



The Weekly Veterinary News & Views

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AGRI TOURISM DEVELOPMENT CORPORATION OF PAKISTAN

WEEKLY REFLECTIONS: POLICY ALGORITHMS OF POVERTY ALLEVIATION

BY DR ABDUL SABOOR



Dr Abdul Saboor is Professor of Economics and Dean, Faculty of Social Sciences, PMAS Arid Agriculture University, Rawalpindi

In the public policy dossier, poverty alleviation has always been a daunting challenge for almost all the developing countries in the world. The situation in Pakistan has been more critical and serious for the public policies in general and poverty alleviation policies in particular...

Similarly, the entire series of poverty alleviation programs of Agha Khan Foundation and Orangi Pilot Project are some noble-worthy examples of classical fabric. In all these precedents, one common denominator is the true intention, devotion and dedication on the part of top leaders and executives in the very benevolence framework rather than bureaucratic arrangements...

ONE DAY SEMINAR ON AGRO FORESTRY ON PROBLEMATIC SOILS IN FAISALABAD

Faisalabad: Agroforestry on Problematic Soils in Faisalabad and Adjoining Districts Prof. Dr. Zafar Iqbal (Chief Guest) Vice Chancellor, University of Agriculture, Faisalabad Prof. Dr. Muhammad Aslam Khan (Guest of Honor) Dean, Faculty of Agriculture UAF Prof. Dr. M. Tahir Siddiqui Chairman, Department of Forestry and Range Management Prof. Dr. M. Jaffar Jaskani Executive Director, EPS Seminar was organized by Dr. Irfan Ahmad (Assistant Professor, Department of Forestry and Range Management) in the technology transfer project "Uplifting the socioeconomic conditions of farming communities by promoting forestry/agroforestry on problematic soils in Faisalabad and adjoining districts" funded by Endowment Fund Secretariat, UAF, on 28-03-2019.



Event was worthy Vice Chancellor of UAF Prof. Dr. Zafar Iqbal Randhawa, Dr. Randhawa emphasized on the importance of trees and especially the role of trees in the reclamation of saline and waterlogged soils. He admired the participation of farming communities in the seminar. Guest of honor Prof. Dr. Aslam Khan, Executive Director, Endowment Fund Prof. Dr. M. Jaffar Jaskani, Chairman Department of Forestry, Prof. Dr. M. Tahir Siddiqui, Dr. M. Farrukh Nawaz (Assistant Professor), Muhammad Asif (Lecturer) and prominent farmers including Dr. Shakir Vains, Ch. Nauman Sher also addressed the audience.

Hopefully this campaign will enhance the forest cover of Pakistan and will be helpful in climate change mitigation by involving masses though motivation. Organizer apprised the participants about the success stories of project that was executed in problematic areas of Satiana, Sangla Hill, Gojra and Proka I farm area.

TWO DAYS TRAINING WORKSHOP ON ANIMAL GENOMICS, UNDER THE PROJECT "CHARACTERIZATION OF CATTLE GENETIC RESOURCES OF KHYBER PAKHTUNKHWA USING GENETIC MARKERS AND MOLECULAR TECHNIQUES"

Two days training workshop on animal Genomics, under the project "Characterization of Cattle Genetic Resources of Khyber Pakhtunkhwa using Genetic Markers and Molecular Techniques", on 21st, 2nd March 2019, held in conference room of Veterinary Research Institute, Peshawar. A. Course Organizer: Dr. Muhammad Tariq Zeb, Senior Research Officer B. Project Incharge: Dr. Faizal Hassan. C. Chief Guest: Director



General Dr. Mirza Ali Khan D. Resource Person: Dr. Joular Ali, Member Animal Science Division, NARC, Islamabad. E. Course Coordinator: Dr. Nadar Khan, Senior Research Officer. F. Director Livestock Research & Development Dr.

- Dr. Bahkt Daraz Khan. Topics: 1. Biotechnology 2. Trends in Genomics 3. Genetic selection 4. Phylogenetics and Evolutionary Analysis. 5. Genetic Resistance 6. Candidate Gene Approach. Participants (35) a. Principal Research Officers. b. Senior Research Officers. c. Research Officers d. Students (M.Phil) Researchers.

