PIGEONS

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AND

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Aviary Type, Pigeon Loft

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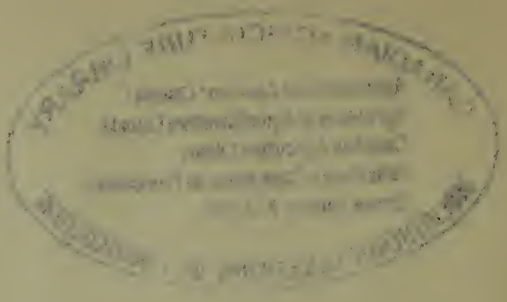

PIGEONS

Introduction

Pigeon breeding or squab raising, as the utilitarian side of the industry is more popularly designated, had a tremendous boom both in Canada and the United States several years ago. At that time the industry was but little known on this continent, and most misleading and exaggerated statements were made, not only concerning the facility with which pigeons could be bred, but also with regard to the huge profits which could be realized from them. This boom was fostered by breeders, many of whom were unscrupulous and who had worthless breeding stock for sale. The propaganda was, unfortunately, so well organized that people in all parts of the country invested capital, only to find that, owing to the poor quality of their breeding stock and the lack of a good market for their products, instead of making a profit they were actually losing money; and as a result the industry received a serious set-back.

Here in Canada, the pigeon should not be looked upon as a fancy or show bird, to be bred only by fanciers for exhibition purposes, but rather, as is the case in the United States of America, and many parts of Europe, as a bird having a distinct utilitarian value. If ordinary care is exercised in the choice of the breeding stock, and common-sense breeding methods followed, no doubt a profitable market can be worked up in practically any medium-sized city. It must be frankly stated, however, that at the present time the demand for squabs in Canada does not warrant the encouragement of extensive plants devoted exclusively to their breeding.

The flesh of these birds is not only very delicate and juicy, but has a very high nutritive value. The breeding, agreeable and interesting in itself, can also be made profitable by reason of the fact that the birds are very prolific. Furthermore, no heavy initial outlay is necessitated nor very much labour or space. Breeding can be carried on successfully in the city, provided a small yard is available in which to install the simple accommodation necessary.

While the breeding itself is not extremely difficult, a certain knowledge of the underlying principles and methods is essential to success. It is in response to numerous requests for information on this subject, and also to help those who are just beginning, that this bulletin is prepared. It is not intended as a complete or exhaustive treatise, but is designed to set forth, as concisely as possible, the practical methods which should be followed in order that success may be attained.

Descriptions of a few of the leading breeds are given, to enable the beginner to make a judicious choice of a breed, one suited to the particular market to which he wishes to cater. The breeders of each variety naturally claim that their particular breed is superior to all others; but in placing the breeds in the order in which they are given here we have drawn not only upon our own experience, but also upon that of some of the most successful breeders on the continent.

Installation of the Pigeon Loft

The proper housing of the stock is a highly important factor in successful pigeon breeding. This does not imply that the installation should be either elaborate or expensive, for, provided the quarters are hygienic, and give the birds ample protection during inclement weather, the more simple they are, the better. It is preferable that the pigeon loft should face south, in order that it may receive the maximum of sunlight, and at the same time be protected from northerly winds.

Experience has proved that a small pigeon loft, as a complement to the poultry yard, is really the most advantageous form of accommodation. Under these conditions the work is comparatively easy to supervise, and does not necessitate disproportionate care or attention.

Hanging Pigeon Boxes.

For the small breeder who wishes to keep only a few pairs of pigeons, and who already has a poultry house, or at least a small yard, the following will prove to be a simple, economical, but at the same time practical equipment:—

For each pair of pigeons a box must be procured, measuring at least 24 inches long by 18 inches high and 18 inches deep. All the joints should be tongued and grooved or carefully battened to prevent draughts, and the top covered with tarred roofing felt to render it waterproof. Two openings, measuring each 4½ inches wide by 6½ inches high, must be made in the front, and so arranged that they can be closed by means of hinged doors. Immediately below each of these openings a small shelf, on which one pigeon can alight, should be attached.

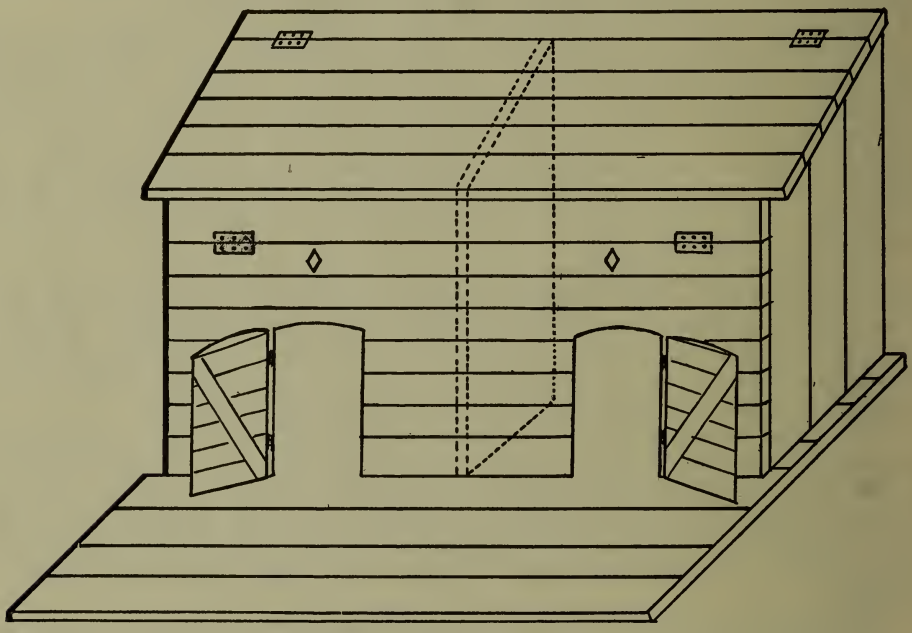

Fig. 1.—Hanging Pigeon Box

The boxes are attached by means of brackets to a wall of some kind, and should be placed about ten or twelve feet apart. They should be situated so that they can be easily reached when necessary, and, for convenience in cleaning, the front of each box should be hinged.

