

PRACTICAL INFORMATION

PREFACE

In this document I give some more written information about my birds hobby: how I got there and why I still do it, how I built my stud and how I want to continue, how I deal with the breeding process, how I take care of the birds, how I film and photograph them, how I buy and sell them, and so on.

I'll do that as practically as possible, so without much theory. References to any substantiation and explanation can be found at the end of the document.

I'm certainly not convinced that my method is the best. What I write is no more than my personal experience and persuasion.

It could be that I am stuck in some outdated view on certain points, that I don't see it right or just don't know something. I would love to hear from you how I might do it differently and better.

The date of the last update is always indicated (yymmdd: year-month-day).

CONTENT

PREFACE.....	1
1 MOTIVATION	3
Why breeding (lutino) budgerigars?.....	3
2 STOCK DEVELOPMENT	5
Pictorial Ideal	5
Physical inheritance	6
Colour inheritance	7
Application to (lut)inos	8
3 BREEDING PROCESS	9
No more than three rounds.....	10
An eye for the relationship	10
Cock and hen together.....	10
Remove feathers around genitals.....	10
No use of "small budgies".....	10
No artificial insemination.....	11
Create and care for the nest.....	11

Laying eggs.....	11
Breeding.....	11
Eggs to another nest.....	12
The birth.....	12
Feeding.....	13
Babies into another nest.....	13
Putting on a ring.....	13
Feather plucking.....	14
Spreading leg.....	14
Agression against babies.....	15
Leaving the nest and learning to eat.....	15
Baby cage.....	15
Sex determination.....	16
Next round.....	16
Youth moult and sexually mature.....	16
How long usable.....	17
A good administration.....	17
4 CARE.....	17
Housing.....	17
Seed mixture.....	19
Red millet spray.....	19
Fonio paddy.....	20
Eggfood.....	20
Green food.....	20
Vitamins.....	20
Grit, stomach pebble, minerals, sepia.....	20
Water.....	21
Iodine blocks.....	21
5 DISEASES.....	21
Symptoms.....	21
Sick cage.....	21
Medicine and crop needle.....	21
Lumps.....	22
Eyes and nails.....	22
French Moulting.....	22
Missing pins and moult.....	22
Pests.....	23
Blindness.....	23
Nervousness.....	23
Euthanizing.....	23
6 SHOW.....	24
Exhibitions.....	24
Social media.....	24
Visiting other breeders.....	25

Training and preparing your birds	25
Photography and filming.....	25
7 BUYING AND SELLING	26
Your first birds.....	26
Reinforcements.....	27
Selecting.....	27
Selling	27
Costs and revenues.....	27
REFERENCES.....	28

1 MOTIVATION

Why breeding (lutino) budgerigars?

I started breeding budgerigars when I was 9 years old. That was in 1963. My mother allowed my brother and me to join a club. My brother chose the local brass band, I really wanted budgerigars.

From an early age I dragged all kinds of animals home to keep, care and if necessary 'heal' (other types of aviary birds and from our village also ducks, sticklebacks, salamanders, toads, etc.).

But when I once I got to know the budgerigars (I don't really remember on which occasion that was) they soon had something special for me.

Budgerigars have a more or less "human behaviour": they talk and cuddle with each other and they are pleasant to deal with.

I really didn't like canaries, they were "coloured sparrows" to me. I am always slightly offended when people kindly ask me how my canaries are doing - which has happened many times over the course of my life. There are big differences between canaries and budgies, but not everyone knows that.

Soon I had to become "English budgerigars" for me: they were a lot bigger and a lot nicer in my eyes. And moreover pleasant to deal with. They are quite easy to tame, even when you have a lot of birds, at least if you pay enough attention to them.

All my life I then bred English budgerigars – nowadays also called standard budgerigars – apart from two periods of a few years when this was not possible due to circumstances.

I think that long experience with breeding budgerigars (for convenience, I omit the words "English" and "standard" in the following) is very important. For example, you know what to look for when it comes to the question of what a "good budgerigar" is. And you will learn to understand and feel the behaviour of your birds. Even then a lot can still go wrong and you will always make mistakes - at least I do.

But we can always continue to learn.

Breeding budgerigars has something addictive for me: I miss them when they are no longer there - their sound, their cosiness - and they are a pleasant distraction and activity next to the "normal life".

Of course - if you think about it – it's a nonsensical and perhaps even questionable hobby: locking up birds and changing their appearance, but there are more things in life that have no sense. I just like it.... And I try to give them as much space as possible, so that they can show their natural behaviour in large groups.

And why then lutinos?

In 1970 - when I was 16 - I became 'accidentally' general champion with a lutino cock at an exhibition in Purmerend. That gave me a huge kick and I just really liked lutinos, so I decided to make it my specialty.

To this day, I continue to think they could be better than I have, so I just continued with it.

At the moment almost every pairing in my breeding room is with a lutino, so lutino cock x normal hen, split cock x lutino hen.

"You never get enough of that?" I am sometimes asked. No, actually not. It remains interesting and exciting enough for me: always trying to breed better and better lutinos.

The basis of my current lutino stock is in the eighties of the previous century. My first lutinos came from the lines of the Dutchmen Henk Bakker, Sjaak de Lange and Jack Cornelissen.

In the eighties I tried to improve the physical qualities of my lutinos with green birds from the line of the Belgian André Vermeir, who then won the NPC club show every year again. He had without a doubt the best birds in those years.

In the nineties I tried to get birds from the line of Jo Mannes from Freiburg, Germany, because he was the undisputed number 1 at the time.

In the nineties I also visited the English breeder Margery Kirkby-Mason. That was a very special experience. She bred lutinos with an unbelievable deep yellow color, in great numbers. That was a beautiful sight.

I bought a few of them, but when I put them on my own birds the colour faded and the physical properties deteriorated. That's why I didn't continue with it.

I had a break from 2000 to 2006 because I was too busy with my work. I sold all my birds.

In 2006 my then budgie friend Cor Koppes quit the hobby and I was able to buy from him 38 birds that were still somewhat related to my old line.

At the time, these were mainly greys and albinos, so I had to turn them into lutinos again.

I have been working on this since 2006. On the internet I had first focused on breeders

who had the best birds and in my opinion one stood head and shoulders above it: Daniel Lütolf from Switzerland. Since 2006 I try to get one or more of his birds every year to breed in my own birds.

