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# Profitable Squab Breeding

# By CARL DARE

A complete practical guide for the beginner as well as the experienced breeder.

Reliable information gleaned from the experience of a lifetime in the work.

Full instructions on all points from the installation of the plant to the marketing of the product.

Des Moines, Iowa

SF467



CARL DARE
Des Moines, Iowa, October 1, 1914.

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# INTRODUCTORY PREFACE

No business has had such a wonderful growth within the last few years as the raising of squabs for market. Only a few years ago the use of squabs for food was confined to a few of the most wealthy families. Game was plentiful and cheap and those who were not very well off preferred quail and other game birds to paying the high prices asked for the few squabs which were sent to market.

Gradually the demand for squabs grew larger, as more people became acquainted with their delicacy and good qualities as food, and this led to larger numbers being produced. Soon all the larger markets furnished squabs and then the smaller ones began to supply them and now many a comparatively small market is not complete without squabs as a part of the supplies of food kept on hand or provided on order.

Same birds have become scarce and high-priced, and squabs have taken their place in such a manner that the demand for game is not so large as it was, while the demand for squabs continually increases.

The rearing of squabs for market is immensely profitable as well as easy. Squab-raising can be conducted on a scale large enough to make it worth while in the back yard of a town lot, or it can be conducted on a scale large enough to require several acres with equal profit on every dollar invested in the business.

Squab-breeding is a business which is profitable when conducted as a side line on a small space and all the work may be done by women, children, or those who are not strong enough for the more laborious occupations of life. At the same time it is a business which men of affairs need not hesitate to undertake as there are squab farms on which pigeons are kept by tens of thousands with great profit.

The squab business may be commenced with small capital and rapidly increased from the increase of the flock, as each pair of breeding birds will produce at least twelve in a year so the increase is very rapid.

So great has the demand for a book which would give all the details of the business of squab-raising become, that we have felt compelled to publish this book. It is written to teach people, beginners mostly, not merely how to raise squabs, but how to conduct a squab and pigeon busi-

successfully. We have found breeders of squabs who knew how to raise them fairly well and took pleasure in doing so, but were weak on the business end of the industry. The fancier, who raises animals because he likes their looks or their actions, or because he hopes to beat some other fancier at an exhibition, is not the man for whom we have written this book. We have developed utility pigeons and the squabbing industry solely because they are staples, salable in any market at a remunerative price. The success of squabs as we handle them depends on their earning capacity. They are a matter of business. Our development of squabs is based on the fact that they are good eating, that people now are in the habit of asking for and eating them. and there is a large traffic in them which may be pushed to an enormous extent without weakening either the market or the price. If, as happens in this case, pigeons are a beautiful pet stock as well as money makers so much the better. It is just as easy to pet a practical animal as an impractical animal, and much more satisfying.

This book is the latest and most comprehensive work we have done, giving the results of our experience as fully and as accurately as we can present the subject. It is intended as an answer to the hundreds of letters we receive, and we have tried to cover every point which a beginner or an expert needs to know. It has been our experience in handling this subject and bringing it home to people that the little points are the ones on which they most quickly go astray, and on which they wish the fullest information. After they have a fair start, they are able to think out their operations for themselves. Accordingly we have covered every point in this book in simple language and if the details in some places appear too commonplace, remember that we have erred on the side of plainness.

It has surprised a great many people to learn that pigeons are such a staple and workable article. They have been handled by the old methods for years without their great utility value being made plain. When we first learned about squabs, we were struck by the impressive fact that here was something which grew to market size in the incredibly short period of four weeks and then was marketed readily at a good profit. The spread of that knowledge will make money for you. Show your neighbors the birds; you tell them the facts, and perhaps give them a squab to eat, then you will

find a quick call for all the live breeders you can supply.

We have tried to answer all the questions which a beginner would ask and give all the details so plainly that any one can begin breeding pigeons and raising squabs with success. The instructions given are based on actual experience in raising squabs and we have tried to write so plainly that any one can understand just how to begin and continue in the business.

Those who follow the instructions given may look forward with confidence to a successful career as pigeon-breeders provided they begin with the right kind of breeding stock, the kind which produces heavy-weight, plump, white-fleshed squabs.

CARL DARE.

Des Moines, Iowa, October 15, 1914.



A Pair of Beautiful Blue Bar Mammoth Homers, Straight American Bred.

#### CHAPTER I

# PROFITS OF SQUAB RAISING-WILL IT PAY?

In first considering squab breeding the beginner always asks, "Will It Pay Me to Raise Squabs?" It is well to consider this phase of any business before making very much of an investment.

The squab business is comparatively new in this country although it has already reached such proportions that there can not be any doubt but it is the most profitable and pleasant business in which any one may engage. Under the methods outlined in this book there is no chance for a conscientious worker to fail.

This country is filled with plants large and small and I have yet to find a plant that is not paying a handsome profit unless there be something wrong with the stock or methods employed. I have visited the great squab plants of California where thousands upon thousands of birds are left to fly at will and nest in open boxes protected only from the sun, and here I find that the squabs are paying a fine return on the investment and thousands of tourists visit these large plants annually and pay an admission fee of fifty cents each so that the revenue from this source is considerable.

I have visited also the great squab district in South Jersey where the squabs are produced for the large cities of the East; the plants also in Massachusetts, New York and Pennsylvania, and I find that on the best equipped and best paying plants the methods employed are practically identical with those outlined in this book. The fact that experienced breeders in such widely separated sections of the country have adopted almost identical methods is certainly proof that we have the right idea and that the advice we give here to the beginner will be well worth while.

The largest plants in the country are in the far East and far West as indicated, but I believe there is no one other state that has so many up-to-date plants as the state of Iowa. You will find a paying squab farm in nearly every city of this state, and in some of them there are two or three large and up-to-date, well equipped plants. In one little town in the northern part of the state there is a plant where over fifteen thousand breeders are kept right along. The proprietor of this plant has told me that when he began with a few

pairs of Homers of indiscriminate breeding he had hardly enough funds to pay for the birds and their feed for the first few months. He now owns the large plant of several thousand birds of the purest stock with suitable buildings, and a beautiful home and drives an up-to-date seven-passenger automobile. His son and daughter are both attending a university in the East and every cent of his money has been made with pigeons. If his were the only case of such kind there would still be proof enough of the profits in the squab business to justify careful consideration by anyone, but I personally know of thousands of others who have made a success, some of them on a larger scale, and there can no longer be any doubt of the opportunity of making money in this business.

#### THE PROFITS OF SQUAB RAISING

In another place in this book we have shown how easy it is to arrange a place in which to keep squabs. Hundreds of people are so situated that they could raise squabs who could not possibly take care of a flock of chickens, because they lack both time and space.

In raising squabs the cost of attendance is reduced to the minimum. There are no eggs to be gathered, no setting hens or incubators to be looked after, no young birds to be fed and cared for. The pigeon-breeder simply puts his birds in the loft, feeds and waters them and they build their own nests and feed their young.

The space that would be needed by a dozen hens will comfortably keep fifty or a hundred pairs of pigeons, and the revenue from a pair of pigeons in a year is about the same as from a good laying hen.

The squab-breeder gets his money in four weeks, while the man who raises chickens must wait at least twelve weeks before he can sell his birds.

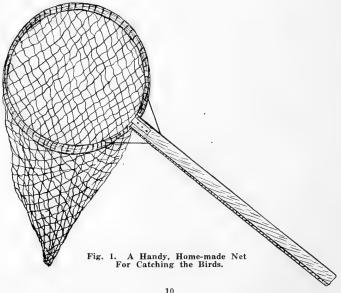
The manure from a loft of pigeons can be sold as a garden fertilizer for enough to pay for the cost of feeding the birds. In many cities and towns florists consider pigeon manure the best fertilizer they can get for flowers and garden crops and large tanneries use tons of it in tanning leather. It usually sells for 50 cents a bushel in town for fertilizing lawns, flower and vegetable gardens.

It will cost just about \$1.00 to keep a pair of pigeons one year. When the writer visited the great squab farms of South Jersey, he particularly inquired about the cost of feeding a

pair of pigeons one year. In that country most of the grain is shipped from the West and from Canada. The wheat comes from New York, Ohio, or states further west, the kaffir corn mostly comes from Kansas and the hemp seed from Kentucky. The peas come from Canada. All these grains are sold with the freight added to the initial price and the feed dealer's profit, of course. In the Mid-West the freight charges would be much smaller than they are in the East, so the cost of keeping a pair of pigeons would be considerably reduced.

In the South Jersey squab district we found that the cost of keeping a pair of breeding Homers one year ranges from \$1.10 to \$1.25 a year. In other sections of the country the cost runs as low as 85 cents per pair. If a certain loft contains pigeons of extra breeding qualities, it will cost more for feed, as the old birds have more squabs to feed than would be the case where less productive birds were kept.

It should be understood that when we give the cost of keeping a pair of breeding pigeons the cost of raising their squabs is included. That is when we say it costs about \$1.00 to keep a pair of pigeons a year, we mean it will cost this amount to keep the pair and all the squabs they produce in a vear.



#### CHAPTER II

THE BEST BREEDS FOR SQUAB RAISING-THE KIND TO BUY

In selecting a breed, the beginner is at once struck by the hundreds of different varieties, each one with some merit. and each one put forward by breeders of more or less reputation as the one best variety to be handled. I believe I have thoroughly tried and tested the merits of all the leading varieties of squab producing pigeons and right here I wish to caution the beginner against paving fancy prices for highly advertised cross-bred stock. There is no advantage to be gained by crossing the blood lines of two or more varieties for breeding purposes. This is true in pigeons the same as it is true in every other line of pure bred stock. The best results will always be obtained by using pure bred birds and in selecting the variety to stock your plant you must have in mind the investment which you expect to make and the market on which you will sell your squabs. In all cities the squabs are graded according to size and quality and the heavier birds will bring a premium over those of light weight but in some cases the extra heavy birds bring such a premium that it is worth while to produce squabs of unusual size, while in the average market the extra heavy birds bring a little more than those of good weight but not enough to justify the increased expense in producing them.

After an experience of twenty years in this business I do not hesitate to say that for the general market under all conditions, the best paying investment for the beginner is the straight American bred Homer. Reputable breeders of this variety will furnish stock of good size and they are the best workers and best feeders and will stand more abuse and mistreatment than any of the other varieties I have ever handled.

Squabs from the best American bred Homers usually weigh eight and ten pounds per dozen with occasional lofts that will produce squabs weighing as heavy as twelve pounds to the dozen.

Inferior stock that has not been properly fed will produce squabs much smaller than the above, but at the same time you will find their squabs weighing six or seven pounds to the dozen. If the squabs are plump and of good quality, they will bring a fair price.

