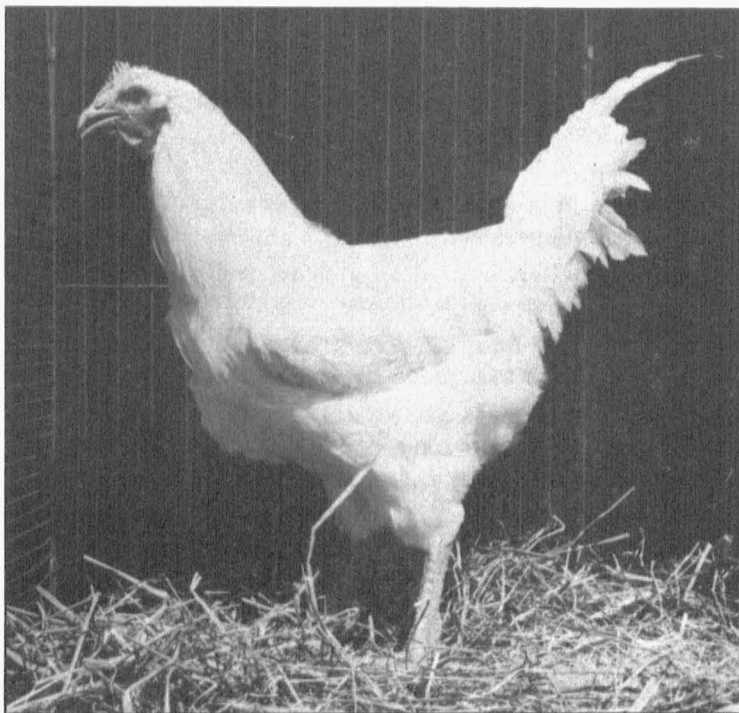


UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE  
AGRICULTURAL EXPERIMENT STATION

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# Producing and Marketing Capons

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### THIS CIRCULAR AT A GLANCE

1. Capons, if properly fed and cared for, will grow into fine quality, fat, tender meated birds for the table.
2. White Rocks, Barred Rocks, New Hampshires, Wyandottes, Rhode Island Reds and first crosses of these breeds are most desirable for caponizing.
3. Young males, about 8 weeks of age, and weighing  $1\frac{1}{4}$  to 2 pounds should be selected for caponizing:
4. Instruments required for caponizing are:
  - (1) Sharp knife, for making the incision
  - (2) Spreader, for keeping the incision open
  - (3) Probe, for tearing membranes and to aid in locating the testicle
  - (4) Forceps, for removing the testicles
5. Birds should be observed daily for wind puffs for at least two weeks following the operation.
6. A range shelter, located on a clean, well sodded range makes ideal summer quarters.
7. An abundance of grain and growing mash before the birds at all times is essential to achieve the desired large size in capons.
8. Some Missouri data showing comparative feed consumption and growth of capons and cockerels are presented.
9. Because of increased feed consumption and small gains after 28 weeks of age it appears advisable to market capons at 28 weeks of age or as soon as they reach an acceptable market weight of six to eight pounds.
10. Capon prices are favorable and reasonably steady from the last of December until March.

# Producing and Marketing Capon

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The art of caponizing has been practiced for centuries. Kings and queens of ancient royalty found capons a delicacy of unsurpassed flavor and tenderness. Exclusive restaurants and hotel dining rooms of the present day list "roast young capon" as the "piece de resistance" of the featured meals on their menus. Because of this traditional association of capon with rare and expensive items of food, there has grown up around this bird many legends of its huge size and the big profits to be gained with little effort on the part of the grower. The prospective grower should realize that many of these stories of unusual size in capons are of legendary nature. As to "big profits", a glance at the price of capons as compared to other classes of poultry will lend little support to this theory. What then, is to be gained by caponizing? An analysis of our knowledge of capon production shows the following advantages:

1. Capons, if properly fed and cared for, are fine quality, fat, tender-meated birds.
2. Late hatched chicks, which ordinarily are sold when the market is low, can be caponized and sold later at a more favorable price.
3. Capons can be produced for home use during the late months when the flock owner hesitates to slaughter a laying hen for the family table.

