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RABBIT MEAT PRODUCTION SITUATION IN EGYPT 1994

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SUMMARY : *A report paper is prepared to throw light on the meat rabbit production situation in 1994 in Egypt as a continuation of reporting about this issue in the 5th. World Rabbit Congress , Corvallis, U.S.A. by Kamar and Yamani (1992). The report includes the research work activities in the universities and institutes. The industrial meat rabbit production at San El-Hagar project, Egyptian- Italian project and the other medium size projects in the private; investment, and cooperative and extension service sectors were also included. The small scale rabbit farms were negotiated to indicate further studies and to carry out a statistical survey for its proportion as small units relatively to the total production and to the industrial meat rabbit production as well. Evaluation of the recently introduced meat rabbit breeds or strains for the growth performance and the performance of some doe traits was recorded for Bauscat, Californian and New Zealand White breeds in San El- rabbit project (10300 does), Hyla rabbits (400 does) in the Egyptian- Italian Project, Salheya under intensive production system, in both projects. The Green line (GL) rabbits introduced from Polytechnique University, Valencea, Spain, was compared with the NZW and Cal. in the rabbitry of Faculty of Agriculture, Zagazig University, under semi- intensive production system. The Bauscat at San El- Hagar project and the Green Line at Zagazig University proved better performance than NZW and Cal. The Hyla rabbits showed good feed conversion ratio (less than 3:1) and popular marketing weight (1.860 Kg live weight) at 10 week old as commercial fattening broiler rabbits.*

Key words. Meat rabbits. Baus, NZW, Cal., Green Line, Hyla; Research work, Industrial production , Small scale - Growth performance - Doe traits.

Reporting about the meat rabbit production situation in Egypt is a continuation of the report submitted to the 5 th. World Rabbit Congress, Corvallis, Oregon, U.S.A. by Kamar and Yamani (1992).

Research work:

Small scale pilot and applied research projects and experimental work are underway and still going on at the faculties of Agriculture of Zagazig university at Zagazig and at Moshtohor (Banha branch); Cairo University, Tanta University (Kafr El sheikh), Suez Canal University (Ismailiya), Alexandria University, Manasoura University and Research Institute of Animal and Poultry Production, Agricultural Research Centre, Ministry of Agriculture. Most of these projects are sponsored through Ministry of Agriculture, National Agricultural Research Project (NARP), Research and Technology Transfer components, F.A.O., Republic Development Organization, Extension service Centres or the Research Budget of the University.

According to the topics suggested by Finzi (1992) in his paper on: "Rabbit Production in Developing countries" the current research projects in Egypt may be classified into :

- 1- Industrial, rural and urban breeding.
- 2- Transferred technologies or simple technologies built up for or by the small breeders, beside the high technology.

- 3-Monitoring of rabbit breeding in large and small scale to study the effects of programmes for development.

- 4- Evaluation of recently introduced exotic breeds and comparison with some local breeds and hybrids mainly in Summer and the whole year around.

- 5- Selection of local breeds in field conditions and their crossing with the promising exotic breeds fit to hot climate.

- 6- Production of coloured and spotted hybrids or strains to face the demand of the Egyptian consumers to pay more for the live coloured or spotted broiler rabbits.

- 7- Feed and feeding with roughage and possible integration of available traditional feed stuffs for large scale commercial rabbit production and for the small scale in the country - side.

Industrial Meat Rabbit Production:

A- San El- Hagar Rabbit Project (10300 breeding does) :

The state large scale integrated project at San El- Hagar Investment Company for Agriculture and Food Security, Sharkiyah Governorate, Egypt, at the timebeing; is one of the private Companies of the Agricultural Development Organization, Alexandria, Egypt. The privatization of the state Farms is one of the political strategies of the country in the nineties.

The capacity of the rabbit project in the year 1994 is 10300 breeding does (8300 in 1993).

The grand parent stock : Giant Bauscat, New Zealand White and Californian.

