Poultrynz

lan Selby Ph: 06 754 6262

www.poultrynz.com

Email: poultrynz@xtra.co.nz

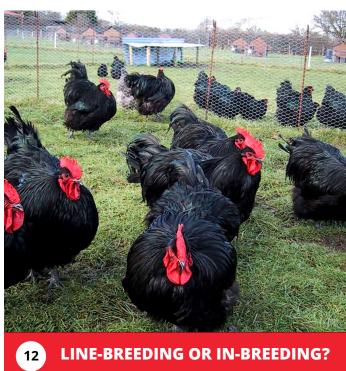
02 POULTRYNZ
EDITORIAL

03 RECIPE

MEXICAN BEEF SHORT RIBS









Poultrynz Editorial

The breeding season is now in full swing.
I find this the most satisfying time of Poultry Keeping. It is a time to see the rewards flourishing from last years progeny. Mating up those birds that you think will improve or at least hold your breeding program.
Feeding is most important too and a

good pellet or mash in the morning and the grain at night are an important part of your breeding program too. So please make sure you have the right mix. Good luck with this years breeding pens with plenty of chickens.

Until next issue. Regards, Ian Selby.

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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.

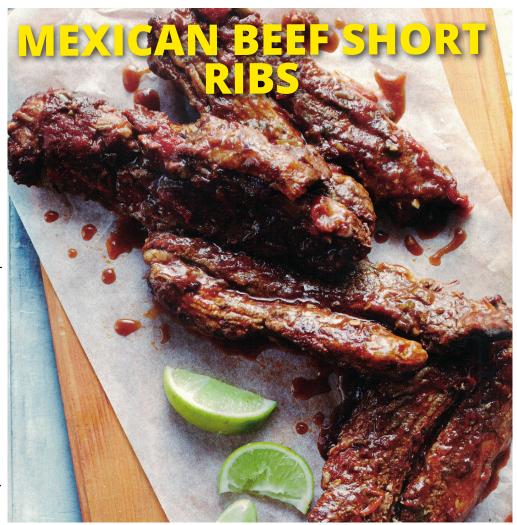
300g Puffer - \$18.00 1kg - \$22.00 2kg - \$38.00 4kg Bucket - \$75.00 8kg - \$130.00



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Available from poultrynz.co.nz

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



INGREDIENTS

Serves 4-6

- 2 tble olive oil
- 2 long green chillies, seeded, finely chopped
- 3 cloves garlic, finely chopped
- 1 tsp ground cumin
- 1 tsp ground coriander
- ½ tsp ground allspice
- 1kg beef short ribs on the bone, cut into sections
- 3 cups chicken stock
- 400g can diced tomatoes
- 1 tablespoon brown sugar
- 1 tablespoon red-wine vinegar
- 1 tablespoon lime juice, plus lime wedges to serve

SALAD

- ¼ head cabbage, thinly sliced
- 1 bunch baby radishes, thinly sliced
- ½ cup small coriander sprigs
- 2 tablespoons lime juice

METHOD

- In a large, heavy-based saucepan, heat oil on medium. Sauté chilli, garlic and spices for 1 minute until fragrant.
- Add ribs, stock and tomato. Simmer, covered, for 1 hour. Preheat oven to moderate, 180°C. Using tongs, transfer ribs to a large baking dish. Add sugar and vinegar to tomato mixture. Bring to the boil on high. Cook for 10-15 minutes until reduced by two-thirds. Pour over ribs.
- Bake ribs for 25-30 minutes, turning halfway, until meat is very tender and lightly caramelised. Drain off excess fat.
- Chill until ready to serve.
- Separate meat from bones, if desired, and return to sauce. Stir through lime juice. Serve with lime wedges and salad.

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IMPROVING THE FERTILITY & HATCHABILITY OF FERTILE EGGS



by M Magnusson, Australia.

