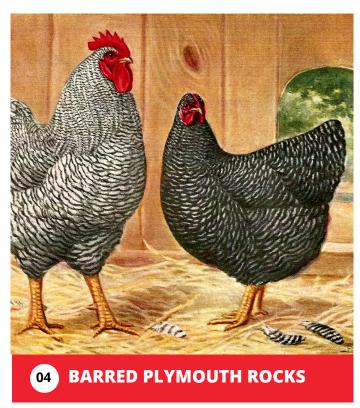
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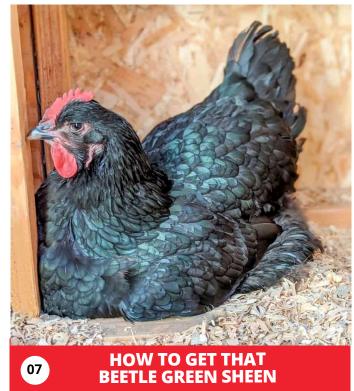
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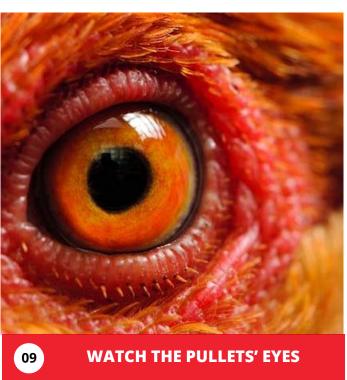
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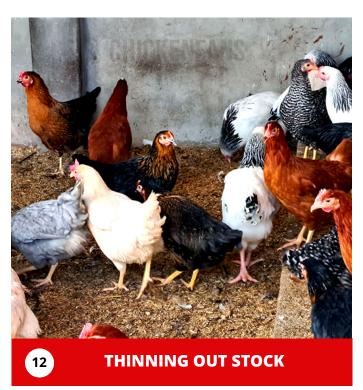
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02 POULTRYNZ EDITORIAL O3 RECIPE
POTATO WEDGES WITH TOMATOES
AND PEAS









Poultrynz Editorial

Only a few weeks until Christmas. Most of the youngsters are getting their next lot of feathers and the good ones are showing through. By now you can pick out the Cockerels and separating them from the Pullets. Laying birds should also be in full swing too and good egg production should carry on right through the Summer and Autumn. It is Red Mite Season too so you

need to be aware of them. Getting onto a management program is the way to go. Lots of people have told me they don't have Red Mite but in reality they do, so a good idea is the go out to your Poultry Pens about 10pm to see if you notice any Red dots on your birds.

Until next issue.
Regards, lan Selby

If you have friends or colleagues who might appreciate the Poultrynz newsletter please feel free to pass it on. Your friends can also be added to the distribution list. Send their email and the word "subscribe" to poultrynz@xtra.co.nz

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Residual Red Mite Control

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General supplement

Add daily to feed 1-2 teaspoons of *Poultrynz D.E.* per chicken.

300g Puffer - \$18.00 lkg - \$22.00 2kg - \$38.00 4kg Bucket - \$75.00 8kg - \$130.00



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Avoid inhalation of dust. Wear a suitable dust mask when using or operating in confined spaces.

POTATO WEDGES WITH TOMATOES AND PEAS

INGREDIENTS

Serves 4

- 1 kg Agria potatoes; choose large and long potatoes
- 2½ Tbsp olive oil
- 1 Tbsp butter
- 125g dry-cured bacon, roughly chopped
- 2 small inner sticks celery, sliced
- 1 small onion, chopped
- 2 cloves garlic, crushed
- 1 Tbsp chopped rosemary
- 600g canned Italian-style tomatoes
- 1 cup frozen baby peas
- ¼ tsp salt
- Freshly grated parmesan cheese, for serving (optional)

METHOD

- Peel potatoes and cut into fat chunks. Pat dry with kitchen paper; then place in a shallow ovenproof dish and toss with 1 Tbsp of the oil, and salt and pepper to taste. Dot with butter, then bake for about 1 hour in an oven preheated to 200°C (fanbake) tossing them often.
- 2. Put bacon and celery in a saucepan with remaining olive oil and set pan over a medium heat. Cook gently for about 5 minutes. stirring often, then add onion, garlic and rosemary and cook for a further minutes. Pour in canned tomatoes and cook gently for 15-20 minutes, until reduced. Meanwhile, put peas in a sieve and rinse off any ice crystals under hot running water.
- 3. Season the sauce with the salt and freshly ground black pepper to taste. Add the peas and cook for another 5 minutes.
- 4. When potatoes are tender; dish into individual pasta plates and top with sauce. Serve sprinkled with parmesan cheese, if wished.



