Practical guide for
the handling of Pigeon diseases

Searches on this Page:
1) Rules of treatment
2) Administration of medicines
3) List of Diseases
4) Deficiency and Metabolic diseases
5) Vitamins
6) Mineral Salts
7) Amino-acids
8) Chemotherapy (Anti-infectious)
9) Anti-parasites (Anti-helminthiasis)

Physiological parameters of the Pigeon

Temperature
38,8° - 40° C

Weight Average:
= 450 - 500 gr.
= 400 - 450 grams.

Water Ingestion:
30 - 60 cc per day (45 cc average)
1 liter of water for 20 pigeons.
Increase to double in the Summer
(60 - 100 cc)

Food Ingestion
30 grams per day (average)

Practical advice and rules of treatment
Treatment:

A. - Illness - Symptomatic

- General

B. - Preventive or Prophylactic

(Hygiene, vaccines, etc.)

C. - Helping

(for example: antibiotics in virus diseases)

Administration of medicines

Injectable form: Subcutaneous (underneath the skin of the neck)

Oral form:

1. - By capsules or tablets (individual treatment)

2. - In the drink water: administer the right amount of water that is consumed per day according to the time of the year (winter or summer). The vitamins in the water from a day to another will be inactivated.

3. - In the food: it is not recommended.

4. - Topics: with a small stick and cotton (Muguet case, trichomoniasis, smallpox, etc)

Doses:

Insufficient dose:

It doesn't produce the wished treatment and causes resistance or to be dependent.

Overdose:

It can cause very detrimental effects (case sulfas)

Measures:
1 coffee spoon = 1.5 - 2 grams.
1 teaspoon = 3.5 - 4 grams.
1 soupspoon = 8 - 10 grams.
1 soup spoonful = 15 grams.
20 drops = 1 milliliter = 1 cc

**Important:**

Whenever antibiotics are administered (tetracycline, tyrosine, eritromicina, etc), it is necessary to provide vitamins, electrolytes, amino acids and reconstituyentes of the intestinal flora. (Ex.: acid filofago, yoghurt). In the case of administering TETRACICLINAS (tetramicina MR), suppress the GRIT during those days as the calcium salts precipitate the antibiotic and they inactivate it. Do not use interactive products simultaneously: they can produce interference, cooperation, antagonism or it can change the effect desired.

**Prophylaxis or prevention**

Disinfection of the loft and all the facilities: at the present time **IODINE POVIDONA** is the antiseptic par excellence. It has bacterial, vermicide and Fungicide action. Apply it with spray whenever we clean the loft (minimum Once a week). Dilution: 20 cc in 1 liter of water.

**LIST OF DISEASES**

**BACTERIAL** (bacterium)

**SALMONELOSIS Or PARATIFOSIS**

**PASTEURELOSIONS Or COLERA**

**CORIZA**

**ORNITOSIS**

**INFECTIOUS**
MICROPLASMOSIS

VIRÓSICAS (virus)

NEW CASTLE Or PARAMIXOVIRUS

ADENOVIRUS

HERPES VIRUS

DIFTERO - SMALLPOX

MICÓTICAS (fungus)

ASPÉRGILLOSIS

CADIDIASIS Or MUGUET

PARASITIC

INTERNAL

COCCIDIOsis

ASCARIDIOSIS

CAPILARIOSIS

TENIASIS

PROTOZOARIOS

PLASMOBIOsis Or MALARIA

HAEMOPROTEOSIS

TRICHOMONIASIS

EXTERNAL

LICE

ACAROS
**DIPTEROS (flies)**

**CARRAÇAS (aracnideos)**

**SALMONELOSIS Or PARATIFOsis**

Disease of youngsters that causes an early death without specific symptoms. The cured adult pigeon becomes into carriers and continue eliminating salmonellas, reason why it is preferable to eliminate them. When hatching they can transmit the disease through the pores of the rind of eggs.

