

Summaries and conclusions of the papers published in T. VI: N.º 1 (1954) and 2 (1954)

A) T. VI — N.º 1 (1954)

NEW STUDIES ON THE INFLUENCE OF PSEUDOMONAS UPON AEROGENIC FERMENTATION OF LACTOSE BY *b. coli*.

V. H. Bertullo and L.A. Sandholzer.

1. — The hydrocyanic acid produced by cultures of *Ps. aeruginosa* inhibits the fermentation of sugars by *E. coli*, or prevents growth, depending upon the concentration of the acid.

2. — The hydrocyanic acid produced by *Ps. aeruginosa* would explain in part the inhibitory phenomenon of *E. coli* and its disappearance in areas where *Ps. aeruginosa* is abundant.

3. — The authors advocate a systematic investigation of the *Ps. aeruginosa* group in zones suspected of fecal pollution when *E. coli* is not brought out through routine methods.

SWINE ECHINOCOCCOSIS (*Sus scrofa domestica*).

Anatomical localizations in post-mortem examinations. — Importance of inhalation in "*Sus scrofa domestica*".

J. Postiglioni Grimaldi

The author points out the scantiness of available literature concerning the localization of hydatids in domestic animals, particularly of those slaughtered for consumption, with the exception of liver and lung localizations which have been the subject of a number of statistical surveys.

The writer submits personal observations in conjunction with 3608 slaughtered pigs which yielded the following findings: 1206 animals showed hydatid involvement (34.81 %). Of these, all were lung-affected while 22.56 % presented associated liver involvement thereby demonstrating the prevalence of pulmonary cases.

A comparison is made with results of observations made by other authors which —with a number of exceptions agreeing with the author's findings— point toward a hepatic prevalence.

The higher frequency of pulmonary localizations is apparently due to infestation through inhalation, a theory open to further investigation.

A description is also given of other localizations met with in mass examinations of slaughtered pigs, of which a number of rare ones, including a mesenteric lymphogland localization, a highly exceptional occurrence.

Natural hydatidosis (primary echinococcosis) of a mesenteric lymph gland of pig (*Sus scrofa domestica*).

J. Postiglioni Grimaldi

1. — The author describes a case of lymphgland echinococcus localization in an adult pig presenting natural non massive infestation.

2. — A description is given of aspect and general structure of the ganglion as well as of the cyst localized in it.

3. — The writer brings to date the cases reported by the world literature.

4. — The case described is discussed in conjunction with prevalent theories regarding the penetration and progress of the hexacanth embryo by the lymphatic way.

5. — It is concluded that in the case reported upon the access of the hexacanth embryo to the ganglion took place directly by the lymphatic way (Chyliferous).

6. — Although a rare occurrence —and this would confirm the widely accepted theory of penetration and progress of the hexacanth embryo through the blood stream— the writer believes that one should not rule out the lymphatic way altogether. Hence, attention is drawn to further possible ganglionic localizations of hydatid cysts.

CASE REPORT OF LEMOMMOCYTOMA IN POULTRY—

R. M. Caffarena

L. Spatola

H. Selinke

The authors present, for the first time in Uruguay, a case of lemocytoma.

They adopt the above denomination, advanced by Rio Ortega, although not prevalent, is the Lemmocytae.

The writers believe that a systematic investigation of nerve system tumors by silver impregnation methods in cases of difficult

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diagnosis would bring out a larger number of these cases, which are at present regarded as rare or exceptional occurrences.

CONTRIBUTION TO THE STUDY OF PRECOLLAGEN

E. La Mata

1. — The writer regards reticuline, precollagen and collagen fibers as different types of structures calling for clear-cut discrimination.

2. — Lymphoid organs are the only one liable to incorporate reticuline fibers; those present elsewhere are really precollagen fibers.

3. — To substitute the term "precollagen" the author proposes that of "bluestaining" fibers in accordance with contemporary chemical findings.

4. — A new staining technique is submitted in this conjuntion.

