EFFECT OF DIETARY SUPPLEMENTATION OF *Melissa officinalis* and *Aloe vera* ON HEMATOLOGICAL TRAITS, LIPID OXIDATION OF CARCASS AND PERFORMANCE IN RAINBOW TROUT (*Oncorhynchus mykiss*)
**ABSTRACT:**
This was conducted to investigate the effect of feeding lemon balm (Melissa officinalis) and Aloe (Aloe vera) on growth performance, hematological parameters and oxidative stability of rainbow trout. 360 uniform rainbow trout were divided into six groups (control and five treatments) and fed with commercial fish feed supplemented with lemon balm and Aloe at various levels. The results showed that supplementation significantly increased weight gain, specific growth rate, whole blood cell count and haemoglobin level compared to the control. However, any significant differences were not observed in red blood cell count and haemoglobin level in treatments. Results of lipid peroxidation showed that supplementation with lemon balm and Aloe herbs could be protective against lipid peroxidation in fish meat during chilling storage (4°C, 7 days).

**Key words:**
Lemon balm (Melissa officinalis), Aloe (Aloe vera), plants supplementation, Rainbow trout (Oncorhynchus mykiss)

**Growth and development of muscles, bones and fat of guinea fowl (Numida melanocephala)**

**Original Research, B2**
Y. H. Elhashmi, A. El Amin, F. A. Omer

*Online J. Anim. Feed Res.*
ABSTRACT: This study was conducted to evaluate the growth pattern of muscles, bones and fat of guinea fowl. Eighteen day old chicks were used in this study. The carcasses were serially slaughtered at different time intervals. Thorax and hind limb had high growth rate when compared with pelvis, wing, neck and flank. The results showed that the breast muscles were the highest in percentage fat and weight and the leg muscles were the lowest. The results also indicated that the fat percentage was highest in neck and flank muscles and the lowest in breast muscles. The results of this study could be used in the growth analysis of guinea fowl and the production of carcass yield.

Key words: carcass yield, body regions, serial slaughter

EFFECT OF SALT CONCENTRATION LEVEL AND SEASON ON CHEMICAL COMPOSITION OF WET-SALTED FERMENTED FISH SPECIES

ABSTRACT: The study was conducted to investigate the effect of salt concentration level and season on chemical composition of wet-salted fermented product (local name; fassiekh) processed from new two fish species (Labeo spp, local name; Debs, Schilbe spp local name; Shilbaya) compared with popular fassiekh fish species (Hydrocynus spp, local name; Kass), in reducing the over fishing and use of Alestes and Hydrocynus spp in fassiekh production in the Sudan. A assorted of 12 Kgs of each of three fassiekh fish species group, consisted of Hydrocynus spp; (25 -30 cm in total length) were used as the first group. The second group were comprised of Debs spp and Shilbaya spp respectively at the same salt concentration level of treatment and season time.

Keywords: salt concentration levels, season, chemical, composition, wet-salted Fermented, fish species
ANTI-NUTRIENT FACTORS, PERFORMANCE AND SERUM BIOCHEMISTRY OF BROILER CHICKS FED RAW AND FERMENTED \textit{ALCHORNEA \textit{CORDIFOLIA} SEEDS}

Original Research, B4
Emenalom, O.O., Obiora, A.B., Okezie, U.N.

\textit{Online J. Anim. Feed Res.}
ABSTRACT: This study was carried out to determine some anti-nutrient factors in differently processed Christmas bush (Alchornea ... raw seed meal before fermentation improved the feeding value of the seeds for broilers at 10% replacement for maize.

Keywords: Alchornea seed; Anti-nutrients; Broilers; Fermentation

SURVEY OF PRODUCTION AND USE OF POULTRY LITTER IN KHARTOUM STATE, SUDAN

ABSTRACT: A survey of chicken litter production was undertaken by hand submitted questionnaire. The survey covered 219 farms out of which 186 were in the farm husbandry system and the rest were in the use of commercial systems. The survey covered 219 farms out of which 186 were in the farm husbandry system and the rest were in the use of commercial systems. However, there are no significant differences on other chemical compositions.

Key words: Poultry litter, survey, chemical composition.
Regression Analysis of Linear Body Measurements on Live Weight in Sudanese Shugor Sheep

Original Research, B6
A.M. Musa, N.Z. Idam and K.M. Elamin

Online J. Anim. Feed Res.

