# Strains of chickens developed in Egypt during the 1970s

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# Strains of chickens developed in Egypt during the 1970s

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Although poultry production in Egypt includes chickens, geese and ducks, this paper concerns only chickens since they represent more than 95% of such production. There are four traditional strains: Baladi, Fayoumi, Dandarawi and Sinai. The last two strains are found in specific regions in Egypt. Amer (1956) was the first to state that there were no significant differences between Baladi and Fayoumi with respect to productive and reproductive characteristics. They can be also crossed with standard imported breeds and can withstand unfavourable conditions such as poor nutrition and epidemic diseases. But they are small in size, lay fewer and smaller eggs. They are not unique in their color, except for the Fayoumi strain. Dandarawi and Sinai chickens are reared in small numbers and in only a few regions.

Amer (1956) showed that improving egg and meat quality and quantity in Egyptian strains could be attained through one or more of the following three ways:

1) selection among native strains (which would take a long time to reach the goal);
2) crossing and hybridization among local strains and imported standard breeds;
3) importation of standard breeds (which would require considerable hard currency).

Efforts were thus carried out to create new strains of chickens by crossing native strains with standard breeds for several generations accompanied by selection. In this way, the following strains were developed:

1) Dokki 4 by mating Fayoumi with Barred Plymouth Rock (**Figure 1**);
2) Alexandria by mating White Leghorn, Barred Plymouth Rock and Rhode Island Red with Fayoumi;
3) Golden and Silver Montazah by mating Dokky 4 with Rhode Island Red (**Figure 2**);
4) Matrouh by crossing Dokki 4 with Single White Leghorn (**Figure 3**);
5) Mandarah by crossing Dokki 4 with Alexandria (**Figure 4**).

The results of a comparative study of these new strains are summarized in **Table 1**.

**Table 1: Summary of some characters studied for various native strains**

| CHARACTER \ STRAINS | Fayoumi | Dokki 4 | Golden Montazah | Silver Montazah | Mandarah | Matrouh |
|---|---|---|---|---|---|---|
| Annual production (eggs) | 160.0 | 167.4 | 199.0 | 205.8 | 180.0 | 192.3 |
| Weight 1st egg (g) | 38.0 | 44.2 | 47.6 | 47.6 | 47.6 | 48.0 |
| Egg weight (mature hen) (g) | 40.5 | 49.8 | 54.5 | 53.7 | 50.4 | 56.8 |
| Body weight (g) | | | | | | |
| at hatching | 31.0 | 32.3 | 35.4 | 35.2 | 34.5 | 36.4 |
| at sexual maturity | 1438.0 | 1490.5 | 1600.0 | 1720.0 | 1710.0 | 1460.0 |
| Age at sexual maturity in days | 188.4 | 190.0 | 163.8 | 163.0 | 181.0 | 167.0 |