In order to accustom the pigeons to their new quarters, the birds should be confined in these boxes for two or three days. During this period the openings should be covered with wire netting, to allow the birds to familiarize themselves with their surroundings, after which the netting may be removed. Care must also be taken to give plenty of feed and fresh water.

Each box may be provided with a nesting bowl and also a supply of rock salt, grit and charcoal. As soon as the young show any signs of leaving the nest a small piece of wood two inches high should be placed across the bottom of each opening to prevent the tiny birds from falling out.

Usual Type Pigeon Loft.

When pigeons are to be bred in considerable numbers, but entirely at liberty, so that they can obtain a good proportion of their feed when at large, it is only necessary to provide a pigeon loft spacious enough to house them comfortably, and to afford them protection against the elements.

This loft may be situated in the upper part of a barn, a shed, or some similar building. It need not necessarily be placed very high up, but it is advisable to have the floor raised at least a foot or two above the ground, both to prevent dampness and to permit a good ventilation.

Our experience, as well as that of many other breeders, has convinced us that it is not advisable to heat the pigeon loft, even during severe weather. Unless the ventilation is perfect the heated air quickly becomes foul, and is liable to cause disease, besides weakening the birds. Pigeons kept in a dry, sunlit, well ventilated loft, free from draughts, can readily withstand extreme cold without any ill effects. In addition, those housed in this way are in much better condition for exhibition purposes than are birds wintered in artificially warmed quarters. Further, they are more vigorous, and give superior results when bred for squab raising.

Bad ventilation, overcrowding and dirt are the three main causes of failure in pigeon breeding. Consequently it is necessary that the pigeon loft be so situated and constructed that it can be cleaned without difficulty, and also that the breeder shall have easy access at all times. No less important is it that the loft be well protected against prowling animals, such as cats, rats or weasels, as these are liable to cause heavy losses among the young pigeons. This protection may be secured to a certain extent at least, by placing a cornice ten or twelve inches wide all around the outside of the pigeon loft and about a foot above the level of the floor. Such a ledge will also serve as a platform on which the pigeons can sun themselves, and rest after a long flight.

It is preferable to have several entrances to the pigeon loft, in order that a number of pigeons may be able to enter at the same time without fighting.

The size of a pigeon house of the type described will depend naturally upon the number of birds kept. Generally speaking, three square feet of floor space is sufficient for each pair.

The inside should be divided into several compartments, to allow for special matings, and also for the separation of the young birds when necessary. In every case, however, these compartments must be so arranged that each part of the loft may be readily and easily cleaned.

Aviary Type of Pigeon Loft.

The aviary type of pigeon loft is used for breeding large numbers of pigeons in captivity, and is adopted almost exclusively for squab raising on a commercial scale. It is necessarily larger than the type previously mentioned, and in addition is provided with a fly (a wired-in enclosure outside the loft) where the pigeons take their exercise.

The site for a loft of this type must be carefully chosen. It should be on dry, well drained ground, and sheltered from the north and east winds by a windbreak of trees, a natural elevation of the ground, or by other buildings. A site with a small and shallow stream running through it is desirable, as this will ensure a constant supply of pure, clean water for the pigeons to drink, and in which to bathe themselves.

A loft 40 feet long by 12 feet wide and 8 feet high, conveniently divided into compartments, is sufficiently large for from 100 to 120 pairs of pigeons. (In a loft of this kind 4 square feet of floor space is usually allowed for each pair). The foundation, preferably of cement, should be from 18 inches to 2 feet high, supporting a floor of strong matchboarding resting on joists placed

from 3 feet to 4 feet apart. The ends, back, and partitions should likewise be made of matchboarding, and in the event of the climate being very severe, the ends and back should be of double thickness with a layer of building paper between.

Since it is, above all, necessary to keep the loft dry, well lighted, and well ventilated, each compartment should be provided with double windows, one of cotton and the other of glass, opening inwards, and hinged in such a manner that either may be used as needed.

The fly, which should extend the whole length of the loft, should be about thirty feet long by eight feet high, and constructed of wire netting attached to a framework of wood.

Fig. 2.—Back view of pigeon loft at Central Experimental Farm, Ottawa

This type of installation requires more ground, and a larger investment of capital, but it provides for breeding on a large scale, with the minimum of trouble, and under hygenic conditions. The cost for feed is naturally much higher than when the birds are not confined to the loft, as in the latter case they can forage for themselves.

Nests and Nesting Boxes.

Nest boxes, which are simply boxes 9 inches square, open on the top, and 6 inches deep, in which the pigeons can make their nests, must be provided. They are arranged according to the wall space available.

Pigeons have two dangerous enemies: vermin and rats. The latter are attracted not only by the grain which is always to be found in the pigeon loft, but also by the eggs and young pigeons. Occasionally they attack the adult birds, but these instances are rare. The nest boxes should be placed on the wall, high enough to make them inaccessible to the pests mentioned. If the walls are old and rough, rats will be able to climb them and so enter the nests; and in

that event a strip of tin or galvanized iron about ten inches wide should be fastened to the wall surrounding the nest boxes.