The Homers are the fastest workers and the best feeders and they will produce squabs under unfavorable conditions that would discourage all other varieties. For a second selection for the experienced squab breeder who has a market for large squabs of extra quality I would suggest the Giant Carneaux (pronounced Karno). These birds come to us from France and Belgium and they are a little larger than the Homers, fast workers and produce squabs of the whitest meat. Breeding stock in this variety is higher in price and usually costs two or three times as much as the Homer stock. and bearing in mind the added cost of foundation stock it would be noted at once that the returns must be larger from this variety to justify the increased expenditure. The Carneaux is a bold appearing, beautiful bird and comes in solid red, solid vellow, and red and white splashed. color being much preferred by squab breeders.

The Swiss Mondaine is an extra large variety that has met with considerable favor in this country, and the squabs from this variety often weigh as heavy as twenty-four or thirty ounces each. These birds very much resemble the American bred Homer in appearance except, of course, they are much larger. They are slower workers and the squabs require about two weeks longer to mature for market. Breeding stock is usually quite high in price.

Duchess, Runts and Maltese Hens are all large birds and have some merit but I have not found them as profitable as the Homers or Carneaux because they are much slower to mature and do not breed as rapidly, moreover the stock is much higher in price. There are many Runt-Homers, Runt-Carneaux and other crosses on the market being widely advertised and boosted as great squab producers, but the infusion of the blood of any of the larger varieties is bound to make such birds slower workers and less prolific.

Taking all of these things into consideration and as a result of many years in the business and after carefully testing the merits of so many varieties I must insist that the beginner will do the best with straight American Bred Homers of the right quality, or the Giant Carneaux.

# BUYING THE STOCK

Always buy of a reputable breeder whose word may be taken for the quality of his birds. The reputable breeder

sells in the hope of selling again and sells only such birds as he can recommend and knows will give satisfaction.

If the reputable breeder says the pair he sells are mated it may be depended upon that there are an equal number of each sex in a purchase and that these pairs are already mated and ready to go to work almost as soon as they are in their new homes.

The beginner must not be impatient if the birds after shipment are a little slow in going to work, for he must remember that many of these birds have been taken from their nests and their young and shipped many miles with indifferent care en-route and some of the matings may have been more or less broken up. Many beginners fuss too much with their birds and disturb them until the birds have little chance to settle down in their new homes and go to work. If you provide clean fresh water and feed as directed in this book and leave the birds to themselves they will soon be working.

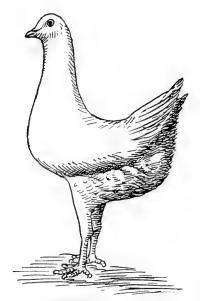
Some very reputable breeders sell young birds with the understanding that they are sold just as they come from the nests, the buyer knowing when he buys these birds that they are not mated and that he must wait until the birds have arrived at mating age and get ready to mate themselves.

When birds are bought just as they come from the nests, there are always more cocks than hens among them, as about nine times in ten when only one bird is reared in a nest that bird is a cock; but there is nothing unfair in this sort of sale, as the buyer gets his birds at a lower price than he would have to pay for mated pairs ready to go to work.

If it should be found when the birds are settled to work in their new home that some mistake has been made in selecting mated pairs and odd birds are found in the loft any reputable breeder will furnish birds of the opposite sex to mate with these odd birds at a reduced price, so the purchaser will have nothing but mated and working pairs for his money.

# WHAT IS MEANT BY MATED PAIRS

When we say mated pairs, we do not mean simply an equal number of birds of each sex. We mean pairs which have mated and married and are ready to go to work and rear squabs without further waiting after they have been received. Pigeons mate in pairs and remain constant to each other for life, as a rule. Matings are some times broken by the birds themselves especially when some accident has befallen



Pure White Maltese Hen Pigeon

the young in the nest, or when the birds are being disturbed by rats or mice, or when cooped and shipped with a number of other birds in small shipping coops.

When a pair have gone through the courting stage and have mated ready to build a nest and hatch young, they remain true to each other as long as they live, or as long as they are allowed to remain together. If a mating is broken by death or separation, the birds will mate with other birds. This rule of constancy is rarely broken and may generally be depended upon.

Some pigeon books say that a beginner can do as well with the common pigeons that fly about the streets as with the straight Homers. This statement is absurd on the face of it. The common pigeon has bred indiscriminately and inbred until the squab produced by it is thin, light in weight, skinny and dark fleshed to such a degree that they sell for about \$1.50 a dozen in the markets. Most people would willingly pay three times that for the plump, meaty squabs from straight American bred Homers.

The beginner who secures the right kind of stock has made the first long step toward success as a squab-breeder and he should not hesitate to pay the price which good breeding stock is worth, for poor breeding stock means failure and loss in the end.

Your success depends upon the stock you buy. It is much better to buy good stock at a fair price than it is to get poor stock for nothing. No man can tell by looking at a lot of breeding pigeons whether they are good breeders or not. No man can tell whether they will produce squabs with white flesh or dark, squabs that will weigh ten pounds to the dozen or six pounds. No one can even guess at the age of a pair of pigeons and those which are old and worn out look just as nice as those which are only a year old.

The whole future of the beginner depends upon getting stock which is right in every way. Imported birds are usually of all ages and qualities. American-bred birds, if bought of a reputable breeder, may be depended upon to produce a large proportion of heavy, light-fleshed squabs and properly selected and mated pairs will go to work and breed regularly as soon as they have become accustomed to their new home. For these reasons I would not advise the purchase of imported birds except on rare occasions after carefully investigating the stock and the circumstances of their importation.

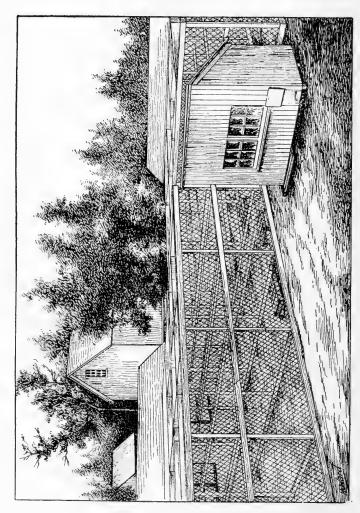


Fig. 2. Showing a Well Arranged Squab Plant of Moderate Size With Colony Coop for Poultry in the Foreground.

# CHAPTER III

# The Construction of Houses

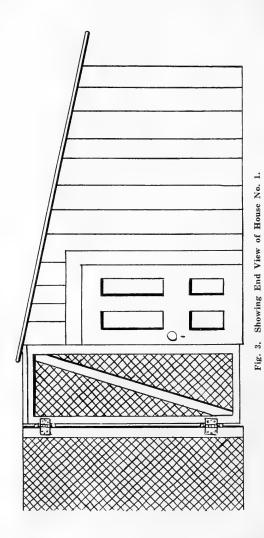
PIGEON HOUSE PLANS-NESTS-WATER FOUNTAINS—BATHING DISHES-KEEPING THE HOUSE IN SANITARY CONDITION

No doubt many a person has been deterred from making a start in the business of raising squabs on account of the fancied expense of building suitable houses. No one should make the mistake of thinking that a costly house is necessary. To be sure a well built, nicely painted house is ornamental and adds to the appearance of a squab-breeding plant; but this will come before long if the beginner has the proper qualifications and the ability to increase the size of his flock as rapidly as he may with good care and attention to his business.

The writer has traveled all over the great squab-breeding sections of the East and West and found about every kind of a pigeon house that the ingenuity of man has ever been able to build. We have seen houses which cost thousands of dollars and those which were built of the odd boards that were picked up about the farm. We have seen as fine birds and as large squabs in a house improvised from piano boxes as we ever saw in any of the great squab-breeding plants.

It is not so much a question of looks in a house as it is of comfort and good care. One of the finest squab-breeding plants in this country has grown up from a few birds which were housed at first in a corner of the barn. The owner persevered and kept adding to his flock as he made money from it, and he now has fine buildings and thousands of birds, all earned from an initial investment of something like \$25. Not a cent was ever added to the original investment, all the increase and improvement in buildings having been paid for out of the earnings of the birds themselves.

Before we go further, let us say that the pigeon-breeders do not talk about pigeon houses. A house or room in which pigeons are kept is called a "loft," whether it is on the ground floor or in the peak of a barn. The pigeon house is a loft and the flock of pigeons kept in a loft is called a loft of pigeons. It is just as well to get the proper terms used in the business at first, as pigeon-breeders always use them. To return to our pigeon loft. A loft may be made in the corner of a stable



or other out-house, with a fly outside. We might explain for the benefit of the beginner that a pigeon "fly" is a wired-in yard, a sort of big cage in which the pigeons are kept within limits. The flies are made by setting up posts about eight feet high and stretching two-inch mesh poultry netting on them. A fly is usually about ten feet wide and from twelve to thirty feet long. This is covered over the top with the same kind of poultry netting that is used on the sides.

We have seen as good pigeon lofts as any one would need made in the loft of a stable, the fly being on the roof. Posts were so set up on the roof that their tops were even with the peak of the roof. The enclosure was then shut in, sides and top, with poultry netting and the birds had a roomy and dry fly which was always clean, as the rains washed the droppings off the roof at frequent intervals.

In Chicago, we saw an extensive pigeon loft on the top of a flat-topped building high above the street; and a very wellknown squab breeding establishment in a southern state is on top of a big hotel, the owner breeding the squabs he needs for his hotel in this high-placed situation.

From the foregoing it will be seen that the question of housing the breeding pigeons is not a very complicated one, as there is a wide latitude for action.

Some breeders even allow their birds to fly at large not using flies at all; but this practice is not recommended. In the first place, the birds do not produce so many squabs as they do under confinement and they are liable to accidents, such as being caught by hawks, shot by boys, or some other mishap which causes the owner to lose them and often lose squabs which such birds have in their nests.

It has been found best to keep the birds strictly confined. One well-known squab-raiser has a pen of fifty pairs of birds in his lofts which have been confined in the same place for seven years and are still working well. The writer visited this loft at the end of the seventh year of their confinement and noticed that they were producing squabs at a good rate.

For the convenience of beginners, we give ground plan and elevation of two styles of pigeon lofts. The loft designed as No. 1, may be built at a cost as low as \$15.00, for one room, or it may be made to cost \$50 or even more. It will be seen that the plan is for two rooms, but this is not the limit of size that is possible. We have seen lofts with a dozen rooms in

them, but would recommend about four rooms as the most convenient limit where pigeons are kept extensively. Where a four-room house is built for lofting purposes, the plan should include a storeroom unless the owner has a room which conveniently can be used for a storeroom for feed and as a place for dressing and packing the squabs.