It is strange that in this age of science and Lechnology how so many myths and "old wives tales" still persist in the Poultry Keepers, relative to the production of fertile eggs for incubation under a broody hen or in an incubator. The general practice is to mate selected females to a male, collect the eggs from the nest and incubate them under a broody hen, or set them in the incubator, after 21 days the breeder expects to find an equal number of chickens as to the number of eggs, set and is very disappointed when they find only a small number of chickens have hatched, or no chickens hatched at all, they will immediately blame the male bird and say he is no good at all, when actually most likely the breeder is at fault, simply because they have not given the breeding pen the proper attention, or they have not fed the correct breeding rations to the birds, nor have they given eggs collected for incubation proper storage conditions. They were most likely stored in a hot draughty shed, or the eggs have been left in the nest for all laying hens to walk on and sit on whilst they lay their own eggs and in the process contaminate all the eggs with excreta and bacteria from their legs and body, this practice destroys the hatching potential of the eggs. We shall endeavour to cover some of the more important aspects for the successful incubation of

A broody hen setting tightly on the nest

fertile eggs, also how to increase the fertility factor of the egg.

There is a fundamental law governing the Universe: which states you cannot obtain something without effort. Every action has an equal and opposite reaction. Therefore the reward to the breeder is only equal to the effort they put into the project, if they are diligent in their breeding programme, they are assured of success, if they are not diligent in their project, they can only expect a poor return for their effort.

A successful breeding programme begins with the breeder first and foremost, one who gives meticulous attention and care to every phase and detail of a planned programme. Yes, you must have a planned programme, for there is nothing haphazard in the Laws of Nature, all natural laws function to a predetermined plan. Successful hatching goes begin when the eggs have been set under the broody hen, or likewise in an incubator, the broody hen or the incubator can only make the best of what is brought to them if, first quality eggs are set, it is natural first quality chickens will result. Likewise if second quality are set, it is natural only second quality chickens will hatch, and if poor quality eggs are set the breeder can only expect poor quality chickens, if any.



Regular cleaning to avoid problems

The natural laws governing the procreation of the species are fundamental, therefore transgression or deletion of any one law will result in failure of any breeding project. The law of hygiene is first and foremost in any breeding project, and it is surprising the number of breeders who pay scant attention to hygiene which is manifested in dirty eggs, dirty nesting material, dirty housing for stock, and vermin infested stock, and last but not least the bad practice of leaving eggs in the nest for days on end. Contrary to belief in this "old wives tale," this bad practice does not enhance the hatching potential of the eggs it actually destroys the hatching potential of the egg, mainly by the contamination of the eggs with fowl excretia, bacteria from the number of hens who enter the nest and from the fouled nesting material, all of which is the natural breeding media for bacteria or germs which will penetrate the shell during incubation and the resultant disease will destroy the developing embryo, the end result is "dead in shell." Scientific research has established each day an egg is left in the nest ambient temperature combined with the natural heat generated by a hen sitting on the egg whilst she lays her own egg

destroys the hatching potential of the egg by 10%, so an egg left in the nest for 5 days has lost 50% of its hatching potential during that period. It is good practice to collect the eggs for cleanliness, and faults i.e. cracks in shell, porous shells malformed egg shape, reject all eggs showing any faults, any eggs which may be contaminated, fowl droppings etc., scrap the matter off with a knife or similar, or use steel-wool to remove droppings etc., if there is a strain remaining after cleaning don't worry we will deal with the removal of the stain later.

Now store the eggs in a CLEAN DRY PLACE in the coolest position you can find, (the ideal temperature storing fertile eggs is 55°F. although any temperature between 45-65°F. is satisfactory). Store the egg on the small end, "YES THE SMALL END." The eggs must be stored in a draught free area.

The ideal nesting material is clean shell grit, as it doesn't encourage the breeding vermin and it is also a ready source of calcium available to the hen which is most essential for good shell texture. The hen house must be free of all vermin, nothing is more detrimental to the production of fertile eggs, than for the breeding stock to be infested at night by red mite, fowl lice, the infestation of stock brings them into poor condition, and because



of the poor condition they are unable to produce fertile eggs. I have adopted the practice of hanging pest strips in the hen house, and my experience is that all my houses are completely free of vermin.

TO SUMMARISE HYGIENE:

Clean hen house, clean breeding stock, clean nesting material. Clean eggs begets "Good Clean Healthy First Quality Chickens."

NON HYGIENE CONDITIONS:

Begets unfertile eggs, disease and sickly stock, dead in shell, poor quality chickens (if any).

FEEDING FOR FERTILITY AND HATCHABILITY

The next important phase in your breeding programme is correct feeding to produce fertile eggs. I am amazed at the ignorance found among the Poultry breeders as to the importance of correct feeding to produce fertile eggs for incubation and the procreation of the Avian species.