Pigeons prefer to nest in a quiet, secluded spot, and this must be borne in mind when making provision for their nests which they will themselves prepare, lining them with straw, hay, feathers, etc. A few tobacco plant stems placed in the bottom of the nest form an excellent protection against vermin. Many breeders prefer to use ready made nests of plaster or wood, shaped like small bowls, but these, too, should have a layer of tobacco stems inside them.

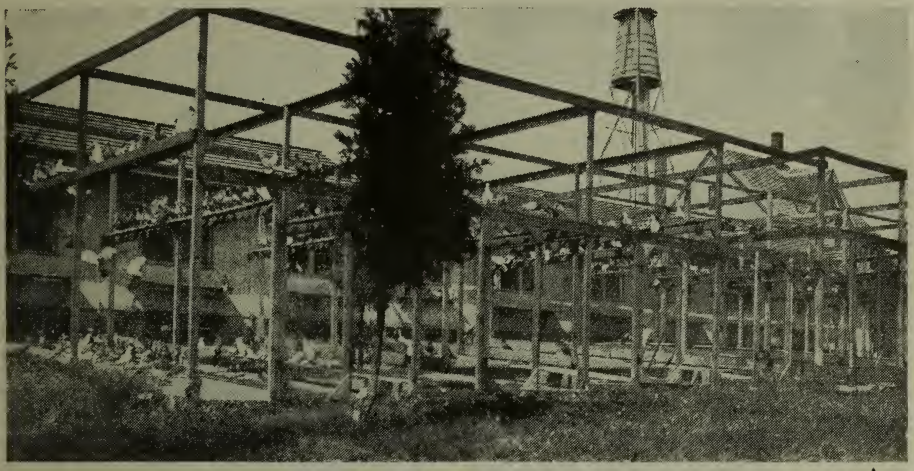

Fig. 3.—Typical Pigeon Loft for Commercial Squab Raising.
(Springer Bros., Brighton, N.Y.)

As cleanliness is one of the most essential factors in successful pigeon breeding, the nest boxes must be easy of access, and so constructed that they can be cleaned with facility. They are best made of lumber dressed on the inside surface, and free from crevices which might harbour vermin.

It is necessary to provide two nest boxes for each pair of pigeons, to prevent the fighting which would frequently result from having insufficient nest boxes, and also because with the more prolific breeds a second lot of eggs will often be laid before the young of the previous hatch are ready to leave the nest. The second nest, however, should be closed up until the squabs in the first one are about ten days old. If this is not done there is always the danger of another pair of pigeons pre-empting this second nest.

The nests and nest boxes must always be kept as dry as possible, in order to ensure vigorous and abundant hatches.

Roosts.

Roosts, which may be made of round poles about 1½ inches in diameter, should be placed in the pigeon loft, five or six feet high, and about twenty inches apart. Some breeds are apt to be quarrelsome, however, and when the cock birds are on the roosts or perches, as they usually are while the hen is on the nest—they are inclined to fight, with detriment to their plumage if not with more serious results. To obviate this, several rows of individual roosts or perches, about eight inches long, may be installed. These may be made of two pieces of board in the form of an inverted V, thus serving the double purpose of providing space for only one pigeon, and protecting those on the lower rows from the droppings of those above. As each pigeon becomes accustomed to its particular perch, it will habitually roost there isolated from its neighbours.

Hygiene in the Pigeon Loft.

Hygienic conditions in the pigeon loft are absolutely essential to success. The quarters must be cleaned thoroughly and often, for many of the failures in pigeon breeding are due to negligence and carelessness in this respect. In order to attain and maintain this hygienic condition, not only the loft itself (including all the corners) but also the nests and nesting boxes should be cleaned out at regular intervals. The droppings must be removed and the drinking vessels washed and scalded regularly, and the whole loft whitewashed once or twice a year. In order to facilitate this periodical cleaning, all the inside fixtures should be movable.

During the time that the young pigeons keep to their nests, particular care must be taken to remove the droppings frequently; otherwise these will produce a dampness, which might easily prove fatal to the young birds.

A layer of fine grit (such as may be found in the bed of a stream) or of coarse sand, should be spread over the floor. This must be rakel over frequently with a fine-toothed rake and the droppings removed.

Good ventilation, but without direct draught, must be maintained at all times, and the quarters kept as comfortable as possible. It is necessary not only to keep the lofts clean and in good condition, but also to provide facilities for the pigeons to clean themselves daily.

Vermin.

There are numerous parasites which attack pigeons, but only two are really dangerous. The average breeder groups them all under the general name of lice. The variety commonly known as " red lice " or " red mites," the scientific name of which is *" Dermanyssus Gallinae,"* is most to be feared during hot or sultry weather. Unlike the real lice, they do not live on the bodies of their victims, but hide in cracks and joints in the wood during the day. They come out at night and suck the blood of the birds with such avidity as to cause the latter to lose flesh rapidly—occasionally even causing death, particularly during the hatching season.

Prevention being always better than cure, with the commencement of the hot weather the inside of the loft, and more especially the perches and nest boxes, should be frequently sprayed with a disinfecting solution made up according to the instruction given in Exhibition Circular No. 85—" How to rid a henhouse of mites".

A second variety of mite, known as the " Argus," is also a source of considerable damage in the pigeon loft. It is about the same size as a large house bug, and is reddish-brown in colour. It multiplies at a phenomenal rate, and preys especially upon the young pigeons still in their nests. In addition to the above-mentioned disinfecting method, a thorough dusting of the eggs with a good insect powder (this may be applied as soon as they are laid, and again on the ninth or tenth day) is most efficacious in preventing and combatting this scourge.

