IN THE STABILITY OF THE POPULATION OF GOOSE VARIETIES AND RIDGES, THE ROLE OF BREEDING AND CORRELATION COEFFICIENTS OF CERTAIN MORPHOCHOLIC SIGNS

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ANNOTATION

Quantitative signs can be divided into two groups according to their heredity: the first group of signs (productivity and number of coals) is influenced by a large number of polygens, which manifest the effectiveness of strong epistatic and dominant alleles. Paratipic variants in this case are high, with a low degree of heredity. The second group of signs (breast enlargement, fiber length and output, etc.)) controlled by a low number of polygens with a weak effect. The paratipic variant in this case is somewhat smaller and the heredity is somewhat higher. As can be seen from the data obtained in our experiments, the degree of equilibrium of the sign in different soil-climatic conditions is variable, and the influence of genes on the development of the sign is changing. Under the influence of adaptation to the conditions of the external environment, there is a shift in indicators to a positive one.The fiber output sign has a relatively high degree of heredity within most polygenic signs.

It is known that as a result of the pleyotropic effect of non-allele genes or the combined heredity of genes, there is a mutual negative or positive relationship between certain signs. It was found that in all the studied varieties and ridges, the correlation coefficient between fastness and yield showed variable value in the intergroup positive and negative state over the years and did not obey a certain law, differed in different soil and climatic conditions, albeit slightly. A similar situation was noted on the correlation between the weight of cotton in one breast with the frequency. Among the studied signs on the variety and ridges, a weak and moderately negative correlation coefficient was observed in most cases.

Keywords: goose, G.hirsutum L., popularization, external environment, variability, character, generation-to-generation, modification, population variability, correlation, uniformity.

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INTRODUCTION

The researchers propose to divide quantitative signs into two groups according to their heredity: the first group of signs (productivity and number of coals) are influenced by a large number of polygens, which manifest the effectiveness of strong epistatic and dominant alleles. Paratipic variants in this case are high, with a low degree of heredity. The signs of the second group (breast enlargement, fiber length and output, etc.) are controlled by low-number polygens with a weak effect. The paratipic variant in this case is somewhat smaller and the heredity is somewhat higher (Simongulyan et al., 1980, 1987).

T.Guliev, J.According to the results of scientific studies Shodmonov (2004), they divided the level of correlative connections between valuable and economic signs of Goza into three groups. According to him, the first group includes strongly linked signs - the weight of cotton in the chest and the

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number of seeds in it, the second group, moderately linked signs - fiber output and fiber index, the third group of weakly bound signs - fiber length, the weight of 1000 seeds.

B.Alashav, Sh.Ibragimov, P.Ibragimov, E. Shadraimovs (2007) noted that they observed that their fiber would become coarser as the support grew in the goose plant. They also mentioned that the correlative relationship between the valuable farm characters of the goose and characters such as cotton weight, fiber length and fiber output in a single breast shifted relatively positively in families obtained by simple hybridization.

The goose is considered a plant with complex morphobiological and valuable-economic signs. It is known that as a result of the pleyotropic effect of non-allele genes or the combined heredity of genes, there is a mutual negative or positive relationship between certain signs. In Goose selection, the importance of eliminating negative correlations is great, and in this way several positive signs can be embodied in one genotype. In the genetics of populations, it has been observed in many cases that the links between signs are subject to the law or give reverse correlation. Sometimes, when analyzing groups or communities within a population, there were cases of correct or reverse correlation between groups or among the signs of selected populations in the Inter-year period. The large reserve of mutations in the heterozygous state in the population increases its flexibility based on changes in its genetic composition (Toychiev, 2010).

Numerical indicators of all studied signs, correlation coefficient B.A.Dospekhov (1985) and S.Using the formulas presented in the work of Xu (2002), mathematical processing was carried out in the MS-Excel program and statistical analysis was carried out. The ratio of genotypic variance to total phenotypic variance is the coefficient of the character's succession from generation to generation (h2) Allard R.W. (According to 2012) determined according to the formula presented in their work.As a source of our research, the G.hirsutum L. as a species of luck, The Varieties Akkurgan-2, S-01, Bukhara-6 and Bukhara-102, L-001 and T-100 were obtained (Khalikova et all, 2021).

