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AMBIENT PARTICLE MATTER POLLUTION OF BOSNIA DISTRICT OF KONYA CITY, TURKEY

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ABSTRACT

Population growth, urbanization, industrialization and migration have been effected in city in the recent century since the beginning of the world is the most important problems. Konya city Turkey during last 2-3-decade, important province pile pollution has increased a median. Air pollution, which started to be effective after 1975 in Konya, is the most important question of the city today. Konya Metropolitan Municipality Environmental Protection and Control Department's regulation on the subject continues air pollution follows: It is important to board of directors with air pollution. The air quality measuring devices of Konya city are monitored on the regularly and are also shared online for the public to follow. In addition, the appearance of polluting sources influences the causes of a pollutant (Industry, Traffic and Domestic Business) in the city. For this purpose, the project of Modelling Air Quality and Creating Clean Air Action Plans was launched in 2017. Air Pollution monitoring project results, which were prepared and completed in 2009, are aimed to be prepared and already underway. It focusses on reducing airborne levels towards this goal; we evaluate it in every dimension and implement the explanation. Bosnia district of the Konya is the most fast-growing part with parallel to increasing university student in the region. In this study atmospheric particle matter levels were investigated and modelled. Evaluation and evaluation of the measurement results were made by Surfer v8 program and modelling maps were created. Form the results of this study; source of air pollution will be investigated. As a result of the evaluation of the measurement results made at 22 different points, it was observed that when the assessment was made according to the WHO and EPA, values were higher than the limit values at some measurement points.

Keywords: Air Pollution, Particle Matter, Bosnia District, Konya, Atmosphere, Modelling

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MAXIMUM ENTROPY (MAXENT) MODELLING FOR PREDICTING THE POTENTIAL DISTRIBUTION OF *PHLOEOSINUS AUBEI* (PERRIS, 1855) (COL.: CURCULIONIDAE, SCOLYTINAE) AS RISING THREAT FOR *CUPRESSUS SEMPERVIRENS* L. TREES IN TURKEY

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ABSTRACT

Cupressus sempervirens is one of the main elements of the cultural landscape of the Mediterranean coast. It can be preferred for the purpose of closing the unwanted views as aesthetic and decorative, reinforcing the beauty of the landscape, increasing the value of architectural works and historical works. *Phloeosinus aubei* (Perris, 1855) is an important bark beetle species (Col.: Curculionidae, Scolytinae) that attacks to the Cupressaceae family. It was determined as an important pest of cypress in some European countries. Also, it is observed that the expantion and epidemy potential of *P. aubei* has been increasing especially through to the Mediterranean region of Turkey on *Cupressus sempervirens*, *Juniperus communis*, *J. excelsa* and *Thuja* species in Turkey. This study was conducted to modelling the current and future (2050 and 2070) distributions of *Phloeosinus aubei* in Turkey according to RCP4.5 and RCP8.5 (Representational Concentration Pathways) climate change scenarios. Results showed that *Phloeosinus aubei* will expand its range towards Aegean region of Turkey.

Keywords: *Cupressus sempervirens*, *Phloeosinus aubei*, Maxent, predicting

THE EVALUATION OF PERCEPTIONS' SUSTAINABLE RURAL AND URBAN INTERFACE OF THE URBAN INHABITANTS IN THE PERIPHERY OF KONYA

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ABSTRACT

The disintegrating of rural and urban space is the main problem area of the urban environment. The behavior of users living in the periphery directly affects the sustainable spatial integration of these rurban areas. Ecological based spatial modeling of rural urban continuity defines urban growth strategies. In this context, environmental consciousness of the rurban dwellers in the periphery is one of the important indicators of the sustainability of the ecological structure of the urban environment in the periphery. In this study, urban land use behaviors and expectations of the inhabitants of Kayacık and Tatlıcak villages, which are located at rurban areas in Konya, will be evaluated as to NEP Scale' analysis method. Tatlıcak is an exurbia, which was settled low-income groups by the metropolitan municipality; Kayacık is a villiage at the edge of city before the 6360 Metropolitan Law in 2012. After the 6330 numbered Law, metropolitan administration border expanded to the provincial borders administratively. In this study, 5-point Likert-scale NEP analysis of nature-centered and human-centered land use approaches to sample size in 10% of both village population is examined and it is examining environmentally sensitive behaviors.

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ENERGY EFFICIENCY IN BUSINESS: SCALE DEVELOPMENT STUDY

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ABSTRACT

In this research, it is aimed to develop a measurement tool that measures energy efficiency in enterprises. As a workgroup manufacturing enterprises in Turkey are preferred. The scale was developed to reveal the factors that are effective in determining energy efficiency from the perspective of employees. In the scale development study; explanatory factor analysis, reliability analysis, correlation analysis and confirmatory factor analysis were performed respectively. The scale developed consists of 5 factors. Factors related to the scale are energy efficiency factor (EEF); control factor (CF); automation factor (AF); educational factor (EF) and management factor (MF). The structures consisting of 37 items were supported with goodness of fit values. Chi-square is 451.77; degree of freedom is 138; p is 0,000 and the RMSEA value is 0.085. The analyzes were performed with SPSS and LISREL 9.1 program. Considering the values, it was decided that the scale was developed in a way suitable for measuring energy efficiency in enterprises.