## References

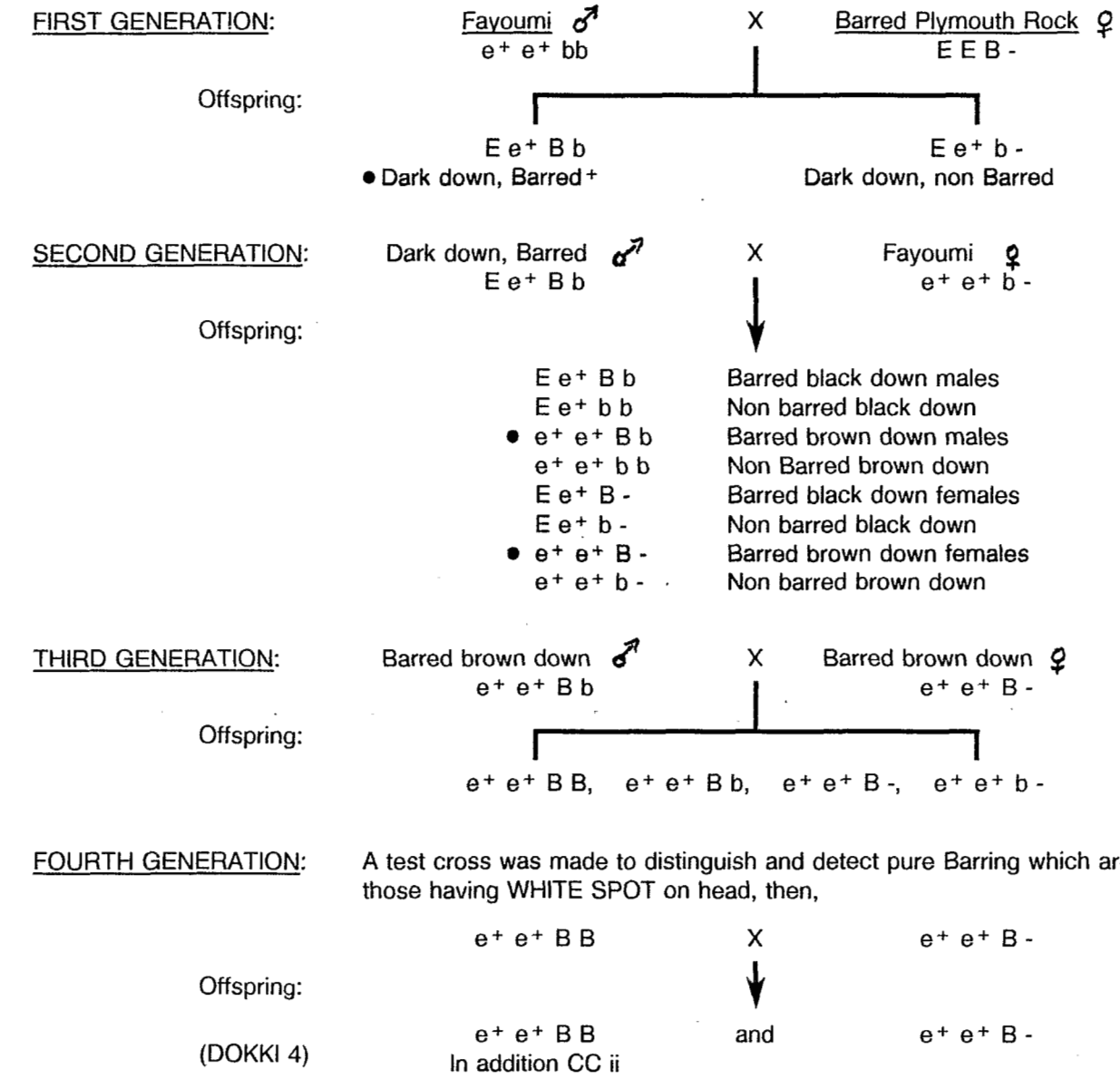

- Abd El-Gawad, E.M., 1981.- The Mandarah, a new breed of chickens.- In : *Egyptian Poultry Science*, vol.1, pp.16-22.
- Amer, M.F., 1956.- A contribution to the introduction of standard breeds of poultry to Egypt.- Cairo: Ain Shams University, Faculty of Agriculture, M. Sc. Thesis.
- El-Itriby, A.A. ; Sayed, I.F., 1966.- Dokki 4, a new breed of poultry.- In: *Agric. Res. Rev.*, vol. 44, pp. 102-109.
- Hutt, F.B., 1949.- *Genetics of the fowl*.- New-York: Mc Graw Hill Book Co. Inc.
- Jull, M.A., 1952.- *Poultry Breeding*.- New-York: John Wiley and Sons, Inc.
- Mahmoud, T.H. ; Sayed, I.F. ; Madkour, R.M., 1973.- Matrouh, a new breed of chickens.- Cairo: *Agric. Res. Rev.*, vol. 51.
- 1974.- The Silver Montazah, a new variety of chickens.- Cairo: *Agric. Res. Rev.*, vol. 2.
- 1974.- The Golden Montazah, a new variety of chickens.- Cairo: *Agric. Res. Rev.*, vol. 2.

**Figure 1: DOKKI 4 (an autosexed breed)**

1 - Barring in sex-linked in Barred Plymouth Rock, dilutes pigments.