From the studied signs, the coefficient of hereditary predisposition of the height of the head stem was equal to 0.46 in the Navoi conditions of 2009, and this indicates that its degree of manifestation, depending on the genotype, is 46.0%. 54.0% of the manifestation of the sign was influenced by the conditions of the external environment. In 2010, these figures were 0.50; 50.0% and 50.0%, respectively, and in 2011-0.62; 62.0% and 38.0%. In the conditions of the Tashkent region, the manifestation of a somewhat balanced character in the territory of origin was distinguished. In 2009, the breeding coefficient of the height of the head stem was equal to 0.67, in 2010-0.68, and in 2011-0.71. This indicates that in the manifestation of the sign, the effect of the genotype is stronger. This trend has also been preserved in other varieties and ridges (Table 1).

The degree of crossbreeding in varieties and ridges was formed in 2009 with the participation of 64.0% genes, showing 0.64 results in the conditions of the Navoi region. In 2010, this figure was 0.66, and in 2011-0.71. In the varieties and ridges studied in the conditions of the

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Tashkent region, the rate of rapid breeding was equal to 0.73 in 2009, 0.76 in 2010, and 0.74 in 2011.

The coefficient of plant productivity in the conditions of Navoi region was equal to 0.43 in 2009, 0.54 in 2010, 0.52 in 2011. When this indicator was studied in the fields of PSUEAITI, a result was recorded, which was equal to 0.58; 0.57 and 0.67, respectively. As can be seen from these, in different soil-climatic conditions, the degree of equilibrium of the sign is quite variable, and the influence of genes on the development of the sign changes. Under the influence of adaptation to the conditions of the external environment, there is a shift in indicators to a positive one.

1-table.**Breeding of morphobiological and economic signs in Goose varieties and ridges**

Characters	2009 y	2010 y	2011 y
	h^2		
Navoiregion			
Headstemheight, cm	0,46	0,50	0,62
Frequency, day	0,64	0,66	0,71
Oneplant productivity, g	0,43	0,54	0,52
	0,71	0,73	0,80
Fiberoutput, %	0,34	0,37	0,58
Fiberlength, mm			
Tashkentregion	0,67	0,65	0,68
Headstemheight, cm	0,73	0,76	0,74
Frequency, day	0,58	0,57	0,67
Oneplant	0,81	0,87	0,85
productivity, g	0,56	0,61	0,65

The fiber output sign has a relatively high degree of heredity within most polygenic signs. In our experiments in Navoi region, it was found that the coefficient of reproduction by the sign of fiber output was 0.71 in 2009, 0.73 in 2010, and 0.80 in 2011. In experiments at PSUEAITI, the coefficient of inheritance by character was 0.81 in 2009, 0.87 in 2010, and 0.85 in 2011.

The breeding coefficient of fiber length was 0.34 in Navoi region in 2009, 0.37 in 2010, and 0.58 in 2011. The indicators of the coefficient of breeding by this sign in experiments in PSUEAITI were 0.56 in 2009, 0.61 in 2010, and 0.65 in 2011. The data obtained as a result of the popularization analysis showed that the genetic composition of the population in terms of fiber length is variable, and at the expense of flexibility, there was an increase in homeostasis in it. This indicates that the influence of genes and the external environment varies in the transfer of the studied characters from generation to generation.

Valuable in Goose varieties and ridges-mutual correlation of economic signs. The links between the length of the fiber and the weight of cotton in one breast were studied, in which in the conditions of Navoi region in 2009 the result was R=-0,2

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in the good luck variety, R=0,3 in the Swan 2 Variety, R=0,3 in the Bukhara-6 variety, r=0,3 in the Bukhara-102, R=0,1 in the In this case, a relatively positive correlation was determined, which is less significant at the level of probabilities in the S-01 and Bukhara-102 varieties. In 2011, these indicators were at the level of R=0.14 in the lucky variety R=0.18 Swan 2, R=0.2 in the Bukhara-6 variety, r=0.12 in the Bukhara-102, R=0.0 in the T-100 range, R=-0.4 in the S-01 Variety, R=0.10 in the L-001 range. In all materials, it was found that these results have a weak positive bond that is not significant at the level of probabilities (R≥0.05) (Table 2).