Key words: energy efficiency, scale developed, business processes

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CIRCULATION OF THE HEAVY METALS IN NATURE, CONCENTRATION OF CHEMICAL ELEMENTS IN DAILY FOOD, CHEMICAL EFFECTS ON HUMAN HEALTH AND ENVIRONMENT

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ABSTRACT

Circulation of heavy metals in nature that have a high toxic effect, among others includes these factors: the amount of toxic dose, the nature of exposure to the toxicity, types of exposed species, age, gender, genetics and nutritional conditions of the exposed individuals to the toxic material. The high degree of concentration of heavy metals such are: arsenic, cadmium, chrome, lead and mercury belong to the group of metals that have an impact on the public health of the citizens. The metallic elements are manifested with toxic effects in systematic manner during their exposure, especially in the consumption of the food products, which cause great damage to the human and animal organs, often even in low levels of exposure. The increase of the toxic concentration was as a result of the industrial development, the use of pesticides and herbicides in agriculture, they all cause health damages as a result of the exposure to metallic toxicity: 1) molecular toxicity, 2) genetic toxicity and 3) cancer inducing impact. The presence of heavy metals in the environment such are: copper (Cu), iron (Fe), magnesium (Mg), manganese (Mn), nickel (Ni), selenium (Se), zinc (Zn), cobalt (Co), chrome (Cr) represent essential nutritional substances which are required in different biochemical and physiological functions.

Key words: environment, health effects, metals.

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INVESTIGATION OF METALS REMOVAL WITH *CHLORELLA ESP-6* MICROALGAE IN METAL SECTOR WASTEWATER

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ABSTRACT

In this study,with microalgae the biodegradability of metals were investigated in the metal industry wastewater. The wastewater used in the study were supplied from a company which is engaged in metal preparation, processing, galvanizing operations in province Kocaeli of Turkey. Wastewater samples were diluted 0%-10%-20% by volume in the laboratory. *Chlorella Esp-6* were sown as a solid culture in the diluted wastewater samples. Then, the removal of Zn, Fe, Mg, Ca, Al, Na and K metals was observed. During the cultivation of microalgae, samples were taken from the wastewater samples on the 1st , 7th and 24th days. The removal was observed to have the highest efficiency at different dilution rates on 1st day and 24th day of the study. Removal efficiencies of Zn (20% dilution, 24th day), Fe (20% dilution, 24th day), Mg (10% dilution, 24th day), Ca (20%dilution, 1st day), Al (10% dilution 24th day), Na (0% dilution, 1st day) and K (20% dilution, 24th day) were calculated as 97.51%, 97.12%, 70.69%, 99.06%, 87.20%, 90.05%, 37.46%, respectively. Based on the calculated results, it has been observed that removal of metal with microalgae in metal sector wastewater can be applied as an alternative treatment method.

Keywords: Wastewater Treatment, Metal Removal, Metal Industry, Microalgae

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FEASIBILITY OF CLEAR-UP STRIPS IN THE DIAGNOSIS OF DEMODEX AND SARCOPTES MITES

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ABSTRACT

In the present study, it was aimed to compare the atraumatic Nivea nasal clear-up (NNC) band and traumatic deep skin scraping test (DSST) for the diagnosis of _Demodex canis_ or _Sarcoptes scabiei_ in dogs. A total of 12 specimens were collected from six dogs diagnosed with demodicosis (n=5) or sarcoptic mange infestation (n=1) between September-December 2016 with both techniques. The total number of mites in demodectic dogs with two different methods (NNC) band and DSST were 286 and 159, respectively. In addition, only four eggs were identified with DSST, while 16 adult mites and eight eggs were identified with (NNC) band in a dog with sarcoptic mange. When both technical comparative interpretations are made, it can be said that (NNC) band might be a method which can easily be used in the diagnosis of both diseases and might be used more frequently than DSST. In addition, the atraumatic formation of the application may increase satisfaction of the patient owner.

ARABIA GOAT'S BREED WEIGHT EVOLUTION IN SEMI-ARID REGION OF WESTERN ALGERIA

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ABSTRACT

The aim of this study was to determine the influence of sex and type of birth in Arabia goat breed kids raised in western Algeria. Our study was conducted in the Livestock Technical Institute of Ksar-Chellala in Tiaret region between 2016 and 2017. For this study, eighty-one kids were weighted monthly since birth until 360 days old. The influence of sex, age and type of birth on the kid's weight was analyzed statistically. In this work, birth mean weight for males was about 3.16 ± 0.58 kg significantly ($p< 0.05$) higher than 2.88 ± 0.50 for females, the mean weights at birth for all kids was 3.06 ± 0.57 kg. The birth type influenced significantly ($p<0.05$) the kid's weight between birth and 30 days old, single born kids were heavier 3.38 ± 0.51 kg than twins 2.89 ± 0.53 kg and triplets 2.60 kg . In this work, both sex and birth type influenced significantly the weight at birth in kids.

