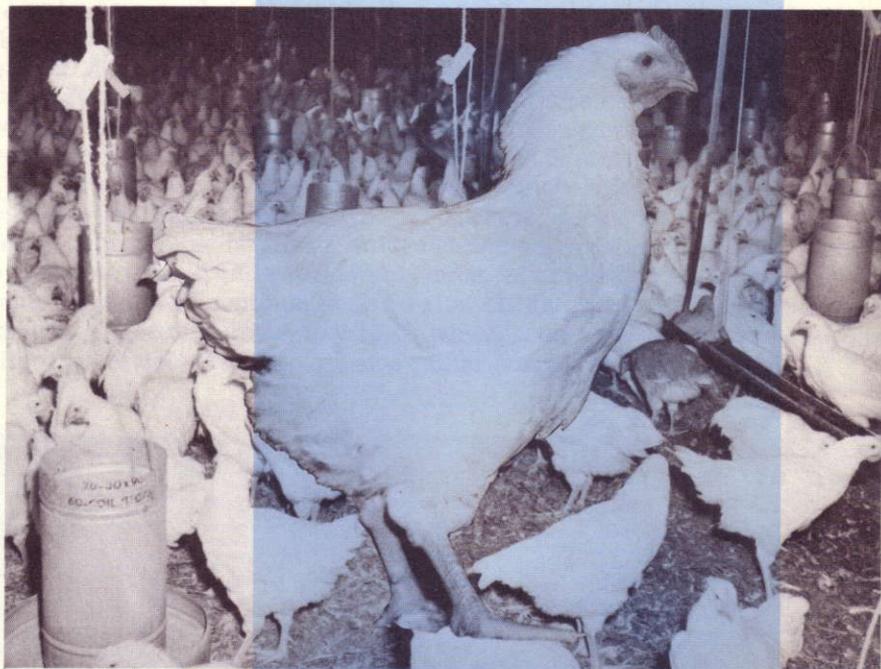


CAPONS



Ontario

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CAPONS

BY
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The author wishes to acknowledge with thanks the assistance, through constructive criticism, of Prof. J. P. Walker of the Department of Poultry Science, and Mr. Ion Weber of Kitchener, Ontario.

The merits of capon meat have been extolled for hundreds of years. Literature from ancient China and Rome, later from France and Britain and other countries of the West, and still later from America, has praised the outstanding eating qualities of capons. The methods of producing capons are widely known and practiced in many areas. Information that will help in the production of top quality birds is contained in this publication.

WHAT IS A CAPON?

A capon is a male chicken that has undergone an operation involving the *complete* removal of the testes, thus inhibiting the production of the male sex hormone. Such inhibition may be accomplished by either surgical or chemical means. A cockerel so treated either fails to develop certain male characteristics or tends to lose them if they are developed. These include: (a) large comb and wattles, (b) crowing, (c) fighting tendencies, (d) aggressiveness. In fact the bird becomes rather effeminate in appearance and actions. (Figure 1.)

Because of this quiet demeanor capons may be raised by themselves or with pullets with little loss due to fighting. Cockerel flocks, on the other hand, often suffer considerable loss because of fighting when raised to roaster size.

Capons tend to add considerably more fat or finish than do cockerels of the same age and will continue to do so after cockerels have ceased growing. This imparts a fine-textured, juicy flesh which retains its tenderness and quality after that of cockerels has become rather coarse, stringy and tough.

