

Fancy Feathers

Official mouthpiece of the National Fancy Pigeon Association
Volume 2. Issue 4.



Breed of the Issue
~ The Chinese Owl ~



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Editorial

At the eve of the most prestigious event on your annual show calendar - The 2012 NFPA National Championship Show, I thought that was a good idea to include an article on show preparation. I specifically did not want to add any articles about the event itself, but I can say that the acting Show Manager, Majiet Rawoot, and his team have been working feverishly along with our major sponsor, the City of Cape Town, to make this show even better than last years show.

Also in this issue, I thought that it would be appropriate to introduce a "Junior Corner", a forum to help "bridge the divide" between Junior and Senior members. Of course, anyone can submit articles in this section but I am hoping for some articles that come from the Juniors

themselves. So Juniors: get out your cameras, cellphones and "pens" to make this "your corner"!

Happy reading!!

Yours in pigeons
Anthony Thebus

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Breed of the Issue

The Chinese Owl

Source: NPA UK

Origin: The name "Chinese Owl" is a misnomer, as the breed did not originate in China. Its origin is uncertain, but it is speculated that they are probably descended from the Spanish Chorrera. They reportedly have been in North America since 1898. Today's Chinese Owls in North America were developed from birds imported from Denmark, Spain, and Germany in the 1950's have made tremendous progress from those imports.





Description: The present Chinese Owl Standard requires a small, short, stocky bird with a wide bold head and neck. It has a clear alert eye with a fine refined eye cere. The beak is small and dainty. This breed has an upright station with the eye being located over the ball of the foot. The standard calls for a wide, high flaring "collar" with a distinct gap on the back of the head; a profuse upper and lower breast frill (split with a horizontal part) that covers the wing butts, and large distinct "pantaloons". Each of these three features is valued equally. The legs of the Chinese Owl are short but graceful, and must be free of feathers below the hock. Chinese Owls with forked or split tails, feathering below the hock, red eye ceres, African Owl type heads, excessive plucking or trimming, or out of condition birds will be disqualified in the showroom and therefore should be avoided.



Colors: The standard currently recognizes 33 different color classes with breeders continuing to develop new colors and patterns.



General: The Chinese Owl has been called one of the most challenging breeds of pigeons, but it is also one of the most rewarding.

The Chinese Owl Pigeon - NPA Standard



HEAD (6 pts.): Arched from back of the beak, forming a smooth profile. Width equally proportioned -Should be bold in appearance.

EYE AND CERE (2 pts.): Alert and clear. Bull in white; red or red-orange in colored birds. Any color in pied or ACO, except split, cracked or one of each color not permissible. Eye cere fine and smooth, following the contour of the eye. Dark color in black, blue, and checked. Light shade in other colors, but flesh in white.

NECK AND GULLET (2 pts.): Neck short, rather thick at shoulder tapering to back of head, forming smooth profile. Gullet well developed, commencing at tip of the lower mandible and terminating at the top of the breast frill.

BEAK (2 pts.): Dainty, yet large enough to distinguish it from the African Owl. Color for blacks, blues, and blue checkers is black; for silvers, silver duns, duns, and

silver checks is light horn; for reds, yellows, and whites color is flesh.

WATTLE (2 pts.): Fine in texture, neat and heart-shaped.

NECK FRILL (17 pts.): A smooth and even collar of reversed feathers fitting loosely in relation to the neck, breaking behind the head in a vertical line leaving no less than a quarter inch gap on the back of the head. Should be as high as the lower part of the eye cere.

BREAST FRILL (17 pts.): A profuse display of reversed feathers completely covering the breast. There should be a horizontal part in the center of the breast, directing feathers up to the neck frill and down towards the pantaloons. Breast frill should cover forepart of wing down to pantaloons, including the wing butts - Should be evenly proportioned on both sides.

PANTALOONS (17 pts.): Two large distinct puffs of fine feathers protruding from the lower breast in front of the legs.

CARRIAGE (10 pts.): Bold, alert, and upright, the eye is a perpendicular line above the toe of the foot; the breast thrown out prominently; balance in length, height, and width, with all these qualities giving the bird grace in composition, movement, and expression. Cocks should measure about ten inches from beak to tip of tail, eight inches from floor to crown of head. Cocks should weigh ten ounces. Hens should weigh eight ounces.

FLIGHTS AND TAIL (8 pts.): Wing feathers should be smooth and the flights should be tight, resting on the tail, with tips nearly meeting. Secondary feathers are to be smooth over the back. The tail should be fairly narrow and carried just clear of the floor. More or less than twelve

feathers, even though they have the two outside feathers, shall be penalized in points.

LEGS AND FEET (5 pts.): Legs short, but long enough to give grace to the carriage. Be free of feathers below the hock. Feet should be rather small and neat. Toes well spread apart. The color bright red.

COLOR (10 pts.): All colors should be sound, clear, and even, including rump, thigh, and belly.

COLOR DESCRIPTIONS

BROWN BAR: Wing shields, breast, and back a clear medium brownish-gray. Head, neck, rump, tail, and flights a darker shade of brownish-gray with a metallic green and pink luster evident on the neck. Wings are to have two distinct dark brownish-gray bars with the shield area free of any checkering - the tail terminating in a dark brownish-gray bar with a narrow final tip of lighter brownish-gray. Beak and toenails horn color.

BROWN CHECK AND BROWN T-PATTERN CHECK: Same as the brown bar, except the wing shields. See "check pattern notes". Beak and toenails horn color.

BROWN SELF (Spread Brown): An even shade of dark chocolate brown throughout. Beak and toenails horn color.

KHAKI BAR (Dilute Brown Bar): Wing shields, breast, and back a creamy light brownish-gray. Head, neck, rump, tail, and flights a slightly darker shade of brownish-gray with a delicate green and pink luster evident in the neck. Wings are to have two distinct light brownish-gray bars with the shield area free of any checkering - the tail terminating in a light brownish-gray bar with a narrow final tip of lighter brownish-gray. Beak and toenails

light horn color.

KHAKI CHECK AND KHAKI T-PATTERN CHECK: Same as the khaki bar, except the wing shields. See "check pattern notes". Beak and toenails light horn color.

KHAKI SELF (Spread Khaki): An even shade of light brownish-gray throughout. Beak and toenails light horn color.

BLUE BAR: Wing shields, breast, and back an even shade of light blue-gray. Head, neck, rump, tail, and flights a darker shade of blue-gray with the neck feathers showing a rich sheen of primarily green and secondarily purple. Wings are to have two distinct black bars with the shield area free of any checkering - the tail terminating in a black bar with a final tip of medium blue-gray. Beak and toenails black.

SILVER BAR (Dilute Blue Bar): Wing shields, breast, and back a rich, even shade of light silvery-gray. Head, neck, rump, tail, and flights a darker shade of silvery-gray with the neck feathers showing a rich sheen of green metallic luster. Wings are to have two distinct dark dun bars with the shield area free of any checkering - the tail terminating in a dun bar with a narrow final tip of silver-gray. Beak and toenails a dark horn color.

DUN SELF (Spread blue dilute): A smooth even shade of steel gray throughout, with the neck feathers showing a rich sheen of green metallic luster. The shields free of any checkering or barring. Beak and toenails a dark horn color.

MEALY BAR (Ash Red Bar): Wing shields, breast, body, and tail a light lavender gray. Head and neck a reddish-brown with a light ashy frosting and a rich sheen of copper. Wings are to have two reddish-brown bars

with the shield area free from any checkering. The tail bar is either very faint or missing due to the "washing" effect of the ash-red. Beak and toenails a dark reddish horn color.

RED CHECK AND RED T-PATTERN (Ash Red Check): Same as mealy bar, except for the wing shields. See "check pattern notes". The checkering is generally less distinct than in blue and brown checks.

SPREAD ASH RED (Lavender and Strawberry): An even shade of lavender gray throughout. Beak and toenails a dark reddish horn color.

CREAM BAR (Dilute Ash Red Bar): Wing shields, breast, body, and tail a light creamy yellow gray. Head, neck, rump, tail, and flights a slightly darker shade of yellow gray with a light ashy frosting. Wings are to have two yellow gray bars with the shield area free from any checkering. The tail bar is either very faint or missing due to the "washing" effect of the ash red. Beak and toenails a light horn color.

YELLOW CHECK (Dilute Ash Red Check) and YELLOW T-PATTERN (Dilute Ash Red T-Pattern): Same as cream bar, except the wing shields. See "check pattern notes". Beak and toenails a light horn color.

CREAM (Dilute Spread Ash Red Bar): An even shade of light lavender gray throughout. Beak and toenails a light horn color.

GRIZZLE BAR: Body, head, wing shields, and rump an even peppery combination of color and white (each feather should display both color and white, for example, blue grizzled with white). The neck a darker shade of color finely grizzled, producing a frost-like effect. Wings are to

have two distinct darker colored bars. Blue, silver, brown, and khaki bar grizzles to have flights and tails that are darker and less grizzled. Mealy and cream bars are to have flights and tails that are darker and less grizzled and often all white or lavender gray. Beak and toenails colored appropriately according to the color of the bird.