**CAUSAL AGENT:** Salmonella Typhimurium

**TRANSMISSION:**

**Oral:** By the food or the drinking water.

**Aerial:** By inhalation of the dust.

**Ovarian:** Of the ovary to the egg.

**SYMPTOMS:**

4 forms

1 - **Intestinal:** diarrhea with thick lees surrounded by snots, elements no digested in dirty water of brown or green, and frothy color. Thickening of the sewer.

Thinning.

2 - **Articulate:** of the internal goes to the blood and from there to the joints of greater movement (elbow). Fallen wing

3 - **Organic:** it attacks all the devices pronouncing itself with a short breath and general weakening.

4 - **Nervous:** it attacks the brain and the spinal marrow producing:

- loss of balance

- paralysis
- tortícolis (similar to New Castle)

**DIAGNOSE:** Serologic, which means the antibodies of the blood of the infected animals.

**TREATMENT:**

Antibiotics:

- Tetracycline
- Enrofloxacina
- Furazolidona

Minimum 15 days.

**PROPHYLAXIS:**

Cleaning and disinfecting (at least weekly)

1 - 2 days of antibiotics every 15 days

Vitamins

**IMPORTANT:** It is a **ZOO NOSE** (it can infect the man by a very close contact).

**PASTEURELOSIS OR COLERA**

It can attack a few pigeons, as thus also to provoke an epidemic. Normally it finishes in a fatal mode. The

Overpopulation and the lack of hygiene are of the more important causing factors.

**CAUSAL AGENT:** *Pasteurella multocida*

**SYMPTOMS:**

High fever 42° - 43° C

diarrhea

Death between 24 - 48 hrs.
**TREATMENT**:  
Tetracycline  
Enrofloxacina  
Vitamins

**PROPHYLAXIS**: Cleaning and disinfecting (iodine providing) CORIZA

**CAUSAL AGENT**: Hemophilic influenza

**SYMPTOMS**:  
Tears in both eyes at the same time. Swelling of the lachrymal coats (owl head).  
Slight nasal unloading (snot)

**DIAGNOSE**: Bacteriological examination of nasal and ocular secretions.

**TREATMENT**: Antibiotics - Vitamins.

**PROPHYLAXIS**: Cleaning and disinfecting (iodine providing)

**MICOPLASMOsis**

*Micro plasma* - Microorganism halfway between a bacterium and a virus. Cured pigeons acquire immunity, however they happen to be carrying and transmitting the illness to the youngsters. This disease generally is associate to the ORNITOSIS. Many pigeons are carrying and the diseases appear after the effort of a difficult competition.

**CAUSAL AGENT**: Micro plasma

**SYMPTOMS**:  
Nasal, watery humid secretion and becomes sticky and mucous. Inside the mouth a gray, rough scab, tongue and sticky palate. Very disagreeable breath (repulsive).  
Nose of dirty gray color. Very difficult breathing. Very strong noises at night. Very slow evolution. It is rare to have a generalized infection but when happens the diminishing of the defenses (stress, the races, lack of hygiene, overpopulation etc.) can cause deaths.

**DIAGNOSE**: Serologic examination of the antibodies of the attacked pigeons.
**TREATMENT**: Tyrosine (Tylla MR) ENROFLOXACINA. Administer it to 5 days consecutive

**PROPHYLAXIS**: Deep disinfection. Preventive treatments can be done in the weeks frees of races and mainly after a hard one.

---

**ORNITOSIS**

**CAUSAL AGENT**: *Chlamydia*

**SYMPTOMS**: Similar to influenza. Nasal and ocular secretion similar to the micoplasmosis

Diarrheas----> slow thinning -> death.

**DIAGNOSE**: Laboratory (Stamp method)

**TREATMENT**: Clortetraciclinas + Tyrosine.

**PROPHYLAXIS**: Deep disinfection.

**IMPORTANT**: EYE IS A ZOOINOSE.

---

**NEW CASTLE OR PARAMIXOVIRUS**

**CAUSAL AGENT**: *Bird Paramixovirus type 1*

**SYMPTOMS**: 

1 - **Digestive upheavals**:

Virus - vicerotropo

- Liquid Excrements ----> (as water)

- Intense thirst (it can increase to 4-5 times the consumption)

2 - **Nervous upheavals**:

---
- virus neurotropo
- Slight tremors of head.
- Difficulty to peck grains (it affects the optical nerve).
- Problems of balance: it falls for a side or back towards (pirouettes)
- Torticolis: of 0º - 180 º
- Problems in sight with discoloration of an eye.
- Paralysis of a wing or the two.
- Paralysis of a leg or the two.