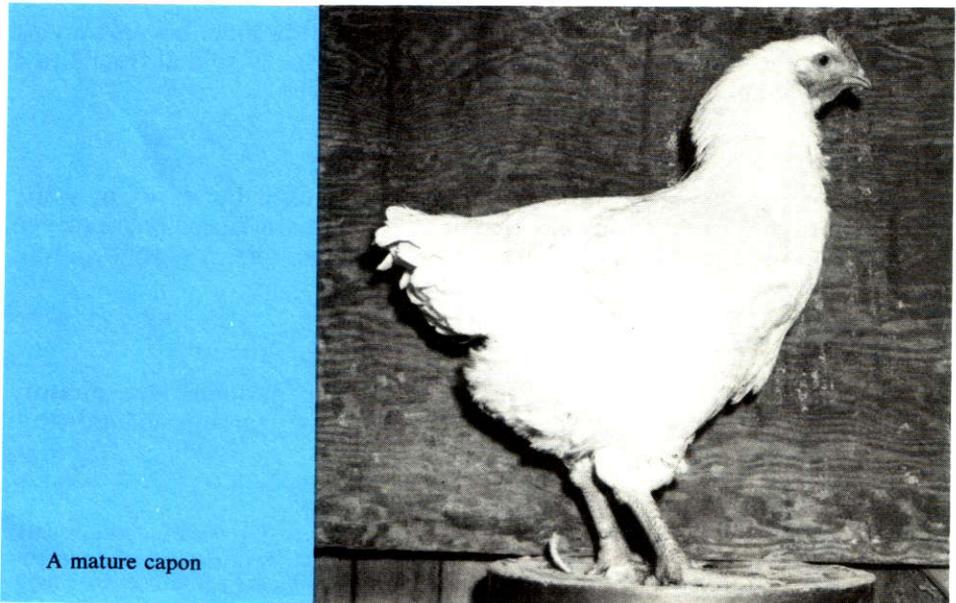


Figure 1

WHAT IS A SLIP AND WHAT CAUSES IT?

A "slip" is a capon that shows some male characteristics in varying degrees. If the two sex organs and their immediately surrounding tissue have not been completely removed some regeneration may take place and result in the production of some male sex hormone. The amount of male characteristics shown is dependent upon the amount of tissue left for regeneration (Figure 2). Fewer slips occur when cockerels are caponized at a young age because of the comparative ease of removal of the testes, cord (vas deferens) and connective tissue; in older stock these become more firmly attached to the body wall.

CHEMICAL CAPONS

The use of female hormones or estrogens will also produce a capon-like bird known to the trade as a caponette. The hormone most commonly employed is diethylstilbestrol; it is usually implanted as a paste or pellet under the skin of the neck near the back of the head. Greatest response is apparent at from 2 to 6 weeks after implantation, depending upon the estrogen used.

THIS FORM OF CAPONIZING IS UNLAWFUL IN CANADA, being prohibited by the Canada Food and Drug Administration because of the fear of potential harm to persons consuming poultry so treated.

AGE FOR SURGICAL CAPONIZING

The surgical operation may be performed at any age from 8 days to 6 or 7 weeks. Commercial caponizers prefer a period from 8 to 12 days of age, claiming less loss, greater speed, and less likelihood of respiratory infections at this age.

It is safest to caponize in a controlled-environment brooder house, moving the birds later to growing pens. Started capons are usually sold at from 3 to 4 weeks of age, allowing time to heal after the operation.

BREEDS SUITABLE FOR CAPONIZING

Cockerels of any breed or cross may be caponized but birds of white plumage are preferred. Those most commonly used are basically meat-type White Plymouth Rocks which grow rapidly to supply a 6 to 8 pound read-to-cook carcass.

CARE PRIOR TO CAPONIZING

For good results birds must be free from all disease, particularly respiratory ailments, and from coccidiosis; they should be healthy, vigorous and growthy.