TOR-GRIZECH: Combine the color classes grizzle check and grizzle t-pattern with the tortoiseshell class as listed in the color descriptions in the Chinese Owl Standard.

ANY OTHER GRIZZLE (AOGrizzle):

Anything not fitting above two classifications. (Colored grizzle checks, include all spread factor birds that do not fit into the above first 2 classifications. This would include birds also called Stork marks).

(*** NOTE: The above two paragraphs updated August 5, 1991 ***).

INDIGO (Blue bar with heterozygous indigo): Wing shields, breast, body, and tail an even shade of light blue gray. Head, neck, rump, tail, and flights a darker shade with the neck feathers showing a rich sheen of green. Wings are to have two distinct rust-red (bronze) bars with the shield area free of any checkering. The tail bar is either faint or light rust red. Beak and toenails black.

INDIGO CHECK (Blue check and blue t-pattern/heterozygous indigo): Same as indigo bar except the wing shields show a distinct and even checkering of blue-gray, black, and rust red. See "check pattern notes".

ANDALUSIAN (Spread blue with heterozygous indigo): An even shade of dark blue gray throughout with a delicate black lacing (edging) occurring on the body

and shields. The breast and neck lightly laced shading gradually to a solid dark blue gray head. The flights and tail blue gray with black shaft. Beak and toenails black.

RECESSIVE RED: A deep even shade of chestnut red throughout with the neck showing a rich sheen of metallic copper. Plumage should be free from any blue tints. Beak and toenails a light horn color.

RECESSIVE YELLOW (Dilute recessive red): A deep even shade of golden yellow throughout with the neck showing a rich pink sheen. Beak and toenails a light horn color.

WHITE SELF: A clear white throughout. Beak and toenails very light horn.

PIED OR SPLASH: Colored bird with between 1/3 (33%) to 2/3 (67%) of its plumage an evenly dispersed white. Beak and toenails colored according to the color of the bird.

BODY MARKS: A colored bird with a white tail. Beak and toenails appropriate to bird's color.

ALMOND: A rich shade of golden yellow almond with black splashes dispersed throughout. Flights and tail an even variegated combination of almond-yellow, black, and white. Beak and toenails horn color.

SADDLE: A white bird with its wing shield areas colored. The ten outside wing feathers (primaries) to be white. Beak and toenails colored appropriately to the color of the shield area.

QUALMOND: Approved 1989. Qualmond bar, qualmond check, and qualmond t-pattern shall compete against each other in the proper sex classes until some future time as the membership feels there are enough numbers to divide them into bar and check classes.

A.O.C. (Any Other Color): This class to include color and/or patterns not provided for in the official color standard. AOC could, at present, include such colors/patterns as laced, reduced, opals, toy stencil, bronzes, baldhead, barless, magpie, any indigos except blue heterozygous, tailmarks, etc. When five or more good quality (in the opinion of the judge) AOC's of a single color/pattern are shown, they shall become a judging class with no separation of sexes or ages.

CHECK PATTERN NOTES: For show purposes, all check patterns of a particular color are combined into one check class for that color. Since there are at least two or three genetically distinct check patterns (actually, probably many more), and because they are all combined into one class, care must be taken to avoid the tendency of comparing one pattern to another and saying that one is better than the other because its checks are more open or more closed. Openness or closeness of the checks shouldn't be discriminated against in the show room, because one check pattern is not preferred over the other. However, it is important that the checking be uniform over the entire shield and that the checking on one wing is the same as the checking on the other.

T-pattern or black check is the darker, closed check pattern and can vary from the standard t-pattern which shows a light colored "T" in the shield feathers to a bird with a near solid colored shield. The "T"s must be uniform over the shield and not just clumps here and there. If it is a solid shielded t-pattern, the shield must be solid overall (the rest of the bird will resemble a check).

Medium and light checks have more open

checking and this checking must be uniform over the entire shield area.

DISQUALIFICATIONS

- A Chinese Owl possessing African Owl-type head, which is in reference to the extremely short beak setting
- Forked or split tail - Tail must contain the two outside feathers, in the opinion of the judge, or be disqualified
- Grouse legs of excessive feathers below leg joint
- Excessive trimming or plucking
- Birds out of condition at the discretion of the judge
- Red eye cere birds
- Split or cracked eyes or one of each color.

Pigeon Shows and related articles

The 2012 NFPA Young Bird Show

By Anthony Thebus

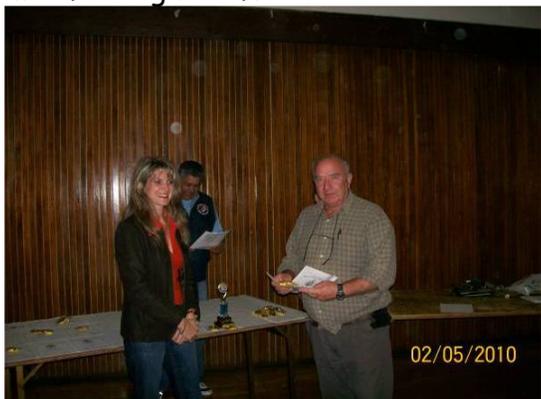
Once again, the 2012 NFPA Young Bird Show that was held in Malmesbury recently, was a resounding success! Cassie and Marlene Carstens certainly maintained the high standard that is expected when a show is held under the banner of the NFPA. It was also excellent "training" for the acting Show Manager, Majiet Rawoot, for the "big one" - the 2012 National Championship Show. I have no doubt in my mind that he soon realized the size of the shoes his predecessors, (Koos Botha and Johnny Renda), that he had to fill. But as always, when there is commitment and teamwork - you can't go wrong!



I have nothing but good things to say about the precursor to our 2012 National Championship Show. This show had all the right ingredients for a Young Bird Show. The birds were of a high standard, the NFPA banner was hoisted high over the entrance to the Malmesbury Civic Centre, there was free hot coffee welcoming those that braved the early morning winter cold to get there in time to pen their birds, pies were on sale for those that were feeling a bit peckish, (pun intended), and the show hall was nicely decorated with plants provided by Malmesbury Nursery. In summary, it was a well organized show and it was a pleasure to be there as a visitor or, as an exhibitor.

Before I go about thanking the sponsors, what I found very interesting about this show was that Cassie used some of

monetary donations to buy lunch for all the exhibitors - a delicious chicken burger with chips; and that he had involved a sponsor in the handing over the medals - a task normally performed by members of the NFPA Executive Committee. Fadiel and Otto were noted by their absence, as was Donald Bland, fortunately Nic Hanekom was at hand to say prayers at the opening of the show. This "change of faces" is clearly an indication of how the NFPA is developing and how the transfer of skills is manifesting itself.



Tokkas receives his award from Therese

The other interesting thing about this show was having a hamper of healthy "goodies" as a raffle prize.

Now, the reasons why I find this so interesting are:

1. that the direct participation of a sponsor in the show is of strategic significance for both the sponsor and the NFPA in terms of the recognition of our sport, exposure for the sponsor and paves the way for future growth of our sport and indeed, the NFPA itself, in the Swartland.
2. the hamper of healthy "goodies", which was won by Morne` Rix, involved visitors and the exhibitors in a way that says "welcome into our world". I mean, it is not everyone that would like to win a bag of pigeon food - we have to remember

that some of the visitors to show may not actually keep pigeons, but merely have an interest in them, like any other bird or animal. So in essence, the NFPA has extended its hand of welcome to anyone who likes any birds.

So here goes with the special word of thanks to all, (in no particular order), who made the 2012 NFPA Young Bird Show the success it was:

- Maritha Hugo and Lize-Mari Burger for managing the refreshment table



- Marlene en Cassie for providing the pies and coffee.
- Therese Smit - of Becker Auto, Malmesbury, (Dealers in Mazda, Ford en GWM), for being present to hand over the medals to the winning exhibitors.



Junior member Yusuf receives his award

- Boland Badge of Paarl for manufacturing the medals at a special price.
- Malmesbury Drukkers for printing the certificates at a special price.

A BIG thank you to all the other sponsors whom without; the show would not have been possible:

Becker Auto; Super Spar, Malmesbury; Cape Dutch Joinery; Prima Bande; JHL Ingeneurs Verskaffers; B.I. Worx; Malmesbury Toyota; Swartland Verf; Pieter Punt; Wesbank Spares; J&E Auto Electric; Johan Sadie en Vennote; Spilhaus; Coastal Hire; Malmesbury Groothandel Kwekery; Malmesbury Paneelkloppers; HI Q Bande; Built It; Ryno Olivier; Zebro's; Kekkel en Kraai; and All Seasons.