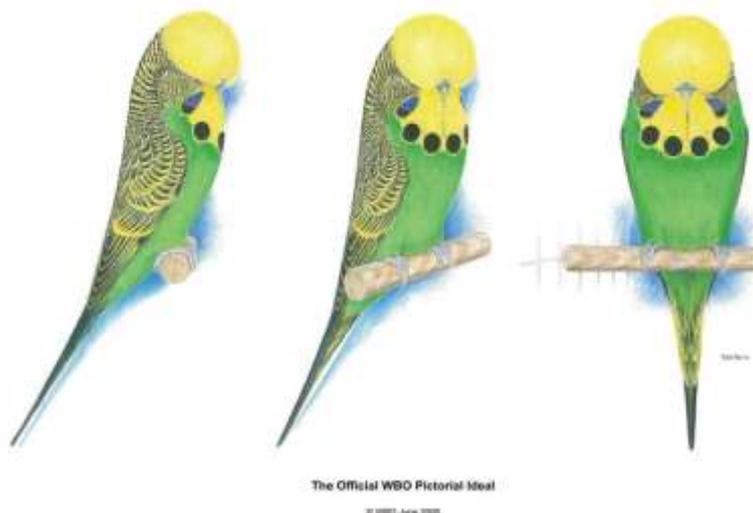
My current stock is largely based on Lütolf birds, although I have occasionally contributed something from another breeder.

2 STOCK DEVELOPMENT

Pictorial Ideal

In order to develop your own stock, you must first of all have an idea where you want to go. An ideal image in your head. And a plan how you can get as close to that as possible. You then go to work according to that plan.

It is obvious to take the prevailing pictorial ideal of the WBO as a starting point. This pictorial ideal looks like this.



If you look on internet - but also at exhibitions - at the birds that are best appreciated, it is actually staggering to see how much the officially applicable ideal image and the apparently practical ideal images differ.¹

We see many highly appreciated birds with too many feathers, which are not tight to the body, as in the official ideal.

The head feathers in particular are sometimes so long that they no longer show a nicely closed roundness, but show holes or lie flat on the head and protrude to the sides.

Furthermore, the pants feathers are sometimes so long that you can't see the legs anymore. Then the model is no longer correct. The ideal wedge shape is hard to find. Such birds look plump and not very graceful. Moreover they are not very vital and

usually cannot fly properly or at all.

We could say that we then have to change the pictorial ideal to practice, but I am not in favor of that. It can't be the intention to breed birds that can't fly. Then they are no longer birds and they are no longer beautiful. It is also very animal unfriendly.

I therefore believe that we should maintain the current pictorial ideal and see extreme feather length no longer as something desirable but as a mistake, to punish at exhibitions and no longer praised and admired by top breeders. The point is not to breed as extreme as possible, but to achieve an appropriate balance in accordance with the official ideal.

My ideal budgerigar certainly has wide and high head feathers – which is also the case in the official ideal – if you look closely (the head itself is much smaller) – but at the same time nicely round and closed and in proportion to the rest of the body. That is why my ideal budgerigar has as short body feathers as possible and an appropriate wedge shape and stand on the perch.

It's not easy to breed such birds and I'm not so successful at it yet myself as I'd like, but it is my goal for sure. I absolutely love a nice "blow" and being able to "play" with the head feathers, as long as the overall picture is correct.

We need birds with long feathers in our birdroom to compensate for birds with short feathers, but it should not be our goal.

We should always keep in mind the current WBO ideal.

Before I tell you how I built up my own stud, I will first go into more detail how, in my opinion, the physical inheritance and the color inheritance of the budgerigar function.

Physical inheritance

What is most important: the "genotype" (= the bloodline) or the "phenotype" (= the appearance of the moment)?

If you think the genotype is the most important thing, you like to work with line breeding: you record certain characteristics in your stock through a light form of inbreeding: nephew x niece, father x daughter, and so on.

After a number of years of line breeding, your stock is then one big family, all birds are more or less related to each other and also look very similar.

If you think the appearance of the phenotype is the most important, you improve the birds by combining certain features, in principle regardless of the lineage.

If you want to breed larger heads, you put the birds with the largest heads together, and so on.

You can also work with compensation: a bird with a too narrow head can be improved by using a bird with a wide head on it, on a somewhat too small bird you pair a large bird, and so on.

The danger of too much emphasis on the genotype is that you not only strengthen the

good qualities, but - unwillingly - also the bad qualities, for example less fertility, or predisposition to FM, or no tail, or too long tail, etc.

You will always have to look for fresh blood that you breed into your birds family, without losing the characteristics of your stock - and preferably improving it naturally.

The danger of too much emphasis on the phenotype is the temptation to buy good (unrelated) birds everywhere. You will then notice that two good birds can easily produce much worse birds.

It's also possible that you breed a very good one from them, but the features have not yet been fastened. You often will have many different features in your bird room.

That in itself is desirable - then you have something to work with and to compensate - but a certain recognisability is also important, especially as it gets closer to the ideal budgerigar.

The disadvantage of too much emphasis on the phenotype is that you are opportunistic and don't really build up something.

The advantage is that the fertility of your stock is usually good then.

I myself believe that a mix of working with genotype and phenotype is the best.

Thanks to line breeding, two lesser birds can suddenly produce much better birds, because this is in their background. But unfortunately you are not sure. The youngsters can also all be lesser birds, because you are fastening the lesser qualities.

However, it can be interesting in line breeding to use lesser birds as well, especially if they are hens, because they will breed more easily.

But if you don't work with line breeding and you combine a strong bird with an unrelated lesser bird, you are almost certain that it will not work.

In my opinion it's therefore best to select on the appearance that you want to fasten and make targeted purchases if necessary to improve certain properties, after which you try to fasten the desired features into your bird family by a certain degree of line breeding.

In any case, it is recommended to get the features you need as much as possible from one particular top breeder, or from more breeders who work with the same blood line. So in that case it's not a problem if these are a bit lesser birds.

Working with too many different bloodlines usually leads to disappointment. You buy top birds but the offspring is lesser. It costs you a lot of money and you don't build up something.

Colour inheritance

Heredity is quite complicated. But for our breeding it is enough to know some simple basic rules. There are roughly three options: dominant inheritance, sex-linked inheritance and recessive inheritance.

Dominant inheritance applies to the dominant pied, spangle, grey, violet and yellow face colours.

