

() .

%

%

:

()

() .

1

()

:

()

()

()

:

...

∴

% ,

()

% ,

% ,

()

:

% ,

% ,

()

()

% ,

% ,

% ,

% ,

% ,

% ,

()

∴()

$$n = \frac{P(1 - P)}{\frac{P(1 - P)}{N} \pm \frac{(z)^2}{N}}$$

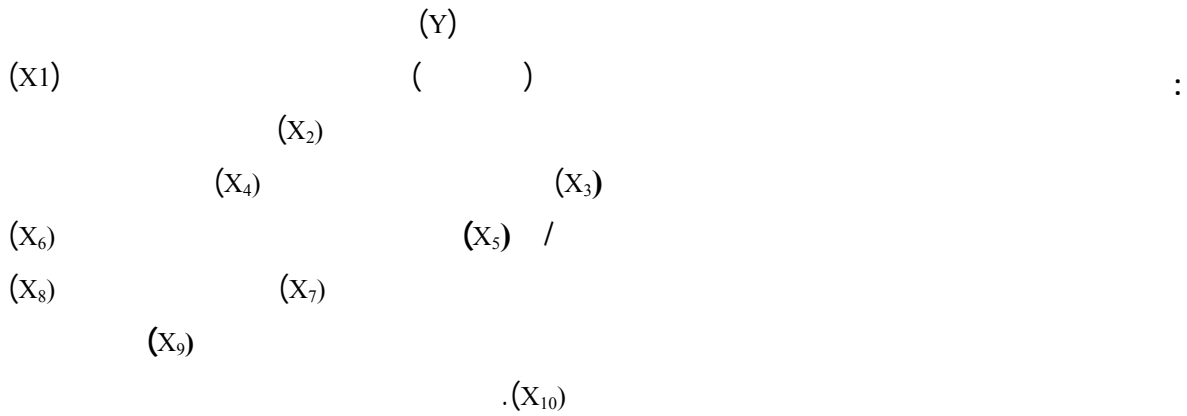
% ,

%
/
/
/

()

.....

$$y = f(x_1, x_2, x_3, \dots, x_{10})$$



()

.()

- () -

(X₃ X₂ X₁)

(, 0.102 1.020)
%

% ,)

(% , % ,

(X₂ X₁)

T

% (2.8110.01)

(2.17) (X₃) T

.%

()

%

R²

.%

%

(F-test)

(-)

%

(X₂)

(X₁)

(X₃)

(D.W.Test)

.%

Ln y = 5.501 + 1.020 **ln x₁** + 0.102 **ln x₂** + 0.040 **ln x₃**

(19.34)** (10.01)** (2.81)** (2.17)*

F=39.5** **R² = 0.79** D.W=2.19

(-)

F*	M.S	D.F	T.S.S
85.78**	'	'	()
(-)	'	'	()

. ()
()

X₃ X₂ X₁

(-)

- () -

(-)

***	**	()*	
			X ₁
			X ₂
			X ₃

() × = *

**

÷ = ***

(X₂ X₆ X₄)
%

(, : -

%

(-)

(X₆) (X₄)

(X₂)

R²

%,

%

:

$$\ln y = 8.890 + 0.033 \ln x_4 + 0.017 \ln x_6 + 0.040 \ln x_2$$

(193)** (5.52)** (4.77)**
(4.31)**

F = 26.2** **R² = 0.72** D.W = 1.88

(D.W.Test)

(X₂ X₆ X₄)

%.%

(, , ,)

%

(% , % , % ,)

T

...

∴

$$\begin{matrix} (X_2) & - & (X_4) \\ & & (X_3) \end{matrix}$$

:

$$\ln y = 8.814 + 0.077 \ln x_4 + 0.120 \ln x_2 + 0.052 \ln x_3$$

$(55.89)^{**}$ $(6.40)^{**}$ $(5.51)^{**}$
 $(3.11)^{**}$

.()

F = 26.90** $\bar{R}^2 = 0.72$ D.W = 2.01

$$(X_3 \ X_2 \ X_4)$$

$$X_6 \ X_4 \ X_2$$

$$(, , ,)$$

%

% , % ,)

(% , ()

,) (X₃ X₂ X)

.%

(, , ,

%

.% ,

- () -

(-)

(-)

**

*

()

X₂

X₄

X₆

$$\left(\frac{\dots}{\dots} \right) \times \dots = \dots$$

*
**

$$\dots \div \dots = \dots$$

(-)

(-)

**

*

()

X₂

X₃

X₄

$$\left(\frac{\dots}{\dots} \right) \times \dots = \dots$$

*
**

$$\dots \div \dots = \dots$$

...

∴

\bar{R}^2

.()

()

%

F-)

X₄ X₃ X₂

(test

1.47

%

(D.W.Test)

.%

() () ()

Damodar Gujarati, Basic Econometrics Mc Grow Hill Book Company, New York, U.S.A., 1978

Daniel E. and Terrell, Business Statistics for Management and Economics, Printed by Mifflin Company . U.S.A ., 1989.

SUMMARY

Statistical Estimation of Sheep Red Meat Production Functions in the Green Mountain Region, the Republic of Libya

El-Hussein A. El-Seify, Monira T. El-Hazek, Gaber A. Bassyouni and Fathia M. Al-Qarqari

Animal production sector is considered the most important economic sector in Libyan agriculture.

The objective of this study is to describe the current situation for sheep red meat production, using sample from holder farmers in 2014, that posses less than 200 sheep (first class), who posses between 200-300 (second class), and who posses more than 300, in the green mountain region in Libya

The objectives of this study are: (1) Determining the important factors that affect on the sheep red meat production in the study region, (2) Estimation of the production functions of sheep red meat, (3) Recognizing the important economic indicators that can help in improving the red meat production, consequently increase the production capacity and decrease the food gap of animal protein.

The study has relied on the descriptive analysis method and statistical and econometric analysis to achieve the objectives of the study.

The main conclusions of the study are:

The economic factors determining the sheep red meat production in the sampled farms classes are:

(1) quantity of green animal feed, (2) quantity of concentrates, and (3) number of animal units. The economic efficiency for each of these determinants amount to, 1.76, 3.26 and 1.64 respectively.

The economic factors determining the sheep meat production in the farms of second class are: (1) quantity of concentrates, (2) quantity of dried animal feed (3) and cost of animal health care. The economic efficiency for each of these determinants amount to 4.2, 2.4, and 0.0002 respectively.

The economic factors determining the sheep red meat production in the farms of third class are: (1) quantity of green animal feed, (2) quantity of dried, (3) quantity of concentrates animal feed. The economic efficiency for each of these determinants amount to 4.42, 1.57, and 3.93 respectively.

Based on these results increasing farm production of sheep red meat in livestock farms is based mainly on sufficient nutrition, improving the current level of veterinary treatments and environmental care to maintain animal health and productivity.