Majiet receives his awards

Preparing for a Show

Original article by Doratha Connally posted on <http://texaspigeonassociation.com/>

The end the moulting season is generally the start of the show calendar in South Africa, culminating in the National Championship Show in the middle of winter; luckily for us our winters are not as harsh as in some other countries. It's never too early to begin preparing your birds to compete. Below are a few simple ideas to help make your birds more competitive.

Feed and vitamins

It almost goes without saying; that show pigeons need good quality food to develop overall condition and beautiful feathering. Ask other breeders in you area what brands they use; and then experiment with

what works for you. It isn't necessary to feed the most expensive food but you probably won't get great results with the cheapest, either.

Some exhibitors give their birds pigeon vitamins and believe that they add extra condition to the feathers and overall health. If you give the water-soluble type you must clean your water containers every day as bacteria thrive in vitamins.

Bathe your birds

At least once a week, take a large shallow pan and fill it with about 4-5 inches of water. Place it in your flypen or loft and watch the pigeons dive in — pigeons love to bathe. There are various products that you can add to the bath water to help with feather condition, ask your local pigeon supply shop or an experienced fancier. Three to four days before a show, let your pigeons bathe. This allows time for the feathers to redevelop their "bloom" before the show.

Check your birds for any sign of feather lice

The most typical louse is easily visible - usually inside the birds' wings. They are brown, cigar shaped and about 1/16th to 1/8th inch long. They feed on the feather material and if you don't get rid of them, they can actually chew tiny pinholes through the feather.

Many judges will instantly eliminate a bird from competition that has lice or more than a few of these pinholes.

Treatment: There are various treatments, including powders and sprays. Again, check the pigeon supply houses. One of the easiest treatments is Sevin dust. Place it in an old jar; punch about 8-10 holes in the lid (kids get your parents to help you with this). Screw on the lid. Wear a dust mask.

Holding the pigeon, shake a little onto the bird's back; gently work it into the feathers. Then powder under each wing and on the breast. It isn't necessary to powder the entire bird. Keep the powder out of the bird's face, eyes and mouth. Powder your loft and the perches. This needs to be done at least every 6-8 weeks. According to Wendell Levi, author of THE PIGEON, it is probably impossible to get rid of every single louse. But don't let this deter you from battling these pests. They can ruin your very best bird's chances at the show.

Very Important: When using pesticides, wear a mask. Wash your hands thoroughly and change your clothes after using any pesticides.

Trimming

This is the process of taking out unwanted feathers by plucking (and on some breeds cutting). For example: If your breed standard has specified color markings and your bird has a feather of the wrong color in the wrong place you will want to "trim" or pluck that feather. Some breeds, such as Swallows, need to have broken or misshapen foot feathers removed about 6-8 weeks before the show so they will have time to re-grow.

Getting hold of a single pigeon feather can be tricky — take your time and be careful. You don't want to end up with a bald spot. Some breed standards allow for the judge to disqualify a bird that has been obviously trimmed.

Always look for instructions about your breed or talk to a breeder before you start. Trimming can make a bird look extremely sharp or can ruin it.

Two important definitions

Station - This means the bird must stand confidently in the correct posture for your

breed. Use your current breed standard and read through it thoroughly until you get a mental picture of your breed.

Standard - Many pigeon breeds have written "standards." These are guidelines for the size, shape, colors and appearance of the breed. Judges reward birds that most closely resemble their breed standard.

Training

No matter how beautiful your bird is, if it is terrified — flying all around the judging coop or crouching in the corner — it probably won't win. You need to train your bird to understand the judging procedure so that it will be calm and have the correct station.

To train your bird you need either an actual show coop or something very similar. Begin by simply placing the bird in the show coop. Do this gently and calmly. Allow it to stay in the coop for 10-20 minutes. Remove it and return it to the loft. This process should be done as calmly as possible so that the bird doesn't associate the coop with fear.

Do this for several days, lengthening the time as you go. If you are involved in one of the more popular breeds your bird may be in the judging coop for long periods of time at the show.

After your bird seems calm in the coop, begin studying it just as a judge would. Slowly extend your hand to the bars of the coop. Walk back and forth in front of the coop. Open the door slowly and then close it. When your bird accepts this without fear, flatten your hand as if you were going to shake hands with someone and slide your fingers through the bars. You can direct your bird into or out of a corner doing this. Remove your bird from the coop and inspect it as if you were judging it. Open out each wing and spread the tail feathers.

Look closely at its head and eye. Then return it to the coop. Wait a few minutes and then do the whole procedure again. Many judges use a judging stick. This is usually a metal fold-up pointer used for business or school presentations. An old car antennae or thin dowel rod will work. Again, you must be very gentle in getting your birds accustomed to the judging stick. The first day just unfold it and slowly wave it in front of the coop and then over it. The next day, touch the bars of the coop. When the bird shows no fear then you can begin to reach through the bars and very gently touch the bird on the tail or under the breast. The judging stick is used to help encourage the bird to station correctly. In a breed like Modenas, the judge would use it to encourage the bird to lift its tail; in American Show Racers, the judge might push down on the tail. Again, read your standard and study other birds of your breeds to know how your breed should station.

The tricky part of training is to not overdo it. You can make a bird so relaxed with the whole procedure that it appears bored. So; train to the point where there is no sign of wildness and then just a weekly quick refresher may be all the training your birds need.

Carrier or Crate – Getting Your Birds to the Show

How do you plan to carry your birds to the show? There are fancy boxes, baskets, metal crates, etc. that you can buy through the supply houses. Some people make their own or use cardboard boxes with lots of holes for ventilation. (Pigeons can generate a lot of body heat and can get too warm in a container without good ventilation.) Ideally, each bird should be in its own compartment to minimize pecking. Place some wood shavings in the bottom to give

the bird traction and to absorb droppings. Just like the show coop, it is a good idea to get your birds accustomed to traveling in their carriers. Load them up the week before the first show and just drive around the block. This will also give you practice in the process of loading your birds. And give you some idea of how much time you'll need the morning of the show to load up.

Again, three or four days before the show, allow your pigeons to bathe. Check for any odd feathers that need removing and trim your bird's toenails (unless your standard calls for sharp toenails). Just the very tip needs to be removed. If you've never done this be careful not to cut into the "quick" — the pink part that has blood supply.

The Day of the Show

Calmly load your birds into your carrier and place them on a level surface in your vehicle in an area that is not too warm or too cold. You want this trip to the show to be as stress-free as possible for you and the birds. Give yourself plenty of time to get to the show with at least a few minutes extra so that your birds have a chance to relax and get used to their surroundings. When you get to the show, find your show coops. These will have your bird's band number on a card attached to the front of the coop (your name may be on this card also). As you place your bird in the coop, check it over — if there are any droppings on the feet or elsewhere, wipe them with a barely damp paper towel or cloth. Your coop should have a food cup and a water cup. Make certain that the water cup is full of fresh water. Your birds may need a drink, depending on how long they have been in the carrier. Dehydrated birds will not show well.

Pigeon shows are run in different ways so if this is your first event, find the show

secretary or show superintendent. Ask if you will be allowed to carry your birds up to the judging area or if the club is using "runners." (A runner is a person who carries birds from the show coop to the judging coop). Then ask which judging area your breed will be judged at and when. Times for judging are usually not set at exact times so you have to be flexible and watch your judge to see when he/she is ready for your breed. Yours may be the very first breed to be judged or it may be later in the day.

Don't get upset or stressed — pigeon shows are usually very loosely run. The judge will wait for you — within reason — and the other exhibitors will usually help you in any way they can.

DON'T get discouraged if you lose!! Every judge has a different opinion — your birds may lose one week and win the next. For your first show season, try to learn as much as you can — to develop an eye for your breed. Study the winning birds — how do they look different from your birds?

Are they in perfect feather condition while yours are still molting?

Are they in better weight?

Did they station well every time the judge looked at them?

Is your bird just having a bad day?

Did it drop its tail or head when the judge was looking?

Does the winning bird more closely resemble the written standard for the ideal bird?

Breeding and exhibiting an excellent bird is an art — if it was easy there would be no reason for competitions. Be honest with yourself about your birds — are they close to the standard?

After judging; ask the judge his opinion of your birds, if he/she has time. Try to learn how to help your birds win.

You may be one of the fortunate ones who starts winning in their first season. But for most, it takes work and time. DON'T GET DISCOURAGED! Make the commitment to the sport of showing pigeons — work to develop a winning line of birds that are beautifully presented at each show. You'll have something to be proud of!

Readers Forum

Notices

Congratulations to Otto on the arrival of his latest grandchild!!

New Members

The NFPA welcomes all new members and those that have renewed their membership for 2012.

Birthdays

The NFPA extends its warmest wishes to those that have celebrated their birthdays during this issue's period.