Ordinary lice and bugs may be easily eradicated by means of a good insect powder dusted into the feathers, or by the application of a little blue ointment to the skin of the pigeons, particularly under the tail and wings.

Feeds and Feeding

Practically all cereals constitute good feed for domestic pigeons. The best, however, are peas, wheat, barley and buckwheat, which should be fed mixed and whole, as they are then much more palatable to the pigeons. Care must be taken not to feed green or absolutely new, unseasoned grain, for nothing is more likely to cause bowel and digestive trouble. When grain is fed on the loft floor,

disease is often caused by the birds eating grain that has been fouled by their own droppings, and consequently the best plan is to feel all grain in hoppers, which may be kept constantly before the pigeons. These hoppers, however, should be so constructed that the birds are unable to turn around on the open front. (See figs. 4 and 5.)

Pigeons flying free invariably feed on a wide variety of grains. This being so, when they are kept in captivity the breeder should endeavour to vary the feed, so as to constitute a well-balanced ration. In winter a little linseed, millet, or sweet cracked corn may be added to the above-mentioned mixture, and, the year round, rice may be occasionally fed with advantage. All pigeons are fond of salt dainties, and, when procurable, salt codfish will form a relished addition to the regular feed. Screenings of all grains are good for pigeons. Occasional mashes made of low grade flour, bran, cooked beetroots, potatoes and like feeds are recommended for birds kept in captivity.

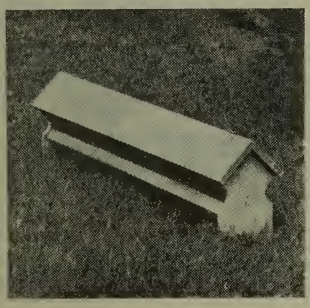

Fig. 4.—Feeding trough (closed).

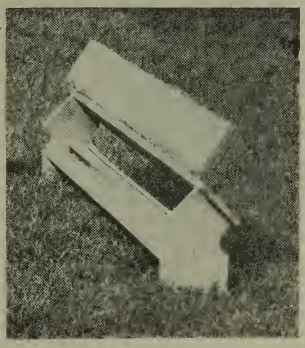

Fig. 5.—Feeding trough (open).

In the lofts of pigeons bred in captivity, hoppers, containing rock salt, fine gravel, crushed oyster shells, charcoal, and pulverized mortar, in separate compartments, should be kept constantly replenished.

During the breeding and nesting season it is advantageous to examine the squabs each night to make sure that their crops are full.

Value of Various Grains

(1) *Barley* in limited quantities is a good summer feed.

(2) *Cracked Corn* is a good feed when used in limited quantities, but care must be taken not to use it too freely, especially with birds in confinement, as it is very fattening.

(3) *Wheat* is one of the best grains, but the use of immature or new wheat should be avoided because if fed it will quickly cause diarrhœa.

(4) *Canada Peas.* Pigeon breeders look on peas as essential, and consider that no pigeon ration is complete without them. They generally form from 25 to 50 per cent of the ration.

(5) *Clipped Oats,* or, better still, groats, are recommended during the laying season.

(6) Rye is not a satisfactory feed.

(7) *Hemp* is heating, but may be given occasionally in small quantities to add variety to the ration. It is looked on with favour for use during the mating season.

Drinks and Baths

A constant supply of pure drinking water is always of primary importance in keeping pigeons healthy; this is particularly true during the summer, and with regard to birds kept in captivity. The fact that impure or dirty water is one of the most prolific causes of the spread of disease among pigeons must never be lost sight of. The water should be changed every day, and syphonic drinking vessels used. A few iron filings, or rusty nails, may be placed in the drinking water with advantage. During severe frosty weather the water may be replaced by snow.

Fig. 6.—Syphonic drinking vessel (closed).

Fig. 7.—Syphonic drinking vessel (open).

When pigeons have not access to a small stream of water, more especially during the summer, it is absolutely necessary to provide facilities for frequent bathing. This is done by means of large basins, three or four inches deep, each nearly filled with water and placed inside another basin at least six inches larger, to prevent overturning and undue splashing on to the floor. In the event of a large number of pigeons being kept, it is better to increase the number of basins, rather than to install one very large one, which would probably cause fighting among the birds for its use.

Mating and Breeding

In their wild state, pigeons live in pairs, and, once mated, the same pairs continue to mate up each year, except in the case of one or the other dying. Toward the end of the summer, after the nesting and brooding are finished, the pigeons, cocks and hens, form into flocks, in which they stay during the autumn and winter. Then with the return of spring, impelled by natural instincts, they mate up again and proceed to raise their young.

This natural mating is, at times, a nuisance to the pigeon breeder who wishes to make special matings. When it is desired to change matings, the birds affected should be removed from the general flock and separated so that they cannot see each other. After they have been kept in solitary confinement for a few days the pair which it is desired to mate should be brought together, when mating will generally be consummated very quickly. Should any bird prove stubborn, solitary confinement for a longer period will bring about a change of heart. Special coops are generally used for this purpose. These are sometimes made as a single compartment, but more frequently a double compartment coop is used, with a wire partition in the centre. The birds are placed one in each compartment so that they may become accustomed to each other before being brought together.

The first mating usually takes place in early March, and it is wise to arrange for this as early as possible—having due regard, of course, to climatic conditions.

The following is a good method of procedure for mating:—

The male birds should be separated from the females not later than September, and kept apart until the desired mating date. When this date arrives, place each pair to be mated in a good nesting box, provided with feed, water, grit, etc. Whenever possible, choose the nest occupied by the same cock the previous season, and it will then be much easier to make the birds keep to their own nest. They should be kept enclosed in the nest box, by means of wire netting placed across the top, until the first egg has been laid, after which they may safely be released. It is a good plan to hang a piece of coloured cloth from each pair of nest boxes (using a different colour for each pair) to enable the birds to recognize their own nests more readily.