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BARRED PLYMOUTH ROCKS



by E. Nelson, USA

Exhibition Plymouth Barred Rocks

In the American Standard of Perfection the very first bird described is the Barred Plymouth Rock. Its familiar pattern has become a mainstay in America that is almost universally admired by fanciers, commercial growers and subsistence farmers alike. The striking contrast of its clean barring has captured the hearts of some of the greatest breeders of exhibition poultry both at home and abroad.

Each individual breeder, I am convinced, has his or her way of raising them and has observed many little points of interest common to the strain. The purpose of this reflection is not to generalize about the variety or to speak on behalf of all the breeders of Barred Rocks, but to describe a few of the writer's observations.

My experience with this variety began as a child with Barred Rocks of the commercial variety bred with but one purpose in mind, the production of eggs. These birds were bred down in size to reduce feed consumption and also, for, quick maturity and feathering. Commercial breeders had no regard for the appearance and within a short time the commercial Barred Rock bore only a remote resemblance to the bird in the show halls. The commercial Barred Rock was my pride and joy for a number of years as I raised chicks from my own setting hens, each

spring. Pullets of this line were laying as early as $5\frac{1}{2}$ months and produced at an almost incredible rate by my standards.

During one summer I lost most of my pullets to a fox. I commenced looking for new blood and happened purely by accident, to meet perhaps one of the finest, most highly skilled breeders of Barred Plymouth Rocks, one Ralph Harlow. From that memorable day on, I trust I will continue to keep learning what the Barred Rock was and is made of. Up until that time, I had never seen an exhibition Barred Rock and was truly thunderstruck by what I was shown.

Beginning at this point, I used a few of the birds of Mr. Harlow's to breed with mine. The first cross was, to say the least, dramatic. The blood was strong on both sides for different traits and it was vividly expressed in the progeny. The first generation showed a remarkable improvement in both size and colour. The barring was much more distinct, but the birds had not lost their ability to mature quickly, and also produced many eggs.

At this time, my initial goal was to produce a bird that lays well, and also, was pleasing to look at. Without the slightest doubt, I thought I had made the ideal cross.

The second year, I used the original Harlow male on his daughters, and again, the third year. Each succeeding year, the rate of change decreased, but, slowly, they became exhibition quality and my love for beauty overcame my concern for practicality.

In breeding exhibition birds, one must undo and relearn many things that one has studied in commercial poultry. I must admit, it was difficult, at first to accept new concepts and techniques that went against all I had known previously. My birds, no longer did their maturing in six months time, but, came into show condition in more like nine to ten months.

The feathering rate was slowed down dramatically. Many of the exhibition cockerels were not fully feathered at six or eight weeks as was the production stock.

One thing stands out as the utmost of necessity, in raising Barred Rocks, and that is patience. Nothing can be told about them till they are almost matured. The males appear big and gawky, as Mr. Harlow would put it, "like ostriches." They don't weigh much at about 15 weeks, but, suddenly, almost explode and fill out, nicely. Each bird matures a little differently than the next. Some almost seem to complete each section separately. A really fine hackle or saddle takes time and the finer it is the longer it seems to take.

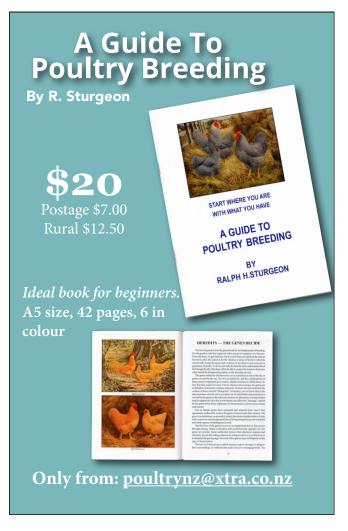
The tails almost inevitably are the last to finish out and in some of the cocks, continue to grow to extreme lengths. This sometimes also involves the saddle feathers and in some cases, I've seen them dragging on the ground. It is recommended that this should be avoided, if, for no other reason, than varying from the standard. The birds which I've seen with this type of feather invariably have a thinner, finer, feather and it detracts from the proper contour, which is the integral part of type. The super fine feather eventually will affect the appearance of all sections, if over emphasized in breeding.