Biological Science Research has established that all life on this earth is dependent upon precise accurate chemical formula made up of essential chemical ingredients each in exact proportion determined by the creator, this delicate prescription must be accurate in every respect to reproduce life, if there is a slight imbalance of any one ingredient or the deletion of one minute ingredient the whole formula fails to reproduce life as intended. In the mammal species where the female acts as the host carrying the embryo within herself, if an imbalance manifests itself during gestation, the lacing ingredient can be supplemented by external or internal means. In the Avian species because of the unique box principle of life reproduction it is not possible to supplement any imbalance nor is it possible to become aware of any imbalance in the chemical formula until the incubation period has expired. Therefore the sole responsibility rests with the female to supply all the essential ingredients, which make up the delicate prescription to produce life, each in its exact proportion in relation to every other constituent part, to make up the whole egg. As the hen is responsible for the dispensation of this delicate prescription, the actual deficiency of any essential element will endanger the development of the embryo.

It is obvious then, because of the domesticated condition the hen is housed and fed in, before



A small incubator

the hen can pass on all the essential elements she must possess them in abundance and the only way she can receive them is to be supplied with a correct formulated and balanced ration; i.e. a ration containing all the essential elements. If for example the hen is fed a ration deficient even in one vital, for instance Riboflavin (B2) she cannot be expected to include Riboflavin (B2) in her eggs. The natural result of this deficiency being that the embryo is doomed to die before it can emerge from the shell. (Termed "dead in shell"). Feeding a ration deficient in one or more of the vital elements to the breeding pen is the real cause of lack of fertility and the major cause of "dead in shell." There are three very important trace elements namely Vitamin E. Riboflavin (2) and Biotin. These three elements play a very important part in the reproduction of the Avian Species, all poultry and birds, rations lacking the correct balance of these three important vitamins, deprives the breeding hen the opportunity to gather and store them within her eggs, the end result of which is "dead in shell."

Correct feeding is the only solution to the problem of lack of fertility and "dead in shell." Many breeders feed layers pellets or mash under the misapprehension that it is a balanced ration to produce fertile eggs, this is far from the truth. Layers rations are designed to produce first quality unfertile eggs for the commercial market; a fertile egg is classed as second quality and only fit for pulping for use by the Pastry Cook trade. Breeder rations either in pellet form or mash is the correct ration to be fed to breeding stock. All feed manufacturers mix a breeders ration for commercial breeding farms, and my advice to all



Hens in a nice clean pen

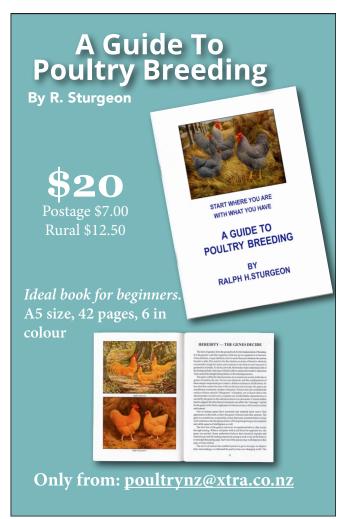
breeders is to ask their produce merchant to order the breeder rations from their supplier, they may tell you they "have never heard of it and laying rations are just as good." Don't take any notice of him because he has not got a clue of what he is talking about. If you are unable to obtain breeders' rations for some reason or another, then use laying mash (not pellets) and fortify it with any one or two of the following ingredients, milk, skim milk, milk powder, lucerne, lucerne chaff, yeast, yeast by-products i.e. a can of your favourite gold brew. Rich in malt and hops dilute it in water, so that you won't eat the mash yourself, another good source of the vitamins is to have the cook save all the stock from the cooking i.e. broth, water from vegetables extract and mix the mash with same. If your breeding pen contains a very active male, and your unfertile egg ratio is high, this is a sure sign that your feeding methods are at fault, the female's life support system is so lacing in the very important vitamin elements that her life support system is converting the semen from the male to supplement her own life support system, thus all eggs laid by her are unfertile.

SELECTING EGGS FOR INCUBATION

The selection of only good quality eggs for incubation is the third important step in your breeding programme, select only eggs having

good shell texture, smooth and dense in appearance, from deformities, porous and weak shells; the shell texture has as very important function to fulfil during incubation, the developing embryo draws all of its calcium requirement from the shell during incubation, it does not draw upon the calcium contained in the yolk till it has hatched. Calcium is the main constituent of the bone, feather, beak and nails and scales on the legs. It is only if you select weak and poor quality shell eggs you can only expect very poor quality chickens, also reject all eggs that have rough sandy feel and reject all oversize and undersize eggs as they will not produce good chickens.