Normal (green) x dominant = 50% dominant, 50% normal.

Dominant x dominant = 25% normal, 50% dominant, 25% double-factor dominant.

Double factor pied or double factor spangle = entirely yellow or white.

With a double-factor yellow face, the mask is white.

A bird cannot be split for a dominant factor, but it can carry it hidden.

Sex-linked inheritance applies to the lutino, albino, opaline, cinnamon, lacewing and texas clearbody colours.

Cocks can be split for this, in other words inherit the colour without the bird itself having the colour.

Split is represented by a slash (/).

Hens can never be split in sex-linked inheritance.

As an example we take the inheritance of inos.

Ino cock x ino hen = 50% ino cock, 50% ino hen.

Ino cock x normal hen = 50% normal / ino cock, 50% ino hen.

Normal cock x ino hen = 50% normal / ino cock and 50% normal hen.

Normal / ino cock x normal hen = 25% normal cock, 25% normal / ino cock, 25% normal hen, 25% ino hen.

Normal / ino cock x ino hen = 25% normal / ino cock, 25% ino cock, 25% normal hen, 25% ino hen.

Blue or grey cocks can never be split lutino, if they are split ino it is split albino.

Recessive inheritance applies to the colors: blue factor, recessive pied, grey wing, diluted.

Normal x recessive = 100% normal / recessive.

Normal / recessive x normal / recessive = 25% normal, 50% normal / recessive, 25% recessive.

Normal / recessive x recessive = 50% recessive, 50% normal / recessive.

The recessive colour remains hidden unless both parents have this hereditary trait.

Application to (lut)inos

Now that we know what our ideal is and we know the basic rules of inheritance, it is time to look at its application to the (lut)inos.

I am only talking here about the lutinos, but what I write also applies to the albinos and lacewings.

Physical inheritance is somewhat more difficult with the lutinos than with, for example, breeding with grays or blues. Because the ino factor has physical a (light) reducing effect.

For that reason I avoid the lutino x lutino pairing. I only do this if the parents are both very good (both genotype and phenotype) or if there is no other way.

With lutino x lutino it is easier to improve the colour depth, because you can compare the colours better with completely yellow birds than with green birds.

Every year I try to obtain certain desirable physical qualities from a top breeder, in the form of a green bird, preferably several birds and if possible hens.

My favourite pairings are lutino cock x green hen and green split lutino cock x lutino hen.

Actually I never get lutinos from others and I don't think that's necessary.

I never buy greys and blues as well, unless they have some quality that I can't acquire in any other way.

I prefer to use olive greens or dark greens with deep yellow melanin, because that can deepen the colour of the lutinos.

Grey greens are also fine, as well as light greens, although lutinos masking light green are often a bit paler in colour and have sometimes a slightly greenish appearance.

For the colour deepening I also like to use spangles and dominant peds, preferably with as white tail and wing feathers as possible.

When using these colours, there is a chance that the tail and wing feathers become too yellow, which is a fault with the lutinos.

But it's certainly not so that, when using spangles and peds, the feathers always turn too yellow.

Some breeders use texas clearbody on their inos, but I have never quite understood what improvement that can bring.

The greens I use can be normal, but I also consciously use both opaline and cinnamon. Opaline often gives a somewhat coarser and longer feather, cinnamon often gives a somewhat finer feather.

It is nonsense that the use of cinnamon with the lutinos leads to brown wing drawing. That really doesn't have to be the case unless you use too much cinnamon. Cinnamon can bleach the body color a bit.

Opalines and cinnamons have the disadvantage that you could get too much of it, which is not the intention. It's all about the balance.

Because opalines and cinnamons also inherit sex-linked, you can basically keep the number under control. After all, a lutino cock x a cinnamon hen produces lutino hens that are not cinnamon. The cocks from this combination are all spit lutino but also split cinnamon. So you have to pay attention to this during the next pairings.

3 BREEDING PROCESS

For a long time my breeding season was in principle from September to May. In the months of May, June, July and August I preferred not to grow and I was more concerned with cleaning, repairing, receiving visitors, and the like.

However, I noticed that breeding in the winter was increasingly less successful and that it only got better in the course of spring. That is why I decided this year to breed from March to October from now on. And also with less couples than I was used to, so that I have more time for other things in life...

Anyway, as a budgerigar breeder you have to be able to cope with disappointments,

because unfortunately they are inevitably part of the breeding process: all kinds of setbacks and misconduct, diseases and death. You have to learn to deal with that, so I will tell you something about it below. You can also prevent a number of things by paying attention to certain things.

No more than three rounds

Whenever you breed, you should at least keep in mind that with most birds you can't breed more than three rounds. Although there are also birds for which that is too much and other birds that seem to find it pleasant to keep breeding. That depends very much on the type and condition.

An eye for the relationship

A few weeks before the breeding season starts, I set the cocks and hens I want to use apart, but with gauze in between. This way they can make contact with each other and I can see which loves bloom and when they are ready to be put into the breeding cage. For a successful breeding process it is beneficial if birds choose each other, but of course that does not always fit what I want. Then my choice will take precedence, but I will continue to pay close attention to the quality of the relationship.

Cock and hen together

I always put the cock and the hen in the breeding cage at the same time. So not the hen first - as some breeders do - because the chance that she will still accept the male will decrease and the chance of unfertilized eggs will also increase. Then I give them about a week to see if the hen - or, usually a little later, also the cock - goes into the block. If they just sit quietly next to each other I sometimes try to force the process by placing the hen into the block and following what happens. Sometimes that works, but not always. The birds must be ready and find each other attractive. Some first try a cock with several hens at the same time, but I find that too risky, because the hens can start fighting.

Remove feathers around genitals

Because the feathers have become longer than in the wild, it is necessary - before the birds are put in the breeding cage, or at least not (too) long afterwards - to remove the feathers around the genitals. If you don't do that, the chances of a successful fertilization will decrease.

There are two ways to do that: cut or pull away. I always do the latter, because in my opinion this is more effective, although it may cause a little more stress

No use of "small budgies"

Nor am I in favor of letting hens breed alone and thus putting one cock on several hens at a time, for example one day with one hen and the next day with another hen. This is not the natural situation and there is a higher chance of problems. Some breeders collect the eggs and let them incubate and raise the youngsters by

'small budgies', but I am not in favor of that either, because we then breed budgerigars that cannot reproduce properly.