ABSTRACT: In this research, linear regression models were improved for estimation of body weight using various linear body measurements. The model including the most appropriate measurements such as heart girth, height at wither and height at hip were the best fitted model ($\beta = -47.54$, MSE = 9.39 and $R^2 = 0.61$) for estimation of body weight in Sudanese Shugor sheep in this study.

Keywords: Linear body measurements, Body weight, regression analysis, Shugor sheep, Sudan.
APPARENT DIGESTIBILITY COEFFICIENT OF PELLETED FISH FEED INCORPORATED WITH WATER HYACINTH (Echhornia crassipes)

Original Research, B7

ABSTRACT: The objective of this study was to determine the apparent digestibility coefficients (ADC) of dry matter, protein, gross energy and fiber of five pelleted fish feed incorporated with different levels of water hyacinth. The water hyacinth incorporation significantly increased the apparent digestibility coefficients of dry matter, protein, gross energy and fiber. The maximum digestibility of nutrients was found up to 10% inclusion of water hyacinth in the feed. Red tilapia has efficient maximum digestion to nutrients up to 20% inclusion of water hyacinth in the feed.

Keywords: Apparent digestibility, pelleted, water hyacinth and fish

EFFECT OF FROZEN Daphnia magna DIET MIXED WITH PROBIOTIC PROTEXIN ON GROWTH AND SURVIVAL OF RAINBOW TROUT (Onchorhynchus mykiss) FRY REARED UNDER CONTROLLED CONDITIONS

Original Research, B8
Sharareh Ahmadvand, Hojattollah Jafaryan, Amin Farahi, and Sheyda Ahmadvand

ABSTRACT: Effect of probiotic Protexin was experimentally tested on growth and survival of rainbow trout fry reared under controlled conditions. Experiments to determine the effect of different levels of probiotic (2×10^4 (T1), 2×10^5 (T2) and 2×10^6 (T3) CFU/g) on growth and survival rates of rainbow trout in comparing with those of control diet containing no probiotic were performed. The growth and survival rates of fish were affected significantly by dietary level on water quality. There was no effect of probiotic supplementation on survival at the end of experiment in T1 and T3, but survival rate in T2 was higher than other groups, significantly (P<0.05). Viability against high temperature stress was affected by dietary level as supplemented diets by probiotic revealed the better and more efficient results in fish survival. Viability of T2, T3 and control in challenging with high salinity was homogenous, while T1 showed the significant difference (P<0.05) with others, properly.

Keywords: Probiotic, growth, survival, rainbow trout (Oncorhynchus mykiss)

Relationships between haemoglobin (Hb) type and productive and reproductive performance of Rahmani ewes and lambs

Original Review, B9
M. Abd-Allah, H. A. Hassan and M.A. Al-Baroady

ABSTRACT: Two hundred Rahmani ewes and seventy-one lambs used to study the relationship between the type of haemoglobin and some productive and reproductive traits. Distribution of Hb types and allelic frequencies were higher for type AA of ewes, while for lamb's type BB was higher than other types. Daily weight gain of lambs with Hb AA and Hb BB were similar and significantly higher than lambs with Hb AB. There was no significant difference in daily weight gain between lambs with Hb BB and Hb AB. Daily gain of lambs with Hb AB was significantly lower than lambs with Hb AA and Hb BB. The productive traits of lambs with Hb AB were significantly lower than lambs with Hb AA and Hb BB. The productivity of lambs with Hb AB was significantly lower than lambs with Hb AA and Hb BB. Lambs with Hb AB had the lowest value of daily gain at all periods studied than lambs with Hb AA or Hb BB.

Keywords: haemoglobin type, Rahmani ewes, reproductive performance

GROWTH Performance of desert sheep under grazing conditions in NORTH KORDOFAN STATE

Original Research, B10
M.A.M. Tibin, I.M. Tibin, and I. Bushara

ABSTRACT: The experiment was conducted to study the effect of changing the nomadic husbandry practices during summer with feed supplementation on the growth performance of Hamari sheep. The growth of Hamari sheep under range conditions in North Kordofan State was affected significantly by the type of feed supplementation. Feed supplementation will probably reflect positively on the performance of Hamari sheep under range conditions.

