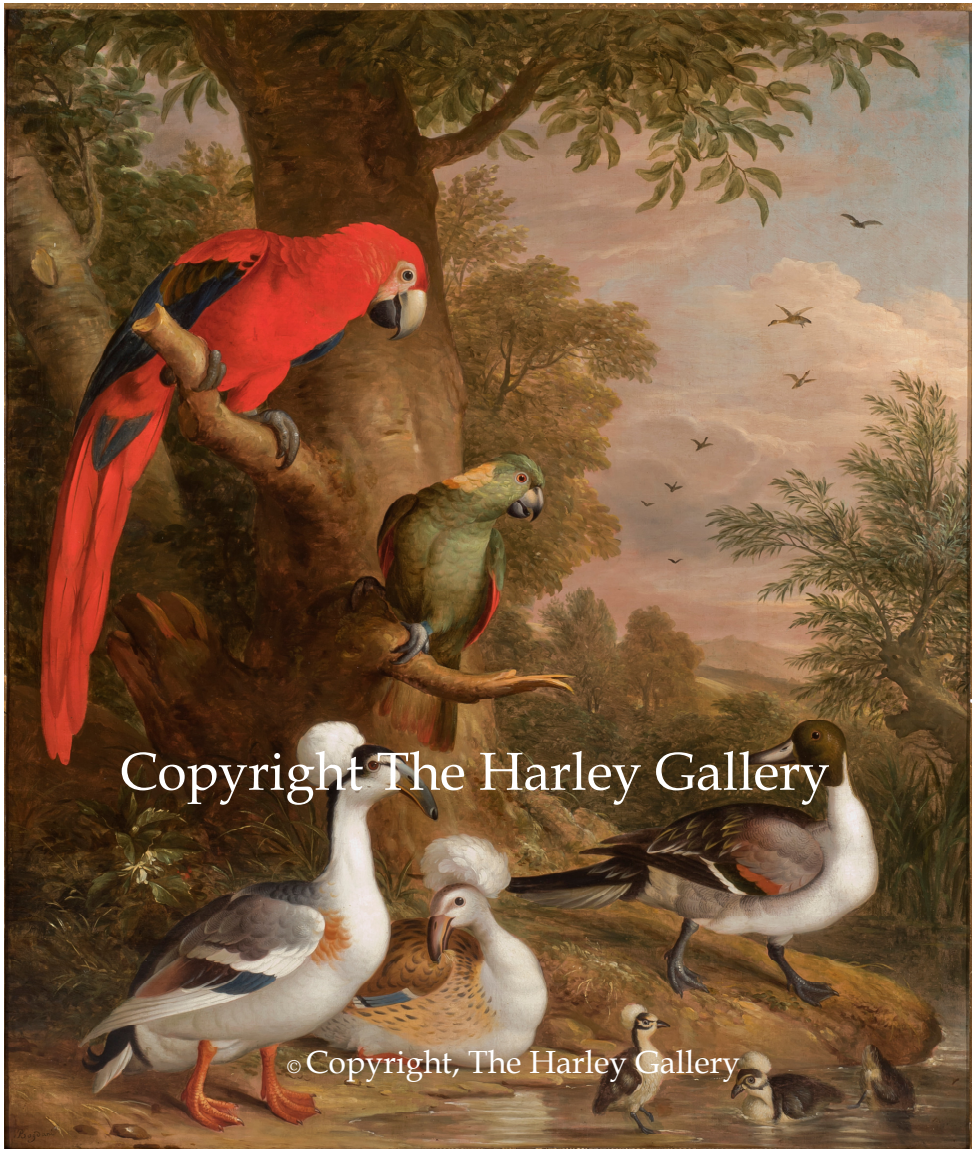
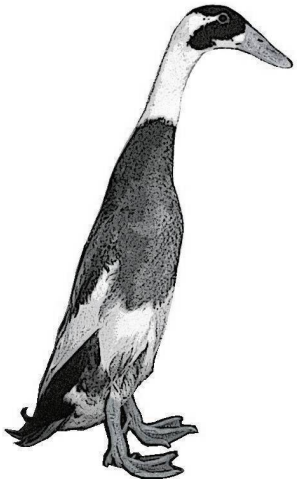
News Letter Summer 2016



Indian Runner Duck Association

Sally's Fawn ducklings



CONTENTS

'A red-and-green macaw and an Amazon parrot' by Jakob Bogdani (1718) – note the Hook Bill Ducks!

SECRETARY'S NEWS

This year's ducklings are growing fast, and it's always interesting to see how they change at this time of year. It's easy to see those who will be the best shape, but the intricacies of colour take a lot longer to come out. It takes months to check which Blacks and Chocolates are the best, and even up to a year to decide which are going to be the most reliable breeders in Trouts and Silvers. Some of the colour faults which have been introduced in recent years—especially those 'Appleyard' eclipse markings in the head feathers of the male—seem to be recessive and certainly hide in the plumage of the females.

The best place to check the colours is at the main autumn waterfowl shows, which are listed on the IRDA and BWA websites. There are colour-classes for the standardized Runner colours and 'Best of Colour' rosettes are awarded. The points from these six major shows are collated to make the annual 'Best of Colour' and 'Best Runner' awards. This year, the British Waterfowl Association has moved its Champion Waterfowl Exhibition to Stratford Park Leisure Centre, Stratford Road, Stroud GL5 4AF. For more details and a schedule contact the BWA secretary via their website or show organiser Geoff Chase Tel: 01794 390624 email: beech997@yahoo.co.uk.

AGM : The IRDA AGM will also be held at Stroud, and we hope that as many members as possible can attend this show and the AGM. It's unfortunate that distance often makes it impossible to enter all the shows which range from Cornwall to Stafford. Stafford is the one for the Northern and Scottish members who travel down from as far away as Inverness, and the AGM has also been held there in the past.

We nevertheless seem to be quite spoilt in Britain compared with the distances that Aussies make to get to the big ones at Adelaide, Sydney and Canberra. And the continentals too are willing to travel between France, Italy, Belgium and Germany to exhibit their birds. The Channel unfortunately adds so many hours to the travelling time that British exhibits abroad are a rarity—and only a couple of sea crossings will take birds.