No artificial insemination

This is even more the case if artificial insemination is also used. That's why I am fundamentally opposed to that.

Sometimes one top cock fertilizes a lot of hens in the birdroom, which threatens to make the relationship of your stud too close.

But I think it's even worse that we breed birds that no longer know "how to do it". I think if we continue this way, we'll kill the hobby.

Create and care for the nest

Making and caring for the nest is not a big thing for most budgerigars. Some hens do gnaw the wood or cut out the sawdust I put in it.

Once they are incubating, the hens sometimes put body feathers around the eggs. I always put some sawdust in it then and in this stadium is no longer worked out by the hen.

Some birds also pollute the nest with their own feces, so in that case you have to keep it clean yourself as a breeder.

Laying eggs

The laying of the first egg is an important moment. Young hens can get confused and destroy the first egg - but sometimes the cock does too. For that reason, I often add a fake egg, which I remove as soon as the second or third egg has been laid.

The hens lays an egg every other day. On average, a clutch consists of about 5 or 6 eggs, but some hens lay 8 and others only 2 or 3 eggs.

Many breeders mark the newly laid eggs with a felt-tip pen, but I prefer not to do that myself, because I think that some of the ink can still pass through the shell, causing the embryo to die.

Perhaps this is nonsense, but it is not always necessary to mark the eggs, you can also see the difference in development with the naked eye.

I prefer not to keep hens that lay little eggs or let them die. Sometimes there is something wrong with such a hen.

Breeding

As soon as the hen is breeding it's exciting to find out whether the eggs have been fertilized or not. I follow the incubation process daily with a viewing lamp, preferably at a fixed time of the day.

Sometimes the entire clutch is fertilized, sometimes just one egg and sometimes unfortunately everything is unfertilized. I give each egg 10 days to develop. If after 10

days nothing has been fertilized, I take out this couple (or one of the two birds) from the breeding cage and I try something else.

Of course it's also fascinating to follow the growth of the embryo. As a breeder you learn to see for yourself when all this is going well and when not. Unfortunately, some eggs may die.

When a hen is sick she lets the eggs getting cold and runs from the nest. The problem can also be a hard "shit" that seals the cloaca. If this is removed and the hen is not weakened too much, everything will be fine.

Cold eggs don't have to be dead yet, my experience is that cold eggs remain viable for about 24 hours.

If everything goes well, hatching an egg takes 18 days.

Eggs to another nest

I do submit eggs, because I want each couple to raise about 3 or 4 youngsters. If more than 3 or 4 eggs have been fertilized, not all of them hatch because they are soiled by the firstborn young.

I then place the multiple eggs with couples with less fertilized or dead eggs. If necessary, I will mark them with a felt-tip pen.

The birth

The birth of the first youngster is of course an important moment, also for the breeder. But here too, a hen - certainly if she is inexperienced - does not always deal with this properly.

If you are late, the youngster may be dead after a few hours, because it is not fed fast enough.

You can also feed a newborn baby yourself with lukewarm milk, but I prefer not to do so.

If I have the impression that the first youngster is not being fed (fast enough), I put it - if possible - temporarily in another nest with slightly older youngsters and I put one of those older youngsters with the inexperienced hen.

Because this older youngster begs more powerfully for food and already has a slightly larger beak, the hen usually begins to feed.

If everything goes well, I will bring the youngsters after one or two days back to their own parents.

As soon as a young bird hatches, you can already see if it's an ino or not. Every ino baby is a party for me! The difference in eye color can be useful when you want to distinguish the youngsters from each other if, for example, you want to put them into another nest (see below).

Feeding

The first days are crucial, but feeding the youngsters remains a point of attention in the following weeks. The youngsters stay in the nest for about 4 weeks and then have to be fed by the parents from their own crops.

On the first day(s) the crop content consists of crop milk from the mother, after that the father usually starts to feed too and then more solid food also enters the crop. Some hens find it difficult to leave their partner with the youngsters, so keep paying close attention whether everything is going well.

Before going to sleep, the crops of the youngsters must be well filled.

If necessary, I feed youngsters with the crop needle, but I only do that exceptionally. Good resources are available commercially for this. I myself use NutriBird from Versele-Laga.

Babies into another nest

Not all parents feed equally well and not all babies grow equally well.

If babies are lagging strongly in growth, I transfer them into another nest, if available. I also do so if the youngster's age varies too much or if there are too many or too few youngsters in the nest.

For this reason it's also important to have more breeding cages. If you don't have these, you can't transfer and you will lose relatively more youngsters.

Transfers almost always go well, but babies of more than a week old develop down and feathers and foster parents may no longer accept these youngsters.

However, this differs per parent, there are also birds - especially cocks - that even accept four week old youngsters. So continue to observe and check well on a daily basis.

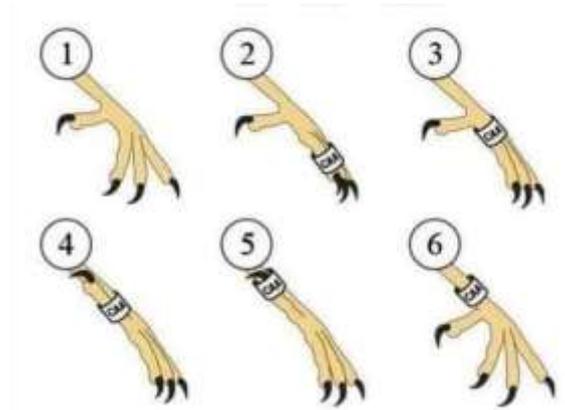
Putting on a ring

I ring my young birds with normal rings of 4.5 mm from the "Nederlandse Bond van Vogelliefhebbers". I like these rings. The ring has a different color every breeding year - this is synchronized nationally and internationally.

The first rings of the new breeding year will become available on October 1 of the previous breeding year. This is not correct, of course - the actual year of birth may not be the year indicated on the ring - but that's just the way it is.

Sometimes I already have babies before October 1 and then they get a ring from the current breeding year.

Every breeder must of course master the ring technique: first the two toes plus the front back toe into the ring, then slide the ring over the heel and finally the fourth toe behind the ring – for that purpose I usually use a toothpick.



The average ring date is the eighth day. Occasionally it can be done earlier, but if the baby grows less well, it can sometimes only be done on the 12th day or even later. The date is not a good indication whether the young will be a winner or not. Sometimes an early ringed young remains very small, sometimes a late ringed young becomes a large bird.