 $1\frac{3}{4}$ to 2ozs eggs are the ideal size for incubation





A broody hen with newly hatched chicks

in large fowl, bantam eggs are governed by the size of the breed. Make certain all the eggs are clean and free from stain and dirt, if any of the eggs are stained or dirty wipe them clean with a clean damp wet cloth, only use cold water to dampen the cloth, the cold water will cause the pores of the egg to contract and thus prevent any contaminated moisture from entering the egg through the shell. Do not believe the old wives tale about not washing an egg, washing an egg will not harm it in any way, provided the washing methods are hygienic and cold water only is used.

SUMMARY

The breeder has the most important function in a successful breeding programme; first he selects the breeding stock from the best of his birds. He houses them in clean and comfortable quarters free from all vermin infestations. He then provides and feeds them with correctly balanced breeders rations and he collects all eggs from the nest as soon as possible after they have been layed and stores them with the small end down in a cool draught free place until required for setting.

I trust the foregoing notes will assist those breeders who have had fertility and hatching problems in the past.





by W.L. ZEIGLER. U.S.A.

great many fanciers whose wallets outweigh **T** their knowledge concerning the complications of breeding exhibition birds are generally taught many lessons before they are able to class themselves with those "in the know", and the majority of such lessons cost a lot of money and cause a great amount of worry. Even an old Wyandotte fancier is apt to pay for a highly expensive lesson when he takes up another variety of that breed other than that which he has made a close study.

The most expensive lessons are generally those learned in the show room or through the medium of that section of the poultry press where the advertisements appear; not that the show room, the exhibitors, the poultry press or its advertisers, are to blame. The blame, in the majority of cases, is at the doors of those who create if by their ignorance. I am referring to the acquiring of birds either through the medium of the show awards or the press advertisements.

Here is an example of what I mean. A young inexperienced, would-be owner of exhibition birds visits a show with a well-stuffed wallet. He has Poultry fever of a dangerously high degree. He goes the rounds of the show and falls in love with, let us say, the Columbian Wyandottes and he is determined to purchase the best birds as will form a breeding trio. He claims a tip-top cockerel, shown by A, which is judged best male. Then he purchases a hen and a pullet, both top birds, shown by B. These birds are mated and bred from, and the result is not a single one fit to exhibit at a small show. Why?

Simply because the birds of A and B were of totally different strains, and owing to the law governing reversion, their blood failed to fuse properly, the result being a lot of throwbacks to earlier inferior types. Had the birds purchased been all of the same strain, the result would not have been loss of cash, temper and valuable time, but would have been a good start as a Partridge Wyandotte breeder.

I wonder how many have made the above mistake? Unfortunately I have seen and met many such cases in my time. The man who carries less knowledge than cash to a poultry show and invests such cash in the stock he knows next to nothing about, is not out to be robbed, but to rob himself. It matters not whether it is Partridge Wyandottes or another



Wyandotte variety, it is of vital importance that the birds obtained are of the same strain, as the mating of birds of different strains is as fatal to success as the mating together of dissimilar breeds or varieties.

But, it may be disputed, breeders do buy at shows birds of different strains to those of their own. True, but such breeders are experienced fanciers who are after some prominent points in which their own stock fail more or less, although they are aware that such points cannot be fused on their own strain in the following breeding season, or it may be not until breeding has been carried on over a lengthy period

Let us suppose that A - an experienced Wyandotte breeder - has show stock with some particular weak point that has been a handicap to his birds in the showroom. He visits a show and sees a bird excelling in that particular point in which his own

A breeding pen of Columbian-Wyandottes

birds fail, and he purchases that bird.

Such a bird, if it is a female, is mated to the best of his own cockerels, and in the following year the best of the resulting female progeny is mated back to their sire, while the best of the male progeny is mated to hens of the original home stock. Even after several seasons breeding, the excellent point in the bird secured at the show may not be prominent in the home stock and another dash of blood may be necessary from the acquired show bird to intensify, in the home stock, the objective point. If the bird secured is a male, the method of operation would be the same, excepting that matings would be in a reversed order.