Classifieds

For Sale

WPFPC Caps with our emblem embroidered on to it @ R50.00 each - Please contact **Fadiel Hendricks at 082 827 8099** to place your order. Get one for friends and family!!

taught the ropes. As leaders of our beloved sport, both nationally and provincially, I as member of your organisations trust that each and every one of you will do the necessary to ensure that this Application for Membership by President Zuma's wife will be dealt with efficiently, timeously and above all, constitutionally!!



The Doctor's Corner

Adenoviral, E. coli and Paratyphoid Infections in Pigeons

By Gordon A Chalmers, DVM, Lethbridge, Alberta, Canada

The occurrence of adenovirus and its combination with the bacterial organism E.coli (the shortened form of its longer scientific name, Escherichia coli) has been causing grief to fanciers in many parts of the world today, especially in youngsters as they begin mixing with those from other lofts during the racing season. This is a highly stressful time for these birds, and because their immune system is often not completely developed at this stage of their lives, they are susceptible to any number

of infectious agents. As well, in response to the stresses imposed by crowding, training and racing, etc., their adrenal glands, located just ahead of the kidneys, right under the vertebral column, release corticosteroids into the circulating bloodstream. These steroids depress the ability of the incompletely developed immune system to respond effectively to invading agents such as bacteria, viruses and parasites. One unhappy consequence of this depressed situation may be infection with adenovirus and a disease-producing strain of E. coli, which together, can bring about signs of illness characterised by **vomiting** and **diarrhea** (Young Bird Sickness). Vomiting may be difficult to evaluate since it can occur during the night, and by dawn, other youngsters in the loft may have eaten the disgorged grains. In other instances, digestion is slowed and affected youngsters may retain feed in their crop ("holding their corn").

The following section is a brief summary of some aspects of these infections.

ADENOVIRUS. In Europe, two different adenoviral infections are known to occur in pigeons, and are designated Types I and II.

Type I was discovered in 1976, and occurred in young pigeons during the first half of the year, with a peak frequency in June. The major sign of this adenoviral disease was watery diarrhea. E.coli often complicated this disease, and resulted in a more severe diarrhea, as well as vomiting and occasionally, death. Treatment with appropriate antibiotics was often successful. At post mortem of affected birds, there was evidence of enteritis (inflammation of the intestines), and the liver was often normal or only mildly abnormal. However, microscopically in the

liver, there were characteristic changes that indicated adenoviral infection. Type I adenoviral infection seems likely to be the disease that affects many young birds over the world today.

Type II adenoviral infection occurred in Belgium in 1992, and was characterised by sudden death in pigeons of all ages. There were very few clinical signs in affected birds prior to death. Occasionally, there was fluid, yellow diarrhea and vomiting. However, the major sign was sudden death within 24 hours of the onset of illness, with none of the obviously sick birds surviving longer than 48 hours. Antibiotics had no effect on the outcome of this disease. In individual lofts, losses were variable, and usually amounted to 30%, but in some cases reached 100%. At post mortem, affected birds had a pale, yellow, swollen liver that had a characteristic red sheen. Microscopically, there was massive destruction of the liver, along with typical changes indicative of adenoviral infection. Although this infection began by affecting one age group in a loft, in 70% of cases, the disease eventually spread to all age groups. To the surprise of investigators, in lofts in which these acute deaths occurred, pigeons that did not die remained completely normal. Even youngsters in the nest grew normally after their parents died of this infection, if they were able to feed themselves or were raised by other pairs. Whether Type II infection has yet occurred in other areas of the world is not known to me. In my experience with other species of domestic birds and animals, adenoviral infections usually occur when immune function is depressed. For example, in young, growing broiler chickens, infection with a virus known as the agent of Infectious Bursal Disease severely

damages the immune system, thus allowing for the invasion of another virus, this one an adenovirus that causes a disease known as Inclusion Body Hepatitis. Fortunately, a vaccine developed against the Bursal Disease virus has been effective in preventing Inclusion Body Hepatitis. In another example, some Arabian foals are born with an inherited condition known as Combined Immunodeficiency Disorder in which the immune system is severely underdeveloped. Massive adenoviral infection, especially pneumonia, is often associated with the death of these foals. In pigeons, I continue to wonder about the largely hidden effects of circovirus infection which, like the AIDS virus in humans, causes severe damage to the immune system, and thereby, acts as a "trigger" that sets in motion, the further destructive effects of adenoviral and E. coli infections. Circoviral infection in pigeons could have an effect similar to that of the virus of Infectious Bursal Disease in chickens, i.e. severe damage to the immune system followed by invasion of the adenovirus and E.coli. One of the characteristic "footprints" of circoviral infection is an upsurge in outbreaks of other conditions - canker, coccidiosis, paratyphoid, etc., so it would be reasonable to include adenoviral -E. coli infections in that list of possibilities.. Treating adenoviral infections is difficult, if not impossible. Unlike bacteria, viruses are not susceptible to antibiotics. However, in recent months, the use of elderberry juice in treating affected youngsters has been touted as a method of dealing with this infection. Although I am not certain of any scientific basis for this claim, it may be worth examining. At least one adenoviral vaccine has been offered for sale in Europe and North

America. One prominent veterinary friend whom I contacted about this vaccine observed that the results of vaccination in his area were mixed, likely because many fanciers didn't follow through with the required second (booster) vaccination, which, by extension, likely didn't allow for the development of a sufficiently high level of immunity to protect exposed birds. Perhaps the only practical approach is planned exposure to the virus, which could be accomplished through early mixing of young birds from different lofts in say, club training tosses, etc., well before the racing season, to allow them to go through the infection and develop protective immunity that would carry them through the race season. The use of the dewormer known as **levamisole** has been shown to stimulate the immune system, and according to Dr John Kazmierczak of New Jersey, USA, a dosage of 50 mg per 4 litres of drinking water once a week, may be helpful. Also, the use of a multivitamin mix containing **vitamins C and E** in the drinkers once or twice a week is practical and provides additional support to the immune system. A wide-ranging loose mineral mix containing the trace mineral selenium, which is important in the normal development of the immune system, should be available free-choice all year long.

E. COLI. Broadly speaking, E. coli are usually innocent, normal inhabitants of the intestines of many species, including humans. However, like other creatures, E. coli organisms exist in Nature as a number of strains that range from the most innocent through to the most deadly. Some dangerous strains of E. coli in the intestines may cause disease by their production of potent toxins (poisons) that are absorbed through the intestinal wall into the bloodstream, from which their

far-reaching effects in many tissues throughout the body are manifested. I suspect that the E. coli strains that are part of the adenoviral-E.coli problem in youngsters these days are toxin-producing strains. Still other dangerous strains of E. coli are able to breach the intestinal wall, enter the bloodstream where they multiply (called "septicaemia") and are distributed to a variety of tissues to produce signs of illness. Some joint, brain and ovarian infections, etc. in pigeons are caused by these tissue-invasive strains of E. coli. Like other creatures, humans are not exempt from the effects of dangerous strains of E. coli. Improperly cooked hamburgers containing a hazardous strain of E. coli have caused serious illness and death in humans. Two years ago, in Walkerton, Ontario, Canada, seven people died and over 1200 individuals in the town became seriously ill after they were exposed to a deadly toxin-producing strain of E.coli identified as O157 that contaminated municipal drinking water.

Some strains of E.coli recovered from sick domestic birds and animals may be specifically identified by the use of specialised laboratory techniques, such as those that identified the aforementioned strain of E. coli in humans as O157. In other examples, young pigs with diarrhea may have a strain of E. coli identified in part, as K88, and young calves with a similar problem may be affected by a strain identified in part, as K99. However, I am not aware if these or related procedures have been used commonly in the UK to identify disease-producing strains of E. coli in pigeons.

In pigeons, as in many other species, the mere finding of E. coli organisms in a sample of droppings cultured in a laboratory does not necessarily mean that

they are the cause of a problem. They could be completely innocent. For example, if samples of droppings are collected several hours after they have been passed, and if these samples have not been refrigerated during shipment to the laboratory, E. coli organisms that are present in these droppings can multiply during transit and, on culture, result in large numbers that may give the false impression that they are the cause of the problem. However, if freshly passed samples of droppings are collected quickly, refrigerated immediately, and kept refrigerated on route to the laboratory, there is a greater chance that large numbers of organisms cultured from these droppings may well be significant, especially if those large numbers can be tied to the problem being experienced in the birds. If a pure culture of E. coli organisms is recovered from a variety of tissues (heart blood, liver, kidney, etc.) from a freshly killed sick bird, there is a strong likelihood that they are the cause of that particular problem. Fanciers should ask for and expect an interpretation of the laboratory findings of E. coli (or any other significant organism cultured) found in submitted samples. However, if the fancier hasn't properly collected, refrigerated and shipped specimens to the laboratory, it becomes very difficult for laboratory staff to provide useful interpretations of their findings. An advance phone call to the laboratory for instructions on collecting, handling and shipping samples of droppings or other specimens is always a good idea.