Colin Brierley

Colin Brierley, one of our long-term IRDA members, sadly died in the last week of April this year. Colin lived in the Dordogne for many years and was a keen breeder of Indian Runners. It wasn't the easiest place to keep waterfowl: despite the southern France location, winters are hard. Heavy snowfall could bring down netting fencing, and the water would freeze.

Colin visited the BWA shows in the UK—the BWA National, when it was held at Solihull, and the Devon&Cornwall Show at Wadebridge. We met him again at the 28th National Avicultural Exhibition at Tours in 2010, where his White Runners and Black Runners were by far the best there with 95 points respectively. His birds were narrowly beaten overall by a *Bleu Fauve* of Jean Luc Chable, and a Trout of Paolo Ongaretto of Italy, each with 96 points. He won many top awards at the major shows in France and generated an enormous amount of enthusiasm wherever he went.

Colin was so enthusiastic about the Runners that he travelled enormous distance in France—a big country—to get to the major shows where he often won the top awards. He also branched out to *Bleu Fauve* (Apricot Trout) and used them to create 'Cumberland Blues' [by the F_2 generation] by crossing the Apricots with his Blacks. He had a good eye for the show birds and had long discussions with the waterfowl Judge Anthony Re regarding the weight and type to win.

He and his wife Jackie returned to England in 2015, having sold their business running an idyllic holiday *gite* which was furnished and decorated with Colin's work and Jackie's intricate designs in textiles. Colin was a skilled designer and craftsman in wood, and he also produced some wonderful illustrations of Runners. Some of them have been published in previous IRDA newsletters and a copy of one of his unique French-flavour pics is on the back of this edition. Colin was our French Rep for the IRDA, and was always coming up with amusing stories about the birds. We'll greatly miss his infectious enthusiasm and contributions to the IRDA.

DUCKS IN THE NEWS

The bread is off as fat ducks get a taste for kale

The sight of ducks gathering to be fed bread by children is a familiar park scene. But the Canal and River Trust now says that bread is unhealthy for mallards and wants to promote a healthy alternative. The charity held a 'lettuce taste test 'on waterfowl in the Aylesbury arm of the Grand Union Canal and found the birds enjoyed leaves and greens.

The survey found that of all five kinds of greens sampled, it was kale which proved to be most popular. Kale was given a duck approval rating of ten out of ten by testers who looked out for the birds' reactions. Pea shoots proved to be next popular, scoring nine. Kale turned out to be the biggest hit of the day. The ducks couldn't get enough of it. Rocket was rated seven out of ten while * iceberg lettuce scored a meagre six. The testers noted: 'Trusty iceberg lettuces were not the biggest hit with the ducks. They had a nibble but didn't go back for seconds.' (See below – do not feed iceberg). Watercress was shunned by the ducks, with a rating of zero. The survey spokesman said: 'The ducks didn't recognise this as food. It looked pretty similar to pea shoots but the ducks just weren't interested.'

The spokesman advised that picnickers should stop throwing away their greens and give them instead to the ducks, geese and swans on waterways and ponds. The trust advised people last year to offer the birds healthy alternatives to bread. White bread in particular is bad for the waterbirds as they cannot digest it properly. This month, it reported a one-fifth drop in the number of people feeding bread to the ducks and a doubling in the number of those giving them healthy food. [*Summarized from The Times, Monday 28th March, 2016]*

*The RSPCA also notes that rabbit diets should not be lettuce based. Rabbits shouldn't eat some lettuces (e.g. iceberg) as they are alleged to contain laudanum which can be harmful in large quantities. Darker, more leafy and fibrous varieties (e.g. Romaine lettuce) should be fed, as they are higher in fibre and actual nutrients. Introduce gradually to avoid digestive problems. This applies to ducks too.

CORRESPONDENCE

QUESTION: My ducks Daisy and Petal seem to be firm friends now—how firm I do wonder! I had just let them out and they were both in their little pond while I did out their sleeping box. They won't stray far from me when I'm about. I then realised I was listening to familiar sounds of really happy ducks, when it struck me that they weren't really familiar sounds since the drake, Jess, died. They were the sound of copulating ducks? Only I now have 2 females! I looked out to see Daisy obligingly 'treading' on the back of Petal. I now wonder if I should really find them a drake—although I do fear their run is not large enough for an extra. Daisy hasn't laid this year, but Petal is prolific. (Daisy didn't start laying until 5th April last year so I wasn't expecting her to until after that this year.) What are your thoughts on this? Tracey Tomkinson

ANSWER: About the 'mating' ducks—if there isn't a drake, females are OK with a same-sex partnership! So if you have not got a lot of room, I'd just stick with the two ducks. Drakes will also copulate with each other in the absence of females, but they can be a lot rougher and, in a group, sometimes pick on just one bird who needs to be rescued. Females usually seem to be OK in a gang.

P. S. Daisy and Petal continue to be more than just good friends, and I'm pleased they are getting along so well. Petal is ridiculously friendly, climbing over me and always standing on my wellies when she wants food, (layers pellets now).

QUESTION: I have 3 Indian runner ducks, 1 drake and 2 females. My drake has started showing some strange behaviour: we have large patio doors and he's taken to rubbing his head on the window. Is there a reason for him doing this? They have free run of the garden, there is plenty of water for them and they're given duck pellets. Sarah North

ANSWER : If he is otherwise looking normal i.e. his head is not swollen and his eyes are clear, then it's probably just a behaviour issue. It is the 'breeding season' and if he can see his reflection in the glass I think

he is probably trying to address the intruder which he will see as a competing drake who after his females. Duck pellets are good—but drakes should be offered wheat because they don't need layers pellets. A couple of handfuls of wheat in a bucket of water is useful.

QUESTION: The Indian Runner book has arrived, many thanks for your support. I have also purchased last year 'The Domestic duck', and 'Colour breeding in Domestic Ducks'. I would like to know if someone has bred the drake of Runner Fawn&white with duck of Khaki Campbell and what's the colour result.
Many thanks, Alessandro

ANSWER: Thank you for buying the books. You have also made a good guess for cross-breeding. The Khaki Campbell and the Fawn&white Runner are actually very similar in colour.