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Poverty alleviation policies are neither always good nor always totally bad. Same is the case with the intentions behind the construction of each policy. Part of problem with such policies lies in its formulation while the rest is linked to the implementation of poverty alleviation programs and allied projects. It has been noted in Punjab for the last three decades that the economic benefits of all water related development projects were accrued to the rich farmers. There is further need to visualize the leakages in similar kinds of other poverty alleviation projects and programs in terms of corruption, appropriation of funds and resource inefficiency. It is also true that some of the poverty alleviation policies only provide temporary solution of the menace without addressing the allied

DR. SHAHID MEHMOOD FROM UVAS WON THIRD POSITION IN 8TH INVENTION TO INNOVATION SUMMIT. Dr. Shahid Mahmood working as Assistant Professor in the Department of Poultry Production, University of Veterinary and Animal Sciences, Lahore has won the 3rd position in 8th Invention to Innovation Summit held at University of the Punjab on April 2-3, 2019.

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آن ونڈر سالانہ 24 اور 25 مارچ کو سمندری میں منعقد کروایا

ایڈوانسڈ ایگرونیومیشنل ٹیبلٹس میں ایگرونیومیشنل ٹیبلٹس



تیسرا سالانہ "آن ونڈر ایگرونیومیشنل مقابلہ دوڑ" میں خصوصی شرکت کرنے والوں میں کے پی کے اینڈ فائبر ٹیکنالوجی فاؤنڈیشن، ایگرونیومیشنل ٹیبلٹس کی قیادت میں 18 رکنی وفد نے شرکت کی۔ مہمان خصوصی ڈاکٹر کبیر لاہوری، ڈاکٹر خالد اقبال اور دیگر اہلکاروں نے وفد کو خوشامدنیوں کا اظہار کیا۔ ان دنوں کے پی کے اینڈ فائبر ٹیکنالوجی فاؤنڈیشن کی قیادت میں 18 رکنی وفد نے شرکت کی۔ مہمان خصوصی ڈاکٹر کبیر لاہوری، ڈاکٹر خالد اقبال اور دیگر اہلکاروں نے وفد کو خوشامدنیوں کا اظہار کیا۔ ان دنوں کے پی کے اینڈ فائبر ٹیکنالوجی فاؤنڈیشن کی قیادت میں 18 رکنی وفد نے شرکت کی۔

مقامی سطح پر آن ونڈر ایگرونیومیشنل مقابلہ دوڑ میں 50 ہزار روپے نقد برائی اور سٹیکٹ دیا گیا، تیسرے نمبر پر آنے والی جینس کے مالک کو 25 ہزار روپے اور پانچویں نمبر پر آنے والی جینس کے مالک کو 10 ہزار روپے نقد دیئے گئے۔ پروگرام کے چیف آرگنائزر میاں محمد شفیق تھے جن کی شاہد روز مضمون سے یہ پروگرام کامیاب ہوا، سٹیج سیکرٹری کے فرائض عمران مصطفیٰ سیال نے انجام دیئے جو کام کو بروہی اہم معلومات دینے کے علاوہ اپنے دلچسپ فنکاری اور شاعری سے محفوظ کرتے رہے، چیف آرگنائزر نے تمام مہمانوں کے لئے ایک پر تکلف دعوت کا انتظام کیا جس میں مہمانوں کی توثیح انواع واقسام کے کھانوں اور وائیٹ کھیر سے کی گئی۔



487 گوب اور دیگر موزوں مہمانوں نے بھی شرکت کی۔ ان دنوں کے پی کے اینڈ فائبر ٹیکنالوجی فاؤنڈیشن کی قیادت میں 18 رکنی وفد نے شرکت کی۔ مہمان خصوصی ڈاکٹر کبیر لاہوری، ڈاکٹر خالد اقبال اور دیگر اہلکاروں نے وفد کو خوشامدنیوں کا اظہار کیا۔ ان دنوں کے پی کے اینڈ فائبر ٹیکنالوجی فاؤنڈیشن کی قیادت میں 18 رکنی وفد نے شرکت کی۔

آن ونڈر ایگرونیومیشنل ٹیبلٹس میں ایگرونیومیشنل ٹیبلٹس کی قیادت میں 18 رکنی وفد نے شرکت کی۔ مہمان خصوصی ڈاکٹر کبیر لاہوری، ڈاکٹر خالد اقبال اور دیگر اہلکاروں نے وفد کو خوشامدنیوں کا اظہار کیا۔ ان دنوں کے پی کے اینڈ فائبر ٹیکنالوجی فاؤنڈیشن کی قیادت میں 18 رکنی وفد نے شرکت کی۔