PARATYPHOID

The paratyphoid organism found in pigeons is usually, but not always, Salmonella typhimurium variety copenhagen. In fact, in the experience of Dr Gerry Dorrenstein of Holland, 94% of the strains of paratyphoid

organisms his group has recovered from pigeons are variety copenhagen. This variety copenhagen seems to be almost specific for pigeons, although occasionally, it has been found to cause disease in chickens.

Like other birds and animals, most pigeons exposed to paratyphoid infection recover completely, either through treatment or natural defensive mechanisms, but as in the case of other species of birds and animals, the occasional bird is unable to clear the infection, and becomes a permanent carrier. As Dr Dorrenstein points out, it is still not known just where the paratyphoid organisms hide in the body of a carrier, but he suggests that this hiding place could be within certain patrolling defensive cells called macrophages where they are protected from the immune system. (Note: "macro" means "large"; "phage" is from the Greek word "phagein", meaning "to eat"-- hence, these are large, mobile defensive cells that engulf foreign material, such as invading bacteria, parasites, yeasts etc..) It is obvious that not all engulfed foreign invaders are killed by these large cells, but in some way, the invaders remain alive and isolated within the cells that engulfed them, and here they are protected from other defensive mechanisms in the body. As a result, during periods of stress, the immune system becomes depressed and less vigilant, as a result of which, the paratyphoid organisms can escape from their hidden locations. Once they have escaped, they begin to multiply and then to be shed in droppings from which they are readily spread to other susceptible birds in the loft.

In my experience, variety copenhagen can be sensitive to an unusually wide variety of antibiotics, except in cases in which

fanciers have misused these products and have induced antibiotic resistance in these organisms by under dosing the birds in the first place, or by treating for a shorter time than recommended, or both. For this reason, it is often practical to have laboratory tests run to determine the most suitable antibiotics to use.

Treatment of *E. coli* and paratyphoid infections is best managed through laboratory assessments of antibiotic-sensitivity tests to choose the most effective antibiotic or other anti-bacterial product. Given the general misuse of anti-bacterial products, in some cases these organisms may have developed some level of resistance to antibiotics -- hence the value of laboratory cultures and antibiotic-sensitivity examinations to ensure use of the most effective product. According to Dr David Marx of Oklahoma, USA, all of his isolations of paratyphoid organisms from pigeons continue to be sensitive to Baytril (enrofloxacin), with more than 90% of these isolations also sensitive to Amoxicillin and Cephalexin. By contrast, Dr Paul Miller of Pennsylvania, USA, reports that his laboratory has isolated some strains of paratyphoid organisms that have developed a great deal of resistance to antibiotics, and that only Baytril seems to be effective in treating these infections. This information points up, once again, the value of laboratory cultures and an accompanying antibiotic sensitivity examination.

In general, *Salmonella* species are notorious for their ability to transfer from one species of animal to another. However, in the case of variety Copenhagen, it seldom ever transfers to other species, and this includes humans. So, in general, the fancier who is experiencing an outbreak of paratyphoid infection in his

birds doesn't have to be overly concerned that he will contract the infection himself. However, individuals whose immune system is weakened or damaged should take extra precautions. Nevertheless, for the sake of general safety, fanciers should take normal precautions with sanitation and personal cleanliness while working with an infected flock.

As an advocate of the use of friendly bacteria, also called **probiotics**, and associated products for a more natural approach in attempting to prevent *E. coli* and paratyphoid infections in our birds, I have noted that some commercial supply houses are offering products containing the sugar **lactose** to aid in preventing paratyphoid infections in particular. I certainly support the use of such products and others, in the fight against paratyphoid organisms, but I would offer a few words of caution on the use of lactose when fanciers are dealing with, or trying to prevent, problems caused by *E. coli*, and even paratyphoid.

To explain in a bit more detail, friendly bacteria such as those in yogurt or in commercially available probiotics, usually include *Lactobacillus* spp., along with certain species of *Streptococcus*, sometimes called *Enterococcus*, etc.. In the USA, commercial products such as **PrimaLac** and **Benebac**, among others, are available. No doubt, similar products are available in other countries around the world as well. Some of these products have been developed specifically for turkeys as well as for egg-producing and broiler strains of chickens. Dr Gary Davis of North Carolina State University, USA, has done a great deal of research on the probiotic called PrimaLac in quail, pheasants, domestic ducks, turkeys and laying hens. He reports that his results

have been very positive, with the most significant effects being improvements in livability, egg size, body weight gains and immunity.

Certainly, the best source of these bacteria for pigeons would be those derived from normal, healthy pigeons, if such products are commercially available. However, PrimaLac seems very promising indeed, especially because of the range of positive effects found by Dr Davis in several species of birds. It seems likely that pigeons would benefit similarly -- in fact, a colleague of Dr Davis, Dr Mike Wineland, has been using this probiotic on his own pigeons, and swears by it. The organisms in all of these products are believed to have at least two mechanisms of operation in the intestines. Firstly, they can multiply to very high numbers of organisms that form a protective physical barrier that may be up to 12 or more organisms deep, lining the inner surface of the intestines.

Secondly, in the low levels of oxygen in which these bacteria live in the intestines, they produce and release into their environment, lactic acid which of course shifts conditions in the intestines to the acid side of neutral. (As an aside, it is my understanding that, in some countries such as the USA at least, two basic kinds of yogurt are available, one a killed product, and the other containing live cultures of bacteria. Obviously, the product containing live cultures of bacteria is the one to choose. Check the label of the product you buy. As well, remember that because these products contain live bacteria, you must not combine them with antibiotics or any disinfectant, both of which will kill the bacteria you want to use in your birds.) Now, E. coli and paratyphoid organisms much prefer to live and reproduce in

slightly alkaline conditions, whereas in a hostile acidic environment, their numbers can drop drastically (in some studies, up to **97%**). In promoting the use of such products, where practical, to reduce the heavy reliance on antibiotics to solve health problems in pigeons, I have been advocating not only the use of probiotics and a small amount of apple cider vinegar (5-10 cc per litre, or 1 - 2 teaspoons per US gallon [4 litres] of drinking water, as suggested by Dr Colin Walker of Australia) to help acidify intestinal contents, and thereby create conditions that are hostile to the survival of E.coli and paratyphoid bacteria. While I visited Australia last year, I noted that one Sydney- based company had produced for use in pigeons, a powder containing a mix of organic acids that also would be ideal for this purpose. I am sure that other equally useful products exist also.

As well, in dealing with paratyphoid infections, I have also suggested the addition of some lactose to the drinkers, as a source of nutrient for friendly bacteria in their production of lactic acid. Lactose is the chief sugar found in cow's milk, and is available as whey powder from health food stores, cheese and milk factories, livestock feed companies, and commercial pigeon supply houses. As noted by Dr Paul Miller, one problem with the use of lactose is that birds lack the enzyme lactase, and so are unable to break down and utilise the lactose themselves. The presence of this lactose in the intestine can draw fluids from the bloodstream into the intestine, and may result in diarrhea and dehydration that can add to that caused by the concurrent paratyphoid infection. Fortunately, paratyphoid organisms themselves aren't able to ferment lactose either, which means that

they are unable to use this sugar as a nutrient in their life processes. Equally fortunate for us is the fact that the friendly species of bacteria mentioned earlier certainly will use lactose as a nutrient in their production of lactic acid. Now here is the fly in the ointment, so to speak. It is important to understand that, although paratyphoid organisms are unable to ferment lactose, E. coli on the other hand are known to be lactose fermenters, that is, they actually use lactose as a nutrient in their life processes. For this reason then, it is my opinion that the use of lactose when E. coli infections are occurring should be avoided because this sugar simply aids these organisms to thrive and multiply in great numbers. For this reason, I would **NOT** recommend that lactose be used in drinkers when birds are affected with adenovirus + E. coli infections, or to help prevent E. coli problems. Yes, use lactose along with probiotics and organic acids, etc., to help prevent paratyphoid infections, but avoid the use of lactose when you are dealing with or trying to prevent E. coli problems.

Summary

To treat ongoing E.coli and paratyphoid infections, use an appropriate antibiotic or other anti-bacterial product, preferably one selected through antibiotic-sensitivity testing by a laboratory, and at full dosage for the full recommended period of time.

In an attempt to prevent these infections in future, once the original infection has been treated effectively with the appropriate antibiotic, you can add to the drinking water, probiotics such as yogurt and/or other commercially available live products, and even apple cider vinegar or other organic acids like citric acid from lemons or commercially available sources, to help create in the intestines, a physical

barrier of friendly bacteria, plus acidic conditions, both of which are hostile to E. coli and paratyphoid organisms.

It is my understanding that, in order to acquire a good, viable population of friendly bacteria in the digestive system, often takes a number of days. As a result, I usually recommend the use of probiotics for **7-10 days** at a stretch, repeating at intervals, especially throughout the breeding and racing seasons. When attempting to prevent paratyphoid infections in the first place, or after infected birds have been treated with the correct antibiotic, at this time, you can add to the drinkers, lactose and apple cider vinegar, or other organic acids.