Keywords: Algerian goats breed, Kids, Birth type, Production

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MECHANICAL PROPERTIES OF HYBRID FIBER REINFORCED LIGHWEIGHT CONCRETE AND ESTIMATION OF MECHANICAL PROPERTES BY NON-DESTRUCTIVE ULTRASOUND TEST

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ABSTRACT

Concrete an essential building material of the century is a brittle material with low tensile strength in comparison with compressive strength. In order to improve tensile strength, various types of fibers are used not only increasing the ductility but also limiting the crack progression on concrete. In the last decade, hybrid fiber reinforced concrete has been popular which is limiting the propagation of micro cracks by fine fibers and controlling larger cracks by longer fibers. Light weight concrete differs from normal concrete by its lightness and the gaps enabled thermal insulation. In this paper, mechanical properties of hybrid fiber reinforced lightweight concrete (HFRC) were tested by conventional methods and non-destructive methods. Fresh and hardened properties of hybrid fiber reinforced lightweight concrete, produced by 6 mm long steel and 55 mm long polypropylene fibers, were studied both with destructive and non-destructive testing methods. Steel and polypropylene fibers in various rates were used both individually and together in the HFRC. Slump flow test and flow table tests were conducted in order to detect the workability of fresh concrete mixture. Further compressive strength, flexural strength and split tensile strength of hardened lightweight concrete was evaluated. Additionally, non-destructive ultrasound test was applied all specimens. It is figured out from both destructive and non-destructive tests that using polypropylene and steel fibers together in a proper rate contributes the mechanical properties of lightweight concrete.

Key words: Concrete, lightweight concrete, steel fiber, polypropylene fiber, hybrid fiber

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ESTIMATION OF SUSPENDED SEDIMENT LOAD BY ARTIFICIAL NEURAL NETWORK

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ABSTRACT

In this study, the monthly flow rate and suspended sediment load (Q_s) Karamenderes Stream in Turkey for the years of 1996-2004 were estimated with artificial neural network. Mean square error, mean absolute error and coefficient of determination were used for performance evaluation of the model. The model produced satisfactory results and showed a very good agreement between the predicted and observed data. The results also showed that the performance of the Artificial Neural Network model can capture the exact pattern of the suspended sediment load data in the Karamenderes Stream.

Key words: ANN, Suspended sediment load, sediment transport, modeling.

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EXPERIMENTAL STUDY ON THE EFFECT OF CARBON BLACK ON MECHANICAL PROPERTIES OF MORTAR SAMPLES

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ABSTRACT

Today, the methods of recovering finished tires are becoming more and more widespread. Recycling of finished tires is done for various sizes from full to dust-free. The pyrolysis method, which is used in the recovery of the finished tires, has become an interesting topic in recent years. Pyrolysis is the process of thermal decomposition of organic materials in an oxygen-free environment after heating at high temperatures (500-1000 °C). The mixture of carbon black and steel wire obtained as a result of the pyrolysis process is separated by magnets and steel wires are sent to the waste wire collection pool and carbon black is sent to the grinding and packaging unit to be bagged to the appropriate size. The "Pyrolysis Carbon Black" (CB) product, which is reduced to an average of 30-40 μ after grinding, is bagged and ready for sale. Carbon black, which is the result of pyrolysis process, is much more economical than carbon black, so it is very suitable to be used as filler and additive material in certain production areas. Carbon black; It is used in different industrial branches as cable, conveyor belt, conveyor belts, hose, mop, black bag, mixture with rubber paste, auto spare parts, heat insulation, paint material in rubber materials, base material, plastic and fire extinguisher. In this study, carbon black was added as an additive to the produced mortar samples of size 40x40x160 mm. Five different blends were made, unadulterated and with 10 g, 20 g, 30 g, 40 g carbon black adjuvant. Three samples were prepared from each mixture. The effect of carbon black was examined by performing pressure test and bending test on the mortar samples.

Keywords: carbon black, recovery of waste tires, mortar.

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EVALUATION OF SAGE BIOMASS INDICATORS (*Salvia officinalis* L.) FOR ENERGY PRODUCTION AND THEIR RELATIONSHIP

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ABSTRACT

One of the major problems of our society is the energy crisis and the environmental crisis. Humanity has found ways to change one form of energy to another to serve itself. For example, we turn wood into heat when we burn it. Wood, a form of biomass, has been the first source of energy. In the sense of biomass energy, the term refers to those plants, residues and other biological materials that can be used as a fossil fuel substitute in the production of energy and other products. The living biomass takes up carbon as it grows and releases this carbon when used for energy, which is a neutral carbon cycle, meaning it does not increase the atmospheric concentration of greenhouse gases. So biomass is the sun's energy stored by plants through the process of photosynthesis. When we use energy from biomass, we use energy that originally comes from the Sun. To find an alternative source of energy production, we studied sage biomass (*Salvia officinalis* L.) as a case study. According to our analysis, sage biomass can be used effectively for energy production.