A DEVICE TO HOLD FOWLS IN PLACE

C. H. Carlevaro

A description is given of a device designed to hold poultry in place in order to facilitate the easy performance of clinical examinations, surgical interventions and very particularly, for the collection of sperm intended for study or subsequent utilization in artificial insemination.

A FEEDING EXPERIMENT WITH ANTIBIOTICS IN

LEGHORN CHICKENS

L. Vigil.

A feeding experiment is carried out with an antibiotic (procain penicillin) on four batches of Leghorn chickens, viz.,

- a) Pure vegetable ration without antibiotic.
- b) Pure vegetable ration with antibiotic.
- c) Ration with animal protein without antibiotic.
- d) Ration with animal protein with antibiotic.

The feeding was continued for sixty days (8 weeks) from the 2nd. day of life. The amount of antibiotic administered was 1½ Gm (500.000 U) per one hundred Kg. of ration.

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By means of this experiment it was shown:

a) That there was no advantage in adding antibiotic to pure vegetable food.

b) A 17 % increase in weight was observed when an antibiotic was added to a ration supplemented with 9 to 10 % animal protein, at sixty days of age) when the average weight of the best batch was 540 Gm.).

As salient collateral observation, the writers report that following 8 weeks of differential feeding each batch was given the same ration with animal protein) where upon the weight of all batches tended to even up speedily, the acceleration of growth being particularly marked in chickens that so far received no protein of animal origin.

DOG IXODIDES IN URUGUAY

M. Rodriguez González and L. Lujambro

A study is made of ixodide infestation of dogs in Uruguay by ticks of the *Amblyomma* (*A. cayenensi* and *A. maculatum*) and *Rhipicephalus* (*R. bursa* and *R. sanguineus*) strains.

Rhipicephalus sanguineus and *R. bursa* ixodides develop thrivingly in winter and spring with the dog as the exclusive host. Even short-haired dogs, of the kind we utilized for our study, are capable of harboring these parasites.

CASE REPORT OF CUTANEOUS FURUNCULOSIS THROUGH DERMATOBIA CYANIVENTRIS LARVAE (Macquart 1840) IN A MOUSE

M. Rodriguez González

The writer submits photographic evidence of cutaneous furunculosis through *Dermatobia cyaniventris* larvae in a country mouse.

This is the first case reported in Uruguay, in conjunction with rodents.

CASE REPORT OF A FISH (*SAGENICHTHYS ANCYLODON* BL. & Sch.) WITH A RUBBER BAND ROVE THROUGH ITS BODY

V. H. Bertullo

A "Pescadilla de Red" (*sagenichthys aencylodon* Bl. & Sch.) when

caught, was found to have a rubber band rove through its body.

The resulting choking did not affect the normal life of the fish.

From the anatomico-pathological standpoint this case may be classified as necrotic chaking through a mechanical agent.

AN EPIZOOTIE OF HEPATITIS IN DOGS AND CATS

G. A. Cristi.

A description is given of an epizootie in dogs and cats characterized by hepatitis as well as digestive and nervous disturbances.

The above epizootia was compared to the Alabama plague, which presented similar characteristics.

The epidemic is thought to be the result of viral infection, investigations being now under way toward this direction.

B) T. VI — N° 2 (1954)

CONTRIBUTION TO THE STUDY OF HETEROSIS IN POULTRY

M.L. Mattos, L.C. Aragunde and R.M. Caffarena.

An experiment was conducted to study the salient features and endocrine modifications brought on by heterosis. The authors performed cross of two P.B.U. registered batches of Rhode Island Red and White Leghorn.

Consanguinity and selection are attained by 1°) Persistence of production; 2°) Sexual matureness; 3°) Egg laying; 4°) Hatchability; 5°) Poultry measurements; 6°) Weight and shape of egg.

First laying control in purebreeds and R L L R cross is conducted. In males, a study is carried out of weight, precocity and macro-microscopic features of tested at various stages of development.