The use of the sugar lactose will aid friendly bacteria in their own life processes, including the production of lactic acid, in an attempt to prevent paratyphoid infections. Although it is readily used as a nutrient by friendly bacteria, lactose is **NOT** fermented by paratyphoid organisms, so it doesn't aid the growth of these bacteria. For this reason, its use along with friendly bacteria in probiotics in attempting to prevent paratyphoid infections may be helpful. Lactose should **NOT** be given either during the course of E. coli infections, or when attempting to prevent infection by these bacteria, because of the fact that E.coli organisms actually use lactose in their life processes. There is no point in helping these bacteria to continue causing problems in our youngsters. Certainly, to try to prevent E. coli problems, use yogurt and/or other sources of friendly bacteria, as well as products such as apple cider vinegar, etc. to help acidify intestinal contents, but definitely avoid the use of lactose when E. coli are involved in a disease process.

Be aware that the use of lactose in birds may itself cause some diarrhea and dehydration.

Sarcocystis Infection: A Newly Discovered Parasitic Disease in Pigeons

By: Gordon A Chalmers DVM and T Erskine

In the spring of 2009, a fancier in the US noted nervous signs resembling those of paramyxovirus (PMV), paratyphoid or herpesvirus infection in a single pigeon. In 2010, nine pigeons, including seven hens, were affected similarly. With careful nursing, the owner was able to save all except two of these pigeons. Again in 2011 the owner found nine affected pigeons on the floor of his breeding loft, attempting - unsuccessfully - to fly to their nest boxes. These pigeons were otherwise normal in appearance with no evidence of weight loss, diarrhea or any sign of a central nervous disorder, however, one of these pigeons died. As well, the infection occurred in youngsters, suggesting the possible transmission of an organism in crop milk or in grain fed by the parents. One bird was affected twice.

In each year the signs of this disorder subsequently subsided within a few weeks after the onset of the illness. In an interesting note, a weasel (*Mustela* spp.) was found in the loft in early 2009 but it was removed and potential openings through which it might have gained access to the loft were closed. Previously, initial laboratory examinations of both live and dead pigeons did not reveal evidence of disease. However in the spring of 2011, detailed laboratory examinations of a number of tissues including brain, lung, heart and muscles determined the presence of the intermediate stages of a

parasite identified as a *Sarcocystis* species.

Sarcocystis (sarco-sist-is) species ('sarco' refers to flesh, particularly muscle) are microscopic cyst-forming coccidia-like parasites that are able to infect a wide range of animals including birds. The life cycle of this parasite requires the involvement of two different species of animals, one an intermediate host and the second, a final (definitive) host.

In wild and domestic pet birds including pigeons in North America, a common species of *Sarcocystis* is one in which the final host is the Virginia opossum. In these animals the coccidia-like stage (called sporocysts) is produced in the intestines of this animal and is shed in its droppings. (Many fanciers are familiar with 'cocci' counts in droppings of their pigeons. Sporocysts have a generally similar microscopic appearance). In simplest terms this parasite usually has an opossum-bird life cycle. However, according to the owner in this case, opossums are uncommon in his area of the northwest - which suggests another final host such as the weasel found in the loft in 2009, or equally importantly, cockroaches. As a mechanical transport host, the cockroach complicates the life cycle of this parasite and is often involved in the spread of the infection, possibly in this case as well.

The intestines of the opossum, the final host, become infected when the animal eats the carcass of a dead bird that contains sarcocysts in its tissues. In the opossum, the microscopic coccidia-like sporocysts are produced in their intestines and are shed in their droppings. During a period of incubation in the droppings passed by opossums, the sporocysts develop to a stage that is able to infect intermediate hosts. If birds such as

pigeons, etc., pick through these droppings they may swallow the infective stage.

Similarly, if they eat either cockroaches mechanically carrying the infective stage, or food that has been contaminated by cockroach droppings, pigeon and other birds can become infected (See Reference #1).

In the intestines of birds, the now infective sporocysts release the next stage in the life cycle of the parasite in the form of several microscopic, somewhat banana-shaped structures called sporozoites. These sporozoites invade the wall of the intestine where they multiply and then spread from this site through the blood stream to infect a variety of tissues. Within two days after they are swallowed by pigeons, the organisms can be found in the intestines, liver and lungs where they continue to multiply. Most of this stage in the life cycle of the parasite may be found in the lungs, and often with lesser numbers in other tissues. In the final stages, the organisms develop into cysts that are found mainly in the breast and other skeletal muscles - but may also be found in the heart and brain - as in the US outbreak. (Hunters of waterfowl may be familiar with the intermediate stage of a completely different and larger species of *Sarcocystis* that they discover in the breast muscles of ducks they have shot. This parasite in ducks is clearly visible to the naked eye when the skin is stripped off the breast muscles. The appearance is that of many parasites resembling grains of rice distributed throughout the muscles. In this case the final host is the common skunk.)

Common intermediate hosts of this species of *Sarcocystis* include a wide variety of wild birds such as grackles (one study found that 93% of these birds were

infected) and cowbirds, as well as house sparrows, finches, domestic pigeons, canaries and budgerigars. Many species of infected birds develop acute, fatal infections of the lungs. However canaries, zebra finches, cowbirds, grackles, chickens and guinea fowl usually survive infection of the lungs - which is then followed by the final development of sarcocysts in muscle. As in the US case, infections of the muscles in pigeons can interfere markedly with normal mobility, including flight. Infection of the brain may cause nervous signs that may be similar to those of PMV, herpesvirus or paratyphoid infections, etc. New World psittacine birds such as conures, Amazon parrots and macaws appear to have adapted to this parasite and may remain free of signs following infection, whereas Old World psittacine birds like cockatoos, African parrots, etc. experience severe disease or death when they are infected with this coccidian parasite. It has been suggested that species of birds such as New World psittacines that survive this infection are more resistant to the commonly fatal infection of the lungs because they evolved over time with the opossum. Ducks, geese and chickens appear to be resistant to this species of *Sarcocystis*. Although chickens may become infected, the infection is usually not fatal. As well as several species of wild and domestic birds, skunks and raccoons have also been found to be intermediate hosts of this parasite. Whether weasels such as the animal found in the affected loft also shed sporocysts to infect pigeons and other birds is currently unknown. A key finding showed that cockroaches are also highly important in the mechanical spread of this infection. A diagnosis of this disease requires a biopsy of affected muscles in live birds, or

a post mortem examination of infected birds followed by the microscopic examination of a wide variety of tissues including the brain, heart, lungs, as well as the breast and other muscles.

In Europe in 2009, a similar disease caused by a *Sarcocystis* species was discovered in 47 of 244 racing pigeons from three lofts. The disease in these pigeons resulted in infection of the brain, muscles of the breast, neck and legs. Affected pigeons were depressed, trembling, had mild diarrhea, twisted necks and paralysis - findings that were initially suggestive of PMV or paratyphoid infections. However, subsequent microscopic examinations of a variety of tissues from affected birds demonstrated severe infections by the intermediate stage of a *Sarcocystis* species in muscles and brain, and milder infections of the heart. Further experimental studies identified the European Northern Goshawk as the final host in this disease.

Important results of experimental infections in Europe showed that pigeons infected with very high doses of sporocysts died in 7 - 12 days without developing nervous signs. Pigeons that received a lower dose than those in the previous group developed signs of illness after 10 - 11 days but they survived until sudden nervous signs occurred after 51 - 57 days. Pigeons that received a much lower dose than those in the previous groups remained normal until they developed sudden nervous signs after 65 - 68 days. These findings showed that high doses of sporocysts can cause death in one to two weeks, and that lower doses can cause illness in which pigeons survive until they develop nervous signs caused by infection of the brain almost 60 days later, and finally that pigeons given much lower

doses remained normal until nervous signs developed after 60 days. The development of such delayed nervous signs might cause fanciers to think of PMV, paratyphoid or herpesvirus infections, etc., when detailed laboratory examinations of the brain and other tissues could discover a stage of *sarcocystis* infection as the true cause of the problem.

In the USA in 2011, a disease also caused by a *Sarcocystis* species was discovered in a single wild pigeon that had developed nervous signs (inco-ordination, head tilt) and was unable to fly. These nervous signs became more severe and eventually the bird was euthanized and examined in detail at post mortem. Stages of a *Sarcocystis* infection were found in brain and body muscles.

Currently, treatment of affected pigeons can be difficult. Some success has been achieved in psittacine birds treated with Daraprim (pyrimethamine) and Tribissen (trimethoprim sulfadiazine) given orally by tube every 12 hours for 30 days. This is a highly labor intensive approach and would be very time-consuming and likely impractical for pigeon fanciers with large flocks requiring treatment. However, the owner in the present case arranged for a pharmacist to prepare capsules containing 0.2 mg pyrimethamine which he gave to affected birds for two days with successful results.

