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**" Abstracts "**

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## Rapid cataract induction by Sodium Selenite in rabbit

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### Abstract:

For the clear and precise vision, it is necessary that the light way in your eyes to be transparent and the cornea and lens focus light on the retina correctly. In cataract, less light passes through the lens as a result of blurring of the lens. The ability of lens adaptation reduces with time. As a result, the sensitivity of subtraction will go away. The aim of this study was to try to make a rapid cataract in rabbits by injection of sodium selenite. For this purpose, 12 rabbits were kept for two weeks prior to injection for assuring of being clinically healthy and their eyes were examined for being free of cataract and other disorders by means of ophthalmoscopy, slit lamp biomicroscopy and ultrasonography. Rapid cataract was induced by subcutaneous injection of 1 mg/kg bw of sodium selenite and repeated two more times with 2 days interval (3 mg/kg bw totally). All rabbits were examined by ophthalmoscopy and B-mode ultrasonography daily and slit lamp biomicroscopy with three days interval until cataract was developed at day 9. At this time, Linear Cortical and posterior subcapsular cataract were observed in all rabbits. 4 rabbits were euthanized at day 23 for histological examination of the lenses and Induction of cataract was confirmed histology.

**Key words:** Rabbit, Cataract, Sodium Selenite.



## Clinical reaction and hematological and serum biochemical alterations in interspecies blood transfusion from sheep to cow

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### Abstract:

In cattle, blood transfusion is done in severe anemia as a result of abomasal ulcers, parturition accident and hemolytic diseases. The aim of this investigation was to observe the clinical reactions, hematological and serum biochemical alterations in interspecies blood transfusion from sheep to cow. 5 sheep aged 2 – 3 years old and 5 calves aged around 1 year old were selected. Blood was collected from the selected sheep. 280 ml of blood were transfused from sheep to calves. No any serious clinical reactions was observed after blood transfusion. Blood samples were taken from recipients before blood transfusion and at the times 12 and 24 hours post-transfusion. Total white blood cells, differential leukocyte count and determination of serum total protein, total bilirubin, lactate dehydrogenase, total globulin and albumin were performed. The data were analyzed by analysis of variance (ANOVA) and Duncan's multiple range test to detect significant differences among the means. There were no significant hematological and biochemical changes in the calves ( $p \geq 0.05$ ), maybe as a result of vast variety of blood groups in cattle.

**Key words:** interspecies blood transfusion, sheep, cattle



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## The effects of different levels of mineral and vitamin premixes on performance and blood parameters of laying hens on corn base diets

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### Abstract:

An experiment was conducted to evaluate the effects of different levels of mineral and vitamin premixes on performance, egg traits and blood parameters of laying hens in late laying period on corn – soybean base diets. Experiment was carried out in a completely randomized design with 240 Hi-Line (W36) laying hens from 65-76 weeks of age with 5 treatments, 3 replicates and 12 hens in each replicate. The levels of mineral and vitamin premixes in experiment diets were 0, 0.25 (factory recommended level), 0.35%, 0.45% and 0.55% and fed to laying hens for 12 weeks. The results showed that using different levels of mineral and vitamin premixes significantly affect the performance and egg traits of laying hens ( $P < 0.05$ ). The highest amounts of egg weight, egg mass, egg production percentage, the best feed conversion, the lowest feed price and the highest Haugh unit were observed by using 0.45% of mineral and vitamin premixes. The highest amounts of feed intake and egg specific gravity were obtained by using 0.55% of premixes, whereas the highest amount of red blood cells was resulted in group without using mineral and vitamin premixes. Using different levels of mineral and vitamin premixes did not have any significant effects on blood metabolites of laying hens ( $P > 0.05$ ). The overall results indicated that in laying hens in late laying period on corn base diets, 0.45% of mineral and vitamin premixes can improve their performance and decrease the feed price for production each kilogram of egg.

**Keywords:** Egg Traits, late laying period, laying hens, mineral and vitamin premixes, performance.



## The Biological Effects Pesticide of *Chlorpyrifos* On the development of Balb/C Mouse Embryos Third to Sixth Days Of Pregnancy

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### Abstract:

**Introduction:** Chlorpyrifos is one of organophosphate Insecticides and had studied in recent years because it has many complications devastating on skin, nervous, respiratory and digestive systems. But its effects on the embryo has not been reviewed. This research conducted to study the biological effect(s) of a sort of pesticide named Chlorpyrifos on the development of Balb/c mouse embryo from third to sixth days of pregnancy

**Material and Method:** In this study 50 female Balb/C mouse were randomly divided into 6 equal groups a control group (non- injection) and saline injection group (injection of saline) and 4 experimental groups. LD50 was 25/32 ml/kg.bw and selected dose for injection peritoneal 0/4 ml/kg.bw. Then the mouse were euthanized on day 15 of pregnancy. Data was checked with SPSS17 software with ANOVA and Duncan test subject to (P<0/05) and (P<0/001).