3 - Breath upheavals (Virus neumotropo)

- Conjunctivitis, chorizo, death rattle. (They are not frequent)

**DIAGNOSE:** Laboratory, by examination of the blood.

**TREATMENT:**

To eliminate sick pigeons of small value.

To isolate the pigeons that we want to treat. Reduce to normality the water Consumption (50 centiliters per day).

To fulfill the food trays or to give them to eat with a sleeve or syringe.

To administer together:

- Antibiotics (Tetracycline, enrofloxacina, etc.)
- Amino acids
- Vitamins
- Levamisol (to stimulate the defenses).

**PROPHYLAXIS:** Cleaning and disinfecting of the loft.
**VACCINATION:**

a) **Dead virus:** or inactivated in watery solution. Intramuscular or subcutaneous. Immunity: a year COLOMBOVAC (Holland)

b) **Alive virus:** Cepa B1 or La Sota. In the water of drink and by nasal or ocular drop. Immunity: 2 months. On the 4th day of applied the vaccine to the alive virus it is advisable to make the following recipe:

- Levamisol: 1-2 days
- Vitamins, Antibiotics and Amino acids: during 4-5 days.

**IMPORTANT:**

It is an obligation of the Fancier to denounce or to communicate to his society a bud of this disease in his loft, so that all the other people can take their own Precautions.

**ADENOVIRUS**

It is little what it’s known about this disease caused by a virus that has its preference by the devices of the lymphatic system (ganglia, bazo). That’s where its name comes from.

**CAUSAL AGENT:**

**SYMPTOMS:**

During the breeding it is very common to observe the unequal growth of the youngsters. The frequent vomits are one of the symptoms most characteristic of the disease.

**TREATMENT:** Homeopathic substances.
**PROPHYLAXIS:** Cleaning and disinfection of the pigeons.

**HERPES VIRUS**

Virus disease of recent appearance. There have been some cases in the Buenos Aires.

**DIFTERO SMALLPOX**

**CAUSAL AGENT:** *Borrelia Columbia* (*virus*)

**INFECT:**

By the water of drink, food, fecal material, dust, pricked of mosquito, wounds, etc.

Youngsters are most susceptible. The adults rarely become sick.

**SYMPTOMS:**

Typical crust formation white yellowish, difficult to give off (blood ones), in eyes, Nose, peak, toggle of the legs, mouth, throat, around the sewer.

**TREATMENT:**

To separate the excrescences and to apply dye topics of iodine. Give antibiotic and Vitamins (mainly vitamin A) during 4-5 days.

**PROPHYLAXIS:** Cleaning and disinfection (iodine providing)

**IMMUNITY:** The cured pigeon acquires immunity for a lifetime.

**COCIDIOSIS**

**CAUSAL AGENT:**

A tiny parasite. Two species:

*Eimeria Labbeana*

*Eimeria Columba rum*

**SYMPTOMS:**
Two forms:

**Clinical:** proper of the adult pigeon. There is no symptom but it diminishes the sport performance. There is certain immunity.

**Itself:** It attacks young pigeons at the third week of age. Watery and faded faecal material, sometimes with blood (never liquid and green). Loss of weight and forms. Loss of color of the rainbow of the eye, changes grayish. Mucous of the mouth and the throat become pale (anemia). Opaque plumage.

**DIAGNOSE:** Analysis of faecal material.

**TREATMENT:**

Sulfamidas "the continued use in the eye, causes damages at renal level"

Emporium

Cloazuril

Toltazuril (Baycox Mr.)

**PROPHYLAXIS:**

Alternate the above-mentioned drugs every 30 days in a preventive form.

