

**217. LECTIN HISTOCHEMISTRY OF INTESTINAL GOBLET CELLS**

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The carbohydrate expression of goblet cells in the intestine of pigs, rabbits and horses was characterized by a lectin histochemical study. The intestinal sections were deparaffinized and incubated with the following biotinylated lectins: Con A, WGA, DBA, SBA, PNA, RCA-1 and UEA-I. Except for some rectal goblet cells of pigs and horses, no reactivity was found to Con A. An heterogeneous lectin binding pattern of goblet cell was observed in all the intestinal sections of the species studied with DBA, WGA and RCA-1. PNA reactivity was absent in the small intestine, except for some cells in the horse. DBA did not bind to colonic goblet cells of the pig, whereas SBA not only did not label colonic goblet cells of the pig, but also those of the horse. RCA-1 staining was negative in the large intestine of the horse. Most of the goblet cells of the whole intestine were intensely labelled with the lectin UEA-I; however, goblet cells of the small intestine of rabbits, colon of horses and rectum of pigs remained unstained.

Our results allowed us to conclude that the lectin binding pattern of the intestinal goblet cells varies among the three analyzed species.

**218. THROMBOCYTOPENIA AFTER INTRAVENOUS INJECTION OF COLLOIDAL CARBON IN CHICKENS**  
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In order to increase the knowledge of thrombocyte kinetics in chickens we have studied the short time response to the endovenous injection of colloidal carbon, taking advantage of the ability of circulating TBCs for endocytose particulate materials. Six (one month age) chickens were intravenous injected with 0,5 ml/k india ink (Pelikan Argentina, Batch 0206T1) diluted 50/50 in steril physiological solution. Two control chickens only received physiological solution. After previous evaluation of the initial thrombocyte blood count, blood samples were collected at 5', 15, 30' and 60' after the injection, and the TBC count was evaluated. A marked thrombocytopenia ( $49.035 \pm 29.66\%$  of the initial count) was detected after 5' of india ink injection. This thrombocytopenia is transitory because at 15' the TBC count increases, recovering initial values at 30' and 60'. We suppose that this thrombocytopenia is not due to thrombocyte destruction but to temporary sequestration.

**219. EFFECTS OF ALUMINUM PHOSPHIDE FUMIGATION (PHOSTOXIN DEGESCH) OVER GERMINATION PROCESS IN SOYBEAN SEEDS (GLICYNE MAX (L) MERR)**

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The purpose of the present paper is to show the favorable effects of an aluminum phosphide fumigation over the germination process in soybean seeds (*Glycine Max (L) Merr*).

Samples of 100 seeds were taken from a commercial growth in Tucumán, R. Argentina, and were fumigated with Phostoxin Degesch in a 4 tablets/tons dosage during 4 days of time exposure. High significant difference were found, in the hypocotile and radicle extend between test and treatments. No significant differences were found in germinative energy and germinative power.

The results therefore a treatment fumigation of aluminum phosphide, over soybean seeds, show a rapid establishment of the shoot plants in a minor time with respects a teste.

We can conclude that the fumigation with Aluminum phosphide, produce a favorable effects in the germination of soybean seeds determining a rapid establishment of the shoots plants in a less time.

**220. STUDY ON THERMALLY ALTERED HONEY**

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This study tested whether thermal treatments can alter the quality required by the Argentinean Food Code (AFC). Samples were taken before and after a 3-hour long 70°C thermal treatment. Parameters of fungus and yeast, total coliforms, humidity, acidity, HMF, color and crystallization degree (660 nm absorbance) were checked. The Student Test for Paired Samples ( $p < 0.05$ ) was applied on physical and chemical parameters, and Friedman's Non Parametric Test ( $p < 0.05$ ) on fungus and yeast. Results showed significant differences for color, HMF, humidity, absorbance, fungus and yeast, but not so for pH and acidity. The statistic result showed significative differences for color ( $t = 3.17$ ;  $p = 0.009$ ), HMF ( $t = 3.69$ ;  $p = 0.005$ ), humidity ( $t = -5.30$ ;  $p = 0.009 \times 10^{-1}$ ), absorbance ( $t = -13.57$ ;  $p = 6.08 \times 10^{-9}$ ), and for Fungi and Yeast ( $r = 0.67$ ;  $p = 0.025$ ); not so for pH ( $t = 1.01$ ;  $p = 0.17$ ) and acidity ( $t = -1.57$ ;  $p = 0.08$ ). No coliforms were observed before treatment. We deduce that the differences in values for fungi, yeast, humidity and HMF remained below those allowed by the AFC. Concerning liquefaction (absorbance), it improves demand with the local market, while the opposite occurs with the increment in color.