

Indian Poultry Industry is Growing Up

• Despite many set backs such as the galloping prices of feed and medicine, the Indian poultry business has now blossomed into a flourishing multi-million dollar industry.

In 1960, the country's incubating capacity was only 0.1 million. By 1972 this had shot up to 20 million. Similarly, egg production which stood at 2881 million in 1961 stands at 7700 million today thus giving, though still low by any standard, a per capita consumption of 14.5 eggs per annum compared to 6.5 in 1961. By 1981 this is expected to be about 17 per head per year in rural areas and 22 in urban areas.

Organised poultry farming is of recent origin in India. Until two decades ago, it was mainly confined to back yards with local birds. These indigenous birds gave around 60 eggs each per year as compared with over 200 each from exotic breeds. For this reason and for high incidence of bird deaths due to diseases, poultry was not considered a viable industry.

It was during the country's third Five Year Plan when high yielding birds were

introduced into the country that a turning point in the industry was evident and poultry farming as a source of livelihood was accepted by the people of India.

One of the most important steps taken for the improvement of the industry was the establishment of the All India Poultry Development Project initiated in 1957 under which 50 000 chicks of white Leghorn and RIR breeds were first imported from the United States for the improvement of local stocks. They were brought up in five regional farms having different agroclimatic zones so as to acclimatise them to local conditions for subsequent propagation.

The same programme saw the opening of 267 extension and demonstration centres in many parts of the country, each with a poultry unit of 100 layers of the improved breeds, to give the farmers a working knowledge of modern methods of poultry farming. During this period 4-6 million hatching eggs and one million stock, together with poultry equipment and other aids were supplied at subsidised rates to 9497 farmers who

were anxious to take to the industry.

Other contributory factors for the industry's fast growth were the initiation of comprehensive programmes also geared to give technical advice on production and marketing, the introduction of the deep litter system of poultry management on an extensive scale and the importation of further breeding stocks from Australia to launch a scientific poultry breeding programme in the country.

Four hatcheries with foreign collaboration were also established during this period for the multiplication of improved strains. Apart from setting up a number of feed mills for the production of a balanced diet, manufacture of vaccines for controlling such poultry diseases as fowl pox, ranikhet were taken in hand, and equipment to save labour was made.

Under the fourth Five Year Plan there was further intensification of the poultry development programme and several major steps were initiated to achieve self-sufficiency in feed. This expansion programme gave the country 336 000

L'Industrie Avicole Indienne Est En Expansion

Sommaire—Malgré de nombreux problèmes tels que l'augmentation vertigineuse des prix de la nourriture et des médicaments, l'aviculture indienne s'est transformée en une industrie de plusieurs millions de dollars.

Aujourd'hui la production d'oeufs est passée à 7 700 millions ce qui donne une consommation par habitant et par an de 14,5 oeufs. En 1981, on espère arriver à 17 oeufs par personne dans les zones rurales et 22 dans les zones urbaines.

L'organisation de l'aviculture est récente aux Indes. Il y a encore vingt ans, on trouvait surtout des bêtes indigènes dans des arrière-cours. Mais avec le Projet de Développement Avicole Indien qui a débuté en 1957, on a importé environ 50 000 poussins des Etats Unis pour améliorer les espèces locales. Le même programme a permis l'ouverture de 267 centres d'extension et de démonstration dans de nombreuses parties du pays, chacun possédant une unité de 100 pondeuses d'une race améliorée, afin de donner aux fermiers une connaissance pratique des méthodes modernes de travail en aviculture.

Parmi les autres facteurs qui ont contribué à la croissance rapide de l'industrie, on trouve l'importation de reproducteurs d'Australie qui ont permis le lancement d'un programme de sélection dans le pays. On a construit quatre couvoirs pour la

multiplication des races améliorées.

Avec le quatrième plan quinquennal, on a encore intensifié le programme de développement avicole et plusieurs initiatives importantes ont été prises pour arriver à une autosuffisance alimentaire. En vue d'encourager la production des poulets de chair on a construit dans différents endroits deux grands abattoirs d'une capacité de 4800 à 8000 bêtes par jour et 15 plus petits.

Pour le cinquième plan quinquennal on a prévu le lancement d'un programme de production avicole massif. Avec ce programme, environ la moitié des villes et cités de 50 000 habitants et plus seront couvertes par des centres de production intensive de volailles et d'oeufs.

On propose maintenant d'établir à proximité des 17 abattoirs des centres de développement des poulets de chair.