- The Runner drake and the Campbell duck both have the brown gene (which is sex-linked).
- Both are dusky [m^d] so they show no eye-stripes in the feathers of the head.
- The drakes of both of these varieties do not have claret bibs because they are dark phase [Li] dusky [m^d].
- The main difference between them is the 'Runner gene', which gives the pied pattern in the plumage. The F_1 cross can show a bird which is almost self-coloured, but there will be white flights, white under the chin, and on the breast. The Runner gene is incompletely dominant.
- Crossing the F_1 back to the Fawn&white will appear to resolve the Runner pattern fairly quickly in 50% of the offspring, but there will have to be selection of tidy head markings and correct white primary and secondary feathers in the following generations.
- If you want Khaki Runners, then F_1 x F_1 will produce 25% khaki BUT it's not as simple as that. There are often residual faults such as a white patch under the chin, a couple of white flights, or a tiny patch of white on the chest where the drake's 'collar' (white neck ring) in a mallard would be.
- So, the pied Runner gene (R) is not that simple—as you can also see from selection of the perfectly marked Fawn&white for exhibition.

- With respect to shape: F_1 cross breeds will be an average of the Runner and Campbell shapes. Crossed back to a Campbell parent, the Campbell shape can quickly be achieved.
- The exhibition quality Runner shape may be more difficult, especially the Runner head/bill shape. Runner crosses tend to be thicker in the shoulders, and have a slightly dished (concave) bill. They look more like commercial than exhibition birds.

QUESTION: Please can you help with a couple of questions. I would like to know if the eggs are likely to be fertile for the duration of their egg-laying period in the year. We have already hatched this year but wondered how long the eggs are likely to remain fertile. Secondly, my Fawn&white older ducks have gone very light in colour, and I wondered if this is something that happens as they get older although they are only a year old. The ones hatched in February are dark Fawn&white.
Sue G.

ANSWER: Very briefly, fertility (and hatchability) are not constant throughout the egg-laying season. Much depends on the drakes' ability and willingness to perform. They can 'go off the boil' before the females stop laying prior to the moult. Late June/July becomes less favourable than say April/May. I suspect that birds coming into eclipse (or ready to shed the primaries and secondaries) are too busy conserving energy (and protein) to worry about fertility. In wild birds, this is the time to look after the ducklings rather than waste energy on mating or laying.

Adult Fawn&white Runners that have last moulted in the previous year will be affected by the sunlight bleaching over winter and spring. Recently-hatched birds still have their pristine feather colour, just like the adults will later in the summer/autumn. Brown plumage pigment (phaeomelanin) is much more susceptible to bleaching than the eumelanin of grey birds. You should see our Brecon Buff Geese at this time of year!

QUESTION: I'm a newbie to Runners, well all poultry ... the book I read said to switch from grower to layer when 1st eggs are laid... the

Dumor feed bag implies OK to start layer at 18 weeks. Do you have an opinion? Thanks. Doug MacLeod (Facebook, USA)

ANSWER: It's difficult to be exact. Commercial producers can regulate the point of lay depending on their strain of duck, time of year hatched, amount of feed offered and hours of light. Extra calcium is not good for drakes (can lead to problems with the kidneys) so drakes can be reared separately from the ducks in the autumn. In a commercial situation, the drakes have already been eaten at 9 weeks (or culled at hatch).

Early-spring-hatched Runners can lay at 17 weeks but it's not good for them if they are forced into early lay. Late-in-the-year-hatched Runners will not lay until the following spring unless artificial lighting is used (again, not good for them). So, 18 weeks for switching to layers pellets is a good guess, to build up their calcium in their bones. With birds unlikely to lay until the following February, then leaving it to 24 weeks is OK. The ducks will tell you anyway—laying females will demand layer pellets. If they are not in lay over the winter, then they tell you that; as well as pellets, wheat is good! The calcium:phosphorus ratio in layers pellets is carefully tailored for egg-shell formation, but supplementary calcium from mixed poultry grit is useful, and the oyster shell mixed in it will also provide some phosphorus.

EGG BOUND RUNNER

I have sent you an attachment of an x-ray showing my egg bound runner. I wondered if this may be of use to you, whether for other lovers of Runners for education or information. Also if anyone with Runner expertise maybe able to offer any further insight of diagnosis or possible causes and any further advice for good management of my beloved ducks. I am a novice Runner duck keeper so any help especially I would be very grateful.

I sadly lost my lovely duck 'Hakka' today. I am a veterinary nurse of 16 years and although my vets are not specialists they help me a lot

with my chickens and ducks. I did not hatch Hakka myself; I bought her from a nearby farm as a 16-18 week-old along with another duck as I had three I reared and ended up with 2 drakes to 1 duck. Hakka was around 8/9 months.

First physical sign were on Sunday last, where I noticed she was lying down a lot and throughout the day was a distance away from the other 4. This continued the following day. After discussion with my vets at work and clinical books I bathed her for an hour in a warm bath. She was bright, eating and drinking. Her abdomen was not hot to the touch; she thoroughly enjoyed her bath; I was definitely wetter!

The following day she was examined by the vet and x-rayed. An egg could not be felt on physical exam via the cloaca, only tissue could be felt: possible *intussuscepted oviduct around egg? We administered Calcium and Oxytocin by injection. Respiratory effort increased with this but nothing passed. We lubricated cloaca with lubrel gel. A few hours later we did a needle aspirate into the egg as per the bsava manual and withdrew 24mls of protein looking egg material and hoped for natural expulsion. For a free range, unhandled Runner, she was coping well so far! As still bright, I took her home and sat her in another warm bath for an hour; again the room and myself soaked from her diving and bathing, she was still bright!

Come this morning (3 days post first clinical signs) she looked slow and uncomfy. A 2nd X-ray showed no change. She was passing stretchy, white, runny material from the cloaca. We gave her an anaesthetic for further physical exam as she was a little stressed. On palpation via the cloaca an egg shell could not be felt and no opening for possible expulsion. Around the tissue the vet inserted more lubrel gel via and enema tube but the possible soft-shell egg burst, and clear liquid with blood was discharged. With the clinical signs of a sick duck and the high risk of peritonitis we chose to put Hakka to sleep while under anaesthetic. As I say, please use the X-ray for any purpose that may be useful and any further information regarding Hakka would be very gratefully received.