پندرہ (15) ایگرونیومیشنل ٹیبلٹس کا ہزار ڈیڑھ لاکھ روپے (1500000) کی رقم سے ایگرونیومیشنل ٹیبلٹس (LFWA) کے ذریعہ ایگرونیومیشنل ٹیبلٹس کی خریداری کی گئی ہے۔ ایگرونیومیشنل ٹیبلٹس کی خریداری کی گئی ہے۔ ایگرونیومیشنل ٹیبلٹس کی خریداری کی گئی ہے۔ ایگرونیومیشنل ٹیبلٹس کی خریداری کی گئی ہے۔

ایگرونیومیشنل ٹیبلٹس کی خریداری کی گئی ہے۔ ایگرونیومیشنل ٹیبلٹس کی خریداری کی گئی ہے۔ ایگرونیومیشنل ٹیبلٹس کی خریداری کی گئی ہے۔ ایگرونیومیشنل ٹیبلٹس کی خریداری کی گئی ہے۔ ایگرونیومیشنل ٹیبلٹس کی خریداری کی گئی ہے۔

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19-21 اپریل تک لاہور میں ایگرونیومیشنل ٹیبلٹس کی خریداری کی گئی ہے

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Veterinary News & Views

Faisalabad

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UVAS RANKED AMONG 201-300 WORLD UNIVERSITIES BY TIMES HIGHER EDUCATION IMPACT RANKINGS-2019

Lahore: The University of Veterinary and Animal Sciences (UVAS) Lahore has been ranked among 201-300 universities in the overall 2019 Times Higher Education (THE) University Impact Rankings based on the United Nations Sustainable Development Goals (SDGs). This is the first ever 2019 THE University Impact Rankings, a pioneering initiative to recognize universities across the world for their social and economic impact. THE University Impact Rankings are the only global performance tables that assess universities against the SDGs. The uses carefully calibrated indicators to provide comprehensive and balanced comparisons across three broad areas: research, outreach and stewardship. THE University Impact Rankings shows how the global higher education sector is working towards the United Nations' SDGs. The Vice-Chancellor, Prof. Dr. Talat Naseer Pasha congratulated the UVAS faculty, staff and students, their parents and industry on achieving this honor and said that the university will continue its efforts and commitments to uplift quality of education, research and services in achieving such honors and milestones for the country.

A "2ND ANNUAL CVAS "PETS SHOW"

along with faculty, admin, staff and students of DVM sessions (2015-20; 2016-21) inaugurated the Pets Show. The event was sponsored by Mukhtar Feed, K8 dairies, Boss Veterinary Services and Delight Sweets and Bakers. Large number of pet lovers, guests, faculty members, admin, staff and students participated in the event and showed their full interest. Pet owners have marvelously displayed their passion by walking on the ramp with their pets. Different breeds of dogs (Springer spaniel, German Shepherd, Belgian Shepherd, Pit bull, Bull dog, Bull terrier, Schitzo); cats (Austrian, Siamese, Persian), domestic (Aseel chicken), fancy birds and wild (partridge/falcons) birds were displayed at the occasion.



Prof. Dr. Asim Khalid Mehmood delivered special presentation on "Conservation of dehydration and caesarian management". Mr. Zahid Khurshid Lochi (Principal, Cherab College, Jhang) participated as chief guest. At the end, Prof. Dr. Abdul Shakoor, Prof. Dr. Asim Khalid Mehmood, Prof. Dr. Muhammad Faz Qamar distributed certificates among participants and organizers. While addressing at the occasion speakers highlighted the importance of pets show and thanked the faculty members, college admin, sponsors and students for organizing this beautiful event and extended special thanks to Meritonus Prof. Dr. Talat Naseer Pasha (Vice Chancellor, UVAS, Lahore) for supporting this event.

THE CEO OF THE AAVMC DR. ANDREW T MACCABE VISITED THE RCVETS TO INITIATE THE PROCESS OF GRANTING AAVMC ACCREDITATION TO RCVETS

DR. GHULAM ABBAS AND DR JALEES MIRZA



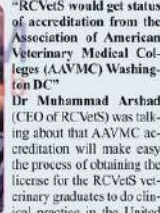
Dr Andrew Maccabe (CEO, AAVMC, USA) got a warm welcome by Riphah College of Veterinary Sciences Lahore on 27th March, 2019. It was great pleasure for the Institute which is first in the Private sector in the history of Pakistan. He was welcomed by Dr. M Arshad (CEO) Dr Muntaz Khan (The Principal), Dr Alimdar Hussain (Ex-Registrar PVMC), Scator and Young faculty of RCVets. First of all, brief introduction was given to him by Dr Muntaz Khan (The Principal) about Riphah College of Veterinary Sciences Lahore and then by the Umir Sab (Director Riphah Lahore).