## BREEDS TO CAPONIZE

Since market requirements are for capons to weigh six pounds and over, a large breed should be selected. The consuming public also prefers the yellow-skinned breeds with clean shanks (free from feathers). Therefore White Rocks, Barred Rocks, New Hampshires, Wyandottes, Rhode Island Reds, and first crosses of these breeds are most desirable for caponizing. These breeds are also early maturing and can be produced at less cost than larger, slower developing breeds.

## THE CAPONIZING OPERATION

Normally the best market months for capons are December, January, February and March. The caponizing should be performed about five months before the expected market date. Chicks of the dual purpose breeds hatched from April 15 to June 1, if properly fed and cared for, should attain sufficient size for the market requirements.

Birds to be caponized should be starved for twelve hours or longer before the operation. The object in starving the birds is to have the intestines empty so that the testicles will be plainly visible during the operation.

Young males weighing  $1\frac{1}{4}$  to 2 pounds and showing good feathering and bone development as indicated by the size of the shanks should be selected. Smaller sizes may be caponized successfully but caution must be exercised so as not to break the ribs on the smaller birds when the spreaders are inserted into the operating incision. In larger birds the membrane surrounding the male testicle becomes tough and a higher mortality from the operation results with a greater chance for "slips". A young cockerel of the proper size for caponizing is shown in Figure 2.

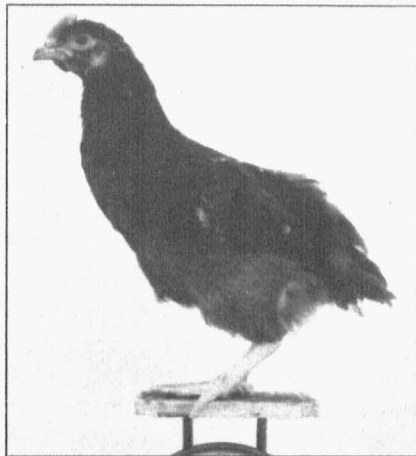


Figure 2.—Healthy young cockerels weighing from  $1\frac{1}{4}$  to 2 pounds should be selected for caponizing.

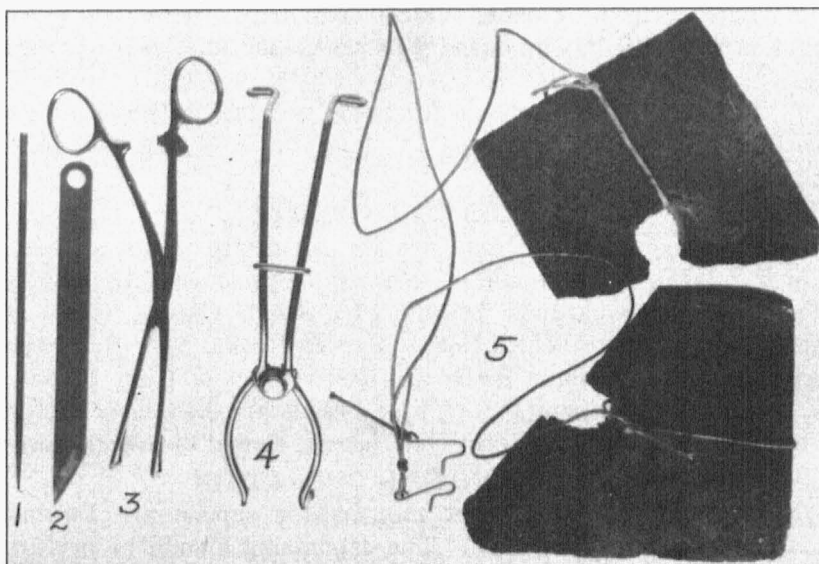


Figure 3.—Caponizing instruments. (1) Hook with blunt end to be used for probing, (2) Knife, (3) Forceps, (4) Spreaders, and (5) Weights for holding the bird down. (Note the hooks which hold the strings in place around the wings and feet.)