Feather plucking

Some hens have the annoying property of plucking the feathers of their youngsters: as soon as a baby gets down and feathers, the hen pulls it out, sometimes until bleeding.

Also in that case I usually transfer the youngsters, although plucking sometimes becomes less serious and the parents can still raise their kids themselves. But usually it gets worse earlier and you have to intervene.

Hens that have done this usually do it again in a next breeding round, also with another partner. It is not necessarily so that the offspring of such hens will do it again in their own breeding life.

It is unclear what causes this. Maybe a one-sided food intake by the hen or some other shortage, but I never really figured this out.

Spreading leg

Young birds can already get sick in the nest and must therefore be treated with medicine. You can usually recognize this by the changing colour of the skin and a less quickly grow. Nestlings are very vulnerable: when they are sick, they die earlier than adult birds.

An annoying condition is what I call the “spreading leg”: one leg (sometimes the other leg at the same time) no longer remains under the baby but goes to the side or even protrudes upwards.

Usually this is not curable. I have experimented with, for example, an iron wire to keep the legs together, but I never succeeded.

It is also unclear what causes this. It is best to exclude parents who develop babies with “spreading leg” from breeding.

Agression against babies

Also very annoying is of course aggression against the youngsters in the block. It is usually the hen that does this and usually after about three weeks, if she wants to prepare for the next round.

The hen wants the nest to be empty and clean again and wants to the youngsters to get out. If they then struggle, things can go wrong.

The hen probably sees that youngster as a competitor and can even go so far that she chops the head of the youngster completely.

If you get there in time you can still save such a youngster, but if not, it will die a horrible death.

Once a hen has this tendency, it can help to take the youngster out of the block and place them on the bottom of the breeding cage. A shelter is also recommended there.

Especially in this stadium it can also be the cock who shows aggression. There are large differences in behaviour: cocks who are caring and feeding well, but also cocks who sexually abuse their youngsters and feed less well or not at all.

Then it becomes difficult, because transferring is difficult at this age and the hen can already be with her head in the next round.

As a breeder you have to feed such a youngster with the crop needle to save it, but if this takes more than a few days and the youngster does not eat quickly, then it still goes wrong.

Leaving the nest and learning to eat

Some youngsters are so active and curious that they leave the nest after only three weeks, but there are also youngsters - especially if they are well fed by the parents - who prefer to stay in the nest for at least five weeks.

Partly in view of the next round, I prefer that the youngsters leave the nest after about four weeks, so sometimes I lend a hand. If they feel very unhappy I put them back in the nest before going to sleep.

It is of the utmost importance that youngsters learn to eat themselves as soon as possible. You can accelerate this learning process by placing some red millet spray into the nest after three weeks, which is what I always do.

Often youngsters also feed each other - including youngsters from different nests - this can sometimes be enough to help a youngster through this difficult phase.

You should always be careful not to break up the youngsters who are feeding each other too quickly.

Baby cage

As soon as a youngster can eat enough itself, I take it out of the breeding cage and put it into a baby cage, together with some other youngsters.

My baby cages also have a "walk-in block" in which the young can retreat and sleep if they wish. This is gladly used.

I don't keep the youngsters in the baby cage for long, usually no more than a week or two weeks. Then they go into the big flight to socialize further and develop their flying muscles.

Sex determination

Ino cocks do not have a blue nose cap, but a pink nose cap, even already in the nest. Like the green birds, the hens have a brown nose cap, but young hens have initially and for a longer time afterwards a white nose cap.

Often you can already see in the nest whether a young becomes a cock or a hen, but not always. Especially with the inos this is difficult to see, it sometimes takes a few weeks or months before you are absolutely sure.

You can also recognize the sex by the mating or feeding behaviour, but this does not always work, because there are also young hens that behaves like young cocks to a great extent.

In the past we could also see the sex from the head feathering that was somewhat more developed in the cocks, but that is no longer the case with the modern budgerigar.

Next round

The hen can start laying the new eggs from the next round after just three weeks, she just does this between the youngsters that are still in the block.

Then the nest blocks that I use are very handy, because the youngsters are mainly in the front part of the block near the opening and the hen is with her eggs in the back part of the block.

But not all hens do this so quickly. Some hens wait until after the moment that the youngsters leave the nest or sometimes even longer.

Youth moult and sexually mature

After about four months, the young budgerigars have their youth moult and are starting to look more and more like adult budgerigars.

Even though they can already develop relationships in a playful manner and show sexually active behaviour, they are sexually mature only after about six months.

It varies greatly per bird when it's best to pair them and put them into the breeding cage. It depends on their behaviour and their condition.

I usually try heavily feathered hens as early as possible, because they often have problems with breeding later in life. I usually wait until a bird is about eight or ten months old.

How long usable

Our modern budgerigars are no longer as old as the wild budgerigar, and they also don't remain ready to breed for a very long time. There are birds that remain usable for four or five years, but with many birds it is already over after three or four years.

Every year I try to work with a new generation of birds as much as possible, because then you will notice the development of your stock the most. Nevertheless I keep a few older birds that remain in good condition and that pass on well.

A good administration

Every breeder has his own way of breeding and whether or not to administer. But certainly if you breed lutinos, a good administration is indispensable. Although the birds all have their own ring number, they all look very similar.

Many breeders hang breeding cards on the breeding blocks and / or use paper notebooks.

But at the moment I do everything digitally, I no longer use paper at all.

For digital bird administration there are good programs for sale, but I prefer to use some Excel files I have made myself, which I can open and edit on my computer as well as on my mobile phone.

I keep a kind of diary for every breeding cage and for every bird, in which I record the most important events. This also applies to the development of the external characteristics of every bird.

From every bird in my stock I can print family trees with four generations. Everyone who buys birds from me can receive such a pedigree from every bird bought.

4 CARE

Of course it's very important that the birds get enough living space and necessary nutrients. Much has been written on this subject. Partly based on what I read, I have chosen the following.

Housing

In general, I think we house our budgerigars in too small living spaces. I see that many breeders have relatively small companion cages at eye level, without an outdoor aviary. Everyone imitates each other in this. Easy for the breeder and his visitors, but very boring and limited for the birds. Budgerigars are naturally cheerful and playful birds that prefer to live in large groups and react to each other. For example, if one warns of danger, they all fly up.