My ducks are fed on a layers pellet with whole wheat given 2-3 times daily which the boys love. There is free access to mixed grit for both ducks and my chickens. The ducks rarely get treats as they don't show any interest but possibly may, although I haven't seen them,

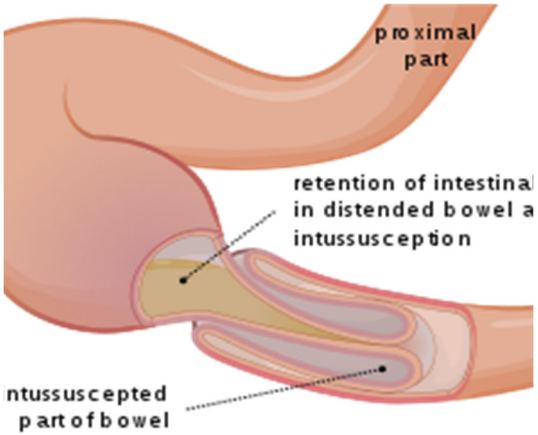
may get a nibble on the chicken treats of sometimes mixed corn or wheat with oats.

I am again now left with too many drakes to ducks, 2 drakes to 2 ducks, advice of best way forward and how long I should go, with the risk of not finding any at the moment, before I can get more females. I really want to know I get purebreds and from a reputable breeder.

I do have the possibility of hatching my own as I have an incubator—I just worry about the number of drakes I would get and what I would do if I was not able to home these.

Kind regards Victoria

(My cheque is in the post for joining the Association, I definitely have the Runner addiction!)



Olek Remesz (wiki)

*Intussusception (in-tuh-suh-SEP-shun) is a serious condition in which part of the intestine slides into an adjacent part of the intestine. This "telescoping" often blocks food or fluid from passing through. Intussusception also cuts off the blood supply to the part of the intestine that's affected, which can lead to a tear in the bowel (perforation), infection and death of bowel tissue.

THE ODD COUPLE

Wendy Mulhall

I read the articles from Katja about integrating a new duck into her flock thought you might be interested to hear about my experience.

I have always kept a small selection of different breeds, both domestic ducks and wildfowl and it is interesting to see how they all interact together. Most of the time, they rub together nicely but we have found that you do have to be careful who and how you introduce new ducks into the family. It is very clear where the expression 'pecking order' comes from! When I introduced my first pair of Runners, Basil and Sybil, to my Call ducks, it was quite clear after 2-3 months that we would need to find Basil a new home as he was very territorial, bullying the Calls and keeping them away from the food supply and even the pond. Sybil however formed a trio with the Calls, and the 3 of them co-existed in harmony, amongst the other ducks, the male Call duck Dot, taking it in turns to tread his two 'wives'! When the female Call met an untimely end (we believe a mink absconded with her), Sybil and Dot's partnership became even closer, they became our odd couple and spent most of their time in each other's company. When our European Pintail, Fred, started to vie with Dot for the position of alpha male, being bigger and younger, I was very concerned for Dot but amazingly Sybil actually started to attack Fred every time he approached Dot, keeping him safe, as she was the largest duck out of the three! She was actually a rescue duck, from Southall market and she is the sole

survivor of the trio—she has been with me for over 13 years and I swear she understands every word I say!

I also witnessed a strange event on the first day I released a pair of tufted ducks into their new home (my garden). They both scuttled into bushes and would not come out for a couple of hours. To my amazement, my female ringed teal went in after them, and a few minutes later emerged, with the tufted ducks following behind; it was as if she had reassured them that it was safe to come out and that no harm would come to them. Anthropomorphism is frowned on by scientists but having kept ducks for 16 years as pets all I can say is that I have often witnessed them displaying almost human behaviour!

FERMENTED FEED FOR LAYING HENS

Effects on egg production, egg quality, plumage condition and composition and activity of the intestinal microflora.

[Engberg RM1, Hammershøj M, Johansen NF, Abousekken MS, Steenfeldt S, Jensen BB.]

Summary: An experiment with a total of 480 hens was carried out from 16 to 38 weeks of age to evaluate the suitability of wet fermented feed for layers, taking aspects of nutrition and gastrointestinal health into consideration.

Fermented feed was characterised by a high concentration of lactic acid and a moderate level of acetic acid, high numbers of lactic acid bacteria and a pH of approximately 4.5. Feed fermentation reduced the concentration of dietary sugar from 32.1 to 7.3 g/kg DM and the phytate bound phosphorus from 2.7 to 1.9 g/kg DM.

Fermented feed seemed to lose attractiveness for the birds quite rapidly, resulting in a more aggressive behaviour and a poorer plumage condition than in birds given dry feed. The use of fermented feed reduced the litter DM (dry matter) content.

During the experimental period, the body weight gain of hens receiving fermented feed was 80 g higher than of hens fed the dry mash. Presumably because of an extended adaptation time to the feed, the onset of lay occurred later when hens were fed on fermented feed, resulting in non-significantly reduced total egg production.

Throughout the experimental period, the feed DM intake of hens fed with fermented feed was lower than that of hens receiving the dry mash (110 vs. 125 g). From week 26 to 37, fermented feed improved the feed conversion as compared with the dry mash.

The use of fermented feed increased egg weight in the period from 34 to 37 weeks (61.4 vs. 60.0) and increased shell weight and shell stiffness.

The feeding of fermented feed increased intestinal health by acidification of the upper digestive tract, forming a natural barrier towards infection with acid sensitive pathogens, e.g. E. coli, Salmonella and Campylobacter.

It was concluded that fermented wet feed offers potential benefits for health and nutrition, but may become suitable for layers only after the practical problems related to this feeding form have been overcome. However, an early adaptation of the birds during the rearing period seems to be necessary.

http://www.ncbi.nlm.nih.gov/pubmed/19373724 (original paper)
Br Poult Sci. 2009 Mar;50(2):228-39.