Le cinquième plan envisage un taux de croissance de 20% par an à la fin de la période planifiée. Si cet objectif est atteint, non seulement la production d'oeufs atteindra les 12 440 millions prévus mais elle fournira aussi un emploi rémunérateur à plus de 600 000 fermiers de l'industrie avicole.

Die indische Geflügelindustrie erwächst den Kinderschuhen

Zusammenfassung—Trotz vieler Rückschläge, genannt seien die galloppierenden Preise bei Futtermitteln und Pharmazeutika, hat sich die blühende indische Geflügelindustrie in den Multimillionen-Dollar-Bereich

hineinentwickelt.

Die Eierproduktion ist heute auf 7 700 Mill. Stück gestiegen, was zu einem Jahres-Pro-Kopfverzehr von 14,5 führte. Bis 1981 erwartet man hier eine Steigerung auf 17 in ländlichen und auf 22 in städtischen Gebieten.

Die organisierte Geflügelhaltung ist in Indien noch jung. Bis vor zwei Jahrzehnten erstreckte sich die indische Geflügelhaltung generell auf einige auf den Hinterhöfen gehaltene Tiere einheimischen Ursprungs. Unter dem 1957 ins Leben gerufenen gesamtindischen Geflügelentwicklungsplan wurden jedoch 50 000 Tiere aus den USA importiert, um so die einheimischen Rassen zu veredeln. Unter demselben Programm wurden 267 Beratungs- und Demonstrationen in vielen Teilen des Landes eröffnet, wobei in jedem Fall eine Geflügeleinheit mit 100 Legehennen der verbesserten Rassen gezeigt wurde, um den Bauern so praktisches Wissen über die modernen Methoden der Geflügelhaltung vermitteln zu können.

Zu den Faktoren, die zur schnellen Entwicklung der indischen Geflügelindustrie beitrugen, gehörte auch der Import weiteren Zuchtmaterials aus Australien, um so ein wissenschaftlich angelegtes Geflügelzuchtprogramm im Lande beginnen zu können. Vier Brutereien wurden für die Vermehrung dieser veredelten Linien aufgebaut.

Unter dem vierten Fünfjahresplan gab es eine Intensivierung des Geflügelentwicklungsprogramms, und ver-

schiedene wichtige Schritte wurden getan, um auf dem Sektor Futter zum Selbstversorger zu werden. Um die Mastgeflügelproduktion anzukurbeln, wurden zwei grosse Geflügelschlachtereien mit Kapazitäten von 4 800 bis 8 000 Tieren je Tag und 15 weitere, kleinere Schlachtereien in verschiedenen Teilen des Landes errichtet.

Der 5. Fünfjahresplan wird eine massive Förderung der Geflügelproduktion sehen. Im Rahmen dieses Programms werden ca. die Hälfte von 300 grösseren und kleineren Städten mit einer Bevölkerung von 50 000 und darüber vom Aufbau intensiver Eier- und Geflügelzeugungsunternehmen erfasst werden.

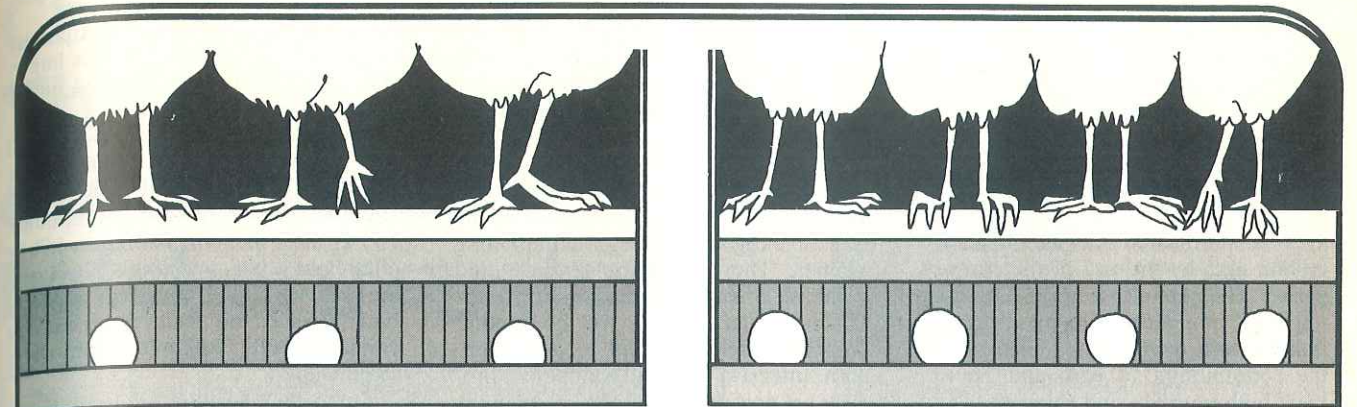
Die intensive Entwicklung von Broilerprojekten wird gegenwärtig geplant; die Produktionseinheiten sollen in der Nähe der genannten 17 Schlachtereien entstehen.