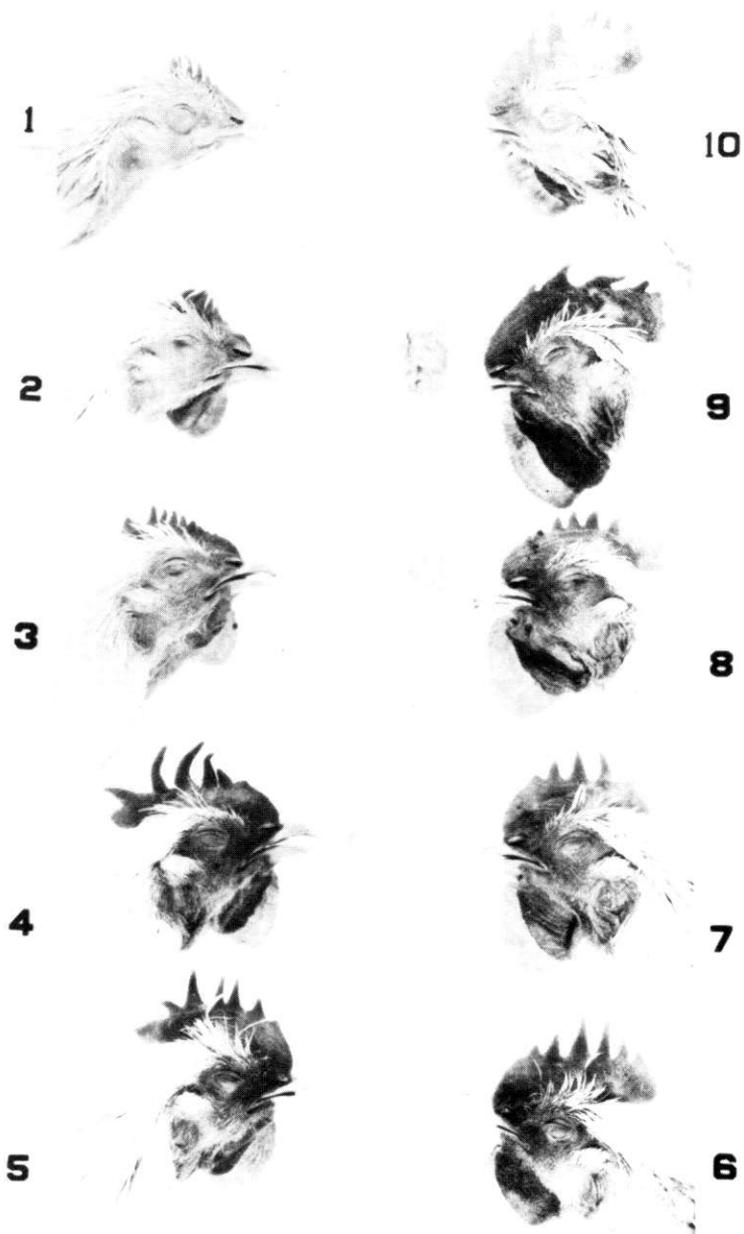


Figure 2

Heads of mature capon (1), cock (10), and slips (2 to 9) with the amount of testicular tissue found in the bodies of each shown in front of the respective beak. No. 2 would still be accepted as a capon, No. 3 would have been at an earlier age. No. 7, 8 and 9 never did show capon characteristics.

No feed should be available for at least 12 and preferably 15 hours before the operation so that the intestines will be empty, thus making the operation much easier. Some caponizers withhold water for a few hours also, resulting in a slowing down of blood circulation and hence reducing the danger of hemorrhage.

Note: Care must be taken to ensure there is no feed in the litter or the intestines may be distended even though hoppers have been removed.

EQUIPMENT REQUIREMENTS

1. Caponizing instruments: In general these are of two types, electric and non-electric. It is claimed the electric instruments will cauterize the wound and result in less hemorrhage and fewer slips. This it does well; however, danger in their use lies in the fact that any tissue touched is also cauterized or burned, usually resulting in higher morbidity in the flock. Commercial caponizers claim