That's why I choose to house my budgerigars in large indoor flights and an outdoor aviary 8 meters long and 1.5 meters wide. See the pictures on my homepage. In the outdoor aviary I use thick willow branches as perches.

The outdoor aviary also has gauze on the top, so the birds can take full advantage of sun and rain - as much as they want. I do not believe that all wild birds flying over cause disease. At night and in bad weather I always bring the birds inside.

Research shows that many of the diseases our birds suffer from today may be due to a lack of natural vitamin D, as a result of insufficient sunlight and outside air.²

I am convinced that large aviaries are better for the birds and for the development of their social behaviour. I can walk through it or sit in it myself and I like that, also for the contact with the birds and to observe their behaviour.

I made the aviaries myself from wood and mesh, with all gaps sealed to prevent blood lice. So I don't use aluminium posts, because I have experienced that these give pests the opportunity to crawl away. And then you can no longer fight it properly.

During the day my birds still sit a lot on the floor in my flights, especially in the afternoon. Outdoors and in the evening they rise and move more.

To some extent this sitting on the ground is a natural behaviour that they also exhibit in the wild (foraging!), But perhaps my birds are also still a bit too big and too feathered. So I want to change that - in combination with the look I want.

The cocks and hens are not separate with me. I think this is better for their social well-being. After flying out I put the youngsters apart for a while, but often I also add older birds. In preparation for the breeding season, I do set the males and hens apart for a while (see above).

I made my breeding cages myself, with front and wooden breeding blocks from Van Keulen. The breeding cages don't have loose bottoms, because dirt always gets in between. I clean the breeding cages by hand every day.

In addition to a round perch, each breeding cage also contains a square perch to strengthen the seat when mating.

You can also see a photo of my breeding room on my homepage. I know that with this I also deviate from the prevailing fashion, which prescribes plastic blocks on the outside (especially those of Oestringer are popular), but I like to do it the way I do it, so I will continue to do so.

In the middle of my breeding room I have a mobile table and a swivel chair. From this place I can observe all breeding cages while sitting and take notes of what I see. Actually, this is the place where I enjoy the hobby the most.

I clean the breeding cages by hand daily and I wipe the big flights daily. After every breeding round I usually give a clean breeding cage. I clean the big flights completely every week, including the perches. In the clean cages a layer of new shell sand is added

(see below). So I don't use wood chips - like most breeders do - because there is too little to get for the birds.

The total bird space is under a thatched roof and therefore very well insulated. In summer it never gets warmer than 20 degrees – even in great heat – and in winter it never gets colder than 10 degrees – even in great cold. So I never have to heat or cool extra.

For the air exchange, I use a fan that draws in enough clean air from outside, day and night, without causing drafts.

I try to keep the humidity at about 60%. In dry periods I clean more often with a lot of water. In wet periods I do that less.

My lighting is by means of LED lamps with daylight and is on summer and winter from 7.30 am to 10.30 pm. I don't really believe in giving less light in the afternoon and outside the breeding season. I think the birds are quite capable of regulating their own rest. They sleep a lot anyway, even during the day.

The budgerigars are constantly making a lot of noise, which is a good sign. This probably has to do with a feeling of group safety and security. The noise also stimulates the willingness to breed. That's why it is important to keep (or purchase) as many birds as possible at the same time.

Seed mixture

Of course budgerigars mainly live from seeds. I mix my seeds myself. My basic mixture has been from Garvo for many years. I don't experiment with alleged success mixes from top breeders (Jo Mannes, Daniel Lütolf) or with other mixes that suddenly come into fashion.

My mixture consists of 40% "Parkiet speciaal", this contains: 50% yellow millet, 25.5% white millet, 7.5% canaryseed, 4% peeled oats, 3% red millet.

My mixture also consists of 40% canaryseed and 20% various other seeds, such as hemp seed, black seed, rapeseed, linseed, Japanese millet (if available and affordable) and various types of sprouting seeds. I regularly vary the composition of the last 20% to give the birds some choice.

I do not let the seed germinate, because this gives a high chance of candida.

I hope that this gives me a balanced mix with as many nutrients as possible.

Hemp and oats are known to brighten the birds.

Hemp and rapeseed also thicken.

Tastes differ: for example, some birds eat little or no canaryseed, which I think is a pity because it contains a lot of protein.

Red millet spray

Regularly I feed all birds some red millet sprays, grown by Guillaume from the French Angers.

In the breeding season I feed the young birds in the block with red millet spray when they are about three weeks old. As a result, they learn to eat faster. Be careful that they don't only want to eat this millet spray, so also get used to the other seed sufficiently.

Fonio paddy

I give this by the grit, see below. The birds enjoy it and it also seems to work against all kinds of diseases, especially coccidiosis.

Eggfood

I give my egg food every other day and I mix it myself: a basic mixture of Kasper egg food, supplemented with peeled oats, carrots, spirulina and some oregano, so that it becomes a bit loose and green.

Earlier I also passed hard boiled eggs through it, but I don't do that anymore because the birds got wet stools from this.

Green food

I regularly give some green food from the vegetable garden in the form of endive, dandelion, etc.

In the spring I give occasionally fresh willow branches, which are completely stripped of the bark. Many medicinal substances seem to be in the bark.

Vitamins

In my experience, the birds do better if I give them daily a light dose of multivitamins through the drinking water. For this I use multivitamins from the brand DAC in Uffelte (www.dac-pharma.nl) to my satisfaction.

Be careful though, because too many vitamins is bad for the birds (it can even kill them!) and water with vitamins spoils quickly, so change it regularly.

Grit, stomach pebble, minerals, sepia

I sprinkle natural sand from Ostrea on the bottom of my aviaries and breeding cages. This is a mixture of sea sand, oyster and sea shells. It is disinfected. Anise has been added, which gives a fresh scent. The birds like to scratch around and pick up all kinds of things.

In addition, I give a mixture of bird grit, stomach pebble and extra minerals, to which I also add fonio paddy (see above).

They also always have sepia at their disposal. I don't buy that, but I find it myself on the North Sea beach. That's a nice trip every year! Of course, wash and dry before you use it.

Water

Of course it's very important that the birds always have fresh and clean drinking water. In the flights, I change it regularly, depending on how dirty the birds make it.

For the night I take out all the water fountains and bowls to prevent them from drinking dirty water early the next morning. In the morning they get fresh drinking water as soon as possible.

