

BLACK SPOT...

"Black spot threatens future of Border Fancy" ... a well discussed forum topic on the the *Mason and Callaghan* border canary website.

Everybody can do a Google search on this topic, but I want to clarify some misunderstandings which seem to be between us.

First of all, black spot is caused by a virus, the circo virus, the smallest virus one can imagine, probably originating from the plant kingdom, as these nano viruses are widespread in Nature. As it is a virus, antibiotics don't cure it, and the anti viral medications we do have also are of no use.

Secondly, this virus has a great affinity for invading the immune system by which it paralyses the birds own line of defence against other infections. And this is where my point is, birds dying from the black spot, caused by this virus, don't die from it, but always from another infection, if present in the birds body. This can be E. Coli, coccidiosis, streptococcal, staphylococcal, you name it and it can be your killer. This is the reason why we get some confusing reports on curing this disease. If your secondary infection was E. Coli, some amoxicillin will cure it, if it was coccidiosis, some Baycox will cure it, if it was some intestinal infection some Paramix or Baytril might have cured it, apart from some occasional inherently weak specimens. This is also why not all chicks in one nest die from it, as the level in which each chick is infected by the virus differs from chick to chick, in this way making it a variable level of falling apart of the individual birds immune system. Black spot has also been called "Bird AIDS", which seems correct as AIDS patients also do not die from the virus, but of some other secondary infection, even the slightest virulent ones like fungal infections.

When thinking this over it all comes down to the immune system. If we suppose our birds have a strong immune system, why do they catch this virus? If you put one patient with the flu in a room with 100 people for some reasonable time, maybe 30 will catch the flu, the other 70 not getting sick, why? The only reasonable answer is these 30 people have a lowered immune function, might be temporal like some stress on the job, had some bad nights, not getting the needed sleep, might be a simple cause, or might get complicated if some having some chronic disease like asthma, diabetics, renal disease, or some low grade infectious disease like sinusitis, diverticulitis, etc..you get my point.

This is what we should take care of, getting the birds immune system right. As to medication, evidence based, there is not a single one, apart from some highly specific human medications like interferon or growth factors sparingly used in some specific clinical conditions, but an easy way to get the birds immune system right, I never heard from it. All we can do is supplement our birds diet with all the vitamins and minerals needed, some prebiotics, some antioxidants like spirulina and maybe some oregano which kills the clostridium infections in the intestines, often a cause of death in a way it acts like a final sword killing the birds.

But there is another aspect in getting the immune system right, trying to clean our birds from other infections which could have a suppressive action on the immune function, and to me, this is where it all starts. Let me explain. It is not hard to understand and there are not many. Apart from this circo virus, at this moment, but things can change, we do know ornithosis, atoxoplasmosis and moulding disease are chronic low grade infections which do compromise immune function. Suppose you start the breeding season with birds having one of these four infections, the immune system is already

compromised, and ALL other infections like E. Coli, streptococcal, staphylococcal, yersinia, salmonella or giardia are capable of provoking a full blown lethal infection, just because the altered immune system because of one of these four primary infections the birds carried at the start of the breeding season. A few years ago German scientists found a hopeful link between Mycoplasma infections and black spot, and by this advised to give a pre breeding cure with tylosin, but the results were conflicting and could not be reproduced, just because these Mycoplasma infections also do belong to the group of secondary infections.

There are two other factors to be considered in this matter, genetic pool and stress.

Inbreeding or line breeding does produce birds with a smaller genetic pool, just because by this some bad genes may pop up, not only considering the show quality, but also some faulty genes in the birds makeup of its immune system. Why do we all meet these problems, and not the fife men, also taking care of their birds the way we do? Well, here is your answer! It almost seems the better birds you have, the more problems you will meet! If one talks to some well known colour canary breeders, breeding with the latest colour mutations, they admit they face the same problems as we do, just because of the small genetic pool they are using.

If one would have to put all this in relation to each other we could compare it with building a pyramid, consisting of four levels, each of them interacting with each other, level one being much broader as level two, three and four, showing us the importance of each level.

Level one would be the genetic pool, this being the number one factor as to breeding birds with a high natural disease resistance.

Level two would be the “stress” factor, stress in birds with a small genetic pool resulting in an impaired immune function. I can assure you if you would put these birds in big flights over winter, a lot of them would die, not even by some serious infections, but even by some minor infection.

Level three would be the big four, ornithosis, atoxoplasmosis, moulding disease and viral infections like circo virus, but other virus infections emerging like the corona virus. The problem with these is, apart from the stressful moments like the breeding or moulting period, we do not see them as the birds look fine to us.

Level four would be any other infection, the secondary infections I spoke of. These infections will almost never kill a healthy bird with good strong genes as to its immune system, but can cause fatal infections in compromised birds, on level one to three.

The final question....what can we do about this? Well, let us look at the levels.

Level one: Make an outcross, or if you have some closely related birds, look at your notes to see you are not getting too close. Love yourself and go out to get that special bird you always wanted, he will bring you a new set of genes, not only as to show quality, but also refreshing your birds immune system.

Level two: Avoid stress, no big flights, not moving around the birds too often, watch the birds and look for the hen causing all the troubles in a flight cage.

Level three: Go to the vet and ask for a pre breeding examination, stool microscopic examination, stool cultures and more extensive tests for ornithosis. Evaluate your seed mixtures as to possible mycotoxins, reconsider your sprouting method, clean the cages on a

regular base, mould do live in the floor covering and dust moving around carries infectious particles, be sure you have a good ventilation system.

Level four: This is basic vet examination of some birds and stool cultures.

Science always goes on, so we will be faced with new challenges in the future, but these are my thoughts, open for discussion.

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