In House No. 2, it will be seen that an alleyway is built in the house back of the lofts. The partition between this alleyway and the lofts is made of two-inch poultry netting, but the partitions between the rooms are solid and as air tight as the outside walls.

A good many breeders are now using stout muslin instead of glass in the windows, as this gives light, lets the warmth of the sun enter the rooms and provides a good system of ventilation. Houses in which cloth windows are used are found to be fully as warm as those having glass windows.

On the side of the house next the fly, a series of openings is made near the roof, but low enough to open under the top of the fly. These openings may be about eight inches square with a six-inch wide shelf even with the bottom inside and outside. These are the doors through which the pigeons go back and forth to and from the fly, and the shelves beneath them are the lighting perches. These openings should be provided with a sliding door so that they can be closed when it is desirable to shut out the cold or to confine the birds for any reason.

# NESTS

In providing nests for a loft, at least two nests for each pair of birds should be provided. This gives the birds a chance to build a new nest to use while the squabs are maturing in another, as after the birds begin to breed they will have eggs in one nest while they have a pair of squabs in another. Some breeders provide 120 nests for fifty pairs of birds, but this is rather more than is necessary.

The nest boxes are easily made. The illustration on page 21 shows very clearly the manner of constructing them. In practice, boards one foot wide on which cleats one inch square are nailed across, one foot apart, are set against the wall in perpendicular lines one foot apart and firmly secured, the edge being to the wall, of course. This leaves the cleats opposite each other. Then boards one foot square are cut and

laid on these cleats. When the work is done, we have a series of nests one foot every way, each shelf forming the bottom of a nest and the top of the one under it. If nappies are not used, a cleat should be nailed on the front edge of the shelves in order that the nesting will not be worked out by the birds. Nests made in this way are very easily cleaned, as the shelves may be drawn out and cleaned without trouble.

#### NAPPIES

Nappies are dishes or bowls of a peculiar shape which are made for pigeon nests. These nappies are used by a great many pigeon-breeders, but we have not found them necessary as the birds are perfectly able to build their own nests and will do so if the nest boxes are provided.

Where only a few pairs of birds are kept, we have seen boxes used for nests. Boxes about the size of orange crates are used, these being divided into two compartments and fastened to the wall by nails driven through the bottom. We recommend that regular nests be provided as they give a nearer appearance to the lofts and are more easily cleaned.

# NESTING MATERIAL

A good supply of nesting material should be provided for the pigeons. This may be short straw, or coarse hay in short lengths, but the best material is tobacco stems which may be bought at about one cent a pound from the stores that keep pigeon and poultry supplies. These tobacco stems prevent in-

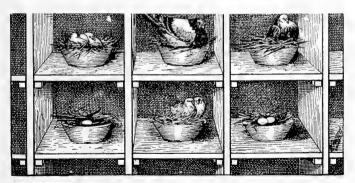


Fig. 4. Showing a Cheap and Convenient Arrangement for Nests. Many Breeders Prefer to Use This Style of Nest Box Without the Nappies, Tacking a Strip Across the Front to Hold the Nesting Material.

sects from being harbored in the nests and save a great deal of trouble in this way. The ideal nest is one made of tobacco stems for a foundation and then finished with soft straw.

#### WATER FOUNTAINS

Pigeons are great drinkers and should be watered at least twice a day as they need a plentiful supply of fresh water. The best way to supply this is by using the regular watering fountains which are made for this purpose. These may be bought through almost any breeder who sells pigeons. If the one of whom the pigeons are bought does not keep them for sale, he will give the name of a firm which handles them. These fountains cost only a small sum and they keep the water clean, whereas if open water vessels are used, the water becomes foul with dirt and dust.

#### BATHING

Pigeons must be provided with facilities for bathing, as they will not keep in good health if they cannot have a bath regularly. They delight in getting into water and bathing themselves all over. An ordinary big dishpan makes a good bath-tub for pigeons, or a barrel so cut off as to be four inches deep makes a good tub for bathing purposes. Empty the bathtub as soon as the pigeons have finished their baths to prevent them from drinking the foul water.

#### SANITATION

A pigeon loft must be kept free from insects and disease germs by carefully attending to sanitary conditions. The free use of lice-killers, cleaning the nests out as soon as the squabs are taken from them and whitewashing the whole interior of the loft at least twice a year will keep the enemies of the birds from gaining a foot-hold, as well as destroy stray disease germs which may be floating in the air.

#### DRYNESS

Pigeons must have a dry loft or they will fall victims to disease. To keep the houses dry they should have the floor at least a foot from the ground and the location should be such that water does not stand around the house or under it. Make the floor double, so that it will be air-tight and let the air circulate under the house freely. Two objects are accomplished by having the floor off the ground; the rooms are kept dry and rats will not burrow under the house.

#### FLOOR COVERING

The floor of the pigeon houses should be kept covered with about an inch of sand, if this can be procured handily. Otherwise keep it covered with chaff, which should frequently be renewed.

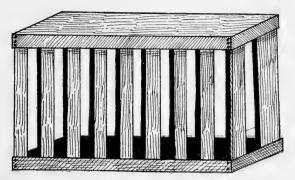


Fig. 5. Showing Construction of Crate for Nesting Material.

The cover is removable and protects the material from the droppings and filth. Tobacco stems, straw or hay cut into lengths of six or eight inches, should be kept before the birds at all times and this crate is the handiest and best way to furnish this material.

#### CLEANLINESS

It is necessary to keep the pigeon lofts clean. Some breeders advocate cleaning them every week, we think a good cleaning once a month will do. Every time the lofts are cleaned, the birds must be disturbed more or less, and this results in some little loss, so the matter of cleanliness should not be carried to extreme. If the house is dry and light, the droppings will quickly dry up and will not become offensive for several weeks.

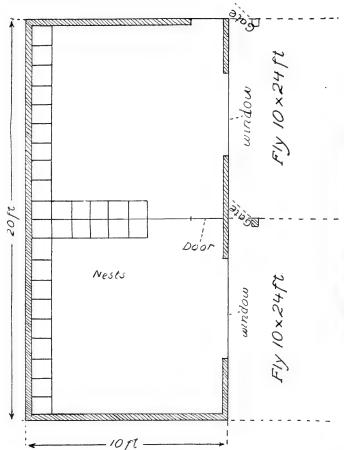
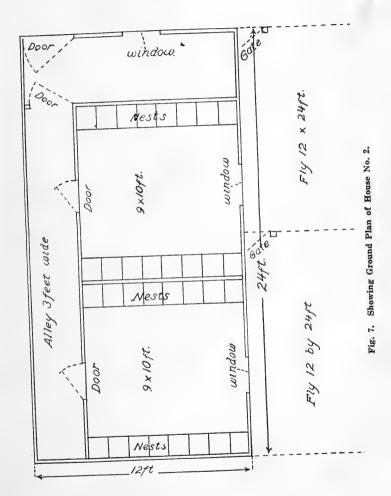


Fig. 6. Showing Ground Plan of House No. 1.



#### CHAPTER IV

# FEEDS AND FEEDING-BREEDING HABITS

Pigeons are exclusive grain eaters. They do not require animal food of any kind, nor is green food necessary for them. Occasionally a nice tender head of lettuce may be given to each loft and they will eat it with relish, but such green foods as grass, lawn clippings, or cut clover should never be given them. The lettuce is not necessary but may be given by way of variety, but not more than one head to fifty pairs of birds.

The principal feeds are red wheat, sifted cracked corn, Canada peas, kaffir corn, hemp seed and German millet seed. Besides these, buckwheat, barley, and canary seed may sometimes be given; but the first-named constitute a good variety and should be used as a constant feed. All of them are necessary and they should be properly rotated.

# SOUND GRAIN NECESSARY

We want to emphasize the fact that all grain used for feeding pigeons must be sound and wholesome. It is the very poorest kind of economy to feed shrunken, musty, or damaged grain of any kind.

#### WHEAT

The wheat used should be sound red wheat which has been thoroughly dried. New wheat should never be used. Good No. 2 red wheat, at least six months out of the straw, should be selected.

#### PEANUTS

In many localities Canada Peas are so high in price that breeders can hardly afford to feed them but the cheapest raw peanuts may be obtained at a low price and these will take the place of the Canada Peas and give just the same results. I have found them very satisfactory as a feed and hundreds of my customers have reported excellent results with them.

#### CRACKED CORN

Sound, well dried, No. 2 sifted cracked corn should be used for pigeons. By well dried, we mean that the corn should be of the crop of the previous year. It should be cracked so that the pieces will be about the size of wheat grains. It should be sifted to separate the fine meal, as the

pigeons will not eat the meal and if it is left in the food troughs it will sour and produce bowel trouble in the birds, old and young.

#### CANADA PEAS

Canada peas should be well dried out, selecting those of the previous year as they are thoroughly dry and sound. This is the highest priced feed the pigeon-keeper will need to buy but it is not fed largely, being used sparingly on account of the great nutritive qualities, which cause squabs to grow rapidly and make heavy breast meat.

#### KAFFIR CORN

Kaffir corn has become a regular article of sale and can be bought almost anywhere. It is between wheat and corn in value and makes a very good pigeon feed. Buy seed of the previous year when buying for pigeons.

#### HEMP SEED

But a small quantity of hemp seed is used. If too much were given the birds they would become very fat and get lazy. A good plan is to throw a handful of hemp seed on the floor once a week on a stated day, say Wednesday. Never put hemp seed in a feed trough, as the first birds to get to the trough would "hog" all the seed.

#### MILLET SEED

The seed of the German millet makes an excellent pigeon feed. It also is quite fattening and must be used sparingly. It is usually quite cheap, compared with its food value, and should be kept on hand at all times.

#### BUCKWHEAT

Buckwheat is very fattening and should be fed sparingly. The pigeon-breeder need not take any special pains to get it for his birds, but in some localities buckwheat is raised extensively and in these places the grain may be used by way of variety. Buckwheat is very heating and therefore is best used in severe cold weather.

# CANARY SEED

Canary seed is too costly to use as a regular feed, but birds relish a small feed once in a while. In some parts of

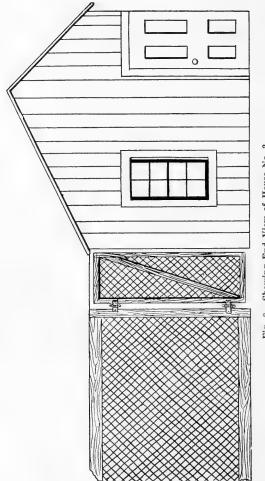


Fig. 8. Showing End View of House No. 2.

this country canary seed might be grown very easily and it would find a large sale if enough of it were produced to meet the demand which would soon grow up.