They also like to bathe every now and then.

When it rains they like to hang against the gauze to wash themselves.

Once a week I spray the birds with a Duo bath mix, which works against red mite and feather mite.

After bathing and spraying, the birds take care of themselves extensively, which ensures healthy plumage.

Iodine blocks

I always hang an iodine block in the breeding cages, which the hens especially like to gnaw. This also contains useful substances and therefore they may not gnaw the breeding blocks.

5 DISEASES

Diseases can be prevented with good nutrition and hygiene, but unfortunately cannot always be avoided.

As already noted with housing, many of the diseases that affect our birds today may be due to a lack of natural vitamin D, due to insufficient sunlight and outside air.³

Symptoms

A budgerigar that is sick often puts up its feathers somewhat and looks a bit unhappy. It is very important to learn seeing this in time. Every time when I enter my birdroom I check that every bird feels well. A sick bird often sits on the floor in a corner. The stool is often wet (sometimes also green). If you are on time it's possible to heal them.

Sick cage

The sick birds must be isolated to prevent contamination. I use a special cage with adjustable temperature. Birds recover faster if the temperature is a bit higher.

Medicine and crop needle

I suffice with two types of medicine: one medicine that works against bacterial infections and most other diseases and one medicine that works against fungi. You can

smell fungal infection (especially candida).

The first medicine contains furaltadone HCl, metoronidazol and (chlorine)tetracycline.

The second medicine against fungi contains nystatin.

I administer these medicines with a crop needle, because they don't always want to drink water with medicine. Administering with the crop needle is a technique that is easy to learn.

If it concerns a number of birds at the same time, then I put it in the drinking water, but then persist for a few days. .

Of course you have to follow to the prescribed dosages.

Lumps

Budgerigars can suffer from 'lumps': thickenings that mainly arise from inward-growing wing and tail feathers. I treat this by squeezing the lump and disinfecting the wound. Sometimes this helps, but sometimes it doesn't.

Eyes and nails

Feathers can also grow into the eyes, such feathers must then be removed and for the affected eye you can use eye drops.

Some birds can suffer from growing nails, you have to cut them occasionally, this can also be the case with the upper beak.

French Moul

Mostly the end of the season I often have some so-called "crawlers": birds that drop their feathers - usually only the wing feathers and tail feathers, but sometimes also the body feathers. We do not know much about this "French Moul" (FM), but it is probably caused by a virus. The infectiousness is unclear: sometimes one baby in a nest has it and the other babies remain healthy.

I see FM as a signal that my breeding birds have run out of energy and that I have to stop breeding. Sometimes the feathers recover after a while (for example during the first moult), but sometimes it will not.

The birds can build up resistance to FM. That is why it is important that this disease is slightly present in your stud. This prevents a massive outbreak of FM.

Although former crawlers can give healthy offspring, it is not recommended to breed with them. FM can also have a genetic effect in subsequent generations.

Missing pins and moult

Older birds can also suffer from missing pins on the wings and tail. That is not FM, but a weakness that can also be genetic, so be careful if you want to use such birds in your breeding program.

After the youth moult there is often no longer a clear moment of moulting. Many of our budgerigars are a bit moulting all year round. Especially the body feathers are constantly being replaced. I take that as normal.

Heavy moulting occurs after stress, such as removing the birds from the breeding cage.

Conversely, moulting can disappear completely if the birds are placed in the breeding cage. They seem to feel good in the breeding cage and their condition is visibly improving. But this does not apply to birds that are not ready for this.

Pests

Budgerigars can suffer from red mite and feather mites. That is why I spray weekly with Duo bath mix (see above).

They can also suffer from worms, especially in an outdoor aviary or by giving green food. Every year before the new breeding season I give a worm cure with ivermectin. This is usually a sufficient control of all kinds of pests.⁴

I do not do other preventative cures. That is also not recommended, because it affects the natural resistance of the birds.⁵

Mice can also be a problem, but that can of course be prevented by closing your birdhouses properly.

Blindness

Of course, there may also be other things going on: for example, the respiratory system or vital organs that are not functioning properly.

Some inos can go blind after a few years because their red eyes are more sensitive to light.

With health problems of your birds you can consult a vet who is specialized in birds, but sometimes unfortunately there is simply nothing to do about it.

Nervousness

Nervousness can also be a problem. If you take a nervous bird in your hand it can show convulsions. If you put them down and leave them alone for a while, it will usually be fine again. This is also an unpleasant trait, which can be hereditary.

Occasionally a bird is so nervous that something it breaks one of its wings, preventing it from flying for a while. Usually this also works out over time, although the wing in question can sometimes hang a bit.

Euthanizing

I help a bird that cannot be saved anymore falling asleep with petroleum ether. I sprinkle a few drops of it on a tissue and put it on the bottom of an airtight container. The bird then falls asleep within a short time and dies after a few minutes. I think this is the most humane way to release a bird from its suffering, if there is no other solution.

6 SHOW

Enjoying your own birds is the most important thing, but sharing your joy with others is also fun. There are exhibitions for that, but social media gradually also play an important role. Furthermore you'll also receive visitors and you can visit others. To ensure that your birds show themselves well, you must train and prepare them. It's important for social media that you can then properly photograph and film your birds.

Exhibitions

Participating in exhibitions is traditionally the way to show your birds to others.

In the Netherlands you can do that at the local associations of the 'Nederlandse Bond van Vogelliefhebbers' (NBvV), but in this shows there are usually not many good standard budgerigars present, they are most canaries.

You can also do it at the shows of the regional special clubs of the NBvV (PSC), but other parrots also participate and there are usually not many good standard budgerigars present.

At the 'Nederlandse Grasparkieten Club' (NGC) you can find the best standard budgerigars. The national show is held annually in Hapert, but there are also several districts with their own shows.

Internationally, the best birds in Europe are exhibited at the annual Europa show in Karlsruhe. The annual English national show in Doncaster is also a household name.

I must confess that personally I don't like participating in exhibitions. The birds get very stressed and to be honest me too. It also takes a lot of time and preparation. That's why I haven't not participated in a long time.

Social media

Facebook in particular has become a global gathering place for budgerigar fanciers. There are also a lot of groups on Facebook that you can join. There is a lot of exchange on Facebook: birds, likes and comments, on a global scale. I really enjoy participating and my birds and I can just stay at home for it....