Tools required for caponizing are: a knife or scalpel for making the incision, a spreader to hold the ribs apart, a hook with the blunt end to be used as a probe, and forceps for removing the testicles. These instruments are illustrated in Figure 3. There are several types of commercial caponizing sets available. A satisfactory set

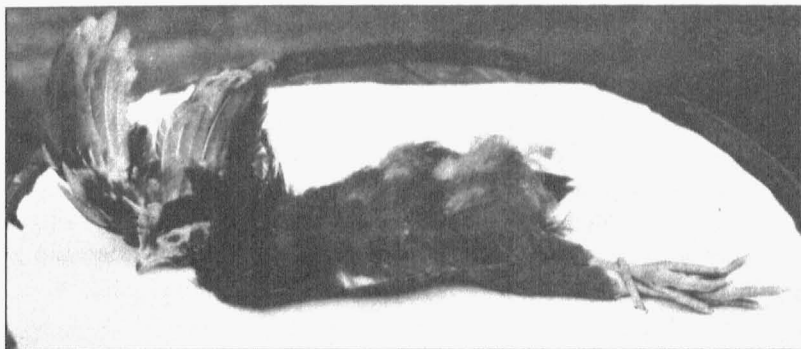


Figure 4.—A barrel top may be used for the caponizing stand. Legs and wings are held in place by means of heavy cord with weights fastened to the ends.

should be light in weight and of stainless metal. The type of forceps used is of special importance because those that do not clamp evenly on the ends will many times result in "slips" caused by leaving a portion of the testicle or membrane in the bird. An electric knife has proven highly satisfactory in the laboratory work at the College of Agriculture. This knife heats until red and the effect is to cauterize the tissue so that no blood appears to interfere with the operation. However, considerable care must be exercised when the electric forceps are used because the blood vessels near the testicle will be ruptured if touched with the heated forceps.

Direct light is very important in locating the testicle and the operator should work with his back to the sun so that the direct sunlight will enter the body cavity. A barrel top or small box may be used for an operation table and the bird may be held on its side by an assistant who holds the legs and wings stretched back firmly. A satisfactory means of holding the birds is shown in Figure 4.

The feathers should be plucked from the immediate area through which the incision is to be made. The last two ribs toward the tail of the bird are located, and the incision is made with the knife. The incision should be slightly curved so as to follow the shape of the ribs. Incisions improperly made will result in profuse bleeding and it will be difficult to locate the testicle.

The incision between the last two ribs will bring the intestines into view beneath the peritoneal membrane and the abdominal air sac. With the hook tear through these membranes. The testicle should be visible. It is attached to the upper wall of the abdominal cavity. It may be necessary to gently probe the intestines toward the lower or ventral wall of the body cavity in order to bring the testicle into view. It is normally yellow in color but in some birds it may appear gray or dark in color. The size will vary depending on age, strain, and variety. The testicle should be drawn out with a slight twisting motion. The removal of the testicle is shown in Figure 5. Extreme care should be exercised in grasping the testicle with the forceps. Most operators find it will be desirable to operate from both sides of the bird with an incision between the last two ribs on each side. Expert operators may remove both testicles from the same side with only one incision.