**Results :** results showed after injection of *Chlorpyrifos* in experimental groups a significant decrease in the embryo and placental weight and also crown-rump length of embryos has been occurred in comparison with saline injection groups

**Conclusion:** According to the findings of this study, negative effects of Chlorpyrifos usage as pesticides on agricultural products, in the mouse embryos has been shown and to protect of environment and human being health, Especially pregnant women using of non-chemical methods to control of pest has been recomended.

**Keywords:** Chlorpyrifos, embryo weight, placental weight , Mouse embryo



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## Field study of monochromatic light effect on Bursal Body Weight ratio and spleen weight

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### Abstract:

Lighting is a critical parameter in poultry breeding controlling many behavioral and physiological functions effectively. Measuring bursa of fabricius as the most important lymph node of the birds and setting the ratio of the bursa weight to the total body weight are also important parameters to assess the health and functionality of the immune system. To do so, 34700 day-old chicks were selected from a 26-week Ross 308 breeder farm randomly. The chicks were free from congenital mycoplasma and salmonella infections. They were divided into three groups according to the capacity of the poultry house randomly. The only difference among the groups was the lighting wavelengths. On days 1, 24 and 46; 10 chicks were weighed in gram and euthanized each time; following the bursa of fabricius and spleen was weighed separately in 0.001 g to make the ratio of it with the total body weight. In case of measuring the spleen, there was no significant difference between the green and yellow lights in day 24 but both were less than the blue one while in day 46, there were no significant differences ( $P>0/05$ ) among the groups. In day 24, the weight of bursa of fabricius was not significantly different between the yellow and green lights but both were more than the blue light; also, it was true for the ratio of bursa of fabricius weight to the total body weight. In day 46, the analyses indicated that there were no significant differences ( $p>0.05$ ) in the ratio among the groups but the total body weight of the chicks breeding in blue light was a little more than the green one.

**Keywords:** short light wavelength, spleen weight, B.B.W. ratio



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## Effects of *Lavendula officinalis* aqueous extract on fertility and embryo Balb/C mouse.

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### Abstract:

**Introduction:** In addition to the sedative properties of *Lavendula officinalis* aqueous extract, it has antimicrobial properties. However, its effect on fertility has not been reviewed yet. Therefore in this study the effect of *Lavendula officinalis* aqueous extract on fertility and embryo Balb/C mouse was investigated.

**Material and Method:** After preparation of aqueous extract, experiments was on 65 mice with selected doses: 6 (group 1: 15 mice), 12 (group 2: 15 mice), 18 (group 3: 15 mice) g/kg.bw. Interperitoneally injections were done for 12 days. Results were compared with the control group (non-injection) and sham (injection of normal saline). For reliability of above results, experiences were repeated 3 times. Data was checked with SPSS 20 software and Duncan post test and ANOVA subject to ( $P < 0.001$ ) and ( $P < 0.05$ ).

**Results:** According to the results, The experimental group 1 was pregnant earlier than other groups and Significant decrease  $P < 0.001$  and  $P < 0.05$  in the number of mouse pups in Group 2 and 3 were higher than other groups. In group 1 all healthy mouse pups but we saw a significant increase  $P < 0.001$  abnormal embryos in group 2 and 3. A large number of mouse pups in Group 2 with bleeding eyes, head and skull, we was observed in Group 3 limb deviation from the symmetry axis, extensive bleeding in the whole body, all experimental groups showed a significant decrease of body weight ( $P < 0/05$ ).

**Conclusion:** It can be stated that consumed in high doses *Lavendula officinalis* cause impairment of fertility and embryo abnormalities, so be use as a contraceptive pill in the future.

**Keywords:** *Lavendula officinalis*, fertility, abnormalities, embryo mouse





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## Clinical report of congenital terminal hemimelia in pelvic limbs and bilateral agenesis of the toes in a kitten

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### Abstract:

Hemimielia is a congenital complete or partial absence of one or more bones. All appendicular bones can be affected and many variations have been showed. There is maximum incidence in radial, tibial and ulnar hemimielia.

A 4- months- old domestic short hair (DSH) kitten with deformed, non weight bearing painful left pelvic limb without any history of trauma. Clinical signs showed hind limb anomaly. Hence, radiographic survey was carried out in lateral and craniocaudal recumbency. Amputation was selected as a treatment of choice because of severity of deformation and pain. In the present clinical report we found terminal hemimielia in left limb and agenesis of metatarsus and phalanges in both pelvic limbs.

**Keywords:** tibial hemimielia, agenesis of toe, kitten