

Induced-Moulting—A New Trend In Middle East

World poultry production has seen a big boom during the last few years, and in the Middle East the progress has been particularly remarkable. However presently, among Arab countries the Saudi Arabian egg industry is experiencing over-production and low market prices made worse in the absence of any export possibilities to the neighbouring states. The problem has also been further aggravated by a reduced subsidy and high cost of production. Consequently, many egg producers have started cutting their production and costs and have resorted to economising on a number of items including feed, labour and administrative expenditures. Some of these farmers have also adopted somewhat more sophisticated husbandry practices like induced-moulting of laying flocks to help the market situation and improve their budgets.

Induced-moulting has been attempted in many tropical and developing countries mainly to save foreign exchange on imports of new flocks and especially during the hot summer season when egg production normally drops, shell quality deteriorates and there is usually a market slump in the egg industry. While induced-moulting is aimed to reduce costs it also creates a lot of stress on the birds and there may be heavy mortality if the operation is not programmed to take into account a number of prerequisite factors.

1. The flock should be in good condition, free from any disease or existing stress of any kind.

2. The flock should be vaccinated against the main disease prevalent in the area at least two weeks before the start of moulting. Usually Newcastle Disease vaccine (preferably oil adjuvant) and Infectious Bronchitis vaccine should be given.

3. Bodyweight is always a good indication of the birds' health status and production capabilities. An average bodyweight record of the flock should be obtained before moulting as birds lose 25-30% of their weight during moulting.

4. Housing facilities are equally important since adequate floor space, good ventilation and the required watering and feeding space greatly assists birds during moulting. Infiltration of light, drinkers and feeding lines should be checked before the start of the operation.

5. The system of moulting required should be predecided, as both 'slow moult' and 'fast moult' should provide the required rest period for the birds before restarting production. Fast moulting requires more vigilance and special nutritional adjustment of the feed later.

6. Feed quality and nutrition also



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require due consideration during any moulting programme where feed is restricted. Similarly, all grains should be free from insects, moulds and foreign material. Mouldy grain is particularly dangerous during moulting or feed restriction as it leads to aflatoxicosis and subsequent liver damage and poor egg production with high mortality.

An ideal moulting programme is always tailor-made to the circumstances but generally it consists of a restriction of feed, water and light for a specific period thus creating a stress condition resulting in cessation of egg production, loss of bodyweight and feathers.

The success of any moulting programme greatly depends on the following factors:

Water restriction is the most vital factor as any prolonged restriction may result in severe dehydration and increased mortality. In hot climates birds' requirements for water are normally doubled and it should be duly considered during a moulting programme. Water restriction is usually limited to 24-48 hours during initial moulting and should be enough to induce moulting but during very hot periods (May-June-July) desert coolers and pad cooling can provide required protection to the birds. Moulting can also be induced without any water restriction but in this case feed is required to be restricted for a much longer period.

Feed restriction or a complete feed withdrawal or a mixture of both, usually for 10-14 days, would induce a nutritional imbalance leading to subsequent stress and moulting. During any moulting programme there is usually a complete withdrawal of feed for a certain period, followed by a restricted feeding of mash or grain or both. Feed restriction is mainly responsible for the decreased bodyweight and cessation of egg production.

Light restriction is usually carried out by reducing daylight from 16 hours to 8 or 11 hours/day. It is a general rule that any

reduction of light during egg laying periods results in a drop in production as hormonal disturbances are induced. In controlled and windowless houses it will be easy to reduce or even totally cut light but in houses with windows it may be difficult to restrict or reduce light. In tropical regions it is however, easily adjustable as the daylight is always decreasing after 30th June so a straight reduction of light would be sufficient to achieve the desired results.

Although there are many different systems of induced-moulting, usually a two cycle moult programme is best suited to birds in hot climates and this is considered a practical method of moulting flocks of both commercial layers and breeders. This consists of moulting flocks after 10-12 months of egg production or earlier as the case may be, and then having another 6 months of second laying period after which the flock is disposed of. The duration of moulting may vary from 8-12 weeks but as there is always a mortality of 15-20% in both breeding and commercial flocks this should initially be allowed for. It is a result of exhaustion of weaker birds in the flock. However, the actual monthly death rate during second laying period is always lower than the corresponding period of the first lay. After moulting, egg size generally improves but the percentage production is usually lower than in the same period of first lay. The difference in feed conversion is not great and depends upon the quantity and quality of feed.

Monitoring the flock during moulting operations is an essential additional precaution:

(a) Always weigh representative samples of the flock during moulting, preferably weekly, to check the target loss of 25-30% bodyweight at the end of feed restriction period. A too sudden drop in bodyweight suggests too severe restriction and stress.