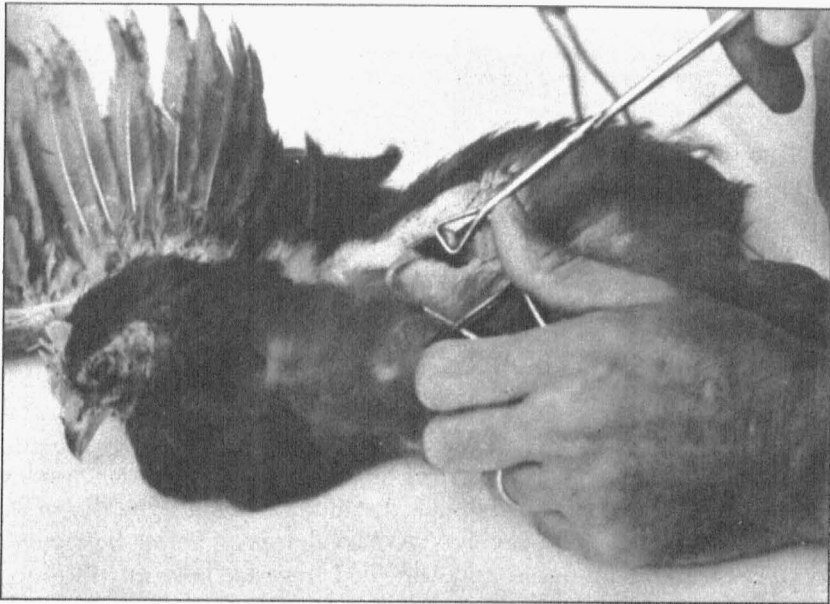


Figure 5.—Removing the testicle. The testicle is being removed with the forceps. The spreaders hold the incision open.

A pan of water containing a mild disinfecting solution such as 2% compound cresol should be used for bathing the incision area and in cleaning the caaponizing instruments between operations. Following their use, the instruments should be thoroughly washed, rinsed in boiling water and carefully dried.

### CARE FOLLOWING THE OPERATION

The young capons should be handled carefully and placed in a roomy pen with clean litter. It is most satisfactory to remove roosts and place the feeders down on the floor so that the birds will not be forced to fly or jump upon high feeder stands or roosts. Excessive activity retards healing and tends to increase the number of birds with wind puffs. If placed in with other birds of the same age, the capons should be observed frequently to make sure that cannibalism does not start.

"Wind puffs" are due to an accumulation of air under the skin. Air escapes through the opening made by the incision and is trapped after the skin opening has healed. It is probable that 25 per cent or more of the flock will develop wind puffs. Therefore, it is advisable to handle the birds individually and puncture the skin with a large needle or sharp pointed knife so that the air may be forced out by pressing the skin on each side of the opening. The opening becomes sealed within a few minutes and heals rapidly. If this condition is not corrected, the birds are uncomfortable and do not consume a normal amount of feed. A few birds may require handling as many as 4 times for the two weeks immediately following the operation.

### MANAGEMENT DURING THE GROWING PERIOD

Capons should be cared for during the growing period in much the same manner as the growing pullets. A range shelter located on a clean, well sodded range makes ideal summer quarters. An abundance of grain and growing mash before the birds in feeders at all times is essential to achieve the desired large size in capons. Whole, yellow corn or mixtures of yellow corn, wheat, and oats are satisfactory grains for growing capons. Because oats are high in fiber, it is not advisable to use more than one-third of whole oats in the grain mixture. The Missouri formula growing mash is made as follows:

#### GROWING MASH

Yellow corn meal .....	(26.3%).....	100 lbs.
Wheat shorts .....	(26.3%).....	100 "
Wheat bran .....	(26.3%).....	100 "
Alfalfa leaf meal .....	( 4.2%).....	16 "
Meat scrap .....	( 7.9%).....	30 "
Soybean oil meal .....	( 7.9%).....	30 "
Salt .....	( 1.0%).....	4 "
Total .....		(100 %).....380 lbs.

With the advent of cold weather, the capons should be moved to winter quarters. If there are only a few birds, they may be housed

with the laying flock. Larger numbers of capons should be housed separately so that they will consume more feed and continue to grow and fatten. Feeders containing mash and grain should be placed in the house convenient to the birds. The roosts should be placed low in order to prevent injury to these heavy, docile birds.