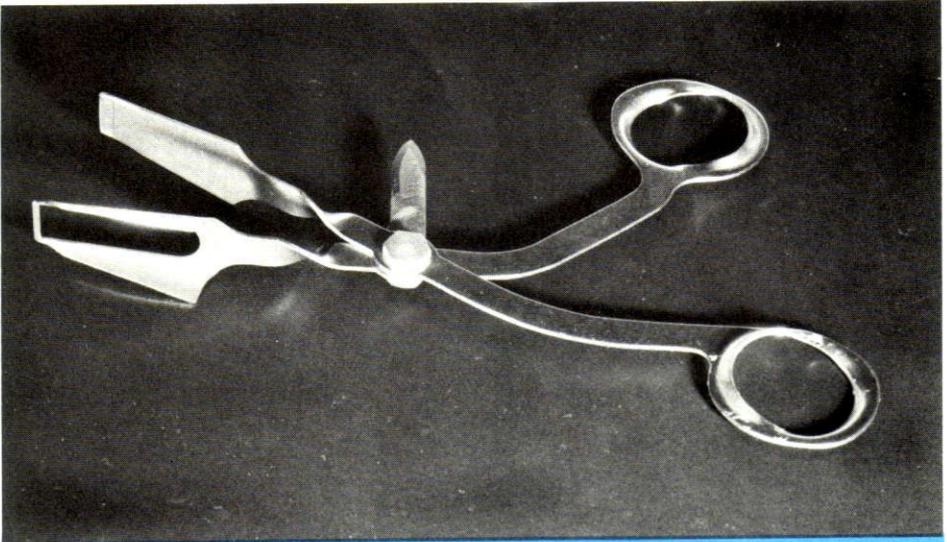
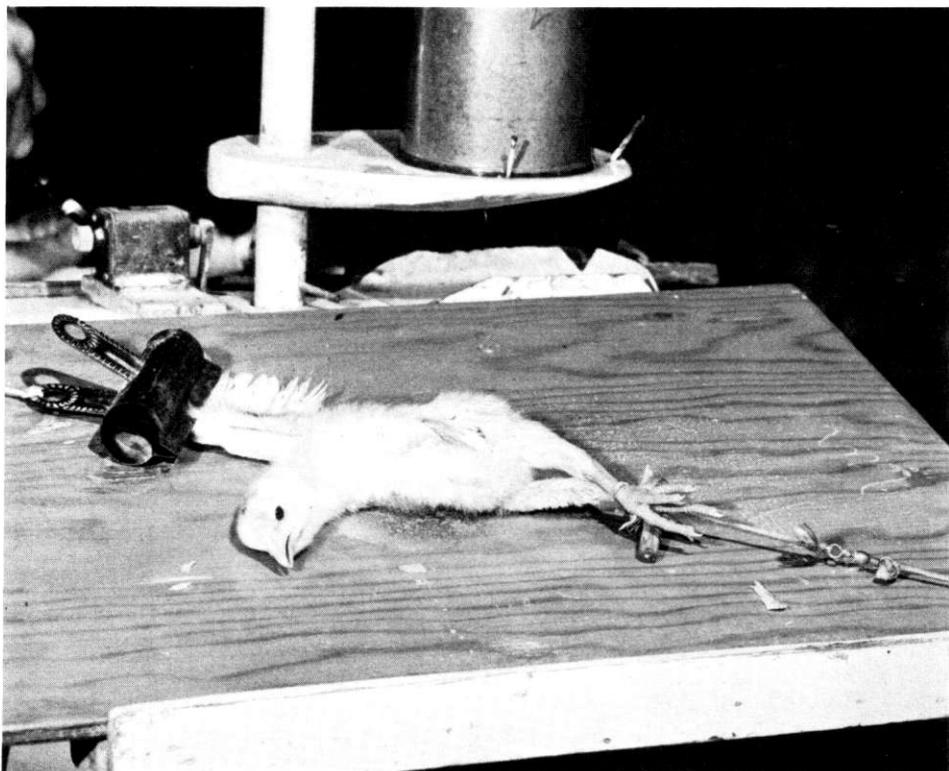


Figure 3

The all-in-one caponizing instrument.



The operating board with a chick ready for the operation.

Figure 4

that the use of the non-electric instrument is faster and more efficient, and the instrument is lower in initial cost. Much depends upon the operator. The instrument favored by most is the "all-in-one" caponizing instrument (Figure 3). This incorporates a scalpel, a spreader and a forceplike remover in one tool.

2. A board or table on which the bird may be tied as shown during the operation (Figure 4).

Where time and speed are important, a revolving table (Figure 5), adjustable for height, may prove of value. Such a two-sided table will allow a helper to remove one bird and fasten down the next for the caponizer while he operates on another.

3. A small dish or jar of mild disinfectant (visible in Figure 5) will serve to hold the instruments and to keep them clean.

4. Good lighting - without which satisfactory work is impossible, for the caponizer will not be able to locate and see the testes for removal - is essential. Strong lamps may be available or a homemade battery-powered lamp made from a flashlight head and fastened by a band to the operator's forehead may prove satisfactory. (Figure 5.)

DESCRIPTION OF THE OPERATION

The starved bird is stretched on its right side and securely fastened as in Figure 4. Care must be taken to stretch the bird tightly. Remove any down or pin feathers from the area above the posterior ribs and in front of the hip bones. Moisten the area with weak disinfectant and locate the space immediately behind the last rib, draw the skin forward from the hip, stretching it tightly between the thumb and forefinger. Make a small incision through the skin and muscle (Figure 6). Properly made, the incision will extend up to the posterior air sac wall exposing and opening slightly the lower edge of the sac. With practice one can open the bird and air sac in one stroke. The instrument is carefully inserted into the opening (Figure 7) and then turned to act as a spreader so the caponizer can see into the abdominal cavity of the bird (Figure 8).