Pigeons may be bred until they are five or six years of age, after which their offspring are liable to be small and feeble. They should then be replaced by younger and more vigorous stock. Brothers and sisters should not be mated, as the resulting progeny is generally lacking in vigour. The breeding stock must be wintered in such manner that by the spring they are in good condition, both as regards strength and vigour—neither too fat nor too thin, but hardy and well fleshed.

Distinguishing the Sex of Pigeons.

The sex indications of pigeons are not so clearly marked as in the case of poultry. In fact the only certain way in which to distinguish the sex, is by watching the actions of the birds when at liberty.

A cock will generally "play" more than a hen, circling around the bird he is playing, and his note has more of a roll to it than that of the female. A female will often pay court to another bird, but she usually does it by raising and lowering the head, spreading the wings and tail, and advancing quickly toward the bird, talking to it meanwhile. She seldom circles as does the cock bird.

Laying and Incubation.

Pigeons may be mated at the age of from four to six months, the exact age depending upon their vigour and the climatic conditions. As soon as the cold weather is finished, the cock bird, by a natural instinct, induces the hen to enter the nest, and appears extremely annoyed each time that she attempts to leave it. This is a certain sign that the laying time is approaching. In addition, at this time, the cock bird assiduously carries nesting material to the nesting box occupied by the hen.

Artificial nests made of wood or earthenware are sometimes preferred to nests made of stray, hay, or shavings placed in the bottom of the nesting boxes; but these artificial nests have the disadvantage of being considerably higher than the shelf on which they rest, and the young birds are liable to fall over the side, when, being unable to get back, they will become chilled and probably die.

Two eggs are usually laid, with a day's interval between them. They are white in colour, and, generally speaking, the young will prove to be a pair, cock and hen. The birds share the brooding between them, the cock bird staying on the nest from about 1 a.m. to 4 p.m., and the hen the remainder of the time. When the hen bird is on the nest, the cock, as a general rule, stays very close, ready to defend her if necessary.

During the very dry weather it is a good plan to sprinkle the bottom of the nesting box with water, in order to provide humidity. The eggs themselves, however, should never be sprinkled.

The hatching period is generally eighteen days, but the hatch is not always accomplished normally. On the fifth or sixth day the eggs should be candled, by holding them up to a strong light. Any that are comparatively transparent are infertile, and should be removed from the nest; but those which are slightly opaque, or in which small veins can be seen, should be satisfactory. In the event of their being two infertile eggs in the nest—especially if it is the first nest of a pair of young birds—a fertile egg should be taken from another nest in preference to leaving the first nest empty, as this would probably have a disturbing effect upon the birds, and might affect their subsequent mating. Occasionally the hatching pigeon is unable to break free from the shell, and in that case, notwithstanding the fact that whenever possible it is wise to let nature take her course, the breeder may sometimes help the young bird by assisting it to break the shell. This must be done very carefully, however, as there is always danger of rupturing one of the delicate little veins, in which case the death of the squab is almost certain.

The number of times that a pair of pigeons will nest during the year depends upon the breed, climatic conditions, and the attention given. Some of the extremely prolific breeds will produce as many as from seven to ten pairs of squabs per year, but it is well never to count on more than four, or at most five pairs, this number being as many as a good flock will average.

Raising the Squabs.

When hatched, squabs have their eyes closed, and the bodies covered with a light yellow down which does not disappear until some time after they are fully feathered. The birds begin to eat five or six hours after they are hatched.

Fig. 8.—Pair of squabs 5 days old.

It must be borne in mind that pigeons feed and care for their young without assistance until the latter are able to feed themselves. The first feed which they receive is a yellowish liquid, closely resembling the milk of mammals, and in fact commony called "pigeon milk". This liquid, which is actually a transformation of the feed absorbed by the parents, is secreted in the crops of both the cock and the hen, by the mucous oesophagian plandules. This liquid begins to accumulate about two days before the hatch, and during the first

week it is fed in its pure state. Gradually, however, the parent birds mix it with partially digested grain, the proportion of the latter being increased until the squabs are able to assimilate ordinary feed.

Pigeons have a peculiar method of feeding their young. The latter, instead of opening their beaks to have the food placed in them (as do practically all other young birds which are fed by their parents) put them entirely inside the beaks of the parent birds, who force the food into the mouths of the young by regurgitating.

It will often be remarked that one of the squabs is larger than the other. This is due to the fact that some hen birds will sit on the first egg laid, with the result that it hatches two days before the other. Then at feeding time, this first hatched squab, being the larger, gets more than its share of feed. To remedy this, the larger bird should be removed from the nest before the morning

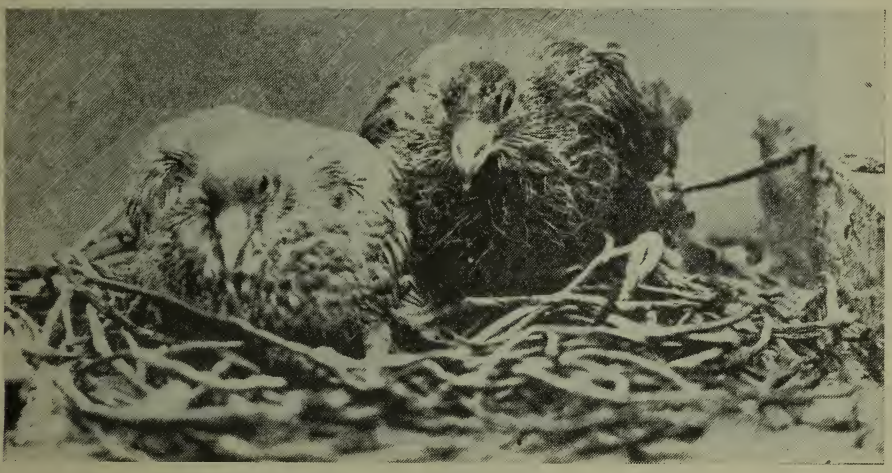

Fig. 15.—The same pair 15 days old.

feed, and replaced only after the smaller one has been fed. This should be repeated each day until the two birds attain a like size.