# OTHER FOOD REQUISITES

Pigeons require, besides the grain they eat, salt, grit, and charcoal. These should be kept in the lofts constantly, so that the birds can get at them at any time.

#### GRIT

Pigeons must have grit and plenty of it at all times. Moreover this grit should contain some tonic mixture and other essentials to keep the birds in the best of working order. Many breeders fail to supply their birds with grit of the right sort and for that reason do not get the best results from their birds.

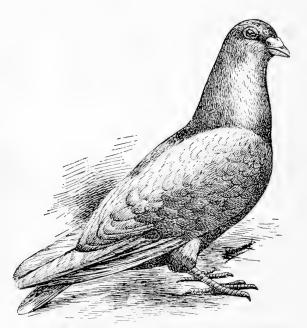
There are many so-called "Health Grits" on the market and many of them with more or less merit but grits are heavy and freight and express charges are high so it is usually best for the breeder to secure clean sharp sand and mix the grit at home. There is great saving in this and at the same time better results are obtained.

#### SALT

Salt is absolutely necessary to the health of the pigeons. It should never be given them in the form of table salt, because they will eat too much of it. If rock salt can be secured, it is the best form in which to give salt to the pigeons. If this is not procurable, buy a five-pound bag of table salt and wet it. Then put it in the oven and dry it, when it will become almost as hard as the original rock salt. Put a bag in each loft and let the pigeons pick out the salt through the bag.

#### CHARCOAL

Charcoal keeps the birds in good condition and a cigar box full of charcoal, broken into bits about the size of wheat grains, should constantly be kept before the birds. This crushed charcoal is to be found in poultry supply stores. If none of these are within reach, the pigeon-breeder may make his own charcoal by burning wood to a coal and then extingushing the fire with water. Corn cobs, charred in this way, make an excellent charcoal for pigeons.



Swiss Mondaine. Very large but usually slow workers.

#### HOW TO FEED

It is usually best to feed pigeons by hand. They should be fed twice every day. In summer, feed at 7:30 a. m., and at winter 4:30 p. m. In winter, feed an hour later in the morning and an hour earlier in the evening. Of course, these hours may be varied but the feeding should be done at the same hour every day, morning and evening, as the birds soon become accustomed to the feeding hours and if not fed on time become very restless. Many successful breeders feed their birds in hoppers thereby greatly reducing the labor of feeding. This method is successful unless the birds get to picking out only certain grains and then more or less trouble will be met. It is always necessary to construct hoppers in such form that the birds cannot get into them and foul the grain, but this is a very simple matter as shown by the illustration on next page. Mixed grains sufficient for several days feeding may be placed in these hoppers and the birds will eat only what they need for each meal.

#### FEED TROUGHS

Feed troughs should be ten inches wide, six feet long and three inches deep. These are easily made and are much better than any of the automatic hoppers on the market. Where the feed is given in hoppers the birds will eat the kind they like best and waste much of the rest of the feed.

#### MIXTURES RECOMMENDED

For the morning mix equal parts of wheat, cracked corn and Canada peas. Give three quarts of this mixture to each fifty pairs of birds. For the evening feed kaffir corn, cracked corn, millet and Canada peas, equal parts. Give three quarts to each fifty pairs of birds.

Every third day, substitute hemp seed for millet, or feed a little less of the regular ration and throw a handful or two of hemp seed on the floor as recommended above. If broken rice can be bought cheaply a small feed of this may be substituted for one of the feeds of hemp seed each week. Peanuts may be substituted for Canada peas wherever it will mean a saving in cost.

# ALWAYS FEED INDOORS

Never feed pigeons out of doors, as any feed left over is likely to be damaged by the weather; and in bad weather they must be fed indoors, so it is best to feed them indoors at all times.

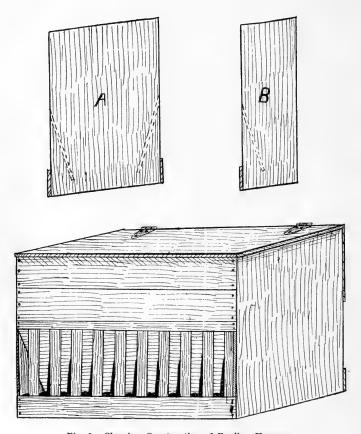


Fig. 9. Showing Construction of Feeding Hoppers.

Fig. A shows end construction of the double hopper from which the birds may feed at both sides and Fig. B shows construction of the single hopper. The style illustrated may be made in a few minutes from an old box and will hold about four bushels of grain. This method of feeding saves a great amount of time and labor.

#### ECONOMICAL FEEDING

The pigeon breeder should always feed his birds, so that he will know it is properly done. If at any time any of the grain from a previous feed is left in the troughs, the ration should be reduced a little. If the troughs are emptied in a way that shows the birds have not plenty to eat, add a little to the quantity given them.

Pigeons which are feeding squabs require more feed than those not working, as they must eat enough for the squabs and for themselves also.

Squabs are fed by the parents in a most peculiar way. The old birds, male and female, eat the grain and drink water freely. This is partially digested until it is formed into a milky liquid mass. Then the squab puts its beak inside that of the parent bird and the parent by a peculiar jerking motion of the head and neck "pumps" this liquid food into the crop of the young bird. This feed is called "pigeon's milk" and is very nutritious, young squabs growing more rapidly than any other kind of young birds.

#### BREEDING HABITS

The breeding habits of pigeons are peculiar. When a male has selected the female he desires for his mate, there follows a course of true love-making in which the male struts around his favorite, coos to her and evidently tries to show her what a grand bird he is. The female, if attracted by her wooer, becomes friendly with him and the two "bill" each other very much as if they were exchanging kisses.

The two then select a nesting place and build a nest therein and the cock bird becomes very anxious for the hen to begin laying. If she does not promptly attend to her duties, he will drive her about the loft, talking angrily to her and striking her with his wings.

Finally the hen takes to her nest and deposits an egg. Then she misses a day and deposits a second egg, this usually being all that are laid at one time.

As soon as the first egg is laid, brooding begins. The hen occupies the nest from about four in the afternoon until ten the next forenoon. The cock then sits while his mate eats and rests. In this order the brooding goes on and at the end of about seventeen days the first laid egg hatches, and in due course the last one hatches if no accidents have happened to it.

In this way it happens that one of the young birds is two days older than the other and almost invariably the first hatched is a male, the latter one being a female.

The old birds now begin to feed the young, and they grow marvelously. They are kept stuffed full of "pigeon milk" and on this they seem to grow while one watches them.

In a few days the hen is ready to lay again, and if there is a spare nest box the pair makes another nest and the hen lays two eggs, after which the couple are kept very busy brooding one pair of eggs and at the same time feeding a pair of rapidly growing squabs.

When the squabs are about four weeks old they are heavier than they ever will be again in their lives, as they have reached full size and are very fat. It is at this time that they are taken from the nest and sent to the market.

If not taken from the nest about this time, the old birds, desiring to start in with another pair of eggs, turn the squabs out and they fall on the floor of the loft so fat they can hardly get about. Here they become lean while learning to eat for themselves, and soon become sleek and trim, instead of being unwieldy with fat.

This doubling up with families shows the necessity of providing at least two nest boxes for each pair of pigeons in a loft. It is even better to have more than two nests for each pair, as this gives them some liberty of choice and often sayes quarreling between two couples.

As pigeons mate for life, it is very important that only mated and married pairs are kept together. If an odd cock or an odd hen is left in a loft, there are family troubles without end; and the quarrels which arise from this cause result in broken eggs and squabs killed in the fights.

It sometimes happens that a pair will not produce young. This is usually because the hen is barren. In such a case the hen should be disposed of and a new mate for the cock furnished. It is best to shut the two in a box with a wire partition between the two until they become acquainted with each other, after which they will usually mate, although they do not invariably do so.

#### DETERMINING THE SEX.

It is very difficult to determine the sex of pigeons without watching them at work in the fly. Various breeders have methods by which they are sometimes able to distinguish the male from the female but at best, these methods are only a guess and the only safe way is to place the birds in a mating coop or in a fly with others and watch them carefully.

As a rule the bones at the vent of a female are wider apart and softer than those of a male, especially in older birds that have laid and hatched young. Sometimes the sex may be determined by an examination of the tail feathers, those of the male being worn on the under side at the ends from throwing the tail down against the ground or the roof of the loft when strutting. Others hold the bird by the beak in one hand and the feet in the other and then when the bird is stretched out, the male will usually hold the tail close to the body, while the female will throw her tail out. These signs are only indications of the sex and even the most experienced breeder will often be badly fooled in handling unmated birds. The best and safest way is to watch the birds, as stated above, and it will quickly be noted that the male is livelier than the female and is usually cooing and strutting about her and will turn entirely around in his flirting while the female seldom turns more than half way around.

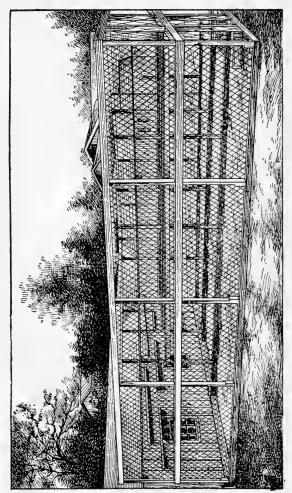


Fig. 10. Showing the Construction of a Practical and Convenient Fly.

#### CHAPTER V

INCREASING THE FLOCK—SELECTING FUTURE BREEDERS
BANDING—MATING

Almost everyone who raises squabs finds that he must constantly increase the number of breeding pigeons in his lofts in order to keep pace with the increasing demand for squabs.

The most economical way to increase a flock is to save the best squabs from the first breeding stock bought; and to do this it is necessary to select squabs for this purpose as they are hatched, the object being to improve the quality of the flock by keeping only the best of the squabs.

Where a flock is being increased, it is a good plan to buy some new stock which has been banded and mate the cocks which have been bought with home-raised hens and the hens which have been bought with some home-raised cocks. This saves inbreeding.

Close inbreeding soon runs down the vitality of a flock and should be avoided. This matter will be taken up further on.

As we have said, the first pigeon to hatch in the nest is almost invariably a cock and the last one a hen. This rule is so constant that it may be depended upon.

In selecting squabs for breeding stock, always select those from the nests of pairs which produce squabs most regularly. Such squabs are more likely to be good producers themselves.

Select the squabs which grow most rapidly and weigh the most at the time they are ready for the market. Such squabs are from pairs which are good feeders and will be most likely to become good feeders themselves.

Be sure to select squabs which have light-colored flesh, as these will produce squabs like themselves and light flesh brings the highest price in the market, unless they are sent in too soon.