Possibility to use this treatment together with the one against trichomonas. Once finished the treatment, give vitamins during 3-4 days. Deep cleaning and general disinfection (do not forget that the eggs of coccidian reproduce in the accumulated faecal matter in the floor or trays being necessary three conditions: temperature, humidity and oxygen. Therefore we must prevent the humidity).

**ASCARIDIOSIS**

**CAUSAL AGENT:**
Ascaris Columbine.

The cycle where the egg of the parasite is eliminated by the faecal matter, goes to the ground, is developed the larva and again it is ingested, matured and again eliminated it is of 20 days for that reason it recommends the preventive treatment every 21 days.

**SYMPTOMS:**

Few roundworms cause little damage, but if the number increases too much it produces a reduction of the sports performance and inflict many casualties.

- Anorexia (loss of appetite)
- Loss of weight.
- Weakness
- Little consistent faecal material.
- Intense thirst.
- Anemia
- Opaque and made bristle plumage.
- We can see the parasites in the excrements and sometimes in vomits. The Damages caused by these parasites are imputed to 3 reasons.

1 - The wounds that cause in intestinal wall
2 - Because they absorb many elements nutritious.
3 - Because they excrete toxic substances.

**DIAGNOSE:** Analysis of fecal material

**TREATMENT:**
There are different drugs:
- Levamisol -RIPERCOL MR
- Piperazina
- Ivermectina (Ivomec Mr)

**PROPHYLAXIS:**
Alternate the treatment with the above-mentioned drugs every 30 days. In this way we diminished the possibility of dependence to the drug. Do not forget that the **LEVAMISOL** is an excellent immunomodulator as well (stimulating of the Defenses) therefore its use is essential whenever we vaccinate against New Castle. The old animals develop certain immunity.

Cleaning - hygiene. Disinfection

**CAPILARIOSIS**

**CAUSAL AGENT:**
*Capillary obstinate*

Is considered that this parasite is present in 50 % of the pigeons, but particularly is more sensible in the young animals.

**SYMPTOMS:**
A slight infection practically does not produce symptoms, only diminution in the Sport performance. But if the infection is serious, youngsters can die one week after starting the disease.

**DIARRÉA ----> THINNING -----> DEATH**

**DIAGNOSE:** Idem ascariasis.
TREATMENT: Idem ascaridiosis. (NO PIPERAZINA)

PROPHYLAXIS: Idem ascaridiosis

TENIASIS

Of this infection I only want to reveal that it is important as prophylaxis, to fight all the intermediate hosts (larvae of mosquitoes, cockroaches, weevils, slimy, snails, etc) the tapeworms or the ring of tapeworms are sometimes visible in the sewer of the pigeon. It is common that they appear in pigeons that been have lost for a certain period. The treatment is individual - Niclosamida.

TRICHRONOMIASIS

CAUSAL AGENT:

Trichomona Columbine (a protozoário)

We considered that 80% of the old pigeons are carrying, being able to happen inadvertent. It is used to say that the olders live in balance with trichomonas in ominous consequences. In the youngsters is fatal.

SYMPTOMS:

- Apathy
- Spiny plumage.
- Viscous diarrhea ---> thinning.
- Intense thirst
- Anorexia (lack of appetite)
- Disnea (difficult breathing: penguin position)
- White and yellow spots in the mouth and throat.

DIAGNOSE: Microscopic examination of isopods of crop and esophagus.

TREATMENT:
Dimetridazol (EMTRIL MR)
1 gr. by liter of water during 7 days.

METRONIDAZOL
RONIDAZOL

PROPHYLAXIS: Hygiene and general disinfection.

IMUNIDADE:
A small amount of trichomonas in pigeons with good health causes its own Antibodies.

PLASMODIOSIS OR MALARIA
Disease of the costal zones (bordering to the rivers)

CAUSAL AGENT: A esporozoario of kind PLASMODIUM

EPIZOOTIOLOGIA:
There are three factors that condition the maintenance and development of the malaria:
- Carrying or sick Birds.
- transmitting Mosquitoes (culex, heads, anopheles).
- the temperature, rains and the flora of region (essential elements for the reproduction of the mosquito)

SYMPTOMS:
- Apathy
- Fever it raises and low
- Anemia (of there the eye and the white mucous)
- **General weakness**

- **Death** in the youngsters.