(b) Daily mortality is required to check for any infectious disease outbreak.

(c) Once the egg production has ceased and bodyweight reduced, the flock is required to be given enough feed for replenishing the lost feathers and to permit a gradual increase in bodyweight. The increase in feed allowance is designed to bring the birds back to their normal bodyweight at the end of the moulting period.

(d) Once the bodyweight has returned to normal, light should also be increased along with feed to ensure egg production. However, light should be increased gradually to 16 hours.—Dr A.A. Qureshi, technical advisor, Kadi Poultry Farms, Taif, Saudi Arabia.

POULTRY BREEDERS UNION: PRODUCERS OF PRIMARY BREEDING STOCK

ANAK BROILERS (white and colored)
YAFFA COLOR SEX, BROWN EGG LAYER
YARKON TINT, FEATHER SEXED LAYER

Yaffa

Feed Intake: 97-105 gr. (daily in lay).
Body Wt.: At 70 wks. of age - 1950 gr.
Depletion: Rearing Period - 3-4%
Laying Period - 6-9%

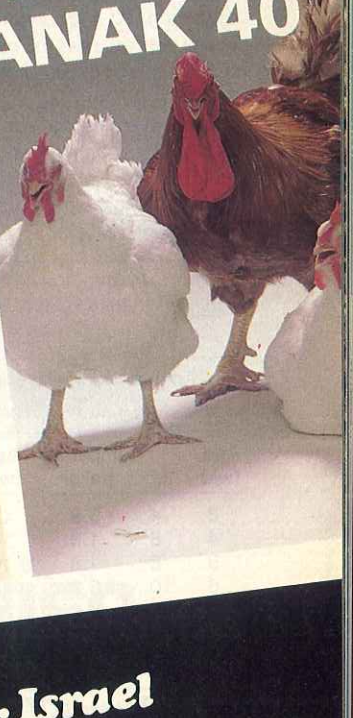
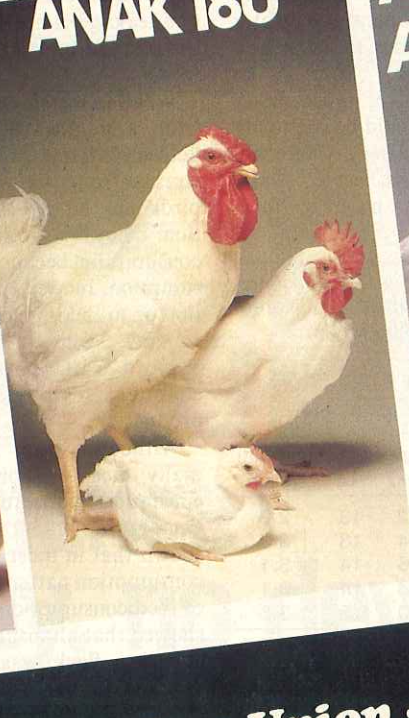
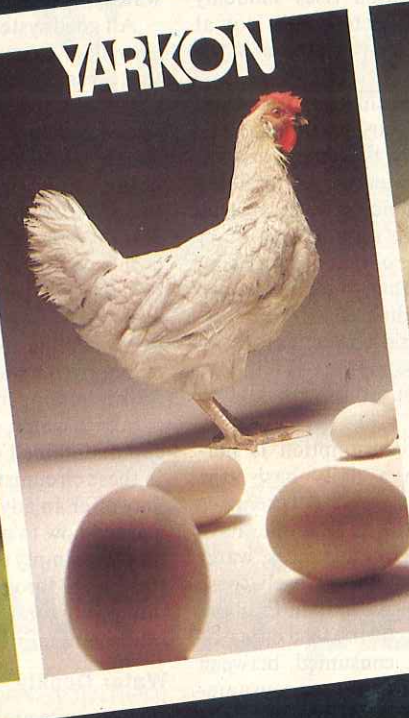
Yarkon

Feed Intake: 85-97 gr. (daily in lay).
Egg Production: 265-280 (per layer to 500 days).
Annual ave. egg wt. 61-63 gr.

Anak 180

132 day-old chicks per female housed.
6-8% mortality in lay.
Commercial Live wt. at 49 days : 2100 gr.
1.92 F.C.R.

Anak 100/40
Broiler color combination
The finest colored meat type combination available in the world today.
Day-old chicks per female housed: 131.
Mortality during laying period: 9%.
Commercial Live wt. at 56 days: 2005 gr.



Poultry Breeders Union - Israel

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