When we say the light color in flesh of a squab denotes that it will produce light-fleshed squabs, it is to be understood that this will be the case if the parents are properly fed according to directions given in a previous chapter. Pigeons which are kept confined and properly fed always produce more and better squabs than those allowed to run at large.

Having selected the squabs which are to be retained for breeding purposes, band them at once. Open pigeon bands can be bought at about a cent each. The best plan is to band the cocks right leg and the hens on the left, using consecutive numbers for each pair.

Thus, 111 might be a cock and 112 hen. In making matings, the owner would know at once that these two were not to be allowed to mate together, as they would be brother and sister. If, in any case, nest mates show inclination to mate together, they should be shut away from each other, and forced to mate with non-related birds.

A forced mating is made by using a mating pen. This is a cage with two compartments in it, separated by a wire screen, such as two-inch mesh poultry netting. Put the cock in one side and the hen with which you want him to mate in another, and leave them in the pen until they are acquainted with each other. Then shut them in the same compartment and usually they will mate up with each other all right.

Squabs which are to be kept for breeding should be taken away from the older birds as soon as they have learned to eat for themselves. Feed them well all the time, and at the age of about six months they will begin to mate and then require regular attention, as they should be kept under close supervision at this time.

As soon as a male bird is seen "driving" a female, both should be caught and their bands examined. If they are nest mates they should be separated as recommended in the beginning of this chapter and forced to mate with other birds. It will only be necessary to remove the cock bird, substituting another cock in his place.

If the cock and the hen he is driving are not nest mates, their band numbers should be recorded in a book kept for this purpose. Such a record gives the owner an opportunity to keep account of the number of squabs a given pair produces and to pick squabs for breeding in the future, knowing what the parents have done.

The record should give the number of the cock and hen and a brief description of each. The following form is recommended: Cock 111—Red Check, Hen 222—Blue Bar.

Each pair should have a space in which to keep account with it. After the number and description may be a ruled space in which to keep acount of the number of squabs the pair produces month after month. If they regularly produce and raise two squabs of good size and light color, they are valuable as the parents of breeding stock and should be kept.

If a pair does not produce squabs, the chances are then the hen is barren and she would be sold for what she will bring in the market and the cock mated with another bird. If the eggs are infertile, the trouble is likely with the cock and the matings should be broken and two birds tried again. If the eggs still are infertile, the cock should be sold in the market.

Usually there are more cocks than hens in a given lot of squabs and it is easier to give a hen which lays infertile eggs a new mate and sell the cock without experimenting further.

Barren hens and impotent cocks are not common in well bred birds, and very little trouble may be anticipated from such causes.

When one of a pair of squabs dies, the chances are about nine out of ten that the female of the pair dies. This is because she is two days younger than her brother and has less chance to get a start. Thus it happens that every loft produces more cocks than hens, a circumstance which has led some of the hucksters who sell pigeons as squab-raisers to send out lots of birds in which there were many more cocks than hens. This is why we have insisted that the buyer should buy from a reliable breeder and buy mated pairs.

In a loft containing fifty young cocks and fifty young hens it almost always happens that the matings are not all made up, as some birds refuse to mate with certain other ones, and there may be a few birds which have not mated. In this case the odd birds may be put among other young birds and so find mates that suit them.

In catching pairs at the time they are being recorded, or when they are to be sold as breeders, two people should do the work. A catching net, which is a netted bag the mouth of which is fastened to a hoop with a long handle, is used. The pigeon breeder soon gets so expert that he can trap a pigeon in such net without fail and without disturbing the other birds in the loft.

When a couple of pigeons is found driving, the one who does the catching traps one of them with the net while his helper keeps watch on the other one of the pair. The captured pigeon is examined and its band number put on the record.

Then the helper takes the net and catches the one he has been watching and the band number is taken, always remembering that a bird with a band on the right leg is a cock and one with a band on the left is a hen.

If the method here recommended is followed, the pigeon-keeper will be able to know just what each pair of birds is doing and keep a pedigree of every bird in his flock by a simple method of bookkeeping as follows:

When the squabs that are to be kept as breeders are being banded the band numbers of the parent birds should be taken and set down in this way:

Squab	numbers	Parent	numbers
Cock	111		84-67
Hen	112		84-67

In making this record the number under the head "Parent numbers" is always set down in the same way, the name of the father first and the mother next.

It is but very little trouble to keep such records and the value of them is very great, for the pigeon-keeper can refer to his records at any time and find how any bird that was hatched in his lofts has been bred.

This enables him to select the best producers and feeders and improve his stock all the time, selling off its inferior ones and keeping up a high standard, which will in time give him a reputation for squabs or breeding stock that will be valuable to him, as he will get higher prices than he could get for ordinary stock.

On a large plant this method means an endless amount of bookkeeping work so it has not been attempted. The largest breeders do not bother to band their birds or keep a record of squab production for each individual pair but usually have a pen of select breeders that have proven their worth and from these are raised the new breeders to replenish or increase the flocks.

When a bird dies out of the working flock it is disected to determine the sex and another of the same sex is placed in the fly to mate with the odd bird. These two soon get together and the fly is once more filled with mated, contented workers.

# CHAPTER VI

MAKING A MARKET-PREPARING SQUABS FOR MARKET

We make one of the sub-heads of this chapter, "Making a Market," although the market for squabs is already established, and the demand for them in the larger cities is constantly increasing.

Notwithstanding this, the enterprising squab-breeder will make his own market and get better prices than he can get if he sends his squabs to the larger cities.

In the beginning he may be obliged to ship to the cities, but he can build up a home trade among those who like to have the best the market affords and by degrees his home demand will grow until he will find a ready sale nearby and will be saved freight and commission charges as well as the cost and trouble of packing and icing for the longer shipments.

We know of numerous cases where squab-breeders have built up a home demand which takes all the squabs and brings them high prices the year around.

Very often the enterprising beginner will turn his attention to raising squabs to sell to others for breeding purposes, and finds this very profitable, although a good market for squabs is about the same as a good demand for breeding stock. Other squab breeders arrange to sell their young stock to those who do breed pigeons to sell as breeding stock and thus have a regular and constant demand for their young birds.

All these ways of disposing of the increase of the loft are open to the beginner, but the food market is the one that should be cultivated. We know of a case where a beginner started in with a view of selling breeding stock only, as he thought he was not so located that he would have any demand for his squabs in the handiest market, a small interior city, where squabs had never been put on sale.

After he got started he found that he could sell a few pairs of squabs to one or two restaurants and the best hotel in the town. He began supplying orders from these places and others began to call on him for squabs for special occasions, such as local banquets, receptions and other social functions.

He started with fifty pairs of breeders. He selected his best squabs to keep for the purpose of increasing his flock and sold the others in his nearest market.

At the end of a year he had saved another fifty pairs for breeding and found he had sold squabs enough to pay for a new house and all of the feed he had bought during this time.

Then he concluded to begin advertising squabs for sale as breeders. He received quite a number of orders, but the demand for squabs for the market became so strong that he gave up the breeding part of the business and began to sell in the market only. At last so many were sold in the town that a prominent provision firm came to him and made him a flat offer of \$4.00 a dozen for all the squabs he would raise. He refused this offer, as he was getting more than this for a good many of his squabs and did not think he could afford to make a binding contract on a market where the price was increasing all the time. This same breeder now has a thousand pairs of breeding pigeons and hires a man to take care of them, while he attends to his own business, and makes about \$1,000.00 clear money from his pigeons every year.

Another way to build up a private trade is to introduce nicely dressed squabs among the wealthiest families of a town. This can be done by presenting them with two or three pairs, nicely put up in a box, and asking them to try them. One breeder who started out in this way now sells all his squabs at \$1.00 a pair. He dresses them neatly, puts a pair in a nice white box with a colored bit of "baby ribbon." He has a demand for all he can get at \$1 a pair, although he lives near a large city where the price is often lower than this.

The enterprising squab breeder will be able to find a market for the product of his loft, no matter where he lives. The express companies carry squabs at the regular dressed-poultry rates, and in many places there are fast freight lines which take butter and eggs to distant markets in the shortest possible time.

The Parcel Post now brings a large field of customers right to your door, for dressed squabs may be sent many miles for a few cents and the package will be promptly delivered in good order to your customer. This new branch of the Postal service opens up greater possibilities for the squab producer and the live breeder who first takes advantage of this service will reap the rewards.

Squabs properly packed may be sent 1,000 miles to market and yet be profitable, but there is hardly a place in this country where a good market can not be found within 200 or 300 miles, and even a thousand miles is not a long distance for an express train.

The trouble will not be so much where to find a market as how to produce squabs enough, once the breeder has been in the business long enough to make a name for himself.

If any breeder sends squabs of good size and color and keeps up the quality regularly, it will not be long before there will be a call for his particular brand of squabs, and after that it will be a question of meeting the demand, for this will grow all the time.

#### DRESSING AND PACKING SQUABS

Squabs are usually ready to send to the market when four weeks old. Some well-fed ones, or those bred from the best parents, will come to market condition a few days earlier and some a few days later. As a rule, it will be about four weeks from the time they are hatched until they are ready to send to market.

They should be dressed just about the time they are ready to leave the nest, for they are heavier and fatter at that time than they ever will be again.

They should be dressed at the time all the pin feathers are out. They then have a solid feeling about the abdomen and the breast is plump and full. It is very easy to learn the exact time that squabs should be sent to market, and anyone can learn it at once.

Go over the nests in the evening and select the squabs which are to be dressed the next day. These should be put in a coop by themselves, where they can not get anything to eat, so their crops will be empty when they are dressed. If they are sent to market with full crops, the contents of the crop will sour and ferment and spoil the squabs for food purposes in a short time. When dressed with the crops empty and properly iced in warm weather, they will remain fresh until they can be sold in the market.

A "killing rack" should be made before dressing begins. This consists of a frame not quite shoulder high, a 2x4 scantling making a good cross-piece for the top. In the side of this cross-piece drive ten-penny nails about six inches apart, leaving half the length of the nail protruding.

Fig. 11. Showing the Arrangement of a Small Plant on a Back Lot.

Make a loop of stout cord, looping it over both feet of the squab, and by this string hang it on one of the nails. Then cross the wings over the back in such a way that they are locked. This prevents fluttering and is painless. To lock the wings, turn the pigeon with the back to you and cross the hands. Then take a wing in each hand and pass one under the other in such a position that the "elbows" lock together.

With the small blade of a pen-knife in the right hand take the head of the squab in the left hand in such a way that the thumb and forefinger may be used to hold the mouth open. If held in the right way, the shoulders of the birds will be in the palm of the hand.