In the conditions of the Tashkent region in 2009, the links between the length of the fiber and the weight of cotton in one breast are r=-0,07 in the lucky variety, R=-0,02 in the Swan 2 Variety, R=-0,16 in the Bukhara-6 variety, r=-0,16 in Bukhara-102, R=-0,11 in the T-100 Ridge, R=-0,1 in the S-01 it was determined that he had a correlation.

For three years, exiting a group of low-performance plants also had a certain effect on the genetic Binding of signs, and by 2011 it was noted that the correlation coefficient had positive indicators. In 2011, these indicators showed R=0.09 in the lucky variety R=0.05 Swan 2, R=0.0 in the Bukhara-6 variety, r=0.01 in the Bukhara-102, R=0.07 in the T-100 range, R=0.1 in the S-01 Variety, and R=-0.02 in the L-001 range.

2-table. **Correlation between some valuable-farm characters with fiber length**

T/p	Varieties and ridges	With fiber length					
		cotton weight in one breast		fiber output		frequency	
		2009	2011	2009	2011	2009	2011
		r	r	R	r	r	r
Tashkent region							
1.	Omad	-0,2	0,18	-0,13	0,10	-0,01	-0,09
2.	Okkurgon2	-0,3	0,14	-0,22	0,17	-0,15	-0,1
3.	Bukhara-6	-0,3	0,2	-0,08	0,2	0,20	0,13
4.	Bukhara -102	0,1	0,12	-0,07	0,14	0,16	-0,2
5.	T-100	-0,1	0,0	-0,10	0,24	-0,04	-0,04
6.	C-01	0,3	0,4	0,08	0,2	0,13	-0,07
7.	L-001	-0,08	0,10	-0,11	0,11	-0,3	-0,06
Navoi region							
1.	Omad	-0,07	0,05	-0,07	0,07	0,08	-0,2
2.	Okkurgon2	-0,02	0,09	-0,1	0,1	0,21	-0,08
3.	Bukhara-6	-0,16	0,0	-0,21	0,02	-0,03	-0,10
4.	Bukhara -102	-0,11	0,01	-0,22	0,04	-0,12	-0,03
5.	T-100	-0,1	0,07	-0,17	0,12	-0,22	-0,17
6.	C-01	0,07	0,1	-0,02	0,24	0,29	-0,21
7.	L-001	-0,02	-0,02	-0,12	0,08	0,09	-0,18

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$^{*}P\leq0,05$; $^{**}P\leq0,01$; $^{***}P\leq0,001$

Fiber output with fiber length is considered to be signs located close to each other on chromosomes, and an increase in one depending on the participation of recessive or dominant polygens in the genetic control of signs leads to a decrease in the indicator of the other. Even in our experiments, the above points found their confirmation. However, here the differences in the range of probabilities have depended on the cultivation regions of the varieties. In the first year of observations in soil and climatic conditions of Navoi region, R=-0.13 in the lucky variety, R=-0.22 in the Swan 2 Variety, R=-0.08 in the Bukhara-6 variety, R=-0.08 in the Bukhara-102, R=-0.07 in the T-100 range, R=-0.10 in the S-01 Variety, R=0.08 in the L-001 range, the correly coefficient of R = -0.11 was calculated. By 2011, the indicators were manifested as follows: R=0.10 in the lucky variety, r=0.17 from the Swan 2 Variety, r=0.2 in the Bukhara-6 variety, r=0.14 in the Bukhara-102, R=0.14 in the T-100 range, R=0.24 in the S-01 Variety, R=0.2 in the L-001 range.