Keywords: Biomass, renewable energy, low calorific power, net incoming energy, net incoming power.

RESEARCH OF SOME MAIZE HYBRIDS FROM CROATIA COMPARING KOSOVO'S AGRO-ECOLOGICAL CONDITIONS

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ABSTRACT

Six maize hybrids F_1 generation from Croatia were tested, during the growing season, in agro - climatic condition of Kosovo. The investigation has been performed in micro trials set up at the two most important agro production sites of Kosovo, Peja and Pestova, in which trials has been investigated the yield, crude, protein, content and other relevant traits of. Maize (*Zea mays* L.) is one of the most important field crops that are regularly cultivated each year in Kosovo with an area 70000 - 90000 ha with some oscillation [3]. Grain yield per surface unit is one of the most important trains that influence directly for arent ability and economic production [9]. The average grain yield of maize in the last years the main agro- production localities of Kosovo is very low ranging from 4.0 - 5.5 t/ha. For an economic and sustainable production of maize there is necessary to have high yield hybrids, optimal agro-climatic conditions, modern agriculture mechanization and application of proper plant protection measures the yield is very complex trait that depends by genotype of maize and environment conditions, as well [1], [2]. During the cropping season, the micro trials were established in two most important agro - production localities of Kosovo to investigate the performance of ten maize hybrids from the region with the aim of their introduction into the national list of varieties Kosovo. The perspective maize hybrids. The obtained result showed that there are statistically significant differences among the maize hybrids compared with standard check, with regard to the grain yield, crude, protein contents and other traits. Such statistically significant differences have been observed between localities as well.

Key words: crude protein content, grain Yield kg /plot, grain yield, phenological traits of maize hybrids.

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THE EFFECT OF WATER STRESS ON PHOSPHATIDYLCHOLINE COMPOSITION IN DURUM WHEAT LEAVES

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ABSTRACT

Two durum wheat (Triticum durum Desf) cultivars, Oued-Zenati 368 (OZ) and Kebir (K), differently sensitive to drought are cultivated under controlled conditions. The PEG is used at the 21st day of the plantation in order to obtain a moderate level of water stress (S). At the 28th day, the relative water content (RWC) and the leaf phosphatidylcholine (PC) composition were studied in the controlled and stressed plants. The water stress provokes a reduction of RWC in the two cultivars, and the amount of PC increase in OZ and decrease in K. We also examined the composition of fatty acids for this phospholipid, and the changes provoked in the degree of unsaturation (DoU) by the water stress. Our results confirm the settled hypothesis: that we could exploit phosphatidylcholine as biological marker for the screening of the plant genotypes resistant to the drought.

PREDICTION OF POTENTIAL AND FUTURE DISTRIBUTION AREAS OF ANATOLIAN CHESNUT (*CASTANEA SATIVA* MILL.) BY USING MAXIMUM ENTROPY (MAXENT) MODELING DEPENDING ON CLIMATE CHANGE IN TURKEY

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ABSTRACT

The current and future potential distribution areas of the species according to different climate scenarios can be revealed with Maxent program by means of layers which are created using point data representing the areas where species exist and digital bioclimatic data belonging to these areas. The aim of this study is to determine the potential distribution area of *Castanea sativa* that has economic importance for Turkish forestry and how it will be affected by climate change. In order to determine how the distribution area of the species will be affected by climate change, the potential distribution area of the species in 2050 and 2070 according to RCP 4.5 and RCP 8.5 was modeled according to the CCSM version 4 (Community Climate System Model) climate change scenario, which was created based on the 5th IPCC report. As a result of the study, suitable areas as the current distribution area of *Castanea sativa* are calculated as 31114.8 km^2 and the most suitable areas are calculated as 17605.1 km^2. Furthermore, according to the CCSM4 climate change scenario, significant losses are observed in the potential distribution areas of the species in the future.

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LEAD MOBILITY IN THE SOIL OF DIFFERENT AGROECOSYSTEMS

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ABSTRACT

Lead (Pb) is a widespread pollutant presented in soil, by various compounds. However, only mobile forms represent a danger to living organisms. The mobile compounds are those extracted with 0.1 and 1.0 HCl. Soil indexes like - the content of particles less than 0.001 mm (clay), soil organic matter (SOM) content, pH status of the soil solution significantly affect the mobility of lead. Application of mineral and organic fertilizers can enhance or reduce the mobility of lead in soil as well. The influence of fertilizers on the mobility of lead, as well as the peculiarities of its translocation into plants, was investigated at long-term-field experiments in three main climatic zones of Ukraine (Polissya, Forest-steppe, Steppe). We found that the soil parameters had the influence on lead mobility were in the following sequence: clay content> SOM > soil pH. There was a strong inverse correlation between lead mobility and soil parameters (r = 0.821-0.962). Application of mineral fertilizers increased the content of lead mobile forms in soil (by 7-24%), whereas organic fertilizers contributed to its decrease. Crops were ranged by the ability for lead accumulation in the following order: clover> sugar beets > corn> sunflower> winter wheat. Furthermore, mineral fertilizers contributed significantly to lead translocation from the soil to crops, while the influence of organic fertilizers on this process was insignificant.