If artificial feeding becomes necessary, the best food for the purpose is powdered dry biscuit made into a fairly thick paste with boiling water, and fed three or four times a day by means of a teaspoon. This can be done for four or five days, but after that length of time more substantial feed, such as cracked peas soaked in water for twelve hours, must be given.

When the squabs are about two weeks old the hen commences a second nest, leaving the care of the original hatch to the cock. At this time the squabs must be closely watched in order to make sure that they are not abandoned entirely. When they attain an age of two weeks they begin to rise on their feet and to ruffle their wings.

Squabs are ready to kill for the market about a month after they are hatched, or when well feathered under the wing, which is to say at about the same time that they are abandoned by the parent birds. At this age the feathers are almost fully developed, but the beak is not completely formed or hardened. Good squabs should weigh at least from 7 pounds to 9 pounds to the dozen. Prices vary with the season and the local demand, but in general

the highest prices are paid for the heaviest birds. It should be possible to work up a market for squabs in most of the large Canadian cities through the more exclusive clubs, hotels and restaurants.

Fig. 10.—The same pair 26 days old.

Killing and Dressing Squabs

The squabs to be killed should be picked out before the morning feed is given, so that their crops may be practically empty. They may be packed in baskets or cages and carried to the killing room, which must be kept at an even and comfortable temperature.

The approved method of killing is by cutting the jugular vein, so as to permit of thorough bleeding, and the piercing of the brain.

The bird is first hung up by the legs at a height to suit the picker (about level with the breast). The head is held with the left hand, a finger and thumb pressing on either side of the mouth forcing the mandibles open, a sharp pointed, narrow bladed knife is then inserted well back into the throat and the jugular vein severed.

A weighted blood-cup should then be attached to the lower mandible and plucking should be proceeded with at once. This weighted blood-cup serves the double purpose of catching the blood and stretching the skin, so that the feathers may be readily removed. (For complete instructions on killing, see Bulletin No. 88).

Plucking and Dressing

As soon as the squab gives the spasmodic struggle on receiving the stick, plucking should be commenced. The wings are brought together over the back and held firmly in the left hand. This will not only give complete control of the bird but will throw the breast forward and stretch the skin so that the feathers may be more easily plucked. It will be found that moistening the thumb and fingers will greatly help. This permits not only of greater speed in working but a cleaner job can be effected. After the breast and under part of the body have been done, the squab is turned round and the wings drawn together over the breast so that the back can be plucked. The wings are then finished and the bird either hung in a cooling room or immersed in cold water to remove the animal heat from the flesh.

If the birds are to be sold locally, they may be placed in convenient sized boxes or baskets, and delivered immediately; but if they are to be shipped to a distant market they must be more carefully packed in barrels or boxes, in layers of cracked ice.

Preparation of Show Pigeons

In order that pigeons may compete with advantage at shows and exhibitions, they must previously undergo methodical training, to induce them to display their best points when in the exhibition coop.

For a fortnight before the show they may advantageously be fed with hempseed mixed with breadcrumbs and a little linseed. It is also an excellent plan to procure cages similar to those used at the shows, put the show birds in them, and place them on a table in the house, where the members of the family or visitors can walk around and past them as often as possible. This will familiarize the pigeons with the presence of strangers, and thus diminish their natural timidity and nervousness. A reversed flower pot may also be put in the cage, on which the pigeons will soon learn to pose themselves and show off their good points. They should also be made to circle around the inside of the cage, by means of a small white stick, similar to a judge's baton. In order to accustom the birds to being handled, take them in the hands occasionally, at the same time giving them some small dainties.

There is no doubt that, other things being equal, the trained bird has a decided advantage in the show room over the untrained one. Not only are its good points displayed to greater advantage, but it is also more liable to attract the favourable attention of the judge.

Training Homing Pigeons

Pigeons in which the homing instinct has been highly developed have for many years been utilized for carrying messages. Many people think that birds of the breed known as Carrier pigeons were used for this purpose, but as a matter of fact, the homing instinct was but little developed in this breed. With the Flying Homer, however, it is a natural instinct which, by careful training, can be developed to a wonderful degree. Flights of 500 miles are by no means uncommon with birds of this breed. Apart altogether from their utilitarian value for message-carrying purposes, they are used extensively for pigeon races, or distance flight competitions.

The training of the young pigeons of this breed may be commenced at the age of three to four months, but before undergoing the actual training it is advisable to submit them to a few preliminary flights in the immediate vicinity of the pigeon loft, so that they may be able to familiarize themselves with the topographical details of the surrounding country. After this has been done,

choose a clear bright day and take them a short distance from the loft, in a covered basket (preferably to the top of a small hill for the first two or three times) and release them. Repeat this on succeeding days, varying the direction and gradually increasing the distance. They must be trained to enter the loft immediately on their arrival after a flight, and this is best done during the preliminary training, by keeping them slightly hungry before the flight and scattering a little grain on the floor of the loft as soon as they are released.