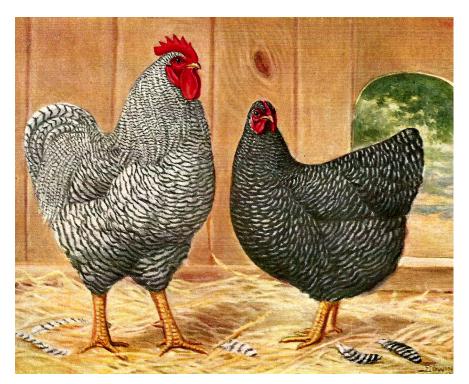
In my opinion, I would rather see a little wider, stronger feather, even if it is necessary to sacrifice some of the sharpness of barring to achieve the proper type. In a few birds with the finer feathering the wing is too spread out and gives the appearance of a potential split wing. Conversely, in the tail, the spread is deficient, due to the lack of width in the main tail feathers and may tend to give some of the birds a pinched tail.

Anyone who has bred exhibition Barred Rocks, I'm sure, is quite aware of the curse of the solid black wing or tail feather. This happens in almost everyone's flock and birds with this fault are sprung from parents with clean wings and tails, as well as

without. One trait which I've found in my birds is the appearance of solid black in those sections that were devoid of it in the previous year. Several instances come to mind of hens showing clean wings as pullets, but, in the second or third year, sometimes into the fourth year, they show so lid black. Why this happens, I don't pretend to know, but it is a noteworthy consideration for those who believe in breeding from old stock.

Today's Standard has come quite a way down the road since the days when they recognized the old double-standard of dark and light Barred Plymouth Rocks. Nevertheless I have found you must still double mate to obtain exhibition colour in both sexes. To run a female line, I prefer a very light male to get the pullets, special consideration being given to the hackle to get it to "open up" or make the barring stand out. Too dark a hackle on the male will blur the hackle on the pullet and even give an almost brassy metallic sheen just below the wattles and earlobes. Using this method will usually lighten the progeny to exhibition shade in all sections and hopefully will give a uniform colour throughout and continuity to the pullets. Some pullets hatched from the male line have sharper barring, but as many times as not, they are too dark for exhibition and





Plymouth Barred Rock Breeders

may show several different widths of bars. Wing bows may not blend with back or hackle as they may be very finely barred in this section. A really fine female shows a harmonious blend of all sections proportionate to the size of feather.

Barred Rock pullets seem to vary considerably in finish depending on the date of hatch. For me a Spring hatch is ideal or even late February, as I've observed that occasionally early hatches may drop their tails in early Autumn and sometimes go into a slight moult. The wings, especially secondaries, need enough time to finish as they usually are the last to come out. The secondaries are a very notable feature because they represent the sharpest barring of the wing. At this point in maturity, I like to keep them from beginning to lay, as some pullets that lay too early never seem to finish out in the wings and may go into their second year before showing a good wing. This has happened to me on numerous occasions, especially with the bantams. Feed conversion goes into the production of eggs instead of feathers.

Barred Plymouth Rock large fowl, however, should be out by November in order to reach their full potential. Once the birds have reached finished condition, it has been necessary to separate the sexes. Many breeders do this, often, far before maturity and it is with good reason. The large fowl are much harder to keep in condition. I keep my cockerels in a turkey pen, measuring about 3' by 4' prior to shows. The birds are handled often to get used to being judged. When, however, the bird gets to the show ball, he has plenty of energy to burn. It is my contention that a bird which is ready to mate or fight will show his

type to the best advantage.

Most Barred Rocks are quite docile by nature and are easily handled. Often, by the second year the cocks may weigh 10 pounds, but, they are a pleasure to work with.

It has been my experience to find the hens reliable sitters and good mothers, and I have raised both bantams and standards from bantam hens. Large female fowl occasionally also will sit, but usually later in the season than what is considered desirable.

These Barred Rocks have given me the pleasure of spending countless hours of observation and enjoyment and I hope many more to come. This was made possible by patience and the same relentless desire to improve the birds.



HOW TO GET THAT BEETLE GREEN SHEEN AND OTHER BRILLIANT COLOURS



by Bill Cawley, USA.