The commercial stock : hybrids and crosses including three - way crosses (NZW x Cal. maternal line x Bauscat as paternal line), some other crosses under evaluation (B x N, Bx C, BBC, BBN) are going on to detect the efficient hybrid or cross for commercial broiler rabbit production.

A trial has started to produce coloured or spotted crosses from the mating of the albino strains (N, C and B) with some coloured strains : Giant Flander, Chinchilla, Rex and flemish to produce improved coloured rabbits for meat production as broilers or breeding rabbits favourable for the Egyptian consumers who are ready to pay more for the sale price in the rural and urban areas as well.

According to the goals to be realized from San El-Hagar rabbit project in the report of 1992 , the situation at 1994 could be evaluated in the following :

- 1- Production of extra white meat on commercial production basis is going on, based on the sale of live weight broiler rabbits. The slaughter house and frozen storage are not on operation because they are not economical until now and the marketing on live weight sale price is more economical ?
- 2- The production target is 400.000 heads broiler rabbit/year of 2.0 - 2.5 Kg live weight, but during 1993/1994 the

marketing live weight was less than 2 Kg and the demand of the market was for 1.5 Kg/head, and the annual production did not reach the target number.

3- Marketing of live- weight rabbits is for the local consumption only and there is no export. The sale price for lower live weight or coloured rabbits is 1 to 0.5 L.E/Kg more than the heavier live weight or the white coloured rabbits. The sale price for the purebred breeders raised from 45 L.E to 65 L.E./head in 1994, and this raising price will not encourage the youth for rabbit projects in rural and urban areas.

4- As there is not a scientific breeding and selection program for the project, which depending on culling and replacing percentage only, the purebreds may not show any improvement and negative results may occur on performance indices. The inbreeding; culling and lack of recording and data base and processing on efficient computer program and lack of experience and technical experts will adversely affect the performance indices very soon, even the management and husbandry, and prophylactics are considered.

5- As there is no slaughtering for the commercial broiler rabbits, there will be insignificant marketing for the fur trade or the cut- up trade or dressing carcasses.

6- The feed mill processing plant of 6 tons/hour pelleted rabbit-well balanced-

diet for breeders and for growers has started the production for the self-sufficiency of the project and for sale a surplus production for the local market, but the demand is still very restricted.

7- The lack of promotion and advertisement for the products of the project, either rabbit meat or rabbit pelleted diet, may be of negative effect on marketing procedure in the project.

8- The raising of the sale price of live weight from 4.5 L.E./Kg in 1992 to 7.0 L.E./Kg in 1994 will be positive for the profitability of the project, but just in case of realising the production targets and the improvement increment without any disorders or any retardation in the performance indices.

B- Egyptian - Italian Project (400 does) - intensive production system: The capacity of the rabbitry is 404 breeding does of Hyla hybrid introduced from Italy for commercial fattening rabbits.

A small number of 20-30 breeding does of Bauscat and NZW purebreds were introduced from San El-Hagar rabbit project to replace the Hyla rabbit instead of fluent importing a replacing stock.

The annual production was planned to produce 1000 heads/month of 1750 Kg. live weight for marketing as broiler rabbits. The realized production is not achieved yet.

The feed mill is of 1/4 ton/h capacity for processing rabbit pelleted diet according to N.R.C. for rabbits and the conventional available

ingredients, using continuous ration for breeders, growers and fattened rabbits.

The marketing of the broiler rabbits is for live rabbits and the sale price is 6.75 L.E./Kg live weight with the range of 1.5 - 2.00 Kg/head.

There is no slaughter house, and hence there is no trade for marketing dressed carcasses or dried or processed fur.

C- Some commercial medium size rabbitries :

Some medium size scale rationed rabbitries are joined with the agroindustrial investment companies, or as privates or cooperatives. The prevailing commercial strains are NZW and Cal. The capacity of such rabbitries is ranging from 500 to 1500 does in closed air conditioned houses and battery system of universal dimensions and mostly flat deck system. Small normal slaughter housing plant is available and the sale price is 12.5 L.E./Kg dressed carcass including the head and edible offals.