After this acute phase, where the symptoms are evident, the plasmodiosis enters a period of diminution of their clinical manifestations and parasitemia to end globular arriving at a stage of normality between the 30 - 40 days of begun the Symptoms.

**DIAGNOSE:** Examination of the blood (method of Giemsa).

**TREATMENT:**

Plasmodicidas used in the human malaria:

- Quitina
- Atebrina
- Plasmoquina
- Cloronquina
- Pludrina

For ex.: the cloroquina or ARALEN MR (2 mg by kg of weight that is 1 mg. by Pigeon. 3 doses day by average.

**PROPHYLAXIS:**

Avoid the mosquito:

- Metallic net
- Fuyi Vape
- Kaotrina

**IMUNIDADE** The cured animals develop certain degree of immunity
HAEMOPROTEOSIS

CAUSAL AGENT:

*Haemoproteus Columbine.*

It has a definitive host, a fly haemotografe (he is fed on blood), *pseudolynchia Canariensis.*

The *intermediary host* is the pigeon. It is necessary that the infested fly Resentment the pigeon to developed this disease.

SYMPTOMS:

Seen only in the summer months. The symptoms are very similar to those of the Plasmodiosis, so it’s possible a confusion (due to time and symptoms).

The flies that suck infected blood are able to transmit the haemoproteosis 15 days late and between 25 to 30 days later begin the symptoms:

- **Recurrent fever** (it raises and low) 43 º C
- Diarrhea: White lees or yellowish, liquid and persistent.
- **Disnea:** increase of the respiratory frequency.
- **Gradual Anemia**
- **Caquexia:** Weakness when the disease becomes chronicle.

**DIAGNOSE:** Examination of the blood (method of Giemsa)

**TREATMENT:** NONE

**PROPHYLAXIS:** Fight the fly: Kaotrina

CANDIDIASIS Or MUGUET

Some authors describe this disease together with the trichomoniasis and others speak of an associate mitotic
Disease due to Vitamin A deficiency.

**CAUSAL AGENT:** a fungus: **CANDIA ALBICANS**

**SYMPTOMS:**
White or yellowish spots (easy to give off) in all the mucosa of the mouth and the Throat.

**TREATMENT:**
Topic applications with iodine providing to 10% or weak iodine dye (diluted with Glycerin) in the spots. Administer Vitamin A.

**PROPHYLAXIS:**
- AVOID THE PROLONGED STORAGE OF FOODS
- GIVE SUNSHINE TO THE GRAINS BEFORE FEED
- VITAMIN A
- LOFT DISINFECTION

**ASPERGILLOSIS**

**CAUSAL AGENT:**
A fungus, *Aspergillum fumigates*. It reproduces quickly in the straw of the nests, or In the humid food.

**SYMPTOMS:**
It is an infection of the group of the respiratory diseases. It appears under two forms:

**PULMONARY FORM:**
Respiratory difficulty (disnea)
Greenish excrescences on the tongue and palate.
DERMATOLOGIC FORM:

Bare skin and with fractures of pens

TREATMENT: NONE. Does not exists one that is effective

PROPHYLAXIS:

Dry and well aired loft.

Avoid the humidity in the food.

Disinfection (iodo providing)

LICE, ACARUSES, DIPTEROS (flies), CARRAÇAS.

With respect to the subject I am not going to extend, I will only say that lice, mites, flies and garrapatas (a kind of aracnideos) exists in the pigeons and that cause damages in the plumage, sometimes quite seriously. The best way to fight them is with an aspersion bath but never with an immersion one. It is also necessary to consider to not use products derived from the piretrins (by: kaotrina) because is toxic for the birds, and although poisoning symptoms are not pronounced can cause low performance in the races.