Bleeding may possibly be caused by severing the cutaneous vein which runs diagonally from the wing to the thigh; while not serious, this often confuses the beginner by obstructing his vision. A piece of absorbent cotton will help remove blood. If the incision is properly made and the intestines collapsed, the left testicle will be in plain view just below the front end of the kidney. It will vary in size, shape, and color but is more or less bean-shaped and usually yellowish gray in color. (Some may be partly or completely black.) Almost directly below the upper or left testicle and separated from it by a thin membrane will be the right testicle. Some operators remove first the lower and then the upper (right then left) organ from the one incision. If the upper testicle is removed first any slight hemorrhage will obscure vision of the lower. This is more difficult and the beginner is advised to reverse the bird and make incisions on both sides, removing one testes through each; indeed, most commercial caponizers follow this latter procedure. If both are taken from the one side it is suggested the operation be done on the right side.

In grasping the testes in the jaw of the remover it is wise to draw the organ well away from the back before closing the instrument tightly. This "taking up the slack", as it were, is a precautionary measure so that the large vein (posterior vena cava which lies along the back above and between the two testes) will not be clamped also and possibly ruptured, causing the death of the bird. The remover with the enclosed testis is slowly removed with a twisting motion until the various tissues connecting the organ to the body are severed (Figure 9). The skin which has been pulled to one side is allowed to spring back to cover the opening and to allow more rapid healing (Figure 10). The bird is turned over without removing it from the board and the remaining testis removed in a similar manner.



A commercial caponizing set-up.

Figure 5

PRECAUTIONARY SUGGESTIONS

Care should be taken to make the incision behind the last rib; if made too far forward, the lung may be injured. There is some danger of injury to the kidney and *extreme care* must be taken not to rupture this organ and also not to cut the leg muscle.

It is essential to remove not only all particles of testes material, but also to remove the sac of peritoneal membrane in which they are contained, including its attachments, the epididimus and a short piece of the vas deferens or cord. If this is not done a high percentage of slips will usually result.

The principal danger in caponizing is the accidental rupturing of one or more of the large blood vessels (particularly the posterior vena cava previously mentioned) resulting in severe hemorrhaging and rapid death. Smaller blood vessels if ruptured may bleed profusely but vigorous birds usually recover quickly. Take care not to clamp such blood vessels with the testes between the jaws of the forceps-like remover and there will be little danger from the operation. With normal sanitary precautions there is a minimum of danger from infection, primarily because of the high blood temperature of chickens.

