THE FORMULATION OF THE COEFICIENTS

OF THE WOOL YIELD FOR THE ANGORA RABBIT

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Introduction

The wool yield are significantly different due to the difference of
the collecting month time even though the feeding. management and the age
of a breeing rabbit are the same .In ordor to eliminate the influence
of main non—genetic factors to the wool yield .It is necessary to compare
the highest monthly wool yields of various month—old rabbits obtained by
the monthly adjusting coefficients,which adjusting coeffients,advantageous
to improve the Angora rabbit breeding and help you to do the work of the
Angara rabbit selection .According to the monthly adjusting coefficientsof
the wool yield for 5—month old and 8—month old rabbits to apply them in
the productive practice.

Materials and Methods

A curve was determined through a scattering dot—figure with a relation
between the wool yield and the month time ,a regression equation was established
according to the wool yield of month time from 1985 to 1988.

$$Y = a + b_1 x + b_2 x^2$$

$\hat{y}$-the dependent variable (The wool yield).

x-The independent variable (the month time)

Results

1、Establishing the regression equations on the wool yield and the month
time for 5—month-old and 8—month—old Angra rabbits.

Table 1 : Regression equations

Rabbit	groups	Regression equations
5-month-old	male	$\hat{y}=149.2545-9.0092 x+0.6041 x^2$
	female	$\hat{y}=154.0523-8.1911 x+0.5347 x^2$
8-month-old	male	$\hat{y}=240.6818-10.5201 x+0.7099 x^2$
	female	$\hat{y}=251.6500-9.6550 x+0.6506 x^2$

2、the test of the significance and accuracy

Table 2、The test of the regression sigificance

Rabbit	groups	The sources of variance	df	ss	Ms	F	critical. value
5-month -old	male	Regression	2	667.97	338.99	* *	F =8.02
		Error	9	195.4	21.71	15.614	
		Regression	2	600.92	300.46	* *	
	female	Error	9	227.065	25.229	11.90	
8-month -old	male	Regression	2	938.066	469.03	* *	
		Error	9	335.95	37.32	12.56	
		Regression	2	905.35	452.68	* *	
	female	Error	9	211.44	23.49	19.27	

* * indicates significantly different (p=0.01)

Table 3.   The test of the accuracy

Rabbit groups		correlation coefficients(R)	correlation index(R^2)
5-month -old	male	0.8811 * *	0.7763
	female	0.8522 * *	0.7263

8-month	male	0.8585 * *		0.7695
-old	faemale	0.8003 * *		0.6404

* * indicates significantly different (p=0.01)

and the relaltins were proved through the diagram of curves described by the

- - - the estimated sheaðing

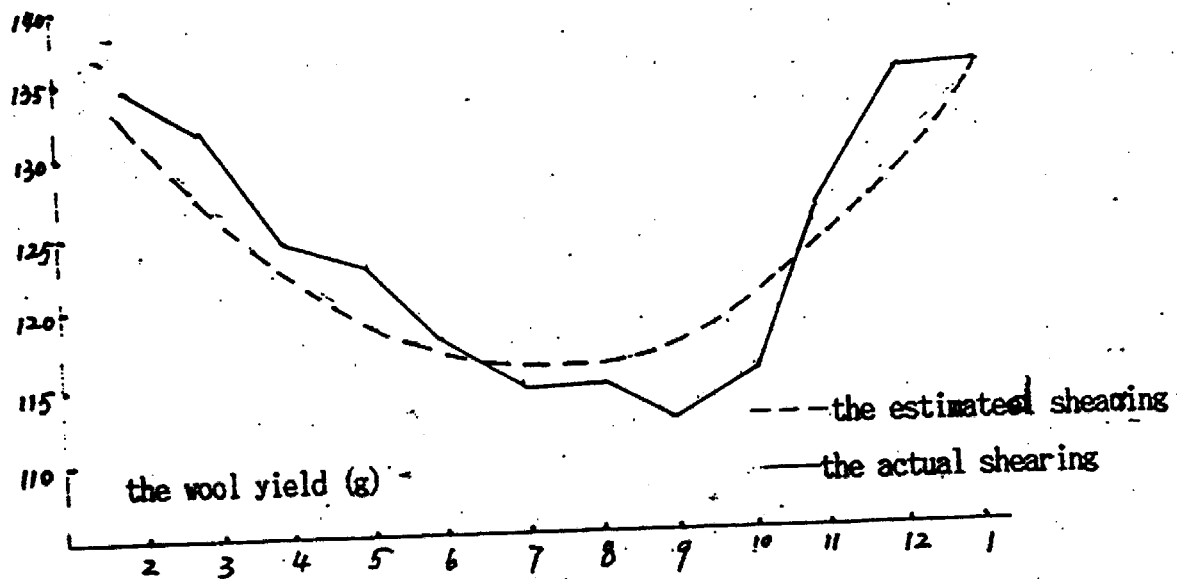—— the actual shearing

the wool yield (g)

Fig.1 comparison between the actural shearing and the estimated shearing in respective month time for 5-month-old male rabbit

Table 2 and table 3 showed that regression rilations and the accuracies weresignificantly different (p=0.01)among four groups of Angora rabbit

3. Formulating cofficients of respective month time were obtained accoding to table 1

$$C_i = \frac{}{y_i}$$

C_i = the adjusting coefficient

y_s = the shearing value of the standard month time

y_i = the shearing value of the respective month time

4. The application of the adjiuating aoffcient. The Februarys wool
   yield refered to a standard shearing ,which was the highest in
a year ,relatively reprented a real genetic valulc, so the wool yields
of respective month time should be adjussted the Februarys
to compare thers in the Angora rabbit breeding .Example:the1 female rabbit
(8-month-old)--6414,the shearing of october:
271.5g ,then the standard wool yield of February:
271.5 × 1 .0671=289.72 g

Table 4 The adjusting cofficients of the wool yield for month time

monthes	5-month-old		8-month-old	
	male	femae	male	female
1	0.9957	1.0136	1.003	0.9953
2	1.000	1.000	1.000	1.000
3	1.0649	1.0410	1.0325	1.0280
4	1.0876	1.0767	1.0602	1.0514
5	1.1202	1.1054	1.0819	1.0696
6	1.1428	1.1260	1.0968	1.0819
7	1.1542	1.1374	1.1045	1.0879

8	!	1.1537	1.1390	1.1046	1.0874
9	!	1.1437	1.1306	1.0970	1.0804
10	!	1.1177	1.1125	1.0820	1.0671
11	!	1.0844	1.0866	1.0645	1.0480
12	!	1.0430	1.0530	1.0328	1.0238

Discussion

1. The regression equaticns, which depended on the relation the month were reliable at p=0.01, the regression relation was true and the adjusting practical.

2. These coeffients which were obtaained under the environmental conditions in yaan district ,should be as references to other places

3. According to our farm.formulating the adjusting for the Januauy,if 1 was changed into 13(x=13),the valule of $\hat{y}$ standing for the Januarys estimated shearing was very close to the actuality.

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