CARBARIL 5 % (in powder)

NEVER USE GAMEXANE

DEFICIENCY AND METABOLIC DISEASES

Within this group of infections I have included the ones which produced by deficiencies

(of vitamins, minerals salts or amino acids) and tumors.

VITAMINS AND THEIR DEFICIENCIES

It is practically impossible to produce a hipervitaminosis or

Overdose of vitamins. All the ingested excess, the animal the

Metabolizes and eliminates it.
DEFINITION:
The existing vitamins are organic substances in foods, incapable to be synthesized by the organism in adequate quantities being used in small doses, for the normal functioning and maintenance of the organism and health.

According to this definition, vitamins must be supplied periodically in order to prevent upheavals.

VITAMINS:

(necessities per day and pigeon)

VITAMIN A: 200 UI
VITAMIN D3: 45 UI
VITAMIN E: 1 mg
VITAMIN C: 0.7 mg
VITAMIN B1: 0.1 mg
VITAMIN B2: 0.12 mg
VITAMIN B6: 0.12 mg
NIACINAMIDE
VITAMIN B12: 0.24 mg
BIOTIN: 0.002 mg
PANTOTENIC AC.: 0.36 mg
FOLIC ACID: 0.014
**VITAMIN A:**

**Action:**

Indispensable in the formation of the sanguineous capillaries. Form leaves from pigments of the retina (eye). Acts in the formation of all the epithelial coatings. It is used helping in infectious and ant parasitic diseases. Is also used as anti-stress substance and following the vaccinations.

**Deficiency:**

Sometimes it leads to the destruction of the eye (it is resembled to crisis). Viscous exudates in the nasal graves. Patognomónicas are considered the nodules or white pustules as large as a pin head that are seen in post-mouth, pharynx, origin of the esophagus and stomach.

**VITAMIN D**

The organism animal synthesizes it from the ultra-violet rays, so it’s very important of the sun in the loft.

**Action:**

Its fundamental action is to promote the absorption and fixation of calcium and phosphorus in the skeleton.

**Deficiency:**

Deformation of the breastbone.

Fragile bones.

Eggs with thin and soft rind.

Fragile peak and soft nails.

Delay of the growth.

Problems in the plumage.

A prolonged deficiency leads to the "raquitismo" *(Rachiotis = to meager)*
VITAMIN E

**Action:**
It acts in the maintenance of the reproductive function of the birds. It increases the fertility of eggs.

**Deficiency:**
It can produce:
Encefalomacia: motor upheavals and ventral flexion of the head.
White muscular dystrophy, striate throughout muscular fibers of pectoral muscles.

VITAMIN K

**Action:**
It takes part in the normal process of the coagulation of the blood. It’s used helping in the treatments of diseases that produce anemia (coccidiosis, etc.)

**Deficiency:** causes hemorrhages----> Anemia

VITAMIN C

It is practically the only vitamin that the organism of the birds can synthesize in sufficient amounts.

**Action:**
Its main action is to form and to maintain the intercellular material. Also it acts in the spare part of Calcium and phosphorus.
It’s used like anti-stress and helping in parasitic infectious diseases.

VITAMIN B1 Or TIAMINE

**Action:**
It is the anti-neurotic vitamin (anti-nervous)
It’s also necessary in the metabolism of carbon hydrates.

**Deficiency:**

It can produce:

- Nervous symptom, paralysis of the legs and the muscles.
- Atrophy of the genital devices

**VITAMIN B2 RIVOFLAVINE:**

**Deficiency:**

diarrhea

Delay in the growth

Paralysis of the legs, supports the tarsus and doubles the fingers inwards

**VITAMIN B6 Or PIRIDOXINE:**

**Deficiency:**

Anorexia (loss of appetite)

Delay in the growth

Nervous symptoms: spasmodic convulsions, jumps.

**NICOTINIC ACID Or NICOTINAMIDE:**

**Action:** Essential in the metabolism of carbon hydrates (sugars)

**Deficiency:**

It can produce:

Inflamations in mouth, pharynx, and esophagus.

Inflammation of the knee and to hoop the legs.