Mr. W.E.(Bill) Harris, Secretary, National Jersey Giant Club, has posed an interesting question. He asked, 'I need some information on the "beetle green sheen" mentioned in the "Standard being a characteristic of the Black Jersey Giant (and other black breeds). Where does it come from; genetic, diet, environment or quality of light in which the bird is shown?"

Differences in feather colour have been more difficult to explain genetically than differences in feather structure or arrangement. According to Hutt (1949), the colour (pigment) particles (granules) are produced by special cells called 'melanophores" (mel-an-o-fours). The pigment responsible for black colours is the complex protein, melanin (mel-i-nin). Hutt (1949) says there is no evidence to indicate that there is a genetic difference in the colour of the various black breeds and varieties of fowl.

But, Hutt also reports Hamilton (1940) found that two breeds having black plumage may have different shaped pigment particles or granules. Hamilton indi-

Sitting Jersey Giant Hen exhibiting green sheen

cated the pigment granules produced by Black Silkies are short blunt rods, while those found in Jersey Black Giants are long, thin rods with square ends. This would suggest that structurally there is more than one kind of black, just as there is more than one kind of white.

Feather colour may be divided into two general classes, Hutt (1949) states. In the first class colour results from the presence of a pigment and from the size, shape and arrangement of the pigment granules.

The other class is made up of the so-called "structural colours." In this class what we see depends not only upon the pigment present but also upon the number and structure of cell layers covering the pigment and the way in which these cell layers reflect, disperse, diffract or absorb light rays. The green and purple iridescent sheens commonly seen in black feathers are examples of structural colours.

Jeffrey (1974) quoting several sources states:

"Always remember that too much green sheen on

both sides produces bronze and purple shades in the progeny. Best results are obtained by mating a male showing bronze to the female of dull shade of colouring; not, of course, the purple sheen seen in purple barring. This counteracts the bronze and the bronze counteracts the dull plum, giving sound rich, beetle-green sheened offsprings."

"Several writers recommend the use of a male with a little red in his hackle to restore luster in black plumage."

"Brilliance of colour seems to require a purple tinge back in the ancestry, while red in hackle and saddle seems a limiting factor to brilliancy of green sheen."

As you can see there is a difference of opinion among the various writers as to what feather colours in the parents produce a brilliant "beetle-green" sheen in the offspring. Some say use males with a little red in hackles to restore luster to black plumage; while another writes, red in hackles and saddle limits the brilliance of the green sheen. So where does this leave us? A little mixed-up, I guess.

When in doubt, it is always well to fall back on what you know to be fact and that is diet will affect both the much desired green and the unwanted purple iridescent sheens.

If you will pardon a personal reference, in 1973, I saw my good friend Cecil Moore of Irving, Texas, sell some of his beautiful Black Orpingtons as day-old chicks to another exhibitor. These were full brothers and sisters to the chicks Cecil kept for his replacements and show birds.

When the 1974 Fort Worth Stock Show rolled around, Cecil's birds were black as soot with a beautiful green sheen while the other man's chickens were loaded with purple in both wings and back, and the only difference in the birds was the feeding program.

Since that time I have paid particular attention to the Black breeds and varieties exhibited in poultry shows across this nation and it is very easy to spot those entries which are fed high levels of grain (25 percent or more). The 50-50 grain and mash diet recommended by so many poultry men will kill the breeder of black fowl.

Diet and ventilation are everything when it comes to feather conditioning. Feathers are approximately 85 percent protein, and it amazes me how exhibitors think they can get good egg production, hatchability and feather growth by feeding milo and corn, whose protein content is 9.0 and 8.2 percent, respectively. The protein found in corn and milo is also low in two



Black Silkie Hen showing good green sheen

of the amino acids which chickens need most; lysine and methionine.

Chickens eat for only one reason and that is to keep tip their body heat. This is why feed consumption is reduced during the summer months. If you feed a flock grain which is high in calories, it means they will eat even less and receive even fewer of the essential vitamins and minerals.

One of the reasons why purple barring or sheen appears to be a genetic factor is that some birds consume more grain than others. Chickens, like humans, appear to have a preference for certain food items. We have conducted tests here at Texas A&M where birds were kept in individual cages with their own feed trough. Some of the birds consumed only the grain in the laying mash while others ate only the protein portions. The ability of these birds to select only the feed ingredients of their choice was amazing. This is why we should feed a pellet or crumble type ration.

Well Mr. Harris, like so many other things in exhibition poultry, there is no simple solution to obtaining the "lustrous greenish black" feather colour for which so many breeders strive. It would appear that all of the factors which you out-lined in your original question - genetics, diet, environment and quality of light all play an important part.