The incision

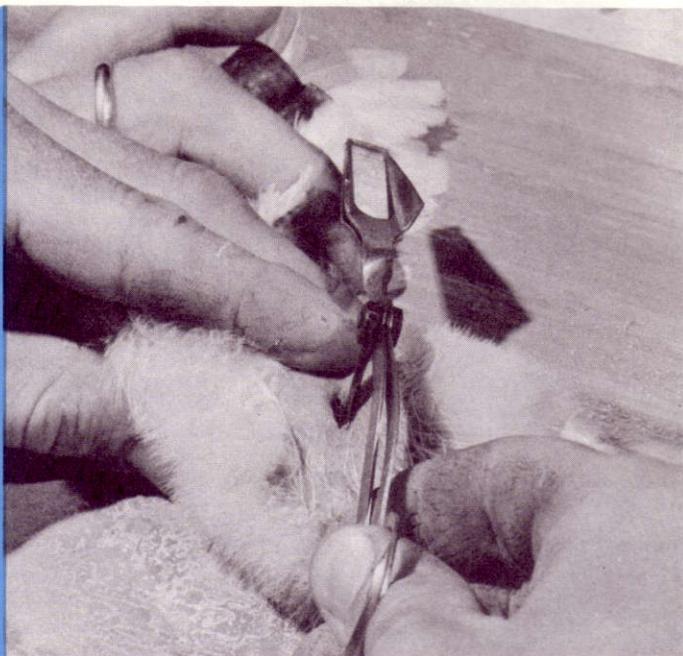
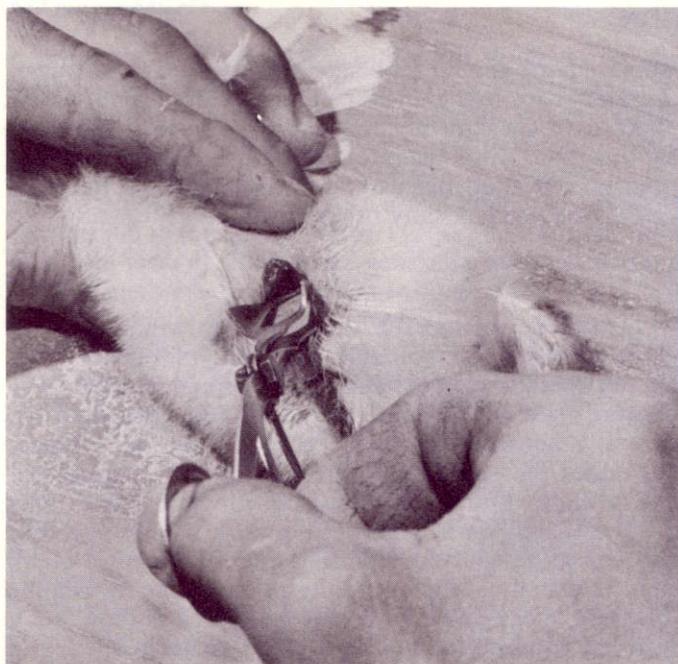