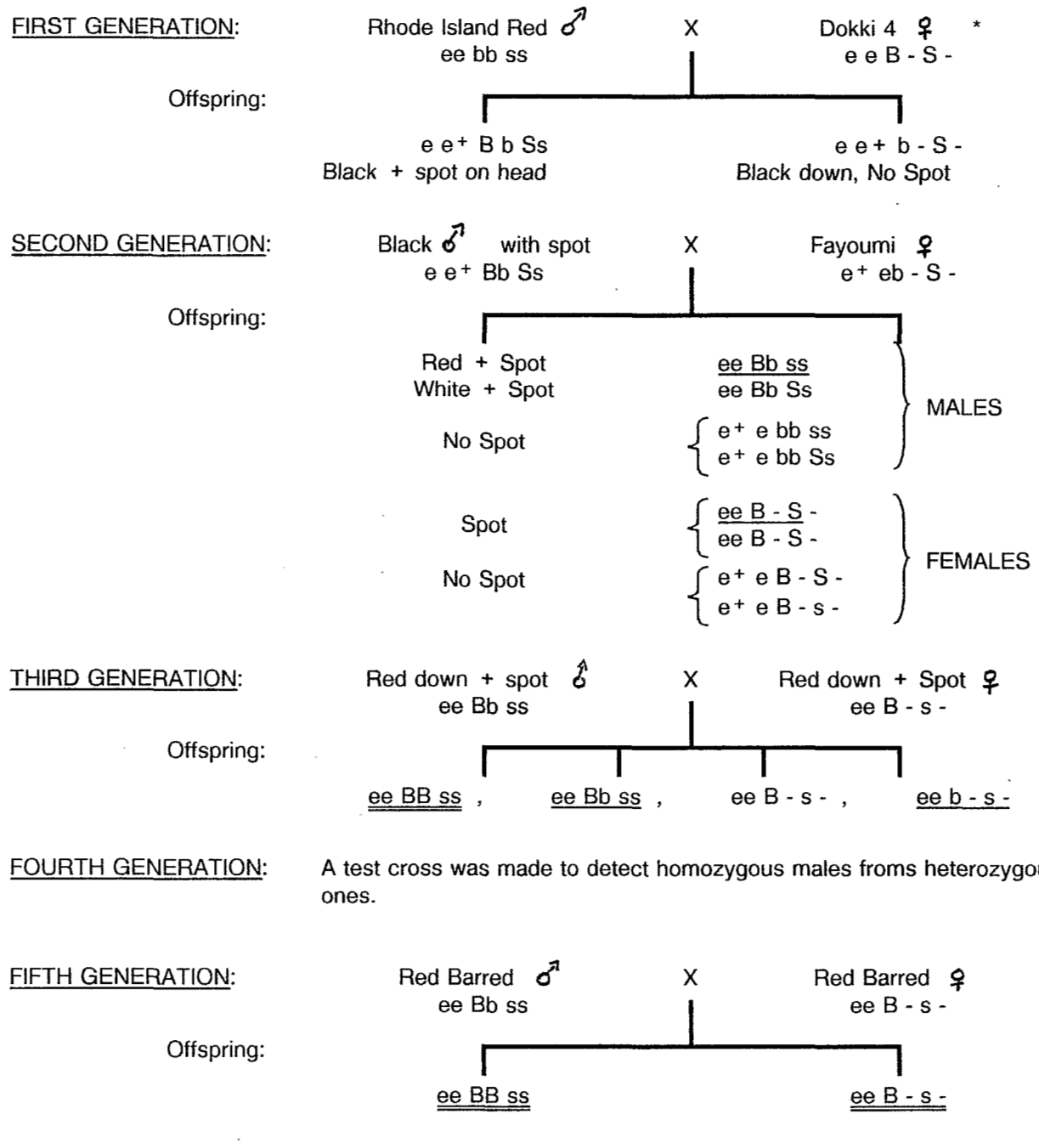
2 - Gene $e^+$ restricts color, diminishes black and causes appearance of barring.

3 - Alleles of $e^+$ are : E (black) and e (causes Columbian pattern).