**BIOITINE:**

**Deficiency:**

It can produce dermatitis in the legs (rough legs, with crack and
FOLIC ACID:

**Deficiency:**

It can produce:

- Anemia.
- Delay in the growth
- Problems in the plumage,

- **PEROSIS:** It is a joint deficiency with the lack of manganese (Mn).

Produces a landslide of the sinew of the gastronomies outside the bony pulley of the tarsi us

Joint therefore the bones suffers a torsion outwards. (most of the times a single leg)

PANTOTHENIC ACID:

**Deficiency:**

The symptoms are very difficult to separate of the symptoms caused by the deficiency of Biotin.

- Dermatitis
- Breakage of the feathers
- Perosis
- Delay in the growth

VITAMIN B12 Or CIANOCOBALAMINE:

**Action:**

It is the so called anti-anemic vitamin. Along with Copper and the Cobalt, are indispensable in

the formation of the elements of the blood (eritropoyesis)
Deficiency:

Delay in the growth

Anemia

Upheavals in the molting

Low in the fertility of eggs. It is important to say that all the vitamins of group B are less stable

than the others (they oxidize quickly) for that reason must be used in amounts that are daily

Consumed and not to leave them in the water through until the other day.

It is also important to know that the vitamins of group B, act to each other interrelated, therefore

The deficiency of one of them means that we must provide the called “B Complex ".

MINERAL SALTS

DEFINITION:

Indispensable substances for many processes of the animal organism. In the nature they are under different salts form. It is important to say that when we provide mineral complexes to the birds these regulate their ingestion according to their necessities. Next some of the most important minerals and its main action within the organism of the birds:

SODIUM (Na)

It acts in the absorption of the water and its later elimination (dieresis)

CALCIUM (Ca) and PHOSFORO (P)

Are fundamental along with vitamin D in the formation of the bones

POTASSIUM (K)

Acts in the operation of the cardiac muscle (cardiac tone)
Also acts on the dieresis.

**MAGNESIUM (Mg)** It is related intimately with **Ca** and **P**.

**IODINE (I)** Is fundamental for the normal operation of the gland thyroid.

**MANGANESE (MN)**

Necessary for the growth and the reproduction. Its deficiency as we saw before causes **PEROSIS**

**COPPER (Cu) and COBALT (Co)**

Are fundamental together with the B12 vitamin, in the eritorpoyesis (this means formation of the elements of the blood: globules)

**IRON (Fe)** Essential component and the hemoglobin of the blood.

### AMINO ACIDS

**DEFINITION:**

They are substances that the animal organism synthesizes from ingested nitrogen, being this base of the formation of proteins. (A protein is a chain of amino acids). The essential amino acids are those that the organism does not synthesize in suitable amounts to maintain the growth or the normal nutrition, so they must appear in the diet that we give our birds.

Next I detail to the 10 essential amino acids and their requirements by pigeon and day: (necessities per day and pigeon)

**METIONINA** 0.09 grams

**LESINA** 0.18 grams

**VALINA** 0.06 grams

**LEUCINA** 0.09 grams

**ISOLEUCINA**
<table>
<thead>
<tr>
<th>Drug</th>
<th>Dosage</th>
<th>Toxicities</th>
</tr>
</thead>
<tbody>
<tr>
<td>FENILLAGNINA</td>
<td>0.09 grams</td>
<td></td>
</tr>
<tr>
<td>TRIPTOFANO</td>
<td>0.02 grams</td>
<td></td>
</tr>
<tr>
<td>ARGININA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HISTIDINA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TREONINA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEMOTHERAPY ANTI-INFECTIOUS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class</th>
<th>Name</th>
<th>Action</th>
<th>Dose</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINTETICS</td>
<td>SULFAMETOXAZOL</td>
<td>Bactereostático</td>
<td>P.O.: 100mg/pigeon/day</td>
<td>Can form renales crystals</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRIMETROPIN</td>
<td>Bacteriostático</td>
<td>P.O.: 10-20 mg./pigeon</td>
<td>Use combined with sulfametoaxazol</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>200 mg/liter of water</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FURALTADONA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FURAZOLIDONA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bacteriostático</td>
</tr>
</tbody>
</table>
Bacteriostático
P.O.: 7.5 mg/pigeon/day
Ample active specter against micoplasma