In terms of prevention, the control of *sarcocystis* infections in Old World psittacine birds housed in outdoor aviaries may provide some guidance for North American pigeon fanciers as well. Firstly, trapping opossums and the use of dogs to control local populations of these animals may be helpful. Attempts at prevention also involve excluding opossums from aviaries and feed storage areas by the use

of electric fences. Raising aviaries off the ground and using wire-mesh flooring in these aviaries are important management approaches. As well, feed must be kept in closed containers that exclude both opossums and cockroaches. Allowing pigeons open loft and free access to the ground should be avoided when the disease is known to exist locally. In one example, an epidemic in Old World psittacine birds housed in outdoor breeding aviaries was controlled by an electric fence that restricted access of opossums to these breeding facilities and by the biological control of insects through the use of flightless chickens in the area to reduce populations of cockroaches. The use of flightless chickens such as silkies or those whose flight feathers have been cut, is important to prevent them from flying onto aviaries, thus reducing the chances that they might shed sporocysts in their droppings and continue the infection in psittacine birds and pigeons.

The occurrence and extent of the disease in racing or other breeds of pigeons in areas of North America populated by opossums or where cockroaches are common, is currently unknown but the potential for its occurrence in such locations is real.

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The use of pelleted rations in pigeons

By Dr Colin Walker, the Flying Vet

Around the world, knowledge regarding avian nutrition has undergone quantum leaps in the last two decades. We now have a very clear understanding of the optimal nutritional requirements of pigeons.

Taking a quick look at the level of various nutrients in grain and the average level of these grains used in the various feed blends, it doesn't take very long to realize that no grain blend can provide a complete and balanced diet. This is why over time a whole range of supplements has been developed and used successfully because they do complement the deficiencies of a diet based solely on dry grain. Further complicating the picture is that pigeons preferentially select certain grains within a mix. This means that even if a grain-blend did provide a balanced diet, it is likely that the balanced diet would be distorted by individual birds selecting the grains they liked. It has been shown, contrary to the opinion of many fanciers, that pigeons do not have nutritional wisdom. They do not necessarily know what is best for them but rather they are

like children. They just eat the grain that tastes nice, and these for most pigeons are the grains that are higher in fat.

Throughout the avian world, one of the ways of combating these problems is through the provision of pelleted rations. Pelleted rations can be formulated to contain all the nutrients in just the right proportions and every pellet is the same. In this way, pelleted rations combat the two problems associated with a dry-grain diet, namely that grain diets alone intrinsically fail to provide an optimal diet and the preferential selection of certain grains. In a well formulated pelleted ration the nutritional intake and the provision of a complete and balanced diet is guaranteed.

Despite these advantages the use of pelleted diets has only slowly been embraced by pigeon fanciers. In all poultry species such as chickens and ducks, and in particular in the last few years in pet and companion birds such as parrots, the use of pelleted rations has steadily increased. Such rations are almost invariably recommended by avian vets around the world. The progressive veterinary-based pigeon companies around the world have in line with advances in knowledge started to manufacture and produce pellets.

I think part of the reason pigeon fanciers have been slow to use pellets is a lack of understanding of the product. Some companies produce several types of pellet, designed to be fed at different stages of the pigeon's life. This is because the nutritional requirements at different life stages vary. In a recent article, a prominent fancier was quoted as saying that when using pellets in the stock loft the raised youngsters were beautiful but when the same birds were raced on the same pellets they seemed to have no

power. This is a totally anticipated outcome. To say that one pellet formulation can supply the requirements of a pigeon throughout its whole life is like saying that the dietary requirements of a pregnant woman, a footballer and a growing child are all the same. In the chicken industry, different pelleted blends are produced for laying hens, young chicks, growing chicks, etc. In pigeons, we don't need such a variety and the provision of too many different pellet blends would make the use of pellets unnecessarily complex. Most companies produce two blends for pigeons, one designed for the maintenance of adult birds and a second designed to be added as a proportion of the diet to a grain blend for actively racing pigeons.

Maintenance pellets

To formulate maintenance pellets, it is simply a matter of going to the literature on the nutritional requirements of pigeons, which these days is very comprehensive and accurate. Extensive work over many years has been conducted so that not only is the ideal level in the diet of each vitamin, mineral and amino acid (amino acids combine to make proteins) known but also the ideal levels relative to each other. These nutrients can then be blended together in the form of a pellet to provide a complete and balanced diet. Many fanciers will say, "I have kept pigeons for many years. I have always fed them grain. They seem fine. Why bother?" What I feel is that many such fanciers accept certain problems that have a nutritional base as a normal part of pigeon management. Examples here include:

1. Hens past 7 years of age no longer breeding winners - associated with decreased yolk and albumen quality,

resulting in poor embryo development and the chick getting off to a poorer start.

2. Cocks and hens developing arthritic changes and gout by 8 - 9 years of age - associated with high levels of protein, too low calcium and incorrect levels of vitamin A and D3 in the diet.

3. Obesity in non-breeding hens - associated with fat contents of over 6% in the diet.

4. Infertility in middle-aged cocks - associated with an incorrect vitamin A and vitamin E ratio in the diet. These are both fat-soluble vitamins and are absorbed into the body via the same pathways. Vitamin E is needed for normal sperm function (it affects lipid metabolism in the sperm head). Giving too much vitamin A in the diet means there are no pathways available to absorb vitamin E, leading to vitamin E deficiency even if there is plenty in the diet.

5. Recurrent canker in nestlings, despite medical management - low protein levels in the diet and poor balance of nutrients predisposes to disease generally.

The list goes on and on. Recently, a fancy-pigeon owner rang me. He kept a breed of fancy pigeon that was notorious for poor fertility. Traditional wisdom was that this breed was of poor fertility and that a likely cause was Salmonella. Each year, for the previous 5 years, the fancier had paired 30 pairs together, producing only 6 - 8 youngsters per round. He was becoming totally exasperated and ended up driving 100 miles to our clinic to investigate the cause. The birds appeared normal in the hand and were fed grain, grit and water. Six birds were anaesthetized and the gonads were examined with an endoscope through a keyhole incision in their left side. There were no visible abnormalities (such as cysts, adhesions, or tumours) in

any of the birds' gonads. Blood was drawn from each bird for a Chlamydia test (Chlamydia is the organism that causes eye-colds in young pigeons and can damage the gonads of older birds leading to irregular laying in hens and premature infertility in cocks). The best way to diagnose Salmonella (the organism that causes the disease Paratyphoid) is to culture the site of an infection. Endoscope-guided swabs were collected for testing, taken directly from the gonads. All test results for disease were negative. The birds were changed to a pelleted ration. The next year the first round from 30 pairs contained 57 youngsters.

Fanciers asking if the pellets contain medication to control canker are common. On pelleted rations, they found they no longer needed to treat for canker. In Australia, it is illegal to add medication to pellets (except with a prescription). This effect is simply due to the pellets providing a complete diet and the resultant increased ability of the healthier bird to resist disease.

In another instance, a fancier added turkey grower pellets to his grain blend during breeding. The high level of protein and calcium in this blend resulted in beautiful youngsters being produced. Because of this, he kept feeding the pellets as a proportion of the diet to his stock birds while they were not breeding. Several months later, some of these started to get sick. One was euthanized and autopsied. The persistently high protein, high calcium, high vitamin D3 levels in this diet for non-growing or breeding birds had damaged their kidneys and they were developing kidney failure. Correction of the diet resulted in all remaining birds recovering within 2 weeks.

Fanciers often add iron to the diet or copper sulphate to the drinker (to combat canker). These are both heavy metals that are quickly absorbed into the system but only slowly excreted. With repeated low doses, these birds look fine but as the minerals accumulate in their bodies they have a variety of effects. The most common of these in the stock loft is reduced fertility. It can be hard for the fancier to relate the dead-in-shell youngsters, clear eggs and non-laying hens experienced during breeding to these treatments, which may have been given months earlier.

With the nutritional knowledge available and the expertise used in making maintenance pellets, to me it makes no sense not to use them. Sometimes they are also cheaper than grain.

More about pellets

Purgrain Advantage Pigeon Pellets - Without question, the most modern, nutritious pigeon food on the market today. Loaded with vitamins, minerals, trace minerals and many other nutrients designed to provide your birds with optimum nutrition.

Advantage Pigeon Pellets contain high levels of methionine, an essential amino acid necessary for proper feathering. We have added "Bio Moss" to help improve the intestinal integrity of your birds. Soybean oil and roasted soybeans are also included in the formulation to provide super concentrated sources of slow burning energy. Other nutritious additions to this quality product include whole whey (a highly digestible protein source), brewer's yeast (a high quality protein that's loaded with B vitamins), sulphated trace minerals (trace minerals that are sulphated, and therefore easier to digest), and yucca (to reduce stool odour in your loft).