Keywords: crop, environmental risk, fertilizers, lead mobility, soil

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THE STUDY OF MODERN HYBRIDS OF GRAIN SORGHUM IN THE CONDITIONS OF THE STEPPE ZONE

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ABSTRACT

In modern conditions of global climate change towards warming, in order to guarantee the provision of an increasing population of the planet with food, and especially grain, the issue of selecting the most productive, drought-resistant and heat-resistant crops becomes very urgent. One of such promising plants is sorghum grain, the main products of which are used for food, fodder and technical purposes. Almost every year, this crop in the steppe arid regions significantly exceeds traditional spring crops - oats, barley, corn and millet. In the State Register of Breeding Achievements Approved for Use in Russia for 2019, 120 domestic and foreign varieties and hybrids of grain sorghum were registered. The purpose of the research is to study the productivity of modern hybrids of sorghum grain in the soil and climatic conditions of the steppe zone on the basis of the Lugansk National Agrarian University in the crop rotation of the Department of Agriculture and Environmental Ecology (2016-2018). As a result of the studies, the most productive and maximally adapted crop varieties were established, which have the highest manufacturability and guaranteed maturation by the end of the growing season. In all the studied hybrids, no shedding of grain from panicles was recorded, even when the plants were stopped. The greatest damage to the leaves of cereal aphids was found in the wetter 2016. The average productivity of grain sorghum in the favorable year was 6.2 t / ha, in the arid year 2018 - 5.01 t / ha. On average, in 2016-2018, the highest yields (over 6.0 t / ha of grain) were obtained for early-ripening hybrids Frisket and PR88Y20 and mid-early Puma Star, Solarius and Bianka. These developments can be successfully implemented in agricultural production of the steppe regions of the North Caucasus region.

Key words: grain sorghum, soil and climatic conditions, phenology, grain yield, yield structure indicators.

THE IMPACT OF MARKETING ON ORNAMENTAL PLANT PRODUCTION BUSINESSES IN KOSOVO

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ABSTRACT

From the research we can conclude that marketing of floriculture is very important but insufficient in Kosovar businesses. The flower market in Kosovo is still not cheap at all, but it has to be said that it has recently made great strides in this direction. In practice, there are cases when individuals and businesses are not widely dedicated after marketing to expand businesses, although almost everyone thinks marketing is very important in this regard, as through marketing, consumers are introduced to the types of flowers that can meet their demands and desires. In general, the factors that have a profound impact on the floricultural market are: marketing and dedication to flowers, improving the different types of flowers, vertical integration of farms and finding new revenue alternatives that would affect profit growth, which is the purpose of any business. The application of advanced marketing, market research, increased assortment, variety differentiation and promotion, is almost incomplete in floricultural businesses. Businesses should be organized to take concrete measures in defense of their interests in the framework of deepening partnership with the Government of the country, to have adequate participation in the country's policy-making institutions. From the results we conclude that 60% of the respondents stated that the information on the sale of flowers is taken from social networks. Kosovar ornamental plant makers devote marketing importance to 27% , respondents think that applying marketing in the flower business brings benefits up to 86%, in the expansion of the flower market the quality is very important factor 92% of respondents were declared.

Keywords: flower, Industry in floricultura, marketing, Kosovo.

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IMPACT OF ORNAMENTAL PLANTS IN THE ARCHITECTURE OF GREEN URBAN ENVIRONMENTS IN KOSOVO

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ABSTRACT

The interest and demands of people for ornamental plants in our country grows more and more, due to the expansion of urban areas, and especially of big cities. Noise or high acoustic pollution from vehicle movements, noise and other obstacles and the physical and chemical pollution of the earth has removed man from nature by worsening his health and emotional and emotional state. Noise or high acoustic pollution from vehicle movements, noise and other obstacles and the physical and chemical pollution of the earth has removed man from nature by worsening his health and emotional and emotional state. Greening can not meet all human needs for aesthetic, health, etc. requirements, but it is always preferable to plant as many ornamental flowers as possible. In the last decade, the regulation of gardens in Kosovo also took an important step, and as a result, their role increased, especially in big cities such as: Prizren, Peja, Prishtina, etc. From our research we conclude that the impact of ornamental plants in the urban environment architecture in Kosovo is important, as 68% of the respondents stated with positive opinion and positive response, and 71% said that the architecture of the surfaces is very important in Kosovo, with regard to the survey of which cities of Kosovo devote most importance to ornamental flowers are citizens of Prizren, with 28% of respondents, with 44% of respondents think that landscape architecture is important for human health while 56% think it has an impact on the architecture of green urban environments. In our research 34% of respondents think that maintenance of gardens in green urban environments is difficult.

Keywords: Kosovo, ornamental plants, architecture, urban environments, garden.