Der 5. Plan sieht eine Wachstumsrate von jährlich 20% am Ende der Planperiode vor. Wenn dieses Ziel erreicht wird, wird die Eierproduktion nicht nur an der erwarteten Marke von 12 440 Mill. Stück angelangt sein; vielmehr wird dieser Plan durch auch über 600 000 Landwirten eine einkommensträchtige Beschäftigung bieten.

Progressi dell'industria avicola indiana

Riassunto—Nonostante i vari aspetti negativi, quali l'aumento del prezzo del mangime e dei medicinali, l'industria avicola nell'India si è sviluppata.

(Continua pagina seguente)



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The eggs aren't just large gradeable, but

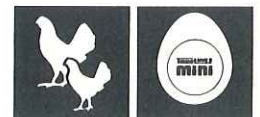
quality, too. Shell thickness of .4 mm. Haugh Units equal 80.0. Blood spots in only 1.3%. Eggs you'd expect from less efficient feed conversion.

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The Mini is small but strong. Growing mortality (0-20 weeks) of only 5.0%. Laying mortality in 12 months only 8.0%. You can rely on the Mini layer's performance ability to remain strong, month after month.

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tons of poultry feed in 1972 as compared to 29 400 and 115 400 tons in 1964 and 1969 respectively. In order to encourage broiler production, two large poultry processing plants of 4800 to 8000 birds capacity a day and 15 smaller ones were also established in various places.

The fifth Plan now in operation envisages a production target of 12 440 million eggs by the end of the planned period. The plan also aims at setting up improved marketing facilities, prevention and control of diseases, encouraging the consumption of eggs and poultry meat both in urban and rural areas and providing loan facilities to farmers to encourage large scale poultry keeping.

A Rs 20 million national cooperative egg marketing federation with four regional egg collection and grading stations are also to be set up in principal cities throughout the country. In addition, 15 egg cooperative marketing federations in all major states would be inaugurated to ensure a fair price for the producer. The national and regional federations would be linked to the state federation for ensuring optimum growth of the industry.

A well conceived research programme will also be undertaken to explore the possibilities of using new and cheaper local ingredients for poultry feed so as to cut down on the cost of producing eggs. This will also include a poultry science programme of education in universities and technical colleges where research into the prevention of egg-borne disease, vaccine and other allied subjects would

be undertaken in a more organised manner.

A Rs 75 million massive poultry production programme is also scheduled to be launched under the fifth Five Year Plan. Under this programme about half of 300 towns and cities with a population of 50 000 and over will be covered by the intensive egg and poultry and marketing centres. They will help promote and establish private commercial farms.

The broiler industry will be another important field that will receive attention. Intensive broiler development projects are now proposed to be set up in the proximity of the existing 17 broiler processing plants.

The fifth Plan with an outlay of Rs 400 million excluding credit facilities amounting to over Rs 500 million from institutional sources, envisages a growth rate of 20% per year at the end of the planned period. If this objective is achieved, not only will the egg production reach the anticipated 12 440 million but it will also provide gainful employment to over 600 000 farmers in the poultry industry.

— D. Wickramanayake

Time For Weighing

Trials by Hubbard have shown that, if breeding birds are weighed regularly to measure their performance against a target weight for their age, the results can be quite misleading unless the weighings are each carried out at the

same time of day. And, if a skip-a-day feeding regime is practised, it is important that the birds are weighed on the off-feed day.

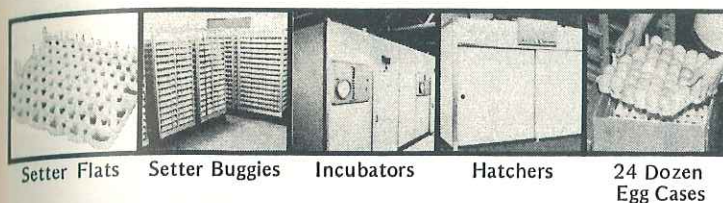
The trials showed that 16-week-old pullets weighing 1.54 kg before feeding weighed 1.7 kg one hour later, 1.73 kg after two hours, 1.76 kg after four hours, 1.79 kg after six hours and again 1.79 kg after eight hours, a gain of 16%. During the following day, however, when the birds received no feed, there was less variation, body weight dropping by a mere 2 or 3%.