The Junior Corner **A "Junior NFPA Committee"?**

Junior members are the future of our sport and as such must be encouraged and nurtured by the NFPA Show organizers, senior members and by parents and caregivers.

Recently, Abe`gail Daniels, a junior member, expressed interest in initiating a forum whereby the interests of junior members can be catered for.



Abe`gail with her winning Chinese Owl

It comes to me with little surprise given the nature and extent of her interests and extramural activities other than being a junior member of the NFPA as I learned on a recent visit to her.

She is actively involved in her church having been recently been elected as Youth Representative for the church youth; she holds two certificates qualifying her as a Sunday School Teacher and currently teaches children aged between 6-8 years old; she is part of the servers guild better known as the "altar servers"; she is backing vocalist in the church band. She is also no stranger to chess, having attained certificate for Best Improvement for chess matches. So with a "CV" like this it is hardly a surprise that she can be considered to be a "people's person" with clear leadership tendencies.

It seems like Abe`gail's interest in fancy pigeons stems from a few years ago; because whilst attending primary school she joined a club called "Adventure Club" and went on excursions to World of Birds, Butterfly World and even went on camps just to experience Wildlife.

The Concept of a "Junior NFPA Committee"

The intrinsic and extrinsic values of having a forum for juniors in any organisation cannot be underestimated or undervalued in order to sustain that organisation, simply because none of us are getting any younger! "Transformation in Sport; "New and independent thought" are just two things that come to mind when thinking of "the next generation" - the same applies to the NFPA. The NFPA has to lay the foundation for the next generation of fanciers and its increased expansion into our communities. Therefore the concept and implementation of a "Junior NFPA Committee" has to be determined collectively by the current members, both senior and junior.

What is a Junior member?

A fancier must have attained the age of ten and can exhibit pigeons and pay reduced membership fees until the last day of their seventeenth year, i.e. day before their eighteenth birthday. At that stage they are deemed to be senior members. However they can, at any stage, enter their birds in the senior show classes.

What is happening elsewhere?

In NPA, the National Pigeon Association, of the UK, juveniles within the Fancy have their own Young Fanciers Club that has its own Secretary and Committee. It is a club for the young fanciers run by the young fanciers themselves, although the NPA, Breed Clubs and individual adult fanciers are always available for help and advice if

needed. Wherever possible Juveniles should be encouraged to attend shows, be present at prize-giving's and, whenever practicable, handle their own birds when penning and un-penning. These are all part of the learning process. Sensible judges will usually make allowances for the real beginners. Many show organisers and individual judges are now actively seeking to persuade young fanciers to act as Judges Stewards and Administrators (helping to run some aspects of the show). This is when they can both learn more about pigeons and presentation and, more importantly, also train to become the next generation of Judges or Club Secretaries. No office is barred to the enthusiastic youngster.

The NPA and many of the individual Breed Clubs have donated Trophies and offer 'Specials' specifically for competition amongst the juvenile members. The Young Fanciers Club also has many of its own trophies and also offers various other awards of its own.

Any person within the prescribed age range is eligible for membership and will be made very welcome. New ideas are always welcomed and where possible incorporated in to the running of the club.

On occasion adult fanciers have allowed their birds to be exhibited by younger members of the family in the name of the juvenile. Not only is this against the rules of the NPA but it is grossly unfair on the genuine young fanciers. Proven offenders are harshly dealt with by the NPA Committee.

What can we do in the NFPA?

In the NFPA, South Africa, there are several juvenile members; however we refer to them as junior members. The first and most important thing to do is to support to concept of a "Junior NFPA

Committee" and secondly to participate in creation and implementation thereof in whatever form or capacity. So, let us support our juniors!!!!

Some "did you knows" about pigeons

Did you know that pigeons have lived alongside man for thousands of years dating back to 3000 BC? According to archaeologists in Mesopotamia (modern Iraq) it was the Sumerians in Mesopotamia that first started to breed white doves from the wild pigeon.

Did you know that the first biblical reference to the pigeon (or dove) was in the Old Testament of the Bible in the story of Noah and the dove of peace? Later, in the New Testament, the pigeon was first mentioned during the baptism of Christ where the dove descended as the Holy Spirit, an image now used extensively in Christian art. These early biblical references have paved the way for the many different ways that the urban pigeon is viewed in modern societies worldwide.

Did you know that the feral pigeon that we see in our towns and cities today is descended from the Rock Dove (Columba livia)? The Rock Dove was a cliff dwelling bird historically found in coastal regions. The word 'pigeon' is actually derived from the Latin word 'pipio' which meant 'young bird'. The word then passed into Old French as 'pignon' and thus the English name 'pigeon' was derived and is now used the world over as a common name for the Rock Dove. Other common names include 'domestic pigeon' and the 'feral pigeon'. In 2004 British and American Ornithologists officially re-named the bird the Rock Pigeon.

Did you know that pigeon poop was considered to be an invaluable resource in the 16th, 17th and 18th century in Europe? Pigeon poop was a highly prized fertiliser and considered to be far more potent than farmyard manure; so prized that armed guards were stationed at the entrances to dovecotes, (pigeon houses), to stop thieves stealing it! In Iran, where eating pigeon flesh was forbidden, dovecotes were set up and used simply as a source of fertilizer for melon crops and in France and Italy it was used to fertilize vineyards and hemp crops.

Did you know that pigeons were used during wartime?

In both the first and second World Wars the pigeon saved hundreds of thousands of human lives by carrying messages across enemy lines. Pigeons were carried on ships in convoys and in the event of a U-boat attack a messenger pigeon was released with details of the location of the sinking ship. In many cases this led to the survivors being rescued and lives saved. Mobile pigeon lofts were also set up behind the trenches in the First World War from which pigeons often had to fly through enemy fire and poison gas to get their messages home. The birds played a vital role in intelligence gathering and were used extensively behind enemy lines. During the Second World War pigeons were used less due to advances in telecommunications

Did you know that pigeons were used as the first large scale communications network in early times?

The earliest large scale communication network using pigeons as messengers was established in Syria and Persia about 5th Century BC. Much later in the 12th Century AD the city of Baghdad and all the main towns and cities in Syria and Egypt

were linked by messages carried by pigeons. This was the sole source of communication. In Roman times the pigeon was used to carry results of sporting events such as the Olympic Games and this is why white doves are released at the start of the Olympic Games today. In England, prior to the days of telegraphs, pigeons were often taken to soccer matches and released to carry home the result of the game. Their use as a messenger in war time resulted in many pigeons being awarded honors by both the British and French Governments. Incredibly, the last 'pigeon post' service was abandoned in India in 2004 with the birds being retired to live out the rest of their days in peace.

Did you know that many religious groups including Muslims, Hindus and Sikhs feed pigeons for religious reasons?

Many older Sikhs feed pigeons ceremoniously to honour the high priest and warrior Guru Govind Singh who was a known friend of the pigeon (or rock dove). Some Sikhs also feed pigeons because they believe that when they are reincarnated they will never go hungry if they have fed pigeons in their previous life. Other religious groups in India believe that when a person dies his or her soul assumes the form of a bird (normally a pigeon) and therefore by feeding birds they are caring for the souls of their departed ancestors. The pigeon is revered in India with huge flocks numbering many thousands of birds being fed daily at Hindu temples in town and city centres throughout the country. In the Christian religion the pigeon is both a symbol of peace and of the Holy Spirit.

Did you know that two of the world's most famous pigeons are "Cher Ami" and "G.I. Joe"?

During the First World War a pigeon named Cher Ami, (Dear friend), saved the lives of many French soldiers by carrying a message across enemy lines during the heat of battle. Cher Ami was shot in the chest and the leg, losing most of the leg to which the message was attached, but continued the 25 minute flight avoiding shrapnel and poison gas to get the message home. Cher Ami was awarded the French 'Croix de Guerre' for heroic service. Another heroic pigeon named G.I. Joe saved the lives of a thousand soldiers in World War 2 after British troops had established a position within an Italian town that was due to be bombed by allied planes. Communication equipment was down and the only means of stopping the raid was to attach a hastily written message to G.I. Joe and send him to the HQ. G.I. Joe flew 20 miles in 20 minutes arriving at the air base whilst the planes were taxiing on the runway. Disaster was averted with 5 minutes to spare. G.I. Joe received the 'Dickin' medal for his bravery.

Did you know that pigeons are considered to be one of the most intelligent birds on the planet? Pigeons are able to undertake tasks previously thought to be the sole preserve of humans and primates. The pigeon has also been found to pass the 'mirror test' (being able to recognise its reflection in a mirror) and is one of only 6 species, and the only non-mammal, that has this ability. The pigeon can see colour in the same way that humans do but they can also see ultra-violet, a part of the spectrum that humans cannot see. The pigeon can also recognise all 26 letters of the English language as well as being able to conceptualise. In scientific tests pigeons have been found to be able to differentiate between photographs and even differentiate between two different

human beings in a photograph when rewarded with food for doing so.

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