Riphah for so much advance instruments and specially the Operation Theatre for Large Animal Surgery. It is quite unique and the first one in the history of Pakistan. He Visited Riphah Horse Riding Club which is a remarkable achievement by RCVets in short time along with Ponies and Camels. More importantly, Camel Riding by Dr Andrew Maccabe was such a wonderful moment as he was feeling like that he is in USA. Dr Andrew Maccabe was on short visit of Pakistan and he really impressed with the hospitality given by Riphah College of Veterinary Sciences Lahore and he acknowledged himself in the video that was live on social media later on RCVets Facebook Page.

Dr Andrew Maccabe said: "First of all, let me thank you once again for your gracious hospitality and your kind invitation to invite me to join u here today at Riphah College. I most impressed with dedication and commitment of your faculty to achieve the higher standards and quality in veterinary medical education. I wish u the best of success as you move forward with your efforts to seek the accreditation in other ways to continue to build relationships with veterinary medical colleges around the world. Thank you again for the wonderful Visit and please let me know for anything else that we can do to help you. Best of Success"

Prof Dr. Muntaz Ahmad Khansaid: "RCVets would get status of accreditation from the Association of American Veterinary Medical Colleges (AAVMC) Washington DC"

Dr Muhammad Arshad (CEO of RCVets) was talking about that AAVMC accreditation will make easy the process of obtaining the license for the RCVets veterinary graduates to do clinical practice in the United States. That was quite the historic moment for veterinary institute that just made the history in Seven Years. He inspired a lot from the hands on training of the students that is the motto of Riphah College of Veterinary Sciences Lahore. Dr Andrew Maccabe was presented by a beautiful model of horse to remember it for his whole life as this is the tradition of Riphah College of Veterinary Sciences in the honor of Guest. It was quite a Beautiful day that sums up with his last sentence "Best of Success"



Dr Andrew stated his visit after that brief introduction of the institute. He visited all the practical labs, Operation Theatre, Riphah Veterinary Teaching Hospital. Dr Andrew Maccabe praised

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COMMERCIAL OSTRICH AND FARMING

BY AMMAR SALEEM, DVM Student, PMAS Arid, Campus Ambassador for The Veterinary News and Views at PMAS Arid.

Ostrich, the largest bird of the world although it is capable of flying, runs 70km/h for 30 minutes to defend in case of any danger. Ostrich farming is one of the profitable business in the whole world as it is a source of meat, oil, leather and feathers. It is very economical in return as it consumes less fodder and capable of producing more meat. It has very unique physical characteristics as it can tolerate the temperature ranging from -2 degree Celsius to 56 degree Celsius easily. Commercial farming is successfully done in areas of high moisture, snow and desert areas in the whole world. An ostrich produce 17kg per annum Methane gas which is nearly equal to human making it one of the best animal of 21st century due to adaptations in changing climate. One of the leading countries in Ostrich farming are Namibia, South Africa, Ethiopia, Australia, Iran, America and China. For successful Ostrich farming, more vacant place, feed containing surplus nutritional value including minerals and vitamins are required. Pakistan is a suitable region for Ostrich farming according to moderate weather conditions.

The demand of Ostrich meat is expanding in the whole world with every day. Meat is preferred because it contains low calories and fats. The taste of meat varies with age. It is like beef if Ostrich age is more than 10 months and it is like a calf meat taste if Ostrich is lesser in age. Meat is red in color but it is low in cholesterol even than chicken and fish. It contains iron three times that of chicken so it is recommended for the deficiency of people living in urban in their diet. One out of three children each lacks iron in their body. Each 100g of Ostrich meat contains 4.9mg of iron. It is also beneficial for diabetes and hepatitis patients. According to FAO, each kilogram of Ostrich meat contains 21.9g of proteins which is higher than cattle and chicken protein amount. The leather of Ostrich is second most expensive after crocodile. Production is much lesser than consumption. The leather is very soft and durable. Each Ostrich produces 12-14kg feather. The price of Ostrich leather depends on presence of follicles. Old age Ostrich (more than 10 month age) is preferred for high quality leather. Leather contributes 45% profit in farming. Feathers of Ostrich also have economic importance. An Ostrich of more than 10 months yields feathers weighing 1.5-2kg which is used for electronic and in women's attire. The feathers are also used in cleaning of "Holy Kaaba". Feathers contribute 5% profit in Ostrich farming. Another derived source is Ostrich's oil which is one of the most expensive oils in the whole world which is used for relaxing joint pain. It serves as an excellent skin moisturizer. It offers relief from blisters and