FEEDING OUR BIRDS

Some comments from Colin Davis, Canada

Feedstuffs went through a very expensive phase a few years ago, but have now settled back to more reasonable prices. The falling price of oil and some good harvests have helped in this way. Throughout this period, the price of supermarket poultry has stayed stubbornly low as well as the prices that people are willing to pay for live birds—even good examples of pure breeds. Producers of birds, both commercial and hobby, are certainly squeezed by the cost not only of feed but also by medication and vets bills, and by capital costs of housing, fencing etc. Hobby producers of a small number of different types are especially vulnerable because they cannot achieve economy of scale. It's easy and cheap to keep just one colour and sell all the eggs as hatching eggs. It can even make a profit for determined sellers on the internet. It's not so easy to maintain a number of breeds and colours to a high level of perfection and just sell a few of each. Every colour has to be housed and looked after separately, and reserve breeding stock

kept. As one chicken breeder of Spanish and Minorcas chickens recently observed: this has become a very expensive hobby. The costs of capital equipment and incidentals also equal the cost of food.

Colin Davis in Canada maintains many colours of elite Runners and he recently wondered what the international 'cost' to raising waterfowl might be. This is his situation in Canada:
Currently we feed the following:
whole corn $12CDN / 40kg ; whole wheat $17 CDN / 40kg; scratch grain $18 CDN / 40kg; layer mash $21 CDN / 40kg; layer pellet $23 CDN / 40kg.

'We use roughly 4 tonnes of grains per year which cost us around $2000 CDN. 4 tonnes will feed 20 geese, 130 ducks and 10 chickens along with free-range in poultry fenced areas. In the summer months costs are much lower to feed as the birds have access to our acres which have natural flora and fauna. In the winter months we focus on feeding an increased amount of lacto-fermented feed and wheat fodder.'

Colin was interested in a rough cost of keeping a bird in the UK. But that was difficult! Selling a bird for the table at 8-9 weeks is not the same as keeping elite stock to 20 weeks before final selection. Nor is it the same as running breeder and reserve breeder birds on all year, plus the young birds which will being sold over a 12 month period – not at 8 weeks!

What we did establish was that a good price could be obtained in certain economic situations. In Australia and Germany, where some breeders produce large numbers of birds for exhibition, the surplus is used for the table. In Canada and in the UK where there is less demand for table duck and intense pressure on prices, then table production on a small scale is not a profitable option unless marketed as free range and/or organic, where a higher premium is paid.

'I work near Toronto in a hospital and it has a large Asian following so ducks are eaten but sadly a BBQ cooked duck is worth $12-16. . . The cost to process a duck is around $3.50-4.00 alone and …we figure it is around $10-12 per bird to raise to table with 80% plus grain being used.' [Canadian dollar is around 50p]

Price Comparison of UK and Canada

UK products	kg	Price £	Price £ per kg	Soya hexane extracted
Allen & Page Smallholder grower	20	10.69	0.53	no
Fancy Feed grower	20	10.99-9.58	0.55 –0.48	yes
Local non-medicated grower ration	25	8.03-6.75	0.32 –0.27	yes
Layer pellet local	25	6.80	0.27	yes
Farm bagged wheat	25	5.00	0.20	*£200/tonne
Feedstore wheat	25	5.75		

*bulk commodity wheat price is currently £120 per tonne compared with around £220 a few years ago and £170 spring 2014. http://cereals.ahdb.org.uk/markets.aspx

Canadian Products	kg	Price $	Price £	Price £ per kg	Soya hexane extracted
Layers pellet	40	23	11.5	0.29	
Layers mash	40	21	10.5	0.26	
Whole wheat	40	17	8.5	0.21	
Whole corn (maize)	40	12	6.0	0.15	

When we compared the international prices of wheat and layers pellets, they were almost the same, probably because trading in these international commodities establishes a global bulk price which manu-

facturers and distributors have to reflect. Only maize was cheaper in Canada because of its availability in North America.

Thus, with food pricing so sensitive, cost-cuttingmethods of feeding—without causing detrimental effects on the birds – have been investigated

FERMENTING FOOD

Lactobacilli are already present in the air and on the surfaces of the grains, and in the right environment they'll proliferate. Lacto-fermentation is an anaerobic process that preserves and enhances food. It increases enzymes in the feed and actually introduces vitamins, specifically the B vitamins (folic acid, riboflavin, niacin, and thiamin), not present before fermentation. This increased nutritional absorption leads to reduced food intake since nutritional requirements are met faster.

Lactobacillus is a beneficial bacterium that helps normalize the acidity in our stomach. It aids in the absorption of nutrients, neutralizes toxic compounds, and strengthens overall immunity. Fermented feed has been found to increase egg weight, shell weight and shell thickness; boost chickens' intestinal health by forming a natural barrier to acid-sensitive pathogens like E. coli and Salmonella; and lowered their consumption of feed (due to their bodies digesting the fermented feed more effectively),

Mehtod: Fill your container about 1/3 full with feed. Cover with water so feed is completely submerged. Cover your container to exclude light and let sit for three days. Strain and feed. Only feed your chickens what they will eat at one sitting to prevent mouldy feed.

Tips for successful fermenting

· Use a mix of grains, oats, seeds, legumes—or just wheat.

· Use a loosely covered glass container (or BPA-free plastic or food-grade stoneware; the acids in lacto-fermentation can increase the chances of bisphenol A leaching into your liquid)

· Use de-chlorinated water—use either well water, or let tap water sit for 24 hours to disperse the chlorine. Chlorinated water will adversely affect the bacteria.

· Cover grains with several inches of water and add water as needed to ensure they remain covered and air excluded i.e. it remains anaerobic.

· Stir several times a day.

· Wait until you see bubbles forming on the surface to feed (usually after about 3 days).

· Store in a dark, cool place, not outside, and not in the sunlight.

· Feed fermented feed to chicks and ducklings. Be sure they have grit to help them digest the feed.

· Fermented feed has a sour smell that indicates the presence of lactic acid. It should smell like sourdough bread. If it's alcoholic or rotten, it's gone off.

· Keep the liquid after you've strained out your grains to start a new batch.

· Only leave enough feed out that your birds can finish within half an hour. The food must not go mouldy.