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THEORETICAL APPROACH- TO SELECT AN OPTIMAL NUMBER OF LABORATORY PROGNOSTIC BIOMARKERS OF CANCER

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ABSTRACT

Referred WHO (world health organization), cancer is a second cause of death globally. Difficulties of early diagnosis, a proper assessment of influential prognostic factors, have been and are still challenges and part of numerous studies. Aim: Strategic thinking to select classical and/or recent laboratory biomarkers to improve algorithms, protocols and clinical decision. Most mentioned prognostic factors are: a. the possibility of early diagnosis; b. features of progress of cancers in generally and separately such as histopatologically and histochemically subtypes, role of miRNA-s (non-coding RNA molecule), exosomes, the scale of neovascularity, hipercoagulability, different scale of inflammation, immune response, anemia of inflammation, release of ectopic hormonal substances out of feed-back mechanisms, alteration of electrolytes, location of the tumor; c. patients features (age, nutritional status, co morbidities, therapy resistance); d. features of healthcare system and populations; These numerous points of view bring the selection of different medical attitudes, protocols, lab or imagery biomarkers, medications, health counseling or evolution of multidisciplinary teams. Conclusions: 1. It's time for multivariate studies in Albania to redefine an optimal number of independent prognostic variables, notably, for cancers with poor prognosis including features of public health and individuals in our country based on concepts of P4 medicine and recently development of laboratories and health sciences, and their involvement in clinical decision making after validation process. 2. We can't screen cancer patients with laboratory biomarkers continuously, as we do with cardiac patients with Holter. Because of variable subtypes, chameleonic behavior of cancer cells, resistance to therapy, individual response, it's difficult to select the minimal number of prognostic examinations, but we can select optimal and appropriate numbers of them, according to each cancer and each TNM (tumor, nodus, metastasis) stage.

Key words: theoretical approach, select, optimal number, laboratory prognostic, biomarkers of cancer.

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PRODUCTION OF BREAD FLOUR BY SOME CULTIVARS GROWN IN KOSOVO

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ABSTRACT

Based on the study on the quality assessment of harvested crops in the Kosovo region, certain flour and variety of baking products have been determined their chemical and technological properties and the possibility of adding additives (redox agents). The main types of grain cultivars cultivated in the republic of Kosovo are Luna, Isengrain, Europa, Lenta and Andolu, which are included in this study. To provide a clear picture of the abovementioned cultivars, the study includes detailed analysis of technological qualities starting with the preparation of cultivars for grinding, milling them where we have obtained two types of Tip-500 flour and tip-850, physicochemical and rheological analysis of flour, bread production, and analysis of bread production. The obtained physico-chemical and rheological analysis shows that cultivar flours, Luna and Lenta, have very similar and much better qualities than other cultivars. Also, the results of the produced bread show that the loaves produced by the Luna and Lenta cultivars have much better quality than the breads produced by the flour of other cultivars.

Keywords: Bread, Physical-Chemical Properties, Technological Properties, Wheat, α-Amylase.

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FOOD AND MICROBIOLOGICAL ASSESSMENT

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ABSTRACT

Foods which are used from human, has been conducted on microbiological problems relating to the safety and spoilage of vegetables and fruits in recent years. Fruits and vegetables are among the richest products of vitamins, minerals and fiber. The ever-increasing demand for availability and consumption of these fresh products, along with the health aspect, has led to an increase in global fruit and vegetable trade. Contamination of fresh fruits and vegetables is a particular concern as many of these products are consumed alive without any prior processing, which would eliminate or reduce the biological, microbiological and physical hazards. Fruits and vegetables may be contaminated at any stage of growth, processing, trading, manipulation or preservation. Irregular farmers' practices are recognized as sources of microbiological contamination of vegetables. Microbiological contamination can be done directly or indirectly by water, soil, chemicals or even insects. Such a thing would necessarily lead to a potential food security problem. Over the last few years, the presence of fresh fruit and vegetables in the country's various markets and markets has increased considerably. The consumer can find and consume these products regardless of time and season. Thus, the globalization of food products as a whole not only affects the distribution of different food products but also the spread of potential risks to human health from one region to another, thus enabling wider spread of pathogens anywhere in world. As a result, increasing the level of consumption of fruits and vegetables has also become an important tool in statistics on food-borne diseases. During these years, a number of gastrointestinal diseases and poisoning have been observed, related to the consumption of fruits and vegetables contaminated with bacteria pathogens such as *Listeria monocytogenes*, Salmonella, *Shigella sonnei* and Escerichia coli 0157, present in products such as peppers, carrots, cabbage etc. Given the fact that fruits and vegetables are produced in natural environments or in greenhouses, we can say that these products are very fragile to the contamination of human pathogens. The growing level of fruit and vegetable consumption has also led to an increase in the number of poisoning to consumers.