WATCH THE PULLETS' EYES



Author unknown

Guard against fading colour and defective pupils.

When one sees a Light Legged Black-Red Old English Game Cock with a large, dense black pupil and deep red iris, one immediately thinks of vigour. There is, however, a field of thought in the utility world which surprisingly leans to the view that red eyes are just a showman's whim. "The fowls merely look more attractive," they say. We cannot, however, lightly dismiss the problem, nor can we afford to go to the other extreme and slaughter all light-eyed stock as some appear to recommend.

The White Wyandotte and the White Leghorn, when they were the only two breeds considered for high egg production, suffered from white, green and grey eyes in very many strains. At that time such strains had become tender and superfine-boned, and rearability was a difficult problem. Many breeders at once set about getting red eye by selection. Today we find the same trouble in some strains of Rhode Island Reds, Light Sussex, etc., now more highly bred for egg production than formerly. Can we safely associate increased egg production, close breeding, artificial methods or lack of selection with loss of eye colour? Is the light eye indicative of disease; present in the strain or to come?

Production is only one part of the business, and whilst

A good sharp pupil in this Fowl

it can be proved conclusively that light-eyed pullets can be super layers and that red-eyed fowls can have very low records, the next stage of reproduction must be considered. Should we purposely perpetuate poor eye colour by breeding from such layers? I am quite sure that red-eyed stock can be very easily bred by selection; there are many who have always discarded from their breeding pens specimens with eyes other than red. This achieves the objective right enough and colour comes into the eyes of the young chickens at a surprisingly early age. In like manner, without selection light eyes predominate in some strains (and always have since I have known them) to such an extent that red-eyed individuals are almost absent. Yet in watching both types of stock closely I have been satisfied of an absence of disease or trouble year after year.

Remove Strains with Light Eyes.

Now for a question which I anticipate I shall have put before me.

It is this: If you have a light-eyed strain in a supposedly red-eyed breed, would I recommend you to try the change-over? Quite definitely, for, rightly or wrongly, the buying public are demanding red-eyed stock in the breeds concerned and, that being so, the vendor will find that it always pays to give the buyer what he demands.



Croad Langshans have dark eyes

When I refer to a light eye I mean the eye with a large, sound pupil but a light-coloured iris. There are all kinds of eyes, and sometimes I think confusion is brought about because of that; hence so much doubt on the problem. In the breeds concerned the ideal eye is undoubtedly one with a large, round black pupil, a rich non-fading red iris, finishing with a fine black line around the extreme circle of the eye (i.e., extremity of iris). Bear that always in mind in conjunction with the following observations.

A Desirable Pupil.

With the eye now divided into two parts (a) pupil and (b) iris - always get the desirable pupil in pullets intended for laying tests. It should be large, round and dense in colour, just like a perfectly focused snapshot; it should also contract. Given that type of pupil, even the light-coloured iris accompanying it does not seem to affect laying abilities. Nor has it yet been proved that such an eye stands for any particular weakness, being a characteristic in a strain and handed down from parent to offspring.

Varied Shapes in the Pupil.

Weakness makes itself known by the defective pupil, of which there are several types to avoid. Muscular contraction, will alter the shape of the pupil as denoted by the split, pear-shaped, elongated or pin-prick pupil.

Then the sight can be affected and blindness result. When one holds a light close to the eye and the pupil is not noticed to expand or contract, muscular trouble is certain. Avoid all pullets with small and pin-prick pupils, and, when feeding, watch for unsteady gait, peculiar head carriage, aimless scratching, and "vacant" appearance. Full crops of grain are a key to good eyesight when it is scattered in the litter. Blurred, misty and expressionless eyes are very undesirable.

Changes in Eye and Body Condition.

With the pupil carefully checked, let us pass on to the iris. Here I would particularly warn readers of known facts that can readily be confirmed. When a farm is seriously troubled with coccidiosis, worms and the like, I have always observed the following general symptoms in affected fowls: Blurred expressions; white shanks in yellow-legged breeds; crooked breastbones; fleshless breasts; underweight; affected pupils; odd eyes; white, green and poor-coloured eyes; superfine and dried-up shanks; long lean heads; hollow faces, etc.

Fading Eye Colour.