DON'T store your ferment in the sun.

DON'T allow the water level to drop below the level of the solids.

DON'T feed if you smell a sour, rancid or yeasty smell.

DON'T feed if you see any mould. This is a sign of air exposure.

Sources:

http://www.gardenbetty.com/2013/05/why-and-how-to-ferment-your-chicken-feed/

http://www.backyardpoultrymag.com/10-fermenting-tips-reduce-chicken-feed-costs/

N.B. Mouldy food is especially toxic for ducks. https://en.wikipedia.org/wiki/Aflatoxin

Aflatoxins are poisonous and cancer-causing chemicals that are produced by certain moulds (Aspergillus flavus and Aspergillus parasiticus) which grow in soil, decaying vegetation, hay, and grains. They are regularly found in improperly stored staple commodities such as corn, cotton seed, millet, peanuts, rice, sorghum, sunflower seeds, tree nuts, wheat. The term "aflatoxin" is derived from the name of one of the moulds that produce it, Aspergillus flavus.

Aflatoxins are very toxic and carcinogenic mycotoxins, produced by moulds of the Aspergillus and Penicillium genera

The Hook Bill Duck

By Christine Ashton

The Hook Bill is recognized as one of Europe's oldest breeds of domesticated duck. It was illustrated and described from North Holland as early as 1676 (1) and there followed illustrations in Eleazor Albin 1731 and 1738 (2). All of these pictures depict the typical downward-curved beak in a rather drab duck showing the mallard eye stripes rather than the dusky pattern preferred today. The white bib, and accompanying white flights, had also made their mark in a seventeenth century Melchior d'Hondecoeter painting where the drake is also crested.

Around that time, there also appeared the Indian Runner from Indonesia, and the North Holland White Breasted, which is very similar to the Hook Bill. Quite how these breeds are related to each other is unknown, but these varieties certainly increased the egg-laying capacity of the European ducks. The Runner's influence of the straight beak (compared with the slightly dished bill of many of the mallard derivatives) almost certainly passed this characteristic on to the North Holland birds. Where the actual hooked bill arose is also unknown.

This year, a significant painting depicting the Hook Bill has come to light in The Harley Gallery's new exhibition space for The Portland Collection at Welbeck, near Worksop. This current temporary exhibition opened in March 2016, and further details are on their website at http://www.harleygallery.co.uk/portland-collection/.

What is remarkable about this painting (by Hungarian-born Jakob Bogdani, purchased 1718) is the sheer detail of the pair of Hook Bills. Both birds are crested, and the duck delicately preens herself. Totally new is the colour: no longer drab, the pair exhibit the main body colour now known as 'mallard restricted' and exemplified by Reginald Appleyard in his twentieth century Appleyard ducks. The painting, and the colour of the ducks, probably throws up more questions than solutions, but is a wonderful example of the recording of history and duck colour genetics through art.

Why Dutch paintings are so significant

For two centuries, the VOC (Dutch East India Company) was the largest trading and shipping company in the world. Based in Amsterdam,

it is considered the world's first multinational. The company was financed by a system of shares which established the world's first modern stock exchange and the bank of Amsterdam became the first true central bank. The VOC conducted its trade in a complex series of exchanges between the islands of the East Indies and the peninsulas of SE Asia, as well as trading with Japan, China, India, Ceylon and the Arabian Peninsula. Enormous wealth was created in the Dutch Republic during this 'Golden Age' for a variety of reasons, and it was this wealth, and the international trade on which it was based, which allowed rich entrepreneurs to buy country estates and to keep exotic birds in their collections. These possessions were also recorded in paintings for the home. It is estimated that between 1600 and 1700 no less than 5 million paintings were executed in the United Provinces over a 100 year period. Not only could the birds recorded in these paintings have come to Europe by these VOC trading routes, but the wealth of the associated entrepreneurs also ensured that evidence of their possessions was recorded for posterity.

Birds from the East

Some of the waterfowl in the Dutch paintings must have come from the East. Chinese geese (also painted by Melchior d'Hondecoeter) in all likelihood arrived by the VOC route as did the Indian Runner depicted in Jan Steen's 'The Poultry Seller'. This latter painting was on view at the Ashmolean Museum in 2011 (IRDA Newsletter spring, 2012). The Dutch almost certainly imported the Loopeenden or 'walking duck' to Europe, including the Fawn -and-white, by the 1600s. Quite how they did this, when the sailing ships took at least 119 days on a fast outward journey to the east, is not recorded. Four-five months was more common for the outward journey, and return journeys were generally much longer. Seven months was recorded for the *Hollandia* which left Batavia 12.11.1627 and arrived in the Netherlands June 1628 (3). There was considerable loss of human life on these journeys, so it is likely that animals and birds would have been sent on faster boats which made no trading stops en route. Boats could be provisioned for up to 5 months if they did not wish to stop to reprovision. At some point, birds must have survived the lengthy voyage to establish the Loopenden in Holland. Their presence in several paintings confirms it.

C. S. Th. Van Gink (4) also thought that the Hook Bill could not have been bred from the wild mallard of Europe; it was more likely descended from birds imported from the Far East. He also speculated that the Hook Bill was related to the North Holland White-breasted duck which is very similar, but with a straight bill.

Lending support to the Eastern origin of the birds is the colour of the duck in the Bogdani painting. The clarity and exactness of this mallard restricted (M^R) colour is remarkable—especially given the hotchpotch of colours which arrive in the mallard restricted (i.e. Appleyard) show pen today! Somewhere there must have been a carefully selected flock of birds, chosen for their rarity value. Did that happen in Holland, or the Far East? It's far more likely this would happen in the vast duck flocks of South East Asia where time and numbers probably gave rise to several *de novo* mutations such as the brown dilution, the black gene and both light phase and mallard restricted alleles. Harrison Weir's (5) assertion that light coloured ducks 'came from the east' to contaminate the mallard colours of Europe was well observed.

Note that the date of the Bogdani painting was before the abundance of *krombekeend* reported in Europe in the mid-1700s i.e. the restricted mallard colour mutation is less likely to have occurred here than in the Far East.