Although older birds naturally gained less weight during the day of feeding, there was still sufficient variation to justify a routine in which the weighings were carried out at the same hour. For instance, 36-week-old pullets fed at 7.30 am weighed 3.08 kg at 7 am, 3.15 kg an hour later, 3.21 kg two hours later, 3.25 kg four hours later, 3.24 kg six hours later and 3.23 kg eight hours later, an increase in weight during the day which ranged from 2.2 to 5.5% above the pre-feeding weight.

The trials have shown how misleading it can be to weigh birds at 1pm one day and 8 am another, although this is exactly what happens in some flocks to fit in with other work on a farm. In any case, birds prefer routine and there is much less stress when it is practised.

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Designed to reduce labor costs, increase hatchability and minimize egg breakage.

Chick Master plastic setter flats and buggies are designed and manufactured for exclusive use in Chick Master Incubators. They can be used in your existing machines or as original equipment with new Chick Master Incubators.

Many eggs are lost between the breeder houses and the incubators because of breakage and culling. This loss is consistently around one per cent and may run four or five times higher in some situations.

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In fact, our normal hatch of 12,960 eggs can be gathered and set in approximately 2¼ hours. That's shaving about 1½ hours off our nearest competitor.

To sum it all up, Chick Master's complete hatchery system:
REDUCES LABOR COSTS — Because eggs are only handled once, traying and handling of eggs inside incubator is eliminated.

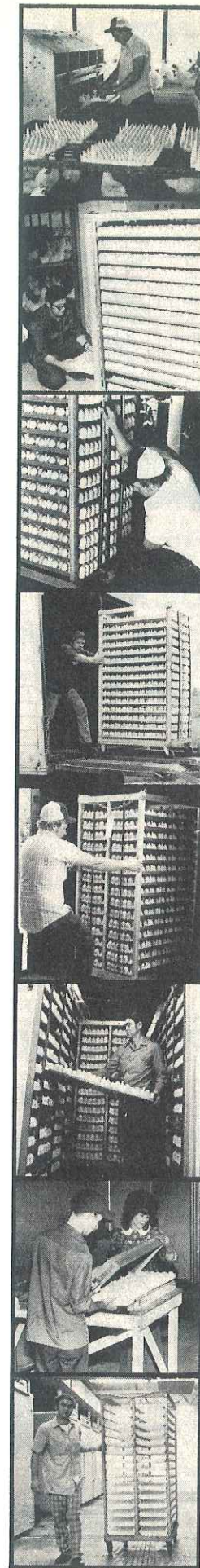
REDUCES EGG BREAKAGE — Because Chick Master plastic setter flats are handled less and cushion eggs in transit from breeder house to and through the hatchery.

INCREASES HATCHABILITY — Because Chick Master plastic setter flats permit improved air flow around all of the eggs. Dirty eggs are easy to spot and cull. Flats and buggies can be easily washed and sanitized.

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At breeder house, eggs are removed from nest and placed into Chick Master plastic setter flats.

Chick Master plastic setter flats are placed into Chick Master buggy in the breeder house egg room.

Attendant places retention bars on Chick Master buggy for trip to hatchery.

Chick Master buggy is rolled onto truck lift and raised (note guide rails on lift and truck bed). . . Truck returns to hatchery.

Chick Master buggies are rolled off onto hatchery loading dock by truck driver. . .

. . . and transferred to Chick Master incubator racks (three flats at a time) using Chick Master's lightweight aluminum pallet.

Eggs are trayed for transfer to the Chick Master hatcher.

Empty Chick Master flats and buggies are taken to be washed and sanitized before reuse.

pata in modo dale, da essere diventata un'industria dal valore di molti milioni di dollari.

La produzione d'uova è aumentata fino a 7.700 milioni al giorno con una consumazione pro capite di 14,5 uova all'anno. Per il 1981 si prevede un aumento fino a 17 uova pro capite all'anno nelle zone rurali e 22 nelle zone urbane.