### DATA ON FEED CONSUMPTION AND GROWTH

The results of two years study comparing feed consumption and growth of New Hampshire cockerels and capons are shown in Tables 1 and 2. The birds in the first year's trial were hatched April 13 and those the second year were hatched May 17. Both years the young

TABLE 1. - FEED CONSUMPTION AND EFFICIENCY  
OF GAINS OF CAPONS AND COCKERELS  
(A Summary of Two Years' Experiments)

FIRST YEAR								
AGE IN WEEKS	Cockerels				Capon			
	Mash	Grain	Total feed to date	Lbs. feed per lb. gain to date	Mash	Grain	Total feed to date	Lbs. feed per lb. gain to date
0-2								
2-4								
4-8								
8-12	4.47	1.23	5.70	4.29	4.76	1.17	5.93	5.29
12-16	5.07	1.74	12.51	5.64	4.98	2.10	13.01	5.91
16-20	5.86	3.07	21.44	5.64	6.14	3.22	22.37	6.05
20-24	*	*	*	*	4.13	4.40	31.08	6.25
24-28								
28-32								

SECOND YEAR								
AGE IN WEEKS	Cockerels				Capon			
	Mash	Grain	Total feed to date	Lbs. feed per lb. gain to date	Mash	Grain	Total feed to date	Lbs. feed per lb. gain to date
0-2	.28		.28	2.14	.28		.28	2.14
2-4	.76		1.04	2.40	.76		1.04	2.40
4-8	1.47		2.51	2.86	1.47		2.51	2.86
8-12	4.42	0.93	7.86	4.78	3.78	1.16	7.45	5.49
12-16	6.17	2.43	16.46	4.19	7.54	2.52	17.51	4.84
16-20	4.79	4.29	25.54	5.08	2.30	4.86	24.67	5.15
20-24	*	*	*	*	2.61	5.27	30.55	5.36
24-28					2.16	4.52	39.23	5.65
28-32					.45	6.12	45.80	6.18

\* Cockerels marketed as roasters at 20 weeks of age.

males were caponized at 8 weeks of age when their weight averaged  $1\frac{1}{4}$  lbs. per bird. Mortality caused by the operation was less than 2 per cent for each year.

At 20 weeks of age there was no significant difference in weight between the cockerels and capons. Both years there was a slight

weight advantage in favor of the cockerels which was probably due to the slight set back to growth caused by the caponizing operation. All cockerels were marketed at 20 weeks as roasters. Cockerels that are kept longer than 20 weeks of age become staggy and sell for no more than old cocks on the market.

TABLE 2. - COMPARISON OF GROWTH OF CAPONS AND COCKERELS  
(Average weight in pounds)

AGE IN WEEKS	First Year		Second Year	
	Capons	Cockerels	Capons	Cockerels
0	.09	.09	.10	.10
4	.50	.50	.42	.43
8	1.23	1.23	1.20	1.17
12	2.35	2.56	2.10	2.29
16	3.43	3.45	4.30	4.50
20	4.93	5.03	5.50	5.70
24	6.20	*	6.80	*
28			7.70	
32			8.20	

\* Cockerels marketed as roasters at 20 weeks of age.

Capons must be grown to heavy weights, if they are to command a premium on the market. The data gained in the second year's trial show that it required approximately 39 pounds of grain and mash to grow capons to 28 weeks of age. When fed to 32 weeks of age the capons required more than 6 pounds additional feed. Since the capons gained an average of only  $\frac{1}{2}$  pound per bird from 28 to 32 weeks and required more than six pounds of feed to make this small gain it would seem advisable to market the capons at 28 weeks of age and as soon as they reach acceptable market weight.

### MARKETING CAPONS

In Missouri, the larger markets start quoting capon prices early in November and continue until April. The average monthly prices quoted on the St. Louis market for the years (1943-44), (1944-45) are shown in Table 3. A study of these and other data indicates that capon prices are favorable and reasonably steady from the last of December until March. However, when the cost of feeding the capons in relation to the amount of gain produced after 28 weeks is considered, it would seem advisable to sell the birds during the early part of the favorable market period if the birds have reached the required size.