A. El Itriby and I. B. Sayed, 1966.

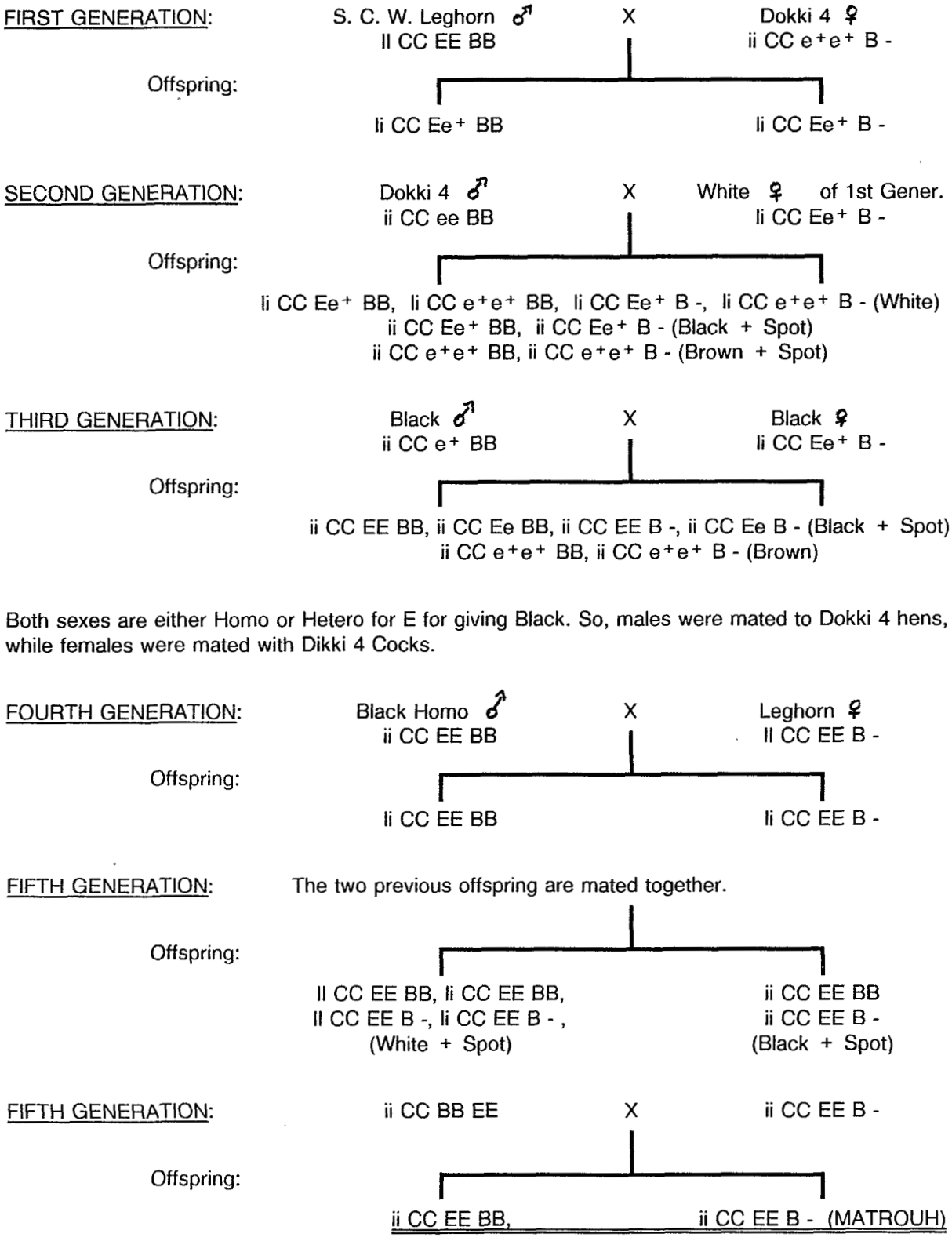
**Figure 2: GOLDEN MONTAZAH (an autosexed breed)**




All day-old chicks are golden and autosexed. At older ages, they are golden and white barred with the Columbian Pattern.

* Formerly, Fayoumi ♀ was used.

**Figure 3: MATROUH (an autosexed breed) ***




* Mahmoud *et al.*, 1973.

**Figure 4: MANDARAH, A new breed of chickens***

Summary of the selected parents of the first cross and subsequent generations

| GENERATION | PARENTS | | | |
|---|---|---|---|---|
| | Sires | | Dams | |
| | Plumage color | Genotype | Plumage color | Genotype |
| 1st generation | White silver | Ii ss Bb CC ee | Barred white | ii S- B CC $e^+e^+$ |
| 2nd generation | Barret | ii Ss BB CC $o^+o^+$ | Red spots | II s- B- ig CC $e^+e$ |
| 3rd generation | Buff | II SS BB ig CC $ee^+$ | Buff | II s- B- igig CC $e^+e$ |
| 4th generation | Buff light | II ss BB igig CC $ee^+$ | Buff | II s- B- igig CC $ee^+$ |

* It is well known that buff depends on the dose of chromogen gene (with the extension of gene black e in the presence of ss or s -, gold, and the gene igig which dilutes gold) (Hutt, 1948; Jull, 1952).