The writers arrive at the following conclusions:

1. As regards egg-laying, weight of eggs, precocity and gonadal development, R - L, F. 1 is superior to original pure-breeds and hybrid R - L.

2. The marketing qualities of F.1 R-L are parallel to gonadal development, on the basis of seminal tissue, a fact that leads to think that heterosis determines the stimulation of the endocrine system.

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ARTIFICIAL INSEMINATION OF COWS IN URUGUAY

L.C. Aragunde, C.H. Carlevaro, L.A. Saravia.

Artificial insemination was conducted in two lots of cows of Holstein and Hereford breeds by tube vaginoscope and insemination syringe with glass canula.

Rates obtained in Holstein cows do not differ from those reported by the literature. As to results with Hereford cows—more favored in this country as beef producers and raised pasture the year round—the authors observed 93.33% of born calves resulting from 60.00 and 3% of first, second and third insemination respectively. At the same cattle-raising establishment natural fecundation, with 3% of bulls, gave 75% of calves.

The higher percentage of Hereford as compared to Holstein may be attributed to operational conditions and not to lesser fertility.

Hereford raising in free pasture conditions and with proper feeding creates optimal conditions for functional normalcy with the above stated results.

The following conclusions are arrived at:

1) Under similar conditions, so far as genital normalcy is concerned, the results of artificial insemination in Uruguay are similar to those obtained in other countries.

2) Results achieved with the Hereford breed are superior to those yielded by natural fecundation.

3) Zootechnical improvement, control and prevention of genital diseases and increase of procreation rates demonstrate the convenience of a further utilization of artificial insemination in beef and milk producing animals, in accordance the special characteristics of each breed.

4) Results of first, second and third insemination indicate that success depends overwhelmingly upon the fertility characteristics of utilized semen.

THE REDDENING OF SALTED FISH BY "PSEUDOMONAS SALINARIA".

V.H. Bertullo.

1. The reddening of salted fish in Uruguay is brought on by a halophilic rodobacteria that has been identified as *Pseudomonas salinaria* (Harrison and Kennedy).

2. This bacteria exhibits the characteristics described by Bergey's manual but differing in incubation temperature (37.C instead of 42.C) and optimal salt concentration for development (10% Na Cl instead of 20%). It is deemed that these differences do not warrant a novel classification; they are rather ascribed to local conditions.

3. Following prolonged culture in 25% Na Cl broth, the bacterial organisms develop a pink veil which undergoes diffusion, thereby giving a pink stain to the entire medium.

THE CULTIVATION OF PLANT TISSUES

J. C. de Aragunde

The author conducted the cultivation of plant tissue using as material disks of *Daucus Carota* seeded in Erlenmeyer flasks and Petri dishes in accordance with the methods and techniques advocates by Gautheret, with the purpose of performing studies in plant physiology and genetics with a biochemical orientation.

Taking into consideration the air pollution of the laboratory, all seeding was conducted with sterilized material in a chamber provided with two Westinghouse sterilamp of W.L. 782 H-30. It was determined that 15 minutes' irradiation with ultraviolet light was long enough for sterilization.

Five series of cultures were prepared; these were reseeded after 69 and 81 days.

Macroscopically, it was possible to observe the growth of whitish buds in the area of alteration, which became green by the action of light.

Historical studies were performed with unstained cuts, microchemical reactions, and staining with Carmin-green-iodine, diluted to 1/3, the staining time being brought down to 1 minute.

Microscopic observations show morphological and chemical similarity of the newly grown tissue with the original tissue, thereby coinciding with Gautheret's cytological description.

Differentiation is represented by disorderly cell arrangement which modifies, to some extent, the chemical representation of the component parts, although not affecting the developmental stages of tissue growth occurring in the primitive normal tissue.

The author describes a modified staining method which she advises for histological studies, for reasons of expediency and clearness.

ABSENCE OF THE ROUND LIGAMENT IN THE HIP JOINT OF HORSE.