It can be argued that Coccidia and worms bring



about such changes in eyes and bodily condition. While, however, there are any such troubles among flocks of maturing pullets, one can have specimens which appear well-fleshed and healthy today, but which in a comparatively short space of time begin to lose flesh and eye colour. A check on fading eye colour can be applied if only pullets with goodcoloured eyes are put up in the houses at the first or rough selection. Then, at the final examination, any which show fading colour of iris (or defective pupil) can be discarded. There is evidence, then,



Fowl showing very light eyes

that the eye has gone back in colour, which is very undesirable.

Whilst Coccidia and worms do bring about fading eye colour, I am well aware that, even without such disorders, there can be similar fading away. But how can we distinguish between such cases? The best method is to aim at prevention by breeding for fowls with the soundest-coloured eyes. The rich red iris does not appear to fade, and no matter how old the fowls are one will still see colour retained.

If breed standards are to be followed, eye colour varies in breeds, and even in varieties of the same breed - red, bay, orange, brown, red-yellow, orange-red, and so on. There are many, however, today who are striving for the non-fading red eye. In my experience I find that when one departs to the lemon colour of iris there is fading. A whitish circle begins to form around the iris and colour departs. For that reason some declare that certain adult cocks with the white iris had good eye colour as cockerels; that hens with a similar abnormality lost the colour through heavy laying.

Indications of Weakness.

If a matured pullet which has not commenced to lay shows signs of fading it cannot be said that laying is the cause. I prefer a pullet with a large and definite pupil and a pale-coloured iris from birth to one with an iris showing signs of losing its colour. Very often only one eye is affected, rather suggesting that something is wrong. For choice, look for the red non-fading eye and, next, the rich orange. Guard against the light ring around the iris, odd eyes, etc. Even dark-coloured eyes are affected, looking blurred and silvery, as those who

keep Australorps, Croad Langshans, etc., will agree. If such a fowl with one defective eye is placed in a show pen and stirred round with a judging stick, it will speedily turn so that the sound eye is always facing you.



THINNING OUT STOCK TO MAKE ROOM FOR NEXT SEASON'S CHICKS



Courtesy of the American Bantam Association

Any unwanted chickens need to be sold off to make room for others

No sooner does one season fade into history than active preparations have to be made for all the operations of another breeding and rearing season. Some poultry keepers get out early hatches but the majority will wait until springtime before they start their breeding season.

It is best to start early in order to cut out the risk of make shift methods when the time comes. Those left over birds from one season seem to be in the way of the chicks of the next spring and this is not fair to the newly hatched chicks. Look over your pens now and if you find one occupied with late hatched cockerels and pullets which you know are neither fit for breeders and most often not fit for showing until after the adult moult get rid of these. Any that you plan to hold should be placed in a house provided for surplus birds.

In another pen you might find you have a bunch of lusty, matured cockerels which have been selected from the earlier broods of the past season. For what purpose? Are any of them to be used to head the home pens? Which are to be held for the summer shows? Which are to be sold to other breed-

ers and which are the surplus? If the stock males for the home pens are still here it is high time they were taken in hand for individual conditioning and removed from the hurly-burly of the competition which so many males must cause. Any which are good for the show pen will soon have the 'spots' knocked off them if they are to compete for every beakful of feed they get. There is always the danger of lacerated heads if they are left to spar with their mates too long. Select those which are good enough to be set aside and get them into cockerel boxes where their head-points and plumage can be preserved well.

Those for sale. Each breeder should know within a narrow margin what demand there is for his stock and should cater for it accordingly. It is foolish to run a bunch of males on speculation. Everyday they have to be fed adds to the rearing costs, but will be worth no more when sold. If you have to advertise, do so and sell as fast as you can. In this way another house will be ready to put in order for the chicks.

Most breeders cannot steel themselves to be as hard with the pullets which are found in another



Holding fowls too long, they need to be sold off if they have no more use

house. First for removal here are a few which are not wanted to get their plumage damaged and worn in the breeding pen but which will be required for the summer shows. They, like the cockerels, should be kept in better order.

Keen selection should remove the breeding stock in groups of three or four to the pens reserved for breeding. If they are put together immediately they will be settled and in lay very soon and will get straight away with strong fertile eggs. Dispose of any pullets not needed. It is not economical to keep birds without a purpose in view, except if they are pets.

Pens and runs to be used for chicks should be cleared at once. There is a great deal of difference the sweetness of a run which has been cleansed by winter and spring rains and one which is carrying stock until a short time before the chicks come.