Many birds are also traded via Facebook Messenger and agreements are made to visit each other. Facebook has certainly added an extra dimension to the budgerigars hobby.

The downside of Facebook is that there seems to be some sort of common standard regarding what would be good and what's not good, with extreme features being more important than the official ideal.

Instagram is also increasingly popular among budgerigar fanciers, but is still very much in the minority.

Visiting other breeders

Visiting other breeders is a very nice way to show birds to each other and to exchange experiences and insights. You get to know people personally and you have more time for the birds and for each other. Especially this is how friendly bonds develop.

Unfortunately, this is not always the case, there are certainly also fleeting visits (also from far away places) of fortune seekers, traders and people who are not really interested in the process or only want to buy your best birds; I'm always done with that soon.

As I explained earlier, breeding good budgerigars is a long-term process in which you can make progress in small steps.

That is the core and the best part of the hobby for me.

I prefer to deal with breeders who see it also this way and who want to delve into the ins and outs of that process.

Training and preparing your birds

Whichever way you choose to show your birds, you will have to get your birds used to it.

I spend almost every day catching birds and teaching them to pose in my film and photo corner (see photo on my homepage).

As you do that more often they get used to this and they even get tame and more relaxed, which makes them show themselves better. They therefore have less need to fly away. You no longer need a cage with bars.

Of course you can't do this with all your birds, it's usually the better birds that I am working on in this way.

I am not going into details about preparing birds for exhibitions now - also because I have little experience with that.

Photography and filming

Nowadays you no longer need expensive photo and film cameras to properly photograph and film your birds. I've been doing it myself for years with my smartphone. I use one of the better ones, with relatively better specifications.

I am often amazed at the poor quality of many photos and videos posted on the internet. That's not due to the device, but to the maker himself.

With a few simple techniques you can improve your photos and videos enormously. I will discuss a few below.

In the first place: make sure your bird is relaxed and thus trained, so that you don't need bars in front of your lens. A special photo cage is very suitable, but an exhibition cage or another cage is also possible.

Secondly, make sure the cage has a good background colour. Not all colours go well together. Yellow looks good against a blue background, the other way around blue looks good against a yellow background. Green stands out nicely against a red background. White against a gray background. Keep the background colour a bit muted, so that the bird stands out better.

Third, make sure your bird occupies most of the screen. You can do that by cropping your photos.

Fourth, make sure your bird shows its best. For example, you can iron the head feathers a little to the side in advance, so that they then set them up nicely. You can also make a video that slowly rewinds you so that you can choose the best moment suitable for taking a picture.

I think that with these techniques you can present your birds more beautifully than at a classic exhibition, where the bird generally does not feel comfortable at all and therefore does not present itself beautifully when you come by. Moreover, the background colour of the cage is always white and with bars in front of it.

7 BUYING AND SELLING

Breeders like to exchange "how many youngsters they have bred". The more the better. But if you breed a lot of youngsters you can't keep them all and you will have to sell a lot of them, although a lot can die too.

On the other hand, there are the buyers, roughly in three categories: the novice breeders, the experienced breeders looking for reinforcements, and the traders.

Your first birds

In my opinion, if you are purchasing standard budgies for the first time, it's best to start with not too expensive birds from one good breeder who is working with line breeding.

You can then buy a few more birds at once, which is beneficial for their well-being and for the breeding process, as explained above.

If you buy birds with different features, you can also start the building process by compensating for those differences in breeding, as explained above.

You can also master the breeding of budgerigars without spending a lot of money and without worrying about birds that don't breed easily.

For that reason, it's best not to start with difficult colours immediately, which the lutinos also belong to.

When you get more experience in the course of time without too many

disappointments, you will undoubtedly drop out of the hobby less quickly.

Reinforcements

Even the more experienced breeder looking for reinforcements can best determine himself to one specific bloodline, as explained above.

It's better to look for certain qualities with which its own birds can be improved than for that one top bird that already seems to unite all qualities in itself.

Not only is such a bird barely buyable and also very expensive, it's also less fun because the fun of the hobby is in the construction process.

Selecting

To know which birds you want to keep and which birds you want to sell you have to select. This is perhaps the most important thing if you want to get ahead in the hobby: seeing what you have, what you need, and what you can miss.

You can't leave this selection to someone else. Of course you can temporarily ask for help to learn better, but you'll have to be able to do this most important part of the hobby yourself.

It is interesting to see that each breeder sets his own accents, so that each stud has its own characteristic elements. That only makes the hobby more interesting.

My rule of thumb is that I keep about twice as many hens as I have breeding cages. In previous years I was satisfied with relatively fewer cocks, but gradually I believe that I should keep as many cocks as hens. Just like the hens, there are also cocks "who don't do it" and moreover many cocks make a lot of noise, which is good for breeding.

Selling

Some of the birds you breed - especially if you are a novice breeder - will be substandard. But experienced breeders can't escape that either. Such "pet birds" go to the store or the trader for only a few euros.

As your birds get better they may become interesting for other breeders, but even then the asking price may not be very high. Count on something in the order of 20 to 50 euros each. You can show what you have for sale via (certain groups on) Facebook and, for example, on the digital "Bird Market" of the NBvV.

Only the better breeders can ask higher prices. For some birds of the absolute top breeders in the world - as in any hobby or sport – sometimes very high amounts are requested and paid. But it's better not to mirror this, this is for very few.

Costs and revenues

Breeding budgerigars is a wonderful, but also expensive hobby. You need an expensive space with many expensive cages and other attributes, the space must be lit and often

heated or cooled. Also the food and everything else you give the birds is expensive.

As indicated above, it will not be easy to get costs and revenues equal or to make money with the hobby.

But who knows, you may succeed, although it's much more important that the pleasure in your hobby always remains paramount!

REFERENCES

¹ See also Jan Bouwmeester, *Standaard bespreking grasparkieten*, in: Budgie november 2019 nr. 9 p. 6.

² Don Burke, *Ziekten grasparkiet doorbraak*, in: Budgie augustus 2020 nr. 6, p. 26.

³ See previous at Care, Housing.

⁴ Walter Vandevoorde, *Luizen en mijten, wat doen wij ermee?*, in: Budgie november 2019, p. 22.

⁵ Peter van Amelsvoort, *Preventief kuren bij grasparkieten, niet doen!!*, in: Budgie november 2019 nr. 9, p. 4.