Run the blade of the knife up through the top of the mouth into the brain and immediately pass to another squab, letting the one just killed bleed, as it is necessary for the bird to be free from blood to prevent red spots from appearing along its back after it has been killed a few hours. These red spots are called "blisters" and injure the selling qualities of a squab which shows them.

After the birds are thoroughly bled, carefully pick the feathers from them, being careful not to tear the skin in any place, as this also lowers the value in the market.

The English method of killing is rapidly gaining in favor in this country and is superior in many ways to the use of the knife. By this method the operator grasps the bird firmly in the left hand with the thumb and fingers about the neck and the breast and wing, butts held securely in the hand. The bird's head is caught in the right hand with the thumb over and at the back of the head and the first and second fingers at the throat. Then with a firm pull, the neck is dislocated and the jugular vein is ruptured so the bird is killed instantly and thoroughly bled, all of the blood however remaining inside the skin of the neck.

A little practice will enable anyone to learn this method and it is much faster, neater and cleaner than the old method.

When a squab is plucked clean, throw it into a tub of water from a spring or well from thirty minutes to an hour. Then it should be thrown into a tub of ice-cold water to further cool and solidify the flesh, for all the animal heat must be chilled out before a squab is packed or it will not keep well, arriving in the market soft and unattractive in appearance.

Be very careful to have the second chilling water almost cold enough to freeze the birds. In cold weather they soon cool out in water which has been exposed to the air, but at any time in the year first cool them in well or spring water of normal temperature.

After the squabs are picked and cooled, pack them in ice in barrels or boxes. We prefer rather small boxes, say about the size of soap-boxes, but many thousand pairs are sent to market in clean barrels. Empty apple barrels or cracker barrels may be used.

In the bottom of the packet put a good layer of cracked ice. A good many times the ice is not cracked as small as it should be. It should be broken into pieces about the size of a hickory nut, so the pieces will work down through the space between the birds. After the bottom is covered with ice, put in a layer of squabs, pack down and so the carcasses are closely packed but not squeezed together. Over these put another layer of ice and again a layer of birds until within two or three inches of the top. Fill the remaining space with cracked ice and fasten the package.

Be liberal about using ice, for it is necessary that the birds should be kept cool and the express companies make allowance for the weight of the ice in weighing squabs packed this way.

If any grain has been found in the crop of a squab as it is being dressed, it should be removed. Cut a very small slit in the breast over the crop and wash out the grain. A small hose with light pressure from a tank or water system is very handy for this purpose.

Before packing the birds, carefully wash all the blood from them and wash the feet and legs until they are bright and red.

If there is a shade of difference in the quality of squabs, select the best for the top of the package and take pains that the top layer is very carefully laid in so that it will look nice when the package is opened.

If there happens to be a number of dark-fleshed or rather light-weight squabs in a killing, these should be packed by themselves and sent on in anticipation of receiving a low price for them. Nothing is gained by putting some poor squabs among a number of good ones, for they will reduce the price of the whole package. If fine ones are put by themselves and

marked "Firsts" and the poorer ones sent without any particular mark the prices obtained for the whole shipment will be larger than it would have been if good and poor had been packed together.

It is best to kill on a certain day in the week, the day depending on the distance to market. In South Jersey they kill on Monday or Tuesday and send the squabs to New York and usually get a check for them by Saturday. Some kill Thursday in order to catch the Saturday markets, but as a rule it is best to reach the market Friday morning, so as to give the commission merchant two days in which to sell the birds. Often an early shipment gets the best price.

At the same time the squabs are sent to market, mail a letter to the commission man, advising him of the number of birds you send to him and by what express company or freight line. Give him any particulars which may help him to make a good sale, if you think of anything that might interest him.

In the eastern market squabs are graded by weight and quality. They are called 10-pound, 9-pound, 8-pound, 7-pound and  $6\frac{1}{2}$ -pound, and the prices range accordingly. When 10-pound squabs are worth \$6.00 a dozen, those weighing  $6\frac{1}{2}$  pounds will sell for from \$1.50 to \$2.75 a dozen, according to the state of the market, the high-priced ones always selling first, unless a buyer has a special reason for securing a lot of light-weights.

When breeding straight Homers, one can reasonably expect 80 or 90 per cent which will run 8 pounds or over to the dozen. About two-thirds of the remainder will run close to 8 pounds to the dozen and one-third will be classed among the lowest quality.

When 10-pound squabs are selling for \$6 a dozen, a lot weighing more than 10 pounds to the dozen will bring a premium of from 50 cents a dozen up; but as a rule the most profitable squabs are the 8- and 10-pounders.

In picking squabs, some leave them hanging where they are killed, while others take them in the hand. The weight of practice is in favor of holding them in the hand.

#### NUMBERS OF SQUABS TO THE PAIR

Some enthusiastic or dishonest sellers of breeding pigeons talk about their birds producing nine or ten pairs of squabs each year. There are occasional pairs of very select birds which will do this, but they cannot be bought at any reasonable price. No pair of birds will raise two squabs every time they hatch, for accidents will happen, and one squab or both, in some brooding periods, will die. Occasionally an egg will be broken, and once in a while an egg will prove infertile. These accidents, which happen in the best cared-for lofts, come to every pigeon-breeder.

If a large loft of pigeons average six pairs of pigeons a year, it will do as much as can be expected of it. More will fall below that than run above it, because there are more careless pigeon-breeders than careful ones.

Say, for the sake of a basis from which to arrange, that a loft of a good strain of Homers, properly housed and fed, will produce an average of six pairs of squabs each year. As pigeons breed ten months in the year, this average should be easily made. This would be an even dozen squabs for each pair of pigeons in the loft. These we will put at the very low price of \$3 a dozen, a price they will bring in a country town of any size, and we have \$3 as the gross returns from a pair of fair breeding Homers.

Deducting from this the highest estimated prices for the feed of a pair of pigeons, we have \$1.75 left. This will be the returns from which the pigeon-breeder must get his profits. The manure will pay well for the labor of feeding the birds, so this item is eliminated from the bill of cost.

It will not cost more than 25 cents per pair to pay for the other labor of caring for a loft of pigeons where any number above 100 pairs are kept. The owner of such a loft could do all the work before working hours in the morning and after hours in the evening so the birds would not interfere with his regular work.

The cost of ice, the cost of killing and picking the birds, and the cost of packages may be put at 25 cents a dozen, which is a very liberal estimate. This leaves \$1.25 clear profit, after paying all expenses and paying the owner for the time he puts in feeding his birds, this work having been done when he would otherwise have been idle or not earning money.

Say, it cost \$1.00 for each pair of birds kept in a house and the birds costs \$2.50 a pair. The interest on this investment at 6 per cent a year would be 21 cents, thus leaving \$1.04 as absolutely net profit from a pair of pigeons in a year, after paying all expenses at a liberal rate and paying good interest on the investment.

There is no other business open to those who have a small capital which will give such large returns. For every 100 pairs of pigeons kept, it is perfectly safe to say that a clean and clear profit of \$100 may be made. Where a large number are kept, it is not uncommon for the owner to realize \$1.50 net profit from a pair of Homers.

The one who begins with ten, twenty-five, or fifty pairs of birds will get proportionate returns from his investment in the way of increased number in his flock and will soon be in position to consider himself an extensive pigeon-breeder, because he may expect to have at least four pairs of first-class breeders from each pair he started with at the beginning of any year, having kept only the best and sold the poorest of the squabs. These estimates are very conservative for it is our intention in this book to give the beginner only the facts on which he may rely. If he fails to do much better than these figures after some experience in the business, he may well feel that he is not gaining the fullest measure of success.

The business is only in its infancy and those who start in now or any time soon may expect to reap a rich reward in the way of profits.



A Flock of Mammoth White Homers in far off Alaska.

The illustrations on this page and succeeding pages show the rapid development of squabs from the egg to the market in four weeks.



Eggs in the Nest.



Squabs One Day Old.

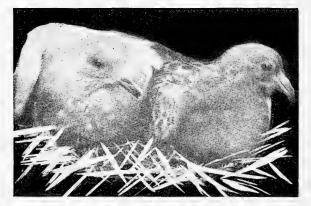
# You Can Almost See Them Grow



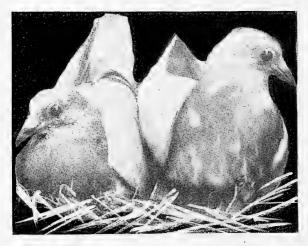
Squabs One Week Old.



Squabs Two Weeks Old.



Squabs Three Weeks Old.



Squabs Four Weeks Old. Just Prime for Market.

# CHAPTER VII

# DISEASES OF PIGEONS

The very best way to escape trouble from diseases among pigeons is to prevent them by always keeping the lofts and flies in first-class condition. Carelessness is the worst disease that affects pigeons, and this is always manifest in the owner before it has any effect on the birds.

If the lofts are kept clean, the feed supplied is sound and sweet, the water pure and the feeding regular, the birds themselves will not often be troubled with diseases of any kind.

However, with all possible care, diseases will appear at times, and it is well to know what to do to prevent them from spreading and causing serious loss.

Epidemic diseases will never appear in a flock which has been properly cared for, unless they are brought in through putting newly purchased birds among the healthy ones.

It is just as well to use caution when introducing new birds even if there is not the least suspicion that they are not perfectly healthy.

When new stock is bought it should be kept by itself for a week to determine if it is free from disease. Not once in a hundred times will birds bought of a reliable breeder be found unhealthy, but prevention is better than cure any time, so precautions should be taken. In such cases it is much better to be over cautious than to have losses occur through lack of precaution.

#### GOING LIGHT

"Going Light" is the common name for tuberculosis in pigeons. It is brought on by drinking impure water, eating unsound feed, lack of good supply of grit, or from natural lack of vitality. This disease never attacks healthy and vigorous birds, but takes for its victims those which have become weak from any reason. If it is not taken in hand at once, the bird wastes away and becomes nothing but "skin and bones" and dies. The first symptoms are usually diarrhoea, the droppings being thin and watery. The bird does not eat, but sits around with its head drawn down and really starves to death because it has no appetite to eat.

If a bird which has started to go light, is taken in hand at once it is very often possible to save it for future usefulness. Give it a dose of castor oil, giving about five or six drops. Put in a coop by itself and the next day give it ten drops of cod liver oil. Repeat the dose of cod liver oil every day until the bird is cured. Give it hempseed every day and be very certain the seed is sound and free from mustiness. A good health grit or tonic is the best preventive to be used.

# CANKER

Canker is a disease of the same nature as diphtheria in human beings. It appears occasionally in lofts where it never before has been found, and seems to be contracted from germs which float in the air. It often attacks the birds in one nest and not the one next to it, although if it is not taken in hand it will soon spread to all the birds in the loft.