Rare Dutch Ducks

In his book *Tamme Eenden*, RRP van der Mark (6) asked: 'Krombekeend, where have you gone?' He reported that by 1976, the Dutch Foundation for Rare Breeds could find only 10-15 examples of *Krombekeenden* in Holland. Fortunately, the breeder J.C. van de Zaan collected the last few birds to start a breeding programme.

The Dutch campaign of the 1980s to preserve the breed certainly raised awareness. Publicity resulted in many more Dutch breeding and exhibiting these birds. Hook Bills were on show at *Ornithophilia* (Holland) in 1987 and Hannover in 1988. A total of 10 exhibits appeared at the German Show at Sinsheim, 2003, in the Junior and Adult exhibitor sections, and 2-3 exhibits now often appear at the specialist shows in the UK.

Tom Bartlett also introduced new stock into Britain around 1993 but the breed remained rare. When we acquired birds around 2006 they were hopelessly inbred, and exhibited the problems described by Bottema (7) in the similar North Holland ducks: egg production, fertility and hatchability were poor; the females also seemed to have oviduct problems, often limping whilst passing an egg. The only way forward was to cross them with a similar colour, and we chose Dark Campbell to maintain the traditional colour of dark phase dusky. This also resulted in two standard colours: bibbed and not-bibbed. The beak shape in the F_1 birds tended to be straight, but some F_2 birds showed a characteristic curved bill and selection after that point resulted in exhibition birds (Ashton, *Fancy Fowl*, May 2010). This trait had also been noted in 2002: "Frankenhuis (1982) drew attention to the interesting fact that Hook Bills and *Noord Hollandse Witborsteenden* (ducks with white bib) were usually kept together. Thus the recessive allele *kb* was conserved in the heterozygous *witborsteenden* (Kb^+kb). So Dutch breeders were hopeful about the 'rescue operation' that took place during the 1980s." (8)

Although the standardized UK colours are currently White, Dusky Mallard and White-Bibbed Dusky Mallard, other colours have of course been introduced by cross-breeding. Dusky Blue Bibbed (one blue gene) is now available in Holland, and Graham Hicks exhibited Apricot Bibbed (homozygous blues). A colour currently named 'dirty white', from the same gene pool in Holland, is probably the expression of homozygous blue with black.

Antony Stanway and Nick Bohemia obtained their foundation stock from ourselves and Graham Hicks, and have continued successfully to breed and exhibit these birds.

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6. van der Mark, RRP, 1977. "Tamme Eenden".

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8. Rudolph, Prof. Dr. Wolfgang, and Gauß, Dr. Horst. "Origin, genetics, characteristics: the Hook Bill – preservation of cultural heritage" (Synopsis of an article in Deutscher Kleintierzüchter, Geflügel 112 (2002), 13, pp. 4-7)

Footnote:
All kinds of annimals were transported by VOC-vessels in both directions in rather large numbers from the early 17th century onwards. Chickens and ducks both are mentioned as live-stock for consumption and for producing eggs on outward and on homeward voyages. Some of the birds taken on board for egg-producing may have survived the voyage and been brought into the Netherlands. It is also possible that eggs laid on the homeward journey were actually incubated and hatched en route, including the Indian Runner.

THE FAWN INDIAN RUNNER

In 1901, the dominant Indian Runner was the pied variety, standardized that year. This colour had been popularized by the J Donald on the cover frontispiece of his pamphlet 'The India Runner Duck', and at the Crystal Palace exhibitions by Digby from 1897. Yet much earlier, '… whole fawn ducks, as described by Walton, were shown at the Dumfries Show of 1876, … and Mr Smith tells me there were classes for them at shows even previous to this' (Coutts, 1927). These first Runners in Dumfries-shire were imported by a sea captain and given to Mr Sharp of Hoddom Castle (Dumfries). Coutts records Matthew Smith as saying that these Dumfries birds were all-fawns, and these were the pick of the importation.

It was this type of Runner that Walton imported in 1909, having been advised by Alfred Wallace that Runners could be found on Lombok and Bali. In the letters from Mr C H Pownall (Java) sent to Walton it is disclosed (5.6.09) that 14 ducks had been sent. They came from these two islands, and a top-knotted duck was included. A letter 22.8.09 records that eight of the ducks survived the journey. The birds collected and sent by a Mr Kalff were described as one colour, a dirty brown, and 'just common village pariahs'. Pownall described them as evenly coloured and said that they would well match any soil or dead grass in which they were trying to hide. 'They are almost the exact colour of the mud along the river banks here, it would be almost impossible to see them if they were hidden under a little vegetation. I suppose you know one of the greatest enemies of the ducks and poultry here is the iguano. Perhaps I have not given the right name, it is a lizard-like amphibious animal, sometimes four feet long. I have a stream behind our house and they often attack our poultry'.

Of the Bali ducks bought directly by Pownall, two were white and one white duck had a black tail. The latter was used with a Black East Indian to produce black Runners eventually. The birds were probably not what Walton had expected. Walton had tried to get birds conforming to the 1901 standard but Kalff's birds, according to Coutts, were 'slim and of grand carriage, ginger fawn all through, slightly speckled, the wing bar, only a shade darker than the body colour … black bill and dark legs.' As you can see from Walton's photo* of 'Adam and Eve'—these were indeed Fawn Runners.

Walton bred from this 1909 imported pair and the offspring were exhibited at the Crystal Palace show in London in 1910 where they caused a sensation. 'At the Crystal Palace Show 1910 we exhibited for the first and only time a team of the "Fairy Fawns" which astonished the Fancy, and have been the subject of so much comment and speculation since.'

The correspondent of *The Feathered World* commented: 'One more novelty that was on view at the Palace is deserving of special mention. I refer to the sensational team of ducks and drakes shown Mr J W Walton in the AOV Indian Runner classes [there was no colour standard for the Fawns] . . .Mr Walton had matters all his own way and carried off all the five prizes in each class. And well he might, if an upright carriage as anything to do with the qualifications of the Runner. There's an old saying "Like water of a duck's back" but I fail to see how it could be applied to, say, the second prize drake, for he stood so absolutely perpendicular I doubt if any water could possibly get there in order to run off again . . . The drakes were of a somewhat smoky colour, the ducks a sweet soft shade, between a fawn and a buff, with exquisite lacing throughout; all had the same upright carriage which was most pronounced in the 2nd prize drake. This bird, when the least disturbed, or excited, stood perfectly erect, tail down between legs, a level line down back from head to tip of tail.'