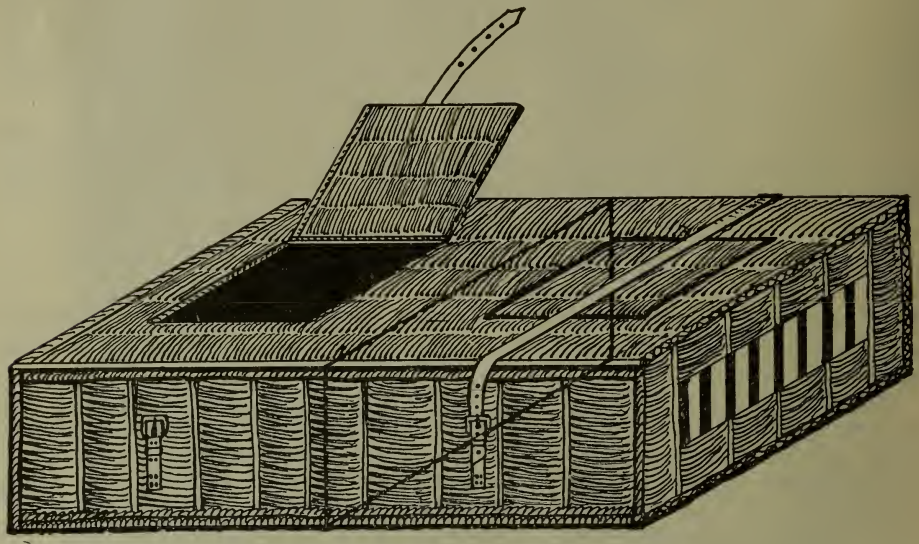

Fig. 11.—Basket with two compartments for transporting Homing Pigeons.

Choice of a Breed

One of the conditions essential to success in pigeon breeding, as in the breeding of all other birds or animals, is the judicious choice of a breed possessing the most advantageous characteristics, considering the objective of the breeding. While the purchase of pure-bred stock involves a slightly heavier initial outlay, it is practically always the more profitable, for breeding from mixed stock is seldom satisfactory.

The best way in which to build up a flock is to commence with a few pairs of a vigorous, hardy, prolific and flesh-producing breed. These should not be less than one or more than three years old, and, if possible, should be guaranteed working mates. By practising a careful selection, and also by systematic mating, a good flock can be built up in a fairly short time.

The breeds most generally recognized as the best for squab raising are: the Homer, the Carneau and the Mondaine. More detailed descriptions of these breeds are given in the succeeding section.

In choosing a breed of pigeons, the fact must be kept in mind that profitable breeding depends, not only upon the production of heavy squabs, but also upon the raising of a sufficient number in the year. A breed which produces a very heavy squab is not profitable if only two or three pairs are bred annually.

Breeds

The breeds and varieties of pigeons are almost innumerable, and only a brief description of a few of the leading utility breeds can be given here.

Breeders desiring information on show or fancy varieties are therefore referred to any standard work on exhibition pigeons.

(1) The Homer

The Homer is generally acknowledged to be one of the most profitable breeds for squab raising, and on account of its hardiness and vigour it is particularly adapted to the Canadian climate. It is extremely active, comparatively easy to raise, prolific, and produces a good average weight squab.

The plumage is very thick and closely set, the beak of medium size, the eye bright, giving an active appearance, the neck somewhat short, but not coarse, the body long, and the breast deep and well developed.

It is bred in several colours, the most common of which are red and red checker, and blue and blue checker.

Fig. 12.—Squab-Raising Homer.
(Courtesy of American Pigeon Journal).

(2) The Carneau

The Carneau is another utility breed, and in Flanders, where it originated, it has been bred for many generations.

It is of medium size, the adult birds weighing from 1½ to 2 pounds, and as it rarely flies far from the loft, it is especially suitable for breeding on the farm. It is an excellent forager, and, except during the winter and early spring, will find the greater part of its feed on the range. It is also very prolific and robust, and the squabs develop rapidly. The most common colour is red.

(3) The Mondaine

The Mondaine, bred originally in Switzerland as a utility pigeon, is rapidly gaining popularity on this continent. It is extremely prolific, vigorous and hardy, while ths squabs are broad-breasted and well fleshed. Often the Mondaine will work two nests at the same time, and, as a general rule, despite

the fact that it breeds nearly all the year round, the eggs show a high percentage of fertility.

These birds are bred in several colours, but the most popular variety is white, or White Swiss Mondaine, as it is usually called. The Yellow or French

Fig. 13.—Pair of Splashed Carneaux.
(Courtesy of American Pigeon Journal).

Mondaine is becoming popular for crossing with other breeds, such as the Carneau or Maltese.

The tail and flight feathers of the Mondaine are longer than those of most breeds; therefore the nest boxes must be proportionately larger. They should be at least 14 inches wide, 14 inches high and 13 inches deep.

Fig. 14.—The White Swiss Mondaine.
(Courtesy of American Pigeon Journal).

Diseases of Pigeons

Cleanliness and good ventilation in the pigeon loft, plus good feed in sufficient quantities, are essential factors in keeping pigeons healthy. In a pigeon loft properly kept, dry, well ventilated, and sunlit, and when mating is confined to birds that are healthy and vigorous, disease is rare.

Unfortunately, however, all pigeon lofts do not conform to this standard, and consequently, from time to time, there are outbreaks of disease. In order to combat these outbreaks preventive and remedial measures should be taken immediately the disease makes its appearance for, failing this, in the majority of cases the remedies will be inefficacious. If the pigeons begin to lose their appetites, have a listless air, or remain in the nesting boxes with their heads under their wings, they should be carefully examined for signs of disease.