Keywords: foods, microbiological assessment, *Salmonella spp.*, *Enterobacteriaceae.*

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PREVALENCE OF DEPRESSION AT WOMEN DURING PREGNANCY– BY USING EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS) INSTRUMENT

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ABSTRACT

Prevalence of depression during pregnancy ranges from 4% to 20%. The World Health Organization identifies depressive disorders as the second leading cause of global disease burden by 2020. Groups of women at higher risk include (50–60%) inner city women, mothers of pre-term infants and adolescents. This study aimed to determine the prevalence of antenatal depression and associated factors among pregnant women attending routine antenatal checkup in Primary Health Care Centers in Tirana Albania. The methodology we used is Edinburgh Postnatal Depression Scale (EPDS). This self-report instrument contains ten items ranked from 0 to 3 that reflect the patient's experience over the past week. The EPDS has been validated extensively for use in the postpartum period and during pregnancy. In this study were involved to be evaluated for PPD, patients from 4 primary health care centers in Tirana and from two departments of Obstetrical Gynecology University Hospital "Geraldine Queen" in Tirana and to find out the Prevalence of depression during pregnancy at the target group of this study. Patients that participated in the survey are anonymous in accordance to respect patient's right.

Keywords: postpartum depression, prevalence;

HIGH STAGE EVENTS AND STREAM BANK EROSION ON SMALL GRAZED PASTURE STREAM REACHES IN THE RATHBUN LAKE WATERSHED, SOUTHERN IOWA, USA

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ABSTRACT

Stream bank erosion in agricultural landscapes is a major pathway for non-point source sediment and phosphorus loading of receiving waters. Previous studies have shown direct and indirect effects of land use on stream bank erosion, and identified high erosion rates within riparian pastures. One potential impact of agricultural land-use on stream bank erosion is the alteration of stream stage characteristics, including an increase in frequency of high-stage events over short periods of time (forming flash hydrographs). The objective of this study was to assess the relationship between the number of high stream stages and corresponding stream bank soil erosion. The study was conducted in six grazed pasture stream reaches within the Rathbun Lake Watershed, a reservoir on the Chariton River located within the Southern Iowa Drift Plain. The erosion pin method was utilized to measure the change in stream bank erosion in response to differences in the number of high stream-stage events, which were monitored by pressure transducers. The measured seasonal bank erosion rates were correlated with the different stream stages data to assess their impact on stream bank erosion. Based on the different model assumptions, there were generally strong linear relationships between high stage and bank erosion. Approximately 75% of the variability in stream bank erosion rates was directly linked to the number of high stages/erosive stream flow depths. Conservation practices that reduce these erosion rates will be those that increase soil-water infiltration, reduce the frequency of high stream flow events and increase bank stability through perennial vegetation cover or reducing disturbance within the riparian zone.

Keywords: streambank erosion, stage-erosion relationship, grazing pasture system, agricultural small order streams.

PRESENT AND FUTURE POTENTIAL DISTRIBUTION OF THE *PINUS NIGRA* ARNOLD. AND P*INUS SYLVESTRIS* L. USING MAXENT MODEL

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ABSTRACT

Nowadays, modelling habitats by using computer technologies is an effective approach. Analyzing how plant species will be affected by climate change is highly important in terms of defining the habitat areas. With the help of layers formed by using point data for species and digital bioclimate data on these areas, the present and future potential distribution of a species may be determined by the MaxEnt software based on different climate scenarios. This study aimed to model the present and future potential distribution areas of *Pinus nigra* Arnold. and *Pinus slyvestris* L., which are significant in terms of landscape architecture and forestry and distributed naturally in Turkey. To determine how the distribution of the species will be affected by climate change, according to the CCSM version 4 (the Community Climate System Model) based on the 5th IPCC report, the species' potential distribution areas in the years 2050 and 2070 were modelled based on RCP 4.5 and RCP 8.5, and the habitat suitability areas were determined digitally. In conclusion, according to the CCSM4 scenario, it is seen that these species will bear substantial losses in their future potential distribution areas.

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ARABE-BARBE HORSE'S SPERM MOTILITY IMPROVEMENT USING HONEY

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ABSTRACT

The aim of this study was to evaluate the effect of extender supplementation with different concentrations of Algerian honey on post-thawed sperm motility, and viability. Sperm samples collected from Arabe-Barbe staillons were subjected to cryopreservation with a modified Kenney, without any supplementation (control) or supplemented with 1%, 2%, 3%, 4% and 5% of Algerian honey. After thawing, all samples were maintained at 37 °C, while analyses were performed at 0, 30', 60' and 120'. Sperm motility percentage, and viability index percentage, of each sample were determined by conventional laboratory methods. Compared to the control group, supplementation with Algerian honey (2% and 3% significantly improved post-thaw sperm motility, at 0, 30', 60' and 120'. For all semen parameters, the lower concentration of honey (1%) and higher concentration (4% and 5%) did not show any significant differences compared with the control. These works showed that extender supplementation with Algerian honey provided a good protection of sperm parameters against cryopreservation injury, in comparison to the control groups.

Keywords: Arab-Barbe, Semen, cryopreservation, Honey, Motility.