In the specific soil and climatic conditions of the Tashkent region, the degree of correlation between the signs was manifested as follows: in 2009-in the lucky variety r=-0,07, in the Swan 2 Variety R=-0,1, in the Bukhara - 6 variety R=-0,21, in Bukhara-102 R=-0,22, in the T-100 Ridge R=-0,17, in the S-01 Variety R=-0,02, in the L-001 the correlation coefficient was calculated. As of 2011, the indicators were manifested as follows: R=0.07 in the lucky variety, R=0.1 in the Swan 2 Variety, r=0.02 in the Bukhara-6 variety, r=0.04 in the Bukhara-102, R=0.12 in the T-100 range, R=0.24 in the S-01 Variety, R=0.08 in the L-001 range.

Between fiber length and fastness, negative correlations of relatively low levels are noted in most cases. In 2009, in the conditions of Navoi region, a relatively low correlation was noted in most cases between fiber length and speed. In particular, R=-0,01 in the lucky variety, R=0,15 in the Swan 2 Variety, R=-0,20 in the Bukhara-6 variety, R=0,16 in the Bukhara-102, R=-0,04 in the T-100 range, R=0,13 in the S-01 Variety, R=-0,3 in the L-001 range, the correlation coefficient of R = -0,3 was calculated. As of 2011, the indicators were manifested as follows: R=-0.09 in the lucky variety, r=-0.1 from the Swan 2 Variety, r=0.13 in the Bukhara-6 variety, r=-0.2 in the Bukhara-102, R=-0.04 in the T-100 range, r=-0.07 in the S-01 Variety, R=-0.06 in the L-001 range.

In the second comparative area, the correlation between fiber length and fastness was noted as follows: R=0.08 in the lucky variety, r=0.21 from the Swan 2 Variety, r=-0.03 in the Bukhara-6 variety, r=-0.03 in the Bukhara-102, R=-0.12 in the T-100 Ridge, R=-0.22 in the S-01 Variety, r=0.29 in the L-001 Ridge. The degree of correlation recorded among the above signs varied by varieties. As a result of several years of competitions carried out among low-performance groups, by 2011 there were positive changes in the population of varieties and ridges. That is, the indicator of the correlation coefficient was completely negative, although lower. This indicates that in the population of varieties and ridges, the fiber length is high, and the number of fast-growing plants has stabilized.

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Between the fiber output in the studied grain varieties and ridges and the weight of cotton in one breast, initially mostly weak negative correlations were recorded (Table 3). And by 2011, the correlation level had a weak positive indicator.

Correlation of fastness with productivity. Among the studied morphobiological and valuable-economic signs, indicators of speed and productivity are of particular importance.From this, the study of the relationship between these two signs and the scientific justification of this connection is important in showing the formation of the population genetic makeup.

In the course of our research, the correlation between speed and productivity of one plant showed a weak negative correlation (p≥0.05) in the Navoi region in 2009, when R=0.09 gave a weak negative result, in 2011, in contrast to the previous result, R=-0.02 (p ≥ 0.05), showed a weak negative correlation, and it was found that thereThe correlation coefficient of the studied signs in the Swan-2 Variety was r=-0.09 (P≥0.05) in 2009, that is, weak negative, and in 2011 it turned out that r=0.0 is insignificant.

3-table. **Correlation between fiber output and some signs**

Varieties and ridges	Fiber output			
	1 breast cotton weight		Frequency	
	2009	2011	2009	2011
	r	r	r	r
Navoi region				
Omad	-0,15	0,14	-0,16	0,13
Okkurgon2	-0,11	0,04	-0,2	0,1
Bukhara-6	0,12	0,18	-0,14	0,07
Bukhara -102	-0,03	0,13	-0,23	-0,1
T-100	-0,14	0,12	-0,15	0,09
C-01	-0,03	0,11	-0,11	0,2
L-001	0,1	0,17	-0,08	0,12
Tashkent region				
Omad	-0,15	0,19	-0,16	0,11
Okkurgon2	-0,07	0,11	0,07	0,10
Bukhara-6	-0,17	0.08	-0,21	-0,11
Bukhara -102	0,13	0,14	-0,18	-0,08
T-100	-0,05	0,16	-0,13	0,17
C-01	0,04	0,2	-0,21	0,16
L-001	-0,08	0,1	-0,16	-0,04