Quarterly Purgings

One of the best means by which pigeons can be kept in good health is to purge them once every three months, by mixing linseed with the regular feed, in the proportion of one-fourth of the total amount of grain given. The following morning they should be kept in the loft, and dosed with Epsom salts (given in the drinking water—2 tablespoonfuls to 1 gallon of water). Feed them half the usual quantity of grain, plus a little linseed; in the afternoon remove the water containing the salts and replace it with boiled water that has got cold. The regular diet may then be resumed and the birds released the next morning.

Apoplexy

This disease is quite common in extremely hot weather, among pigeons kept confined in an overcrowded loft—more particularly if they are fed too heavily. The first essential is to eliminate all heating grains from the feed, and to diminish the amount of feed for several days.

If the disease is noticed in time, opening a small vein will often effect a cure, by reducing the flow of blood to the brain.

Arthritis (Wing Disease)

Arthritis, or Wing disease, may be due to a variety of causes, the most common being over exertion during long flights, and accidental blows on the wings. The usual symptoms are: loss of appetite; listlessness; wing-dragging; difficulty in flying; and occasionally a swelling under the wing. The affected wing should be first examined carefully, and the exact spot in which the trouble is centered determined by passing the fingers over the wings until the most feverish place is located. The feathers around this spot are then plucked, and the place painted with iodine. These applications must be continued daily until the bird is cured. In order to relieve the strain on the wing, the flight feathers should be plucked, and the bird placed apart in a small low coop or box.

Canker

Canker is one of the commonest diseases to which pigeons are subject, and unless treated in its initial stage, it may develop to a dangerous degree. The disease generally attacks the throat or tongue, but sometimes the ears or the eyes are affected. The symptoms are a general listlessness and lack of appetite, and the formation of a cheese-like growth on the affected part. In view of the fact that Canker is very contagious, the diseased birds should be isolated immediately, and all drinking vessels and troughs thoroughly disinfected. The causes

of the disease are usually dirt or overcrowded quarters, feeding of mouldy or dirty grain and impure drinking water.

The first treatment consists of carefully removing as much of the cheese-like substance as possible by means of a toothpick or small piece of wood, care being taken not to make a wound in doing so. If any bleeding is caused, it must be immediately swabbed with a piece of cotton wool to prevent the blood from carrying the germs further down the throat. The affected parts should be painted with a solution of alum applied with a fine brush or feather, and the bird given a strong dose of Epsom salts. This treatment should be continued daily, and in addition the affected spots may be carefully cauterized with nitrate of silver until the disease disappears.

Diarrhœa

Diarrhœa is often caused by feeding new grain, or by too much wet feed. It is common in pigeon lofts which are not kept thoroughly clean, and sometimes leads to a dangerous form of dysentery. While not actually contagious, if the disease assumes severe proportions it is wiser to isolate the affected birds.

The most noticeable symptoms are liquid evacuations, dull plumage, drooping wings, and loss of appetite.

The diet should be changed immediately and the new grain eliminated, the birds purged with Epsom salts, and slightly salted rice water given as drink for a few days.

Going Light

This is perhaps the most common of all the diseases which affect pigeons, and its ravages among them have often been compared with those of tuberculosis among mankind. Sour crop and diarrhœa are frequently the preliminary symptoms of the disease, and consequently all birds suffering from either of those ailments should be carefully watched. It may be caused by the feeding of mouldy gain, and also by feeding too heavily in damp weather, when the surplus of grain lying on the floor quickly becomes mouldy.

Pigeons suffering from this disease have dull eyes, an air of general lassitude, dull and ruffled plumage, and lose weight very quickly. In fact, unless treated immediately, they literally waste away to skin and bone, and eventually die.

The first treatment consists of pulling out all the tail feathers, one at a time, and giving three doses of castor oil (12 to 15 drops in each dose) daily, for three days. On the three succeeding days the same dose of cod-liver oil should be given. As a general tonic during the convalescent period half a teaspoonful of compound tincture of gentian in a quart of water may be given each day.

Birds which have had a severe or prolonged attack of this disease should never be used for breeding purposes, as their offspring will almost invariably be weak and subject to the same disease.

Roup

Roup, with its attendant diseases, catarrh and opthalmia, is an inflammation of the mucous membrane of the respiratory organs. It is caused by draughts, dampness, sudden changes of temperature, and overcrowing in the pigeon loft.

The most common symptoms are running and sore eyes, the nostrils blocked up with mucous matter, and a general air of langour.

The disease is not really dangerous, but if the loft is overcrowded it will spread rapidly. A gentle purgative should be given and the eyes and nostrils washed out several times a day with an antiseptic solution. Hydrogen peroxide

is excellent for this purpose. The eyes should be bathed and some of the peroxide should be injected into the nostrils with a syringe or medicine dropper. Even a solution of salt and water often gives remarkable results. After bathing the eyes and nostrils the head should be immersed until the bird is forced to inhale some of the solution.

Vertigo

Vertigo, which is generally caused by irritation of the brain or nerve centres, results in the affected pigeons being overcome with fits of dizziness, almost epileptic in their nature, turning the head over into the shoulders, and frequently falling to the ground in spasms of giddiness. The attacks are very irregular, both in their occurrence and duration, and often several months elapse between one attack and the next. There is no remedy known for the disease, and consequently the best plan is to kill the affected birds to prevent unnecessary suffering.

Conclusion

As has been said before, it is always easier to prevent disease than to eradicate it. It is impossible to place too much emphasis upon the necessity of absolute cleanliness and sanitary conditions in the pigeon loft. Provided that the fundamental laws of hygiene are observed, disease will be rare, and the margin of profit of over cost of production will be proportionately greater.

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