It no doubt comes from a cold very often and for that reason birds which show symptoms of having caught cold should be carefully watched. The first appearance of this disease shows in little yellowish white blisters on the lining or mucous membrane of the mouth and throat. These rapidly increase in size and spread to other parts of the throat and form a cheesy growth until they show outside around the mouth, and the bird chokes to death.

When canker appears in a squab only and the parent bird shows no sign of it, the best thing to do is to kill the squab, disinfect the loft and stay the disease in this way. It may be cured by using a little patience, unless it has gone too far before it is discovered.

Remove the sick bird from the loft and keep it in some place not adjacent to the pigeon house. Take a small sharp splinter of wood, such as sharpened match, and scrape the cankers off, doing this as gently as possible. This will leave a raw red spot, which should be gently swabbed with a solution of peroxide of hydrogen and water, half and half. The solution will foam as if it were boiling, but it is entirely painless and does not hurt the bird in the least. Repeat the swabbing, putting on plenty of the solution, until it ceases to foam. It does not matter if a little of the solution goes down the throat of the bird, as it is perfectly harmless when swallowed by man, beast or bird, and it is the best germicide known, being non-poisonous and odorless.

Some good authorities recommend painting the cankers with lemon juice and putting a piece of alum in the drinking water, but we prefer the peroxide of hydrogen treatment. Do not return a bird to the loft until it is entirely well, and always disinfect the loft when a case of canker is found in it. Directions for disinfecting are given further on in this chapter.

If the disease does not respond quickly to treatment, it is sometimes best to turn the affected birds out of the fly and let them shift for themselves without restraint. The open air and scanty supply of food together with whatever they are able to find of nature's remedies will effect a cure in nearly every case. Sometimes a bird will leave and never return but just as well this loss as to kill the bird, or have others in the fly affected. By this method I have often cured young birds just beginning to shift for themselves and older breedres in the last stages of Canker and when the bird is entirely recovered from the disease it may easily be caught and returned to the loft without endangering the rest.

#### ROUP

Roup sometimes appears in a loft, especially during damp weather or when the birds have not had proper housing. It is shown by the discharge from the nostrils, which has a very offensive odor. It is highly contagious in its later stages, and if not cured before it takes on the contagious form is incurable. When a bird has reached the last stages it should be killed and burned or buried far from the loft.

If a bird is noticed to have a discharge from the nostrils it should be attended to at once as the disease is very easy to cure at that time. Put some coal oil in a sewing machine can and squirt some of the oil up each nostril and in the slit in the top of the mouth. This usually effects a cure, but if it is not better in a few hours use camphorated oil in the same way. Any druggist will supply the camphorated oil.

#### CHOLERA

Cholera is a dreadful disease to contend with, but no pigeon-breeder who keeps his birds properly need fear it, as it is caused by cold, dampness and filth in nine cases out of ten. It is very contagious and it is very hard to cure. Happily, the disease does not worry the careful breeder, but once it gets started in a loft it may kill off every bird in it unless vigorous measures are taken to stop its progress. When a bird is attacked with cholera it presents a very miserable appearance. Its plumage is ruffled up, its crop fills with water which has a very offensive odor, and diarrhoea appears. The disease runs its course rapidly and soon the victim is dead.

To stop the progress of cholera in a loft, put ten drops of carbolic acid in a gallon of drinking water for two days. Feed only the very best feed. Follow the carbolic acid by putting a tablespoonful of tincture of gentain in each gallon of drinking water for ten days. Disinfect the house thoroughly twice a week until the disease disappears.

# VERTIGO

Vertigo is a brain affection which is incurable, although it does not usually kill quickly. It is characterized by turning the head over the shoulder and convulsions. These convulsions often occur when anyone enters the loft, while at other times the bird is quiet. There is no cure and it is best to kill the bird to put it out of its misery, as it will never again be of any use as a breeder.

# EGG-BOUND

Young hens are often affected by becoming egg-bound; that is; they are unable to force the passage of the egg from the ovary to the nest.

When a hen shows signs of distress, catch her and carefully feel of her abdomen. If she is egg-bound, the egg can be felt. Anoint the passage with vaseline and introduce the finger as far as possible, being careful not to break the egg. Then hold the hen over steam as hot as can be borne without scalding, until the parts are thoroughly steamed and relaxed. After this, carefully put the hen on the nest and usually she will be able to pass the egg.

#### PIGEON POX

Sometimes a disease similar to small pox in human beings and chicken-pox in poultry appears in a loft. This is known by small sores which appear about the head and face.

When this disease appears, wash the sores with a solution of copper sulphate or a solution of peroxide of hydrogen and water, equal parts. Either of these solutions will cure the disease in a short time.

#### SUDDEN COLDS

Sometimes a pigeon will sit out in a cold rain or sleep in a stray draft and catch cold. This makes it sick and stupid, and it should be cared for at once.

To cure a cold of this kind, give five-drops of castor oil and the next day a one grain capsule of quinine. Follow this with ten drop doses of cod liver oil for a few days and the bird will soon be as lively as ever.

#### LEG WEAKNESS

Leg weakness is usually caused by inbreeding or an accidental weakness. There is no certain cure for it, because we never know just what has caused the trouble. If a bird seems weak in the legs rub some camphorated oil on the hock joint and repeat the operation as long as necessary. The short-legged varieties like the Homer very seldom have any trouble wth their legs.

# WING DISEASE

Wing disease is a trouble of the "elbow." It is caused by a hurt, and the injured bird becomes lame in the wing. Presently a lump forms on the elbow and this increases in size, filling with a yellowish cheesy matter, causing the bird to drag the wing.

The only thing to do is to run camphorated oil on the injured spot, and when the swelling has reached full size cut it open. Usually the bird is not injured as a breeder, but it must make its nest on the floor, as it can not fly. If the disease is noticed at the very start, it sometimes may be cured; but if the trouble is neglected, a crippled bird is the result. For the sake of the appearance of the flock such birds should not be allowed to remain in the loft. If your windows or openings from the loft to the fly are good size there is little danger of this trouble for it is usually caused by the bird striking the wing in its rush to get outside. Birds that are wild or too often disturbed are more liable to this trouble.

#### WORMS

Worms sometimes bother pigeons. If a bird has a varying appetite and seems to be running down, watch its droppings and it is likely that worms may be found in them. If the worms are not found, it is not conclusive evidence that they are not sapping the vitality of the bird and it should be treated.

A bit of garlic every morning will usually cure the disease. The piece of garlic should be about the size of a pea. A pill of powdered areca nut mixed with butter is also an effective remedy, or a pill as large as a small pea of gum aloes will kill the worms. Give any one of these remedies and expect a cure. Give the remedy before the bird has eaten in the morning.

#### LICE

Lice are not a disease, but they can do more damage than any disease. If they once get a start in the pigeon loft, it requires heroic treatment to get them subdued. If attention is paid to cleanliness, old nests taken out and burned as soon as they are empty, insect powder sprinkled in the nest boxes and tobacco stems are used for nesting material, lice will never get a foothold in the loft. If it should happen that lice get a start, take the birds out of the loft and clean it thoroughly. Then paint the walls and nest boxes with kerosene and afterward whitewash every part of the inside with lime.

#### DISINFECTANTS

Any druggist will supply a good disinfectant and give direction how to mix it for use. This should be sprinkled about the floor once in two or three weeks, and always mixed with the whitewash which is used on the loft. A mild disinfectant should be sprinkled on the floor at least once a week, and twice a week is better. Go quietly into the loft and gently sprinkle the solution on the floor, but not on the nests, as this frightens the birds. Keep the air of the lofts always smelling sweet and pure and there will be no trouble with disease.

# DOUGLAS MIXTURE

Douglas Mixture is an old-time tonic, much esteemed by a good many breeders of pigeons and poultry. It is made by dissolving eight ounces of iron sulphate (copperas) in two gallons of water and then very slowly adding one ounce of sulphuric acid. Put in jugs and it will keep indefinitely. If a tablespoon of this is put in the drinking water occasionally, it will act as a tonic and make the blood richer. It is especially recommended for use during the molting season.

# GENTIAN AS A TONIC

Compound tincture of gentian is highly recommended as a tonic for pigeons. If the birds seem out of condition, a teaspoonful of this in the drinking water will tone them up and give them good appetites again. When the birds are molting during the months of September, October and November, a tablespoonful of compound extract of gentian in the drinking water every Sunday morning will keep the birds in condition, but this should not be used if the Douglas Mixture is used as a tonic.

# SWEET FERN TEA

For looseness of the bowels, sweet fern tea has been found a very good remedy. Looseness of the bowels occurs from feeding too much wheat that has not been well dried. It also comes from impure water or unsound feed of any kind. To cure it a good handful of the leaves is put into three gallons of water and boiled down to one-half. Put a teacupful of this in two gallons of drinking water.

#### NUX VOMICA

Some breeders recommend nux vomica very highly as a tonic, and we mention it so those who follow the directions in this book may have their choice. Sixty drops of the tincture of nux vomica is put in two gallons of the drinking water twice a week, during the molting season. At other times in the year it is given when the flock seems to lack liveliness or to be droopy for any reason.

The tincture of nux vomica is about the easiest of all the tonics to use, as enough for a year can be kept in a small bottle and put into the water without trouble at any time it is needed.

#### THE MEDICINE CHEST

Every pigeon-breeder should have a small box in which to keep a supply of the medicines which may be needed. This box should contain a pot of carbolated vaseline to be used on cuts or bruises, as in wing trouble. There should be a four-ounce bottle of peroxide of hydrogen, a small bottle of camphorated oil, an ounce or two of carbolic acid, a few quinine capsules, a bottle of cod liver oil and a bottle filled with kerosene. There should also be a medicine dropper, such as is used to fill fountain pens, and a small sewing machine oil can to use in cases of roup. Such a medicine chest will come handy many times a year.

Don't get into the habit of dosing your birds for every imaginary trouble. If pigeons are given a dry, light house, good sound grain, plenty of grit, salt, charcoal and perfectly pure water to drink, with good facilities for bathing, there will be little call for use of medicines. Only doctor sick birds when necessary, and then take them out of the loft and keep them out until they are well. The careful pigeon-breeder will always learn to know his birds by sight and will notice any symptoms of disease as soon as they appear. Once any disease is noticed, apply the remedy at once without giving the ailment opportunity to become chronic.

If the directions given in this book are followed, the pigeonbreeder, although he may start without practical knowledge of the business, will be able to carry his birds along in good health and promote productiveness in such a manner that he may anticipate the best results from his work.