Figure 6

Inserting

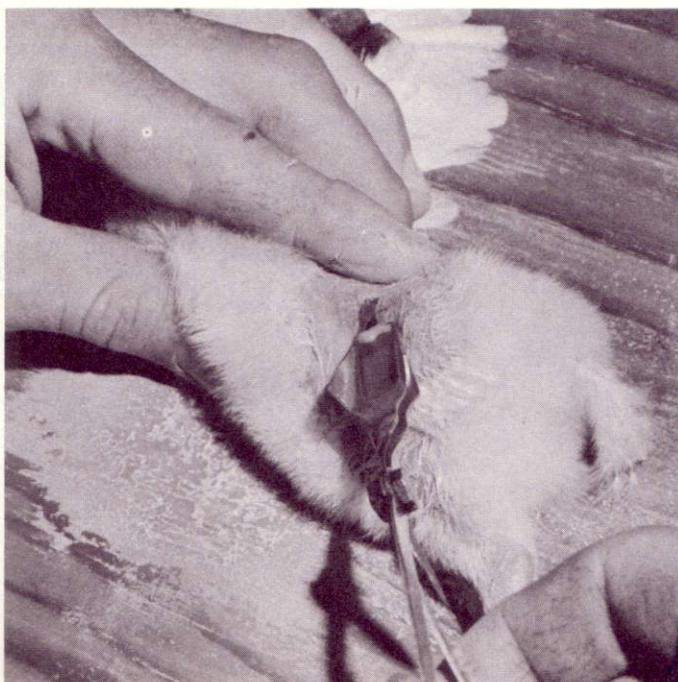


Figure 7



Spreading

Figure 8



Removal of tissue and testicle

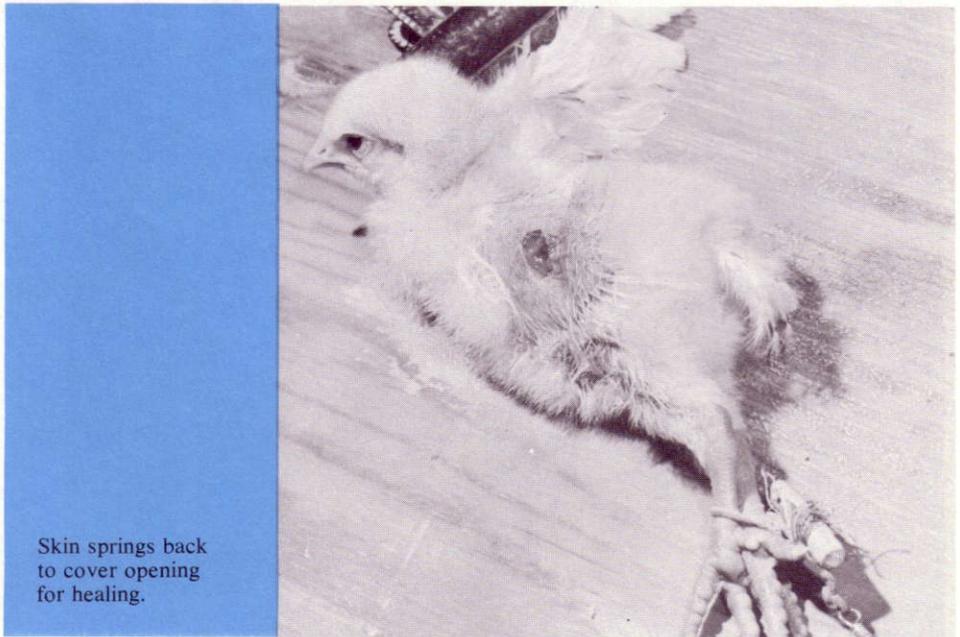
Figure 9

AFTER THE OPERATION

Following the operation capons should be placed by themselves in warm, clean and comfortable quarters with free choice feed and water. Do not either chill or overheat, and take extreme care not to expose birds to respiratory diseases or coccidiosis at this time. Birds that are moved immediately to range quarters *must* be kept out of rain until the wound is healed. Once they are completely healed capons are as hardy as any other chicken.

WIND-PUFFS

For approximately two to three weeks after the operation wind-puffs will likely occur. These result from the unavoidable puncture of one or both abdominal air sacs during the operation. In exhaling, air is forced into the body cavity through these punctures and out through the incision between the ribs. The surface incision generally heals more quickly than the interior tissues, hence this air is trapped under the skin, resulting in wind-puff (Figure 11). Puncturing the skin with a sharp knife will allow the air to escape. This treatment may have to be repeated until wind-puffing stops. Only severely puffed birds require treatment although minor puffing may be noted in many individuals. One treatment is usually sufficient; daily release hinders healing and is to be avoided. Unless the mobility of the bird is hampered not too much concern need be shown as the wind-puff condition usually corrects itself.



Skin springs back to cover opening for healing.

Figure 10

MANAGEMENT

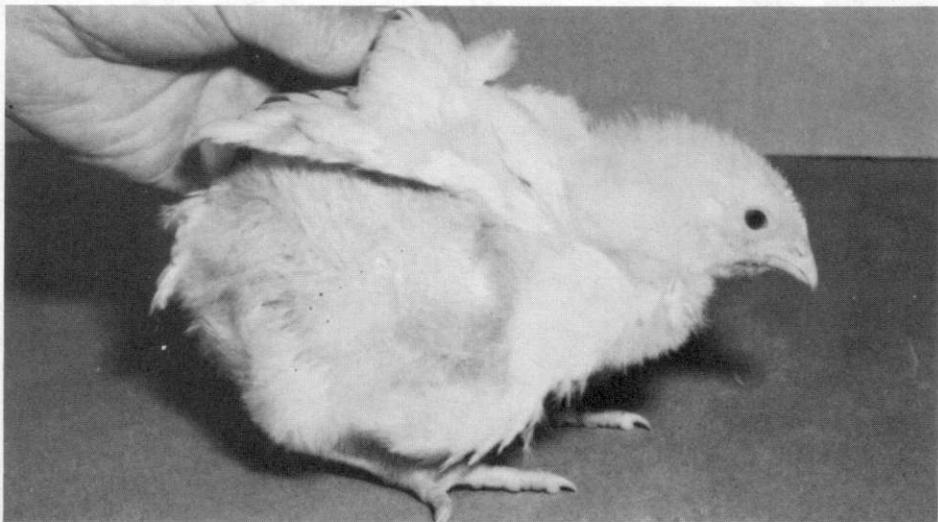
Capons may be grown either on range or in confinement, with most commercial growers today favoring the latter system. With confinement birds, there is good control over the stock, good efficiency and growth and year-round production involving two to three crops per year. Little special care is required other than plenty of feed and water space. Proper ventilation to ensure dry litter and fresh air without chilling the birds is a must. The flock will require 0.6 to 0.9 square metres (2 to 3 square feet) per bird of floor space for optimum growth. Roosts are generally not considered necessary. (Figure 12.)