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RECREATIONAL USE OF URBAN FORESTS AND AWARENESS OF VISITORS: THE CASE OF THE CITY OF ORDU - YOROZ AND ASARKAYA URBAN FORESTS

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ABSTRACT

Throughout the urbanization and advancement in technology process, the human intervention on the nature has increased, and the human-nature relation deteriorated gradually. The environment, which consisted of soil, air, water and living things in it, has been contaminated with the wastes released by this sector with the great production power reached by the industry in our present day, and the living creatures have been disturbed by these wastes. With the influence of urbanization, forests and people in or around cities have become increasingly affected by each other. This interaction, which has a specific focus on recreational demand, led to the emergence of a new natural sources management model that is shaped by service production and recreational uses. As a result of all these developments, the "Urban Forestry" concept, which is a different form of the "Traditional Forestry" concept, was born. The purpose of the present study was to determine the effects of the urban forests established against the negative effects that decrease the quality of life of the city people caused by vehicle and human traffic and various toxic gases and heavy industry in metropolitan cities on people living in cities. In this study, Yoroz and Asarkaya Urban Forests in the city of Ordu were selected as the Study Areas. The condition of Yoroz and Asarkaya urban forests, what purpose(s) they serve, their developments, whether or not they have different functions, the extent to which people benefit from these urban forests, their expectations from the urban forests, and the difficulties they face when they cover these expectations, and what measures should be taken to overcome these problems were discussed in the present study. These two urban forests in the city of Ordu were visited and, people who visited these forests and who benefited from these areas were interviewed face-to-face to determine their thoughts, difficulties and expectations about the urban forest.

Keywords: Making use of forestry services, Social benefits of forests, Urban forestry, Green areas, Turkey.

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LANDSLIDE SUSCEPTIBILITY ASSESSMENT USING GIS-BASED MODEL AND REMOTE SENSING DATA

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ABSTRACT

Landslide is one of the disasters, which occurs throughout the world under all climatic conditions and terrain. This leads to the loss of lives and property and damage to the natural environment. Therefore, a need arises for the landslide hazard zonation for the identification of potential landslide areas. This research is an attempt towards modeling the landslide using GIS and remote sensing techniques. Phuentsholing-Pasakha highway has been selected for the study due to its importance in the economy of the country. Parameters causing landslides were determined through a thorough literature review and field investigations. These parameters were then converted in the form of maps using ArcGIS 10 software. The weights for each parameter were assigned using a bivariate statistical analysis method for spatial analysis in GIS. Landslide hazard map has been obtained, which demarcates the study area into three levels of hazard viz. high, medium, and low danger. About 19.35% of the area falls under high hazard, 30.55% falls under medium hazard, and 50.10% area falls under low risk.

Keywords: Landslides, remote sensing, GIS.

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ANALYSIS OF THE ENVIRONMENTAL EFFECTS OF ENERGY LINES (ARTVIN ORTAKÖY FOREST MANAGEMENT CASE)

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ABSTRACT

In the present study, the environmental impacts of 154 Kw Meydancık Bayram HPP-Artvin II Power Transmission Line located within the borders of Ortaköy Forest Management Directorate under Artvin Forest Management Directorate were investigated. Review of the situation analysis results conducted to investigate the effects of wood extraction and the construction of transmission lines demonstrated that the most significant impact of logging was due to the random release of excavated soil on the slopes and resulting destruction of land structure and the flora. Review of the effects of wood extraction demonstrated that the most significant factor was the increase of fungus and insect damages in trees injured in the process. Review of the effects that could be observed during and after the construction of the transmission lines demonstrated that the most significant impact was on human and wildlife health due to the proximity of transmission lines to the settlements and negative impacts of electromagnetic fields on the health of the organisms inhabiting the area.

Key words: Energy Transmission Line, Ecological Structure, Environmental Impact, SWOT Analysis, Artvin

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EVALUATION OF A GLOBAL SNOW DEPTH ANALYSIS BASED ON OPTIMAL INTERPOLATION

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ABSTRACT

Assimilation of snowpack observations into Numerical Weather Prediction (NWP) models represents a key component that impacts the accuracy of predicted meteorological parameters. NOAA's National Centers for Environmental Prediction (NCEP) operational NWP models routinely assimilate observations of snow depth and snow cover area to improve snow model initializations. A new snow depth analysis based on optimal interpolation method has been developed with improved spatial resolution compared to the existing analysis and the capability to assimilate both satellite and station snow depth. An essential component and assumption of the analysis are the spatial correlation functions and scales of snow depth distribution with respect to horizontal distance and elevation. Based on these correlation functions and the predetermined data errors, snow depth from the surrounding stations are weighted to compute an analysis snow depth estimate. This study presents an accuracy assessment of the analysis over North America that uses correlation scales currently adopted in operational snow analysis at world's major weather and climate prediction centers: an e-folding scale of 120 km for horizontal distance and an e-folding scale of 800 m for elevation. Snow depth data to drive and evaluate the analysis are obtained from the Global Historical Climatology Network (GHCN) during the 2016-2017 winter season. Snow depth from NOAA's Global Forecast System (GFS) was used as first guess. It was found that a range of 600 km is sufficient for a near complete coverage of analysis over North America in areas with sparse in-situ measurements available for interpolation. The analysis improves first guess estimates substantially over relatively flat areas. However, improvements are smaller, and the accuracy is much lower over high-elevation terrain, mainly attributed to inaccurate e-folding scales used for interpolation.