heading and flowering, it is advisable to mow feeding at the heading stage, when the eatability is quite high (84.7%). Almost the same percentage of eatability was observed when feeding onion barley mixed with pleasant katran.

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