For intensive production it is common practice to follow a broiler feeding program up to eight weeks and to carry on from this point with complete roaster rations. These should be in pellet form and offered on a free choice basis with *no* extra grain or minerals. Grower or hen-sized insoluble grit may be fed at the rate of 0.5 to 0.9 kilograms (1 to 2 pounds) per 100 birds per week.

Feed a 17% protein diet from 8 to 11 weeks of age inclusive; at this time switch to a 15% diet until marketed. It is often advisable to feed 10 to 20% of corn or wheat, at the expense of the regular diet, during the last week or two in order to ensure a well-finished bird. Capons are usually marketed at between 15 and 18 weeks of age and weighing 3.6 to 4.1 kilograms (8 to 9 pounds) liveweight.

For those wishing to produce capons on a less intensive scale a chicken starter and grower program may be used. Mixed grain can be fed starting at 6 to 8 weeks of age.

Another satisfactory feeding program is to utilize a 35 to 50% protein supplement mixed with ground corn or other suitable grains to give the desired levels of protein. The supplement should be in crumble form and the grains coarsely ground or rolled. Follow instructions of the feed supplier.



A wind-puff.

Figure 11

BREAST CYSTS

The incidence of breast cysts, one of the most common problems encountered by capon growers, varies from flock to flock and unless prevented or removed after slaughter can cause serious losses in grade and sales value. Deep-breasted, slow-feathering stock is highly subject to cysts. Improper roosts, wire and/or poorly bedded floors and wet litter are often other factors involved. Capons tend to be rather inactive, sitting down a lot of the time particularly as they near market age and more particularly if they suffer from leg weakness. The constant rubbing of the skin over the keel bone and the subsequent irritation often causes the formation of a blister or cyst. Both hereditary leg weakness and abnormally deep keel formation can be bred out of birds, hence growers are advised to check the blood lines of stock they select for capon production.

Note: Capons will grow neither more rapidly nor more economically than cockerels of good meat-type stock. They do tend to "fatten-up" better than cockerels to 3.6 to 4.1 kilograms (8 to 9 pounds) market weight. The breed most commonly used is the White Plymouth Rock.

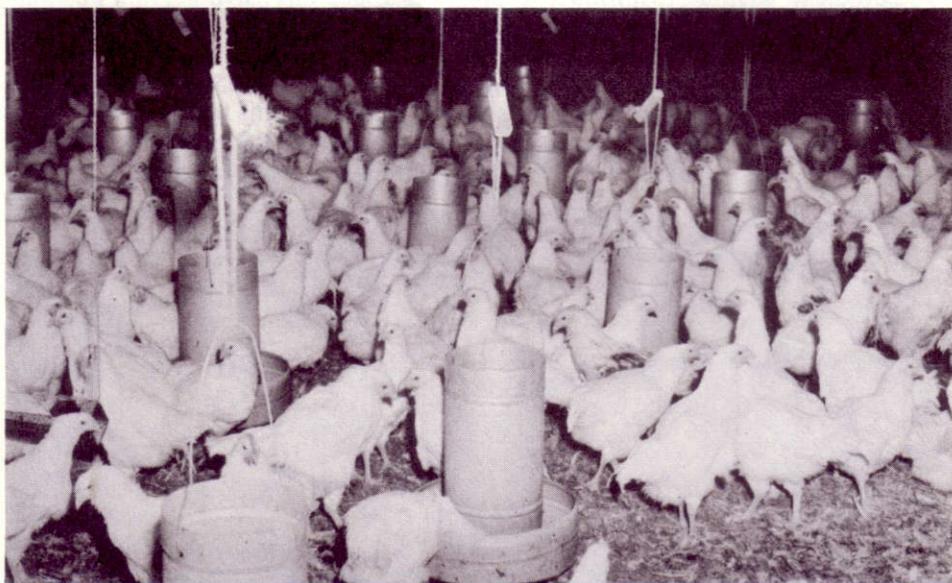


Figure 12

A commercial pen of capons.