Keywords: Desert sheep, growth performance, Body linear measurements, concentrate ration, Sudan

SYNERGISTIC EFFECTS OF DIETARY GLUCOSAMINE AND PLANT / ANIMAL PROTEINS ON THE GROWTH PERFORMANCE OF ASIAN CATFISH (Clarias batrachus) JUVENILES

Original Research, B11
S. Chowdhary, P. P. Srivastava, S. Mishra, A. K. Yadav, R. Dayal, and W.S. Lakra

ABSTRACT: A 84-days feeding trials was conducted to evaluate the use of animal and plant protein, in combination with glucosamine on the growth performance of Asian catfish (Clarias batrachus) juveniles. The fish fed on diets supplemented with glucosamine showed best in F6 followed by F5 and F4. The survival was improved in glucosamine supplemented feeds ranging from 49±3.2 to 85±1.7 whereas the control showed 41±1.8 %. Results indicate that animal protein rich feeds were much acceptable and glucosamine supplemented feeds showed synergistic effects. The growth promoting effect of glucosamine needs more evaluation along with synergistic effects of growth promoter like glucosamine.

Keywords: Clarias batrachus, glucosamine, animal protein, plant protein, growth

INDUCED Spawning of Silver Carp, Hypophthalmichthys molitrix Using Hormonal Analogues with Dopamine Antagonists
ABSTRACT:
A study was made to investigate the effects of using carp pituitary extract, human chorionic gonadotropin, luteinizing hormone releasing hormone analogues (Receptal), with or without dopamine antagonists on the spawning performance parameters of silver carp. Results of the current study indicated successful induction of spawning silver carp using different spawning agents. The breeding response and fecundity were comparable among all treatment groups. Moreover, the current experiment clearly demonstrated that dopamine antagonists potentiate the effect of the hormones used for spawning induction together with reduction of its dose (i.e. dose of carp pituitary extract, human chorionic gonadotropin). Meanwhile, it is well established that domperidone is preferred than metoclopramide as a dopamine antagonists for spawning induction of fish. In view of these results it is clear that not only carp pituitary extract, human chorionic gonadotropin but also the mammalian LHRH analogue (i.e. Receptal) was effective to induce spawning in silver carp. This is important to reduce the cost of induced breeding by using mammalian LHRH analogues in combination with a dopamine antagonist or alone.

Keyword: Silver carp, induced spawning, human chorionic gonadotropin, luteinizing hormone releasing hormone analogues, dopamine antagonists.

ABSTRACT:
A 84-day feeding trial was conducted to evaluate the utilization impact of dietary omega – 3 HUFA as a dietary energy source on growth performance of striped murrel, Channa striatus fry. Our results indicated that the lipid from unsaturated origins could be effectively utilized by striped murrel fry with a better resultant growth. Key words: lipid, utilization, growth, Channa striatus.

ABSTRACT:
A six-week feeding trial involving 180 2-week old Cobb broiler chicks was conducted to partially replace fishmeal with Moringa (Moringa oleifera) leaf meal. The birds were randomly assigned in equal numbers in a Completely Randomized Design (CRD) to four dietary treatments containing 0, 5, 10, and 15% Moringa leaf meal (MLM). Each treatment was replicated three times giving 15 birds per replicate. Feed and water were supplied ad libitum. The parameters measured include feed intake, final weight, weight gain, feed conversion ratio, mortality and haematology, serum biochemistry and meat quality. Addition of MLM does not adversely affect mortality, carcass traits and blood variables. KEYWORDS: Moringa, Performance, Haematology, serum biochemistry and Meat quality.

ABSTRACT:
This study was conducted to determine the effect of Icacina oliviformis leaf meal (IOLM) on the growth performance of weaner rabbits. The results of this study, IOL can be used as a feed ingredient in the diet of rabbits at 5% without any detrimental effects. Keywords: Icacina oliviformis, Rabbits, performance, apparent digestibility.
BIOSECURITY PRACTICES IN ALGERIAN POULTRY FARMS

Biochemical And Non-Specific Immune Parameters Of Healthy Nile Tilapia (Oreochromis niloticus), Blue Tilapia (Oreochromis aureus) And Their Interspecific Hybrid (♂ Oreochromis aureus X ♀ Oreochromis niloticus) Maintained In Semi-Intensive Culture System

Potentialities and the biochemical composition of selected duck strains:

Effect of date pits on the performance of Sudanese desert lambs

Estimation of live body weight from linear body measurements for Farta sheep
A study, to develop regression models for prediction of body weight from other linear body measurements, was conducted in Farta sheep. The objective of the study was to develop a linear regression model to predict body weight of Farta sheep. The model was developed using data from 100 animals, and the model was validated using data from an additional 50 animals. The results showed that the model was able to predict body weight with high accuracy, with a coefficient of determination of 0.92. The key words for this study are: Farta sheep, body weight, linear body measurements, regression model.