Before purchasing birds at shows, would-

be Wyandotte breeders will do well to make a close study of the variety chosen, since it does not follow that because a particular bird wins in a numerically strong class, such a bird is an unbeatable specimen and worth the price asked. The value of a win, even at a big show, is according to the quality of the birds that have been beaten and not according to the number in the class in which victory has been achieved.

On the other hand, a bird winning at a small show and in a numerically small class may be worth every cent of the apparently high price asked. As an example of this, I may state that I have lately been negotiating for a Black Wyandotte cockerel, which so far has six wins to his credit, all at small shows, and in weak classes; but I have offered \$40 for it, as I know the quality of this bird. My offer, however, has been refused. The exact value of a bird must be judged according to that bird's qualify, and not according to the number of wins in the showroom. Had the cockerel mentioned above never been shown, it would, in my opinion, be worth what I offered for it.

If one is thoroughly capable of judging between good and indifferent birds at shows, then there is no safer place in which to negotiate for stock as one is able to see just what you are getting.

The beginner, however, will do well to hold on to his money until he has a thorough knowledge of the show points of the particular breed he has in mind. He will also do well to make himself acquainted with the importance of strain, inbreeding, etc., necessary to the achievement of success as a breeder of show birds. The beginner also should purchase a Poultry Standard of Perfection and study it thoroughly.

In contrast to the individuals referred to in the first paragraph of this article, there are the wouldbe owners whose wallets, as regards value, are on a par with their knowledge of things respecting the show points and values of exhibition birds. I refer to those who negotiate for birds through the medium of the press advertisements and even at the yards of the Poultry breeders, who after paying five to ten dollars for individual birds, expect these birds to win at local shows, and, in addition, breed winners when mated. Now, of course, it is possible to buy birds and win with them. The prices asked for such birds seldom appear in the advertisements, the latter simply being an announcement that breeders have winning stock for sale. As to buying stock birds, prices for which are quoted in the advertisements, it is possible to get value for money, for there are still many reputable breeders who advertise honestly and give good value for your dollars.

In summing up, the would-be owner and breeder of exhibition Poultry should first acquire knowledge of the show points of the breed and variety of bantams he desires by reading and digesting the particular chapter of the Poultry Standard of Perfection dealing with that breed and variety. Then pay a visit to a show, and compare what you have in your mind with respect to breed points with the points of the bird in view, that is the winning birds. Same would hold for paying your visit to a reliable breeder of show stock. If you are satisfied that what you have learned from the standard and at the show and the yards of the reliable breeder is sufficient to enable you to judge between good and inferior birds, then it will be time for you to be thinking about investing money in breeding stock or exhibition specimens. It will be necessary to insure future success to get all stock birds from the same breeder, when such birds will all be of the same strain, the unbroken line of which will have a desirable effect upon the resulting progeny.



LINE-BREEDING OR IN-BREEDING?



Author unknown

Recently I have had several requests to distinguish between line-breeding and in-breeding. Frankly, I can't. I can't even say that there is any essential difference – or, if there is, where one ends and the other begins.

In-breeding can differ widely in its intensity. It can consist merely of mating together pairs of birds from the same blood-group but not necessarily closely related – in which case the progeny may have numerous ancestors in spite of a fairly close relationship; or it may go so far as repeated mating of brother and full-sister through a long series of generations.

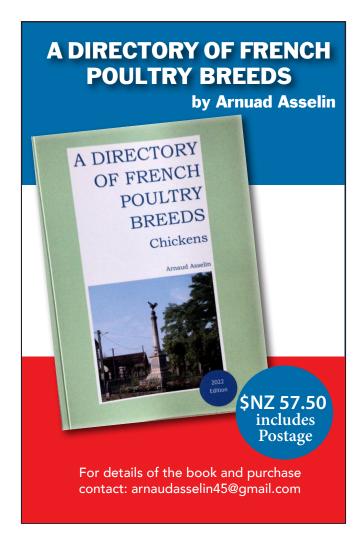
This means that the ancestry of all birds so bred contains the minimum number of ancestors – two parents, two grandparents instead of four, two great-grandparents instead of eight; two ancestors only, in fact, in each generation as far as you care to go.

Carrying this back you will find that in ten generations outcrossed birds would theoretically have over 1,000 ancestors, against only two for continuous brother and sister matings.