J. Postiglioni Grimaldi.

1. The absence of the round ligament in the hip-joint of horse was observed in certain cases.

2. The absence of the cotyloideus fascicle (ligamentum teres femoris) and of the pubis fascicle (ligamentum accessorium femoris) in ist inter-joint portion was found in 3 articulations belonging to 2 horses; the absence of the cotyloideus fascicle alone was present in two joints of one horse.

3. The writer advocates further studies of the anatomical details of the hip-joint of horse, including the whole of pubic fascicle and pectinial muscle owing to the likelihood of additional data that ilga- ment, an issue still subject to controversy.

DERMESTES PERUVIANA (CAST.) AND DERMESTES MACULATA (DEG.), COLEOPTERA PARASITING DRIED SALTED FISH.

V. Bertullo, M. Herrera, E. Rodríguez Rivas.

1. It has been found in Uruguay that *D. peruviana* and *D. maculata* (*D. vulpinus*) parasite dried salted fish, in accordance to definite developmental patterns.

2. The action of *D. peruviana* is described in Uruguay for the first time.

3. A 20% relative humidity and a minimal temperature of 25. C favor the onset of parasitosis.

ASPERGILLUS NIGER (STERIGMATOCYSTIS-DIPLOS-TEPHANUS-NIGRA VAN TIEGHAM, 1877) IN DRIED SALTED FISH.

V. H. Bertullo and M. Herrera.

1. For the first time in Uruguay, *Aspergillus niger* was isolated in dried Brótola (*Urophisys brasiliensis*) and Cazón (*Mustellus smithi*). appear the spore germinating when placed in favorable humidity and temperature conditions.

3. *Aspergillus niger* may undergo no apparent changes in salt and/or brine during at least 90 days and germinates immediately when seeded and cultivated in adequate media and temperatures.

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HYDROGEN PERÓXIDE AND ITS ACTION UPON PULMONARY PARENCHYMA.

M. Rodríguez González.

1. The intratracheal injection of diluted Hydrogen Peroxide does not bring about either local or general reactions in dogs.

2. High concentrations may be utilized without changes in described conditions.

3. The amount of fluid necessary to flood both lungs may be estimated in 0.5 ml. per kg. of live weight.

A CONTRIBUTION TO HISTOLOGICAL TECHNIQUE. STAINING OF ELASTIC FIBERS.

Emilio La Mata

The writer submits a staining technique for elastic fibers by utilizing ferric hematoxilin preceded by fixing with lugol solution. A deep and highly selective staining of the above structures was thus achieved.

ANATOMICAL STUDIES CONCERNING THE ENDING OF THE PRIMITIVE CAROTID OF HORSE.

J. Postiglioni Grimaldi

1. The writer discusses location, termination patterns, shape direction and dimensions of the Primitive Carotid Ending (p.c.e) of horse as well as the diameters of endings (internal, external and occipital carotid) and primitive carotid just before reaching termination.

2. Material and methods are described.

3. The situation of p.c.e. was studied in 49 horses of various types and breeds. With a 90° angle between head and neck it was observed:

in 42 horses the p.c.e. was aboral to digastric

in 5 " " " was medial to digastric

in 2 " " " was level to the edge of the digastric

muscle.

4. Termination patterns of primitive carotid were studied in over 150 horses. In addition to conventional patterns the writer describes

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an anomaly in with the mastoid artery was one of the endings instead of the occipital.

The presence of branche arteries is also described.

5. A description is given of the overall shape, parts and direction of p.c.e. in conjunction with 10 observations.

6. Results of measurements of total diameter and opening of p.c.e. and of each component artery, in a group of 20 horses, are given.

SARCO-MIXO-FIBROLEIOMIO-LIPOMA IN DOG.

G. Cristi.

The author reports upon an exceptional uterus growth in a female dog. The current pattern in clinic for this lesion is represented by a pediculate tumor found between the vulvar lips or through vaginal palpation.

The case described shoul be taken into consideration in the course of differential diagnosis in abdominal pathology.