The producer should keep in mind that in raising capons in large numbers, he is producing a "luxury" bird and catering to a discriminating trade. This trade demands that the birds be of prime finish,

well picked, and properly graded and packed. Produce plants that have proper dressing, cooling and holding facilities are in a position to grade and pack the capons in a manner which is most pleasing to the consumer.

TABLE 3. - MONTHLY AVERAGE PRICE OF CAPONS AND ROASTERS\*  
St. Louis Market

Year	Month	Capons		Roasters
		6 lbs. & over	Under 6 lbs.	4 lbs. & over
1943-44	Nov.	.309	.274	.274
	Dec.	.309	.274	.274
	Jan.	.309	.274	.274
	Feb.	.309	.274	.274
	March	.309	.274	.274
1944-45	Nov.	.309	.274	.274
	Dec.	.309	.274	.274
	Jan.	.314	.279	.279
	Feb.	.319	.284	.284
	March	.323	.288	.288

\* Prices on capons are usually quoted starting in November and continuing through March. Note that light weight capons have the same market value as roasters.

Some growers contact a reliable commission man located in the larger markets and ship their birds dressed. If a commission man is selected the grower should have a definite understanding and information as to shipping instructions, method of dressing, method of packing, probable price, etc., before making shipments. Other growers prefer to work up a private trade. In any case, for best results, the market must be assured of a dependable volume of uniform, quality birds.

### CROOKED BREASTBONE

It has been observed that some lots of capons have a distinct tendency to develop crooked breastbones. This tendency is hereditary and is also influenced by environmental conditions. Such birds are discounted heavily on the market and the grower should take every means of avoiding this serious market defect in his growing birds. Wide roosts of 2 x 4 inch material laid flat should be of help in preventing this condition. Some growers remove all roost poles and force the birds to "roost" on the floor of the house.

### SLIPS

"Slips" are birds that develop as cockerels due to an unsuccessful operation. Such birds have no extra value when allowed to become staggy. They should be removed and marketed as roasters as soon as they can be distinguished. They are characterized by having a

bright red, well developed comb and the general activity of a vigorous cockerel. When the operation is properly performed the number of slips should not exceed 5 to 10 per cent of the flock. The head of a slip as contrasted to that of a capon is shown in Figure 6.

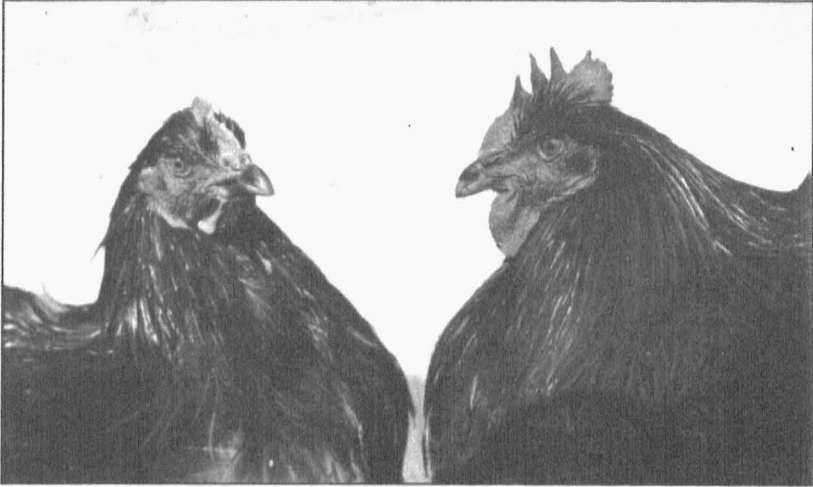


Figure 6.—“Slips” may be recognized by their comb development. (Left) a capon with typical small comb and wattles. (Right) a “slip”.