4-table. **Correlation between speed and some farm characters**

Varieties and ridges	Frequency			
	Plant productivity,		Weight of cotton on one breast	
	2009 y	2011 y	2009 y	2011 y

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	r	t_r	r	t_r	r	t_r	r	t_r
Navoi region								
Omad	0,09	1,51	-0,02	0,61	-0,01	-0,49	0,05	1,14
Okkurgon2	-0,09	-1,52	0		-0,02	-0,7		-
Bukhara-6	-0,06	-1,23	0,12	1,8	0	0,07	-0,01	-0,44
Bukhara-102	0,05	0,98	0		-0,18	-1,99	0	
T-100	0,02	0,58	0,05	1,1	-0,01	-0,32	-0,03	-0,75
C-01	0	0,09	-0,02	-0,62	-0	-0,25	0,02	0,71
L-001	0,01	0,39	-0,10	-1,61	-0,03	-0,75	-0,04	-1
Tashkent region								
Omad	0	0,22	0,01	0,43	-0,11	-1,51	-0,06	-1,21
Okkurgon2	-0,04	-0,65	-0,23	-2,61	-0	-0,01	-0,14	-1,89
Bukhara-6	-0,04	-1,12	0	0,1	-0,10	-1,57	-0,01	-0,54
Bukhara -102	0,05	1,09	-0,10	-1,64	-0	-0,25	-0	-0,04
T-100	-0,01	-0,37	-0	-0,15	-0,03	-0,79	-0,02	-0,69
C-01	-0,01	-0,41	-0	-0,05	-0,07	-1,32	-0,04	-0,95
L-001	0	0,17	0	0,35	0,04	0,97	-0,06	-1,18

*P≤0,05; **P≤0,01; ***P≤0,001

In the Bukhara-6 Variety, it was found that the correlation between these signs is insignificant at the level of probabilities in intergroup statistical terms (p≥0.05) during 2009-2011. Both in the T-100 range 2009-2011 there was a weak average positive and weak average negative variable correlation of intergroup fastness to productivity, that is, it was found that the positive and negative correlation between these signs has the property of variability over the years. Even at L-001, the results of every two years recorded an intergroup weak, moderately positive and weakly negative correlation, and the results obtained showed that the correlation between yield with fastness, like the indicators of the above varieties and ridges, does not continue with a certain order. So, in all varieties and ridges, it was found that the correlation coefficient between fast-growing and yield, showing a variable value in a positive and negative state over the years, differs in different soil and climatic conditions, albeit slightly.

A similar situation was noted on the correlation between the weight of cotton in one breast with the frequency. Among the studied signs on the variety and ridges, a weak and moderately negative correlation coefficient was observed in most cases.

CONCLUSION

In the manifestation of the height of the head stem and the signs of fastness in different conditions, the influence of the genotype was manifested stronger than the influence of the external environment. This trend has also been preserved in all studied varieties and ridges. The manifestation of a somewhat balanced sign by the region of origin of the variety was distinguished. In different soil-climatic conditions in terms of plant productivity, the degree of balance of the sign was quite variable, and the influence of genes on the development of

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the sign varied. Under the influence of adaptation to the conditions of the external environment, there was a shift in indicators to a positive one. The fiber output sign has a relatively high breed-to-breed rate within most polygenic signs. In our experiments in Navoi region, this indicator was recorded as 0.71 in 2009, 0.73 in 2010, and 0.80 in 2011. In experiments at PSUEAITI, 0.81 results were recorded in 2009, 0.87 in 2010, and 0.85 in 2011. The data obtained as a result of the analysis within the population showed that the genetic composition of the population by its main symptoms is variable, and at the expense of flexibility, there is an increase in homeostasis in it. Among the studied signs on Goose varieties and ridges, a weak and moderately negative correlation coefficient was observed in most cases, the results in this regard practically did not differ by years and regions.

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