L'allevamento avicolo organizzato è di data recente nell'India. Fino a due decenni fa, si limitava principalmente ad allevamenti rurali con razze locali. Tuttavia, con il Progetto per lo Sviluppo dell'Industria avicola indiana, iniziato nel 1957, circa 50.000 pulcini furono importati dagli Stati Uniti per il miglioramento delle razze locali. Nell'ambito dello stesso programma furono creati 267 centri agricoli in molte parti del paese, ognuno con un allevamento avicolo di 100 ovaiole di ceppi selezionati, in modo di dare così agli agricoltori una nozione dei metodi moderni di avicoltura. Tra i fattori che hanno contribuito al rapido progresso dell'industria avicola, vi è quello dell'importazione di altri ceppi, provenienti dall'Australia per lanciare nel paese un programma scientifico di avicoltura. Quattro incubatoi sono stati avviati per la moltiplicazione di ceppi migliori.

Sotto il quarto Piano di Cinque Anni vi fu una più ampia intensificazione del programma dello sviluppo

avicolo e parecchi grandi provvedimenti furono presi per arrivare alla produzione locale di mangime. Per incoraggiare la produzione di broilers sono stati installati, in varie parti del paese, due grandi macelli avicoli di 4800 a 8000 soggetti al giorno e altri 15 più piccoli.

E' in progetto un programma di una importante produzione avicola, da lanciare sotto il quinto Piano di Cinque Anni. In questo programma, circa la metà delle 300 città e cittadine, con una popolazione di 50.000 abitanti e più, sarà approvvigionata con grandi centri di produzione d'uova e di polli.

Vi sono progetti per costruire vasti centri di produzione di broilers nella vicinanza di questi 17 macelli.

Il Quinto Piano prevede una crescita del 20% all'anno, alla fine del periodo progettato. Se questo obiettivo sarà raggiunto, non soltanto la produzione d'uova arriverà ai 12.440 milioni previsti, ma vi sarà anche un lavoro ben retribuito per più di 600.000 lavoratori nell'industria avicola.

Crecimiento De La Industria Avicola India

Resumen.—A despecho de muchas contrariedades, como lo son los siempre crecientes precios de los piensos y los medicamentos, la industria avicola en la India se está

convirtiendo en una floreciente industria de millones de dólares.

La producción huevera ha ascendido hasta la cifra actual de 7.700 millones, correspondiendo a un consumo de 14,5 huevos por cabeza y año. Para 1981 se prevé un consumo anual "per cápita" de 17 huevos en las áreas rurales y 22 en las urbanas.

La industrialización de las granjas avícolas en la India es bastante reciente. Hasta hace veinte años, las aves se hallaban en su mayoría confinadas en simples corrales. Sin embargo, bajo el "Proyecto de Desarrollo Total Avicola en la India", iniciado en 1957, alrededor de 50.000 pollitos fueron importados de los Estados Unidos para la mejora de los stocks locales. El mismo programa patrocinó la instalación de 267 centros modelo y de extensión en diferentes puntos del país, dotados cada uno con 100 ponedoras de razas selectas, para proporcionar a los avicultores una serie de conocimientos sobre los sistemas de trabajo y los modernos métodos en las granjas avícolas.

Entre otros factores que han contribuido al rápido crecimiento de esta industria, se halla la importación de ulteriores reproductores, procedentes de Australia, para iniciar en el país un programa científico de selección de aves. Se establecieron también cuatro plantas de incuba-

ción para la multiplicación de las razas selectas.

Durante el cuarto año del "Plan de los cinco años", se intensificó aún más el programa de desarrollo avicola y se inició una importante escalada hacia la consecución del auto-abastecimiento en piensos. A fin de incrementar la producción de broilers se implantaron dos amplios mataderos con una capacidad de 4.800 a 8.000 aves por día, y otros quince más pequeños en diversos puntos.

Se trazó un programa de producción masiva de aves para ser lanzado en el quinto del "Plan de los cinco años". Bajo este programa, serían dotados con centros de producción intensiva de huevos y aves, la mitad aproximadamente de 300 ciudades y núcleos urbanos con una población de 50.000 o más habitantes.

En la actualidad se halla en proyecto el incrementar la cría del broiler mediante la implantación de algunas explotaciones en las proximidades de los 17 mataderos existentes.

El Plan de los cinco años prevé un índice de crecimiento de un 20% anual al final de este período. Si se logra este objetivo, no solo la producción de huevos alcanzará la cifra prevista de 12.440 millones, sino que también se proveerá de un productivo empleo a unos 600.000 granjeros centro de la industria avicola.