**ENROFLOXACINA**
Baytril MR
Bactericidal P.O.: 5-10 mg/pigeon
200 mg/liter of water
Ample active specter against micoplasma

**BIOSINTETICS OR ANTIBIOTICS**

**AMPICILINA**
**AMOXICICLINA**
Bactericidal Not recommend its use in birds

**TILOSINA**
Tylan Mr
Bacteriostático P.O.:12-25 mg/pigeon
Indicated in micro plasmas is

**NEOMICINA** Bactericidal P.O.:5-25 mg/pigeon
Used in infectious diarrheas

**ESTREPTOMICINA** Bactericide P.O.:50-100 mg/pigeon Previous item

**CLORANFENICOL** Bacteriostático
P.O.:50 mg/pigeon/2 per day
Prolonged administration causes fatal anemia.
CLORTETRACICLINA
Bacteriostático ample specter
P.O.: 15-25 mg/pigeon
day/1-1.5 g/liter water
Retire the grit during its administration

ANTIMICOTICS

NISTATINA
Nstatin MR Candidacies
P.O.: 100,000u/liter water during 3 weeks

KETACONAZOL Candidacies
P.O.: 12-15 mg/pigeon
2 x day/15 days

ANTI-PARASITES (ANTI-HELMINTHIAISIS)

( helmintiasis - to have worms in the intestines)

CLASS NAME ACTION DOSE TOXICITY AGAINST NEMATODES

PIPERAZINA Ascaris adults P.O.: 0.5 g/pigeon/2days

LEVAMISOL

RIPECOL mr
Ascaricida
Capilaricida
P.O.: 10-20 mg/pigeon, 2 days~400 mg/liter water, repeat after 15 days
Can produce temporary vomits.
ROUND WORMS AGAINST TAENIAS

IVERMECTINA
Ivomec MR Parasites
internal and external
P.O.: 0.1 mg/pigeon
repeat after 10 days

MEBENDAZOL
Ascaris, capillaries and Taenias
P.O.: 5-7 mg/pigeon/2 days
Can diminish the fertility and affect plumage in the molt

ALBENDAZOL
Vermix A MR
Ascaris, capillaries and Taenias
Previous item

NICLOSAMIDA Taenias P.O.: 100 mg/pigeon

TRICHOMONICIDAS

METRONIDAZOL Trichomonas
P.O.: 20-25 mg/pigeon
5 days 1 gr/liter of water

DIMETRIDAZOL
EMtril MR Trichomonas
P.O.: 525 mg/pigeon
5 days/0.5 grams/liter
An overdose is very toxic

**RONIDAZOL**
Trichonazol MR Trichomonas
P.O.: 2 mg/pigeon
5 days/ in water 2gr/liter

**COCCIDICIDAN**

**SULFAQUINOXALINA** Coccidian
P.O.: 50mg/pigeon
0.25 g/liter water. Give 3 days rest 3 and repeat 2days more
Produces calculations at renal level

**SULFAMERAZINA** Coccidian P.O.: 1.5 g/liter of water Previous item

**SULFADIMETOXINA** Coccidian P.O.: 0.5 g/liter of water Previous item

**CLAZURIL** Coccidian
P.O.: 2.5 mg/pigeon 1 day
Low or null toxicity

**TOLTRAZURIL**
Baycox MR
Coccidian
P.O.: 7-15 mg/pigeon 2 days
Previous item

**AMPROLIUM** Coccidian P.O.: 20 mg/pigeon

Due to the use of several technical words, mainly active ingredients or
substances it is possible to have errors in my translation to English. Please do not hesitate to correct my English spelling or grammar. E-mail me for questions or suggestions!

Special thanks to Jesús L. Rovira –

Copyrights ® reserved to C.Fonseca (2000).

Last update of original text: October 06, 2002

REMARK: Edited and updated by David Strossmayer on January 20th, 2013