Small scale rabbit farms :

The small scale forms include the rural, urban and desert small rabbit units of 2- 10 rabbit families (does and bucks), either in hutches, conventional or unconventional or cage housing systems. The prevailing local breeding rabbits represent more than 90% out of the total rabbit population, represented by unites with a mean of only 3 does, as a random sample in the countryside of Sharkiya governorate, but still needs

to assess by the statistical survey after the questionnaire all over the country to give the proportion of breeding % and the animals % to the total for the very small units. The industrial breeding should be considered as well for the statistical survey to estimate the per capita meat rabbit consumption per year in Egypt on more accurate parameters.

Evaluation of meat rabbit performance :

Evaluation of some performance indices of the purebred lines (B,C and N) in San El- Hagar, Hyla rabbits in Salheya under intensive production system in the two projects are presented in Table 1. The preliminary evaluation of the Green line in comparison with the NZW and Cal. rabbits at Zagazig University is also tabulated in Tables 2 and 3 . The Bauscat rabbit surpassed the Californian and the NZW in 11 out of 19 indices recorded, especially the litter size and litter weight traits and gains and the milk yield at 21 days of age.

The Hyla rabbits show poor figures for the litter size from birth up to 56 days of age (4 weeks post

weaning), but the bunny weight was suitable for marketing at the same ages. The mortality percentage in Hyla was compatible to the corresponding in Cal. and NZW and Baus. breeds of San El- Hagar project.

Concerning the comparison of Green line with NZW and Cal. : the GL surpassed the other two breeds in 8 traits out of 10 (Table 2). The GL is characterised with heavier live weight; heavier daily gain and earlier age at sexual maturity in both sexes. Values presented in Table 3 indicate better performance of GL in litter size, litter weight and gain during the first three successive parities of the doe than the corresponding of NZW and Cal ., but show a similar trend in the three strains concerning the mortality traits.

REFERENCES:

- Finzi A, (1992): Rabbit production in developing countries. J. Appl. Rabbit Res. 15 : 86-94.
- Kamar, M.G, and K.A.Yamani, (1992): Rabbit Meat Situation in Egypt (1992).J.Apple. Rabbit Res.15 :673 - 677.

Table (1): San El-Hagar (intensive system) some productive traits on the doe rabbit of Baus, Cal. and NZW.

No. Obs.	Traits	Base		N. Obs.	Cal.		N. Obs.	NWZ	
		$\bar{X} \pm S.E$	C.V%		$\bar{X} \pm S.E$	C.V%		$\bar{X} \pm S.E$	C.V%
1762	LSB	7.2±0.05	30.2	4.17	7.0±0.10	31.7	1284	7.1±0.06	30.0
	LS ₂₁	6.2±0.05	32.4		6.2±0.10	33.3		6.2±0.06	32.2
	LSW	5.9±0.05	33.5		6.4±0.10	34.5		5.9±0.06	34.3
	Still	0.42±0.02	226.0		0.41±0.05	236.9		0.38±0.02	238.6
	B%								
	LWB	413±2.80	28.5		399±6.09	31.2		604±3.07	27.0
	LW ₂₁	1778±11.66	27.5		1688±22.86	27.7		1758±13.6	27.8
	LWW	3427±27.88	34.2		3227±53.60	33.9		3370±33.29	35.4
	LWG ₂₁	1365±10.22	31.4		1289±20.10	31.9		1350±12.13	32.1
	LWG ₃₀	3014±26.44	36.8		2829±50.65	36.6		2963±31.82	38.5
	MY	2438±18.25	31.4		2302±35.98	31.9		2412±21.66	32.2
	BWB	59±0.25	18.1		55±0.57	21.2		59±0.30	18.4
	BW ₂₁	305±2.03	27.9		286±3.66	26.1		299±2.30	27.6
	BWW	590±3.37	23.9		552±6.02	22.3		578±3.95	24.5
	DG ₂₁	12±0.09	32.9		11±0.22	42.0		11±0.10	32.4
	DG ₃₀	18±0.12	26.9		17±0.22	27.1		18±0.14	28.8
	V ₂₁	80±0.47	23.7		85±0.90	21.7		85±0.56	23.6
	V ₃₀	82±0.50	26.0		82±0.95	23.5		81±0.61	26.7
	GL	32.0.02	3.2		32.0.06	3.5		32±0.03	3.7
	TLSB	7.6±0.05	28.5		7.4±0.11	29.7		7.4±0.06	28.0