Whether this explains the difference between line-breeding and in-breeding I do not pretend to say; but it seems logical to suggest that a system showing the bloodlines of only two birds in each of many ancestral generations must be close line-breeding.

I am not a geneticist (which, of course, merely

Breeding plenty of youngsters to get a good selection





means, in the jargon of science, a student of heredity). However, it needs no knowledge of genetics to understand that if you breed sire to daughter you retain in the progeny three-quarters of the sire's blood or genes – put it how you will. The same proportions apply in mating mother to son; but in mating brother to full sister the progeny will comprise equal shares of both parents.

Do not confuse this with the mating of brother to half-sister. When, say, six hens are mated in one pen, the progeny of one hen only will be full brothers and sisters to each other.

Stamina and Health

It will be seen that if you consistently mate full brother to full sister you retain the blood of both parents (and both grandparents, etc.) in equal proportion as long as you continue the method. In mating sire to daughter (or mother to son) the blood of one parent predominates by ¾ to ¼.

Each succeeding mating makes the progeny more closely consanguineous, until in a few years you arrive at a position where to all intents and purposes the blood of one ancestor only is concentrated in your strain.

Impossible, you say? Not a bit of it. In-breeding can be carried to surprising lengths if you watch stamina and health.

Remember, that although in-breeding is capable of intensifying good points, it is also capable of perpetu-

A breeding trio of Rosecomb Rhode Island Reds

ating the worst characteristics of any stock. To counteract this, and make in-breeding successful, you must be extremely selective in your matings.



MODERN PILE GAME BANTAMS

COLOUR OF COCK

The cock has a red face and eyes, a yellow beak, and his long boney shanks and toes are yellow. Plumage colour is: Head, bright orange. Neck hackle and saddle, bright orange. His back and wing bows are bright red. Lower half of the secondaries and edgings of lower primary feathers, a red bay, forming the wing bay; remainder of the primary and secondary feathers white. Breast, coverts and tail are white. Body, stern and lower thighs, white.

COLOUR OF HEN

The Modern Pile hen has red face and eyes, yellow beak and long, bony shanks and toes that are yellow. Her plumage colour is: Head, golden. Neck hackle white, each feather evenly laced with gold. Front of the neck and breast are salmon, shading off to white towards the thighs. All other plumage sections are white.

MATING MODERN GAME PILE BAN-TAMS

Cockerel Mating – two matings are best, as the one pen system is too much guess work in this variety. Head the cockerel breeding pen with a cock or cockerel that possesses all show requirements: station, type, reach, lift and colour. He must have a sound white breast with wing ends a rich chestnut bay. Mate him to females that excel in type and reach, the more length of leg the better, and sound salmon in breast colour and 'rosed' on the wings. This pen will produce wonderful show cockerels.

Pullet mating – for pullet breeding, head the pen with a darker, deeper red coloured male, and he too must be sound white in breast and sound deep colour in wing bays. Mate him to females that are tall and of best type and best exhibition colour; a pure white body with salmon breast and lemon head and hackle. You will produce some excellent exhibition females from this mating.

Cross Breeding – during my years of exhibiting I have always heard the question: What can I use to improve my Moderns? It may be colour or reach or both. My advise is: don't go at cross breeding blindly or in a careless manner. Cross breeding is not the mere mating of two breeds, but rather a practice which requires careful thought and knowledge of the laws of nature. I strongly advise you to get some first hand information from someone who



A trio of Pile Modern Game Bantams

knows or buy a book on the subject. Then you will not go far astray.

MODERN GAME TYPE

Always keep in mind if you would succeed with Moderns, either as an exhibitor or a judge that type comes first; type makes the breed, colour the variety. A long legged, finely drawn bird, well carved away body and a very fine tail. He should have plenty of length of neck and head, and hard narrow feathers. His eyes should be full, bold and daring, neck long and fine, with narrow short hackle feathers. The long thighs should be so set on that when he is in full reach, the neck, breast and legs are not far out of a perpendicular straight line. Don't waste your time on Modern Game bantams that do not possess 'reach'.

The Modern Game Bantam is now in the hands of more breeders than ever, and this tends to make keener competition at the shows. It is very fine to see some of the younger fanciers putting such excellent Moderns on the show bench. I must at this moment give a little advice to show Committees. Secure the best judge available for Moderns at our big shows. In my opinion, this breed is the hardest to judge. Hoping my article will be of some help to breeders.