# CHAPTER VIII

# MISCELLANEOUS INFORMATION—CATCHING MATED PAIRS

When it is desired to catch mated pairs, take the catching net into the fly with you. Drive all the pigeons out in the fly and shut them out of the house. Then take another person with you and go into the fly. Watch until a cock begins to drive a hen and trap him in the net, while your helper watches the hen. Take the cock out of the net and hand it to your helper, who will catch the hen. Then band the two, putting the band on the right leg of the cock and on the left leg of the hen. If squabs are banded in the nest, nearly all of them will be found banded correctly if the band has been put on the right let of the squab first hatched on the left leg of the one hatched later.

# STARTING A LOFT

Buy from ten to fifty mated pairs, according to the amount with which you decide to begin. Keep all the best squabs hatched during the year, so cross-mating them as not to have nest mates mated up for breeding. Dispose of all under-sized squabs, and when the birds have grown up sell all those which prove inferior. In this way you will learn to manage your loft and get your breeding stock at the lowest possible cost.

# THE PRICE OF BREEDING STOCK

It does not pay to start with poor breeding stock. Buy of a reliable breeder and pay a fair price. No one can afford to sell first-class breeding stock except in certain seasons at less than \$1.50 a pair in large numbers or less than \$2.00 a pair when from ten to twenty-five pairs are sold in a lot. It is poor economy to buy common pigeons as squab-breeders at any price and just as bad management to buy cheap Homers and run the risk of getting old and worn out birds.

# BEST WEIGHT FOR SQUABS

Squabs that weigh less than eight pounds to the dozen are not desirable, as they sell at a price which drops rapidly as they run below eight pounds to the dozen. It costs just as much to raise a dark-fleshed and light-weight squab as it does to raise a big plump bird with white flesh; and a pair of

pigeons which produce dark squabs of light weights should be disposed of. Select all the time for heavy weights in your squabs and get the top of the market.

# LENGTH OF BREEDING PERIOD

Pigeons will breed regularly for seven or eight years, so it is to the interest of the breeders to keep only the best in his lofts. The good breeder watches what kind of squabs each pair produces and keeps selecting the best from time to time until he has a loft full which may be depended upon.

# DON'T OVERCROWD

Don't overcrowd your lofts. It is better to waste a little room than to have too many birds together. Give each fifty pairs a room eight by ten feet and a fly at least ten by twentyfour feet.

#### SQUAB HOMERS

Health and vigor are the foundation on which success must be built. The well-bred squab Homer carries its head erect, its plumage is smooth and sleek, and its neck carries the colors of the rain-bow. When it stands still, it seems on wires and when you go in to your loft in the morning and look over the flock any bird which does not in turn give you a looking over is not fit for a breeder. The eye is the index of health of pigeons. If the eye is dull or the bird sits winking in a listless manner, there is something wrong about it. Sickly birds shun society and mope in dark corners. The droppings should be noticed. If the birds are healthy, there should be a fair proportion of pure white in them, and they should be rather firm. The squab Homer in health is a beautiful bird, alive every moment and noticing keenly everything that passes.

# INCREASING PRICES

Squabs have constantly increased in price in the larger markets for several years, and hundreds of new towns have come in with a call for good squabs. Everyone who begins to raise squabs for the market makes the demand for them larger. There is no danger of overdoing the business and it will continue to grow larger as game birds decrease in numbers. Many restaurants now serve squab when there is an order for quail on toast, and those who like good things usually go back and want some more of that same kind of "quail."

Good restaurants now keep squabs on hand and put them on their tables under their proper name, having learned that it pays to do so.

# THE SOUTH JERSEY SQUAB DISTRICT

The great business of raising squabs which is carried on in South Jersey started with one man and has spread out until almost every one in the country for miles around Bridgeton keeps pigeons and sells squabs. About 7,000 squabs are sent out of this district every week, equal to 365,000 in a year, and there is never a time but these squabs sell as soon as they reach the market at prices which make it very profitable to produce them. Men, women and children raise squabs in this district, nearly every one of them being sold in New York City.

#### THE PROFESSION OF SQUAB BREEDING

Only a few years ago the man who spent his time breeding pigeons was thought to be engaged in a small business. Now it has become a profession and is followed by all sorts of men as a profitable way of putting in spare time. The professional man raises squabs as a diversion, the clerk or shop operative keeps a loft to help out on his income, young men pay their way through college on the profits of the squab business, old men who have got beyond the harder work of life make a good living from squabs; and still the insistent food markets call for more squabs at better prices. There is no risk in going into the squab business, if the birds are properly cared for:

# REGULARITY

Have a certain time to do all the work and work to the schedule you have prepared. Clean the house on a certain day in the week, kill the squabs on the day which best suits your market. Feed as nearly at the same time every day as possible, for the birds soon learn to know when feeding time comes, and the squabs even learn to know when to look for the parents to feed them. Keep everything going like clock work, and the work will be properly done and the birds thrive better for the regular habits they learn.

#### GO QUIETLY

There will always be a number of birds sitting, others will be feeding the young, and quick motions or loud noises disturb them and cause them to stop feeding or to leave their nests. Keep the birds tame by going among them but go quietly.

## THE BEST AGE

A pair of pigeons begin to breed at about six months of age, but young birds are not very profitable as breeders. After they are one year old they are in full working condition and for the next seven or eight years may be depended on to produce regularly, if they are the right kind of stock.

# DON'T KILL TOO YOUNG

Do not kill your squabs too young. They should be killed just before they are ready to leave the nest, but not before their flesh has become firm and solid. A squab which is killed too young never brings a good price, as the buyers in the cities know one immediately they have felt of it, and a few squabs which have been killed too soon decrease the price of the whole package. Remember that the price paid for squabs in a given package is made on the basis of all of them being as poor as the poorest in the package.

#### MICE IN NESTS

If you find some of your squabs smashed flat in the nests, look out for mice. These little pests like to nest with a pair of pigeons, and particularly in cold weather have a fashion of crawling between the parent bird and the squab. causes the parent to move about and kill the young. To kill the mice, take a large cigar box—or any box of about that size -and cut a small hole in one end. Put under this box a mouse-trap baited with bits of toasted cheese and on top of the box put a heavy weight so the pigeons can not get at the trap. Set a few traps around the feed bin also, and it will not be long until the last mouse is caught, as they like cheese better than the grain which has brought them to the pigeon house at first. A good cat kept around the feed room is often a good investment, but do not forget that a cat likes squabs very much and must be carefully kept outside the breeding lofts.

#### FEED A VARIETY

In the proper place we have given directions for mixing feed. We refer to it in this place to emphasize the necessity of feeding a variety of grains and the mixtures we recommend on previous pages will be found such as will produce results. Never feed one grain for the reason that it is cheaper than the other. It does not pay to economize in this way. True economy in feeding is to feed the proper kinds and just as much as the birds will eat without wasting. They always pick out the kind they like the best first, but they should be compelled to eat the whole of the feed each time and should be fed just as much as they will clean up from one feeding to another.

#### VENTILATION

Most pigeon-breeders keep their houses closed too tight during the winter. If cloth is used in the windows instead of glass, there will be good ventilation all the time as the muslin used for the windows allows the air to get in and keeps it pure inside; but where glass is used, the fly holes should be left open nearly every night during the winter or the air will become so impure that it will be likely to breed disease. Pigeons when they are not breeding, do not mind cold weather, but breeding birds should have a tight house on account of the squabs. See to it that the ventilation is attended to.

#### TESTING PIGEON EGGS

If you want to know whether an egg is going to hatch after the hen has been sitting for some time look through it, if it is clear it will not hatch and might as well be thrown away. If it is partly clouded, the egg wll hatch but not for several days. If it is dark all over except at the large end, the young bird will hatch in three or four days, or it has died. To find if it is alive, put some water in a pan having it as warm as the hand can be held in it without burning. Set the pan down and put the egg in the water, little end down and let it float. If the bird is alive it will struggle in the egg and cause it to bob around in the water. Testing eggs is not necessary unless it is noticed that a certain pair have set for a suspiciously long time.

# SELECTING A SITE

In selecting a site for the pigeon house as much care and judgment should be exercised as in choosing the location of one's own home. An unhealthy location for man would most likely prove unhealthy for the birds. A damp place, or one exposed to extremes of heat, cold or wind, is to be rejected. The spot selected should be well drained, should be facing the south or east, should be free from obstructions which shut out

the rays of the morning sun and be sheltered either by trees or buildings from the north and west winds. Such a place, with a shallow stream of pure running water for drinking and bathing—so essential to the health of pigeons—will be an ideal site, and will require a minimum of expense and daily work in caring for the stock. Of course, such sites can only be obtained in the country.

In no case should a house be built for more than 250 pairs nor more than 50 pairs be kept in each section. It must be so designed as to be well ventilated and easily kept clean, secure from attacks of mice, rats, and other animals and not subject to drafts of air.

If feeding hoppers are used they should be of good size and properly constructed. If you do not provide a liberal supply of mixed grit in a suitable hopper, you should keep at least a peck of clean sharp sand on the floor of each pen all the time. Provide salt, charcoal and oyster shell and keep a clean supply of each before the birds at all times.

It is usually better, however, to procure a good health grit or the tonic ingredients and mix the grit yourself.

In these receptacles should be kept a generous supply of sifted cracked corn, Canada peas, wheat, German millet, kaffir corn and hemp. These are the six principal feeds.

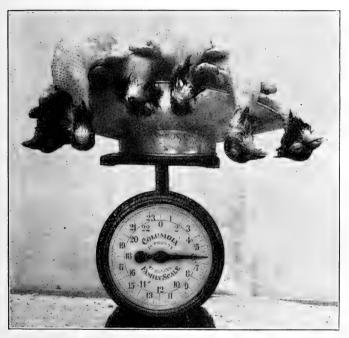
A room 8 by 10 feet will accommodate 50 pairs very comfortably. The fly should be extended 32 feet if possible.

Pigeons should be fed twice a day—in the summer time at 6:30 a. m., and 4:30 p. m.; in the winter at 7:30 a. m., and 3:00 p. m.

The best kinds of feeds to use are cracked corn, red wheat kaffir corn, millet, peas, hemp and rice. In the morning give wheat, cracked corn, and peas in equal parts; in the afternoon give equal parts of cracked corn, peas, kaffir corn, and millet. The birds should be fed in the pen rather than in the fly.

Water the birds every morning before feeding using nothing except fresh pure water. Always clean out the fountains before filling.

Bathing is very essential to the health of pigeons. In summer they should have an opportunity to bathe at least every other day. In winter the bath should be given only on bright, sunny days. It is essential to clean house every week. After cleaning the nests, put powdered carbolated lime in all cracks. corners, and damp places. Sprinkle the floor with lime and sprinkle a bucket of sand evenly over the lime.



Six Mammoth Homer Squabs weighing full six pounds when dressed for the market.

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