Salheya (Intensive system)

Some productive traits of Hyla commercial strain

Strain	LSB	LSW	LS56 dias	LWB	WW	LWW	BWB	BWW	BW56	MB21	MB21-30	MB30
Hyla	6.1	4.6	4.3	415	2252	2451	46	449	1522	22	4	29

Feed conversion at 10 wks = 2.97 : 1

Live weight at 10 wks of age = 1.860 Kg.

Dressing carcass % = 62%

Table (2): Production traits of GL, NZW and Cal rabbit breeds from 6 to 12 weeks of age and age at sexual maturity.

Items	GL		NZW		Cal	
	Males	Femals	Males	Femals	Males	Femals
Initial number	20	20	20	20	20	20
Final number	18	15	10	12	12	12
Average live weight (kg) at:						
6 weeks	1.085	0.973	1.064	1.077	1.042	0.970
10 weeks	1.940	1.979	1.679	1.679	1.686	1.522
12 weeks	2.515	2.613	2.115	2.167	2.227	2.082
Average daily gain (gm) from:						
6-10 weeks	34.20	40.24	24.60	24.08	25.76	22.08
10-12 weeks	41.07	45.28	31.14	34.84	38.64	40.00
6-12 weeks	36.77	42.05	26.94	27.95	30.38	28.51
Feed conversion	2.73	2.74	3.62	3.25	3.30	3.51
Mortality (%):						
6-12 weeks	10	15	0	20	5	5
Age at sexual maturity (days)						
Earlier	141	113	155	141	183	155
Late	197	218	246	232	246	246
Average	171	142	216	196	208	215

* Green line rabbits are introduced from Animal Science Department, Polytechnique University, Valencia, Spain as coordination with Anim. Prod. Dept., Faculty of Agriculture, Zagazig University, Zagazig; Egypt; to tolerate the high air temperature (32-35°C) and the high relative humidity ($\geq 90\%$).

The GL rabbits were received in Cairo air port at June, 1993 and the pilot experiment started in comparison with NZW and Cal. at the same age (6 week old) at the rabbitry of the Department and still going on to multiply the initial number of GL.

Table (3): Some doe traits for GL.; Cal. & NZW (Zagazig).

Trait	Parity	GL	Cal.	NZW
LSB	1	9.54	6.00	6.33
	2	10.25	5.21	7.50
	3	10.30	6.08	7.66
LWB	1	443.30	346.25	329.16
	2	501.25	285.50	265.00
	3	573.30	243.33	421.00
LS21	1	5.0	5.1	4.0
	2	5.0	4.7	6.4
	3	9.6	5.4	6.5
LW21	1	1.318	1.616	1.275
	2	1.315	1.346	1.750
	3	2.797	1.252	1.511
LSW	1	4.5	5.3	6.0
	2	5.0	4.0	5.5
	3	9.6	5.3	5.2
LWW	1	2.749	3.180	3.848
	2	2.895	1.908	2.780
	3	6.335	2.450	2.830
DWg				
(B-35 days)		15.2	14.31	15.24
(B-21 days)		10.2	11.37	11.24
(21-35 days)		22.8	18.71	21.30
M				
(B-21 days)%	1	33.0	18.0	38.0
(B-35 days) %		33.0	36.0	48.0
	2	20.0	32.8	41.6
		28.0	40.6	53.0
	3	34.0	25.0	18.3
		38.2	37.7	36.7
Still birth %	1	4.8	4.3	15.1
	2	13.9	1.8	0.0
	3	6.4	10.5	9.4