The original drake Adam (the only male which survived the consignment) does not look ideal but was described in Coutts as 'very slim and narrow, extra thin neck and head, but not quite as level in the bill, "gets up and can toddle, seems made of pinwire [Walton]". Bill ebony black. Head to half way down the neck dark bronze, body colour an indistinct rusty grey. Slightly more ruddy towards the front of the breast.'

Fawns were to become the mainstream Runner in the UK following these imports and the additional birds acquired in the 1920s by the Misses Davidson and Chisholm.

Other lines of evidence also suggest that the Fawn Runner is the resident bird of Indonesia. Alfred Wallace (in his 'Malay Archipelago', where he visited in 1856) referred to the ducks thus: 'They are generally of a pale reddish ash colour and are kept in large flocks. They are very cheap and are largely consumed by crews of rice ships, by whom

they are called Baly soldiers, but are more generally known elsewhere as penguin ducks'.

In addition, the Penguin ducklings recorded at the Surrey Zoological gardens in 1837-8 (Harrison Weir 1902) were 'a light and dark fawn in colour, the ordinary blue bars on the wings being of the dull slate tint.'

It is clear that these birds from Indonesia were the dusky fawn Runners, and that the breed and the colour—dusky with the brown mutation—was arguably the original form.

When Walton set out to import his Runners in 1909, they were hard to find even though he was advised by Wallace to go to Lombok. I suspect that it would be hard to find the form there today because the Khaki Campbell—also a carrier of this Indonesian brown (fawn) gene—has taken over worldwide. Nevertheless, there are Reuters pictures of Fawn Runners in Java which emerged during the bird flu crisis in 2002-3. Even better 'Ducksrus' , a company which imported Runner models, and wood for modelling from Bali, photographed a perfect flock of Fawns in Bali (IRDA Newsletter Spring, 2008).There is no doubt that these exhibition-quality birds from Bali are Walton's original Runners, and we are fortunate have them in the West today. It would be near impossible to import them now from an area where bird flu is endemic.

The fate of the Fawn Runner

To the unpractised eye, Fawn Runners are brown ducks. They simply do not compete with the more alluring 'Apricot' and 'Silver' which add to the glitz of a manicured garden, so the Fawns have become rather difficult to find. There is no point in breeding lots of brown Runners that people simply won't buy because they think they look dull. Yet the Fawns are the UK archetypal Runner, and the type exhibitors will go for. The intricacy of the colour is detailed, and the type is superb.

Vernon Jackson, for years, kept only the Whites and Fawns and his were the standard to aim for. However, one cannot use the same gene pool ad infinitum—the birds become weak. Vernon would cross these Fawns and Whites ad lib to strengthen his birds. His Fawns could carry the recessive 'c' gene and could throw white ducklings even when the parents looked fawn. Also, his whites would reveal the colour under the epistatic white when crossed back to fawns. Do not try this now! There is no telling what is under the 'white' of the White Runner around today because so many colours have emerged since the latter half of the 20th century. A cross with white is certainly no way to go. It is a step into the unknown.

The multiplicity of Runner colours—and the mongrel colours available from E-bay eggs—has run the Fawn gene pool into a difficult time. There can be no imports from Indonesia—it would cost a fortune if it were indeed possible. And the source of White Runners reliably carrying a fawn Runner colour has gone.

Furthermore there can be no imports from Europe where the Fawn is simply not established. The continental Runner has been based on European crosses with the mallard gene pool which shows in both the Mallard Runner (dark phase) and the Trout (light phase). They both have the eyes-stripes of the mallard allele

There is no obvious outcross to widen the gene pool of the Fawn. For example, it's long way back from the Fawn&white (dark phase, pied, dusky) to get to the Fawn (light phase, dusky). Khaki Runners (dark phase, dusky) were created from this cross and are closer to the Fawn but, again, these bird are rare. And unless one has a reasonable understanding of the colour genetics of the birds, one ends up with a mess of unsaleable, brown birds with white bits.

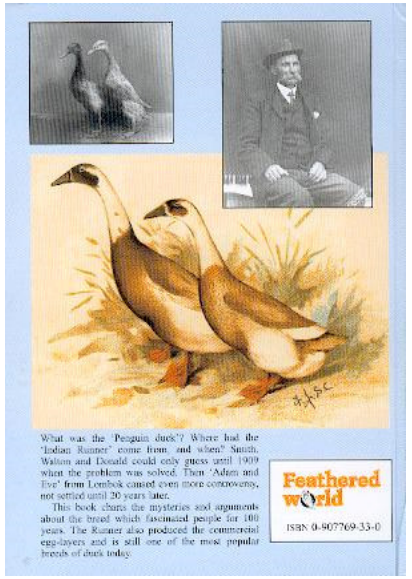
Demand for Fawn Runners does seem to be up a bit this year, but this demand is from breeders who exhibit. That means that birds from the same gene pool are circulating, and they may become inbred.

- If you fancy trying to breed Runners of this colour, try to get stock from two different breeders so that the gene pool is not identical.
- Make sure that the birds are healthy with no sign of spinal deformity such as wry tail or twisted neck: these defects do breed and are a sign of inbreeding.
- Check their colour carefully for faults such as white flights, white under the chin, and the style of pencilling in the duck.
- Suitable outcrosses are Blue Duskies and Apricot Duskies which are crossed back to Fawn: the blue gene should be the only difference if they are pure. The blue gene is clearly not recessive and can be used or bred out easily.

References:

Coutts (1928) is almost unobtainable, but the references cited are all recorded in '***The Indian Runner Duck – A Historical Guide***' This is available from the IRDA via the website, or direct from the authors C&M Ashton for £16 UK (including postage)—cheques only, please, to keep this price down

Walton's photograph of Adam and Eve can be found on the back cover and on p. 57 of the *Historical Guide* (right).



INDIAN RUNNER DUCK ASSOCIATION