sunburns. Ostrich belongs to "Ratite" family. It has many breeds in the varying according to the color of their neck. Hybrid Ostrich can be obtained through cross breeding of black and black neck ostriches. Red colored North African Ostrich is higher in height (2.5-3meters) while South African Black Ostrich is dominant in weight (100-150kg). Digestive system of Ostrich is just like chicken with only difference of absence of crop. It is responsible for the death of chicks due to the death of gall bladder just like horses. The feed also just like poultry but it also eat fodder like animals. Clean water is also essential for Ostrich. 2.5liters of water is required with each kilogram of feed. Water uptake is increased under high temperature but it is reduced under reduced conditions. The nutritional factors of South Africa are best for Ostrich and it also relates with Pakistan. In early days, problem arose due to quality and quantity of feed. 30-40% of deaths are reported because of this factor. Ostrich consumes 600-650kg of feed every year for meat production. The protein content in feed for early days of chicks is fatal because it increase the weight of body making legs difficult to bear it. Pro-biotics in early days should be preferred in early days and stool of large Ostrich should be provided to small ostrich that is helpful in production of favorable bacteria. Feed supplements also help in promoting digestion. Small and large Ostrich can engulf each and everything easily so the shed area should be free of wires, stones and other hard objects that may prove fatal. Farming system mainly divided into three portions. Extensive System, Intensive system and semi-intensive system. Extensive system in which chicks are cradled in the shed for three months. In intensive system, chicks are taken in farm for 1 day to 3 months. In semi-intensive system, chicks are sheltered on artificial grass or cement floor. Temperature of the shed should be maintained in both summer and winter season. During winters, they must be kept in shed for 8-10 weeks. Over-population reduces growth and more prone to diseases and chicks start biting each other. The quality of chick can be determined by the weight, color, length of Ostrich chick. Therefore it should look healthy and cannot be infected easily. They should have quick response of standing if they are fallen. The hock joints should not be injured. Color of eyes also determine quality of Ostrich chick.

Bedding system for brooding of Ostrich chick should be properly managed. The bedding system must be favorable for chicks but mostly the bedding material is gotten by them so it needs to be covered if it is sand or plastic. They do so when feed is not in their access or inadequate amount is provided. In first two months, feed should be in form of meal. Transport of Ostrich chick is also one of the factor that is responsible for the death. Travelling induces stress in chicks due to increased temperature. So, Vitacool super 1g/4L water and hyper mineral 1ml/2L water should be given in order to release stress of travelling. Endocrine system stabilized and becomes strong enough to cope with any external stress so brooding system should protect them in early days so that they drop final stage from 30-32 degree centigrade and finishes at 24 degree centigrade at the age of 5 weeks. Moisture level should be maintained at 60-65% in order to make breathing easy for Ostrich chicks. The material for watering Ostrich chicks should be contamination free and washed with Pinkish KMnO4. Water should be appealing for them so add colors like green or yellow. The temperature of water for drinking must not exceed 36 degree centigrade. Inadequate water in diet ultimately leads to death so all those factors that overcome the intake of water should be eliminated. The apparatus used for feeding for chicks must be accessible and should not exceed height higher than the chest of chicks. They must be trained for proper feeding. Feed given to them must be divided in groups and not individually. Light factor also influence the health status of Ostrich chick. For this purpose, Mercury or Brown are more preferred. In early days, light should be provided consistently as it helps in water and feed intake. Ammonia is produced if excessively then it is dangerous to us as it causes irritation to the eyes of eyes. If the amount is above 20ppm. Exhaust fans are used to eliminate ammonia in shed. Predators are dangerous for both open and closed shed areas so the animals like snake, cat, dog, vulture, fox or mongoose should be avoided. There should be space in open or closed shed for entry of these predators. Appropriate fresh air is necessary in reduction of effect of unfavorable gases. If the concentration of CO2 is more than 0.03% in the shed then it causes problem.

In this article, we are presenting some fundamental institutional/structural reforms in the wake of the announcement of budget 2019-20. For the last many decades, the main emphasis of every budget has been meaningful and comprehensive changes in the existing outdated, oppressive and anti-growth tax system, which is neither the root cause of major fiscal ills. It is strange and shocking that we want to reform a system that needs to be dismantled in entirety and should be replaced with all together a new one. Reforming the incorrigible is a futile and Sisyphean task. Unfortunately, successive governments-military and civilian alike have been ignoring or sidetracking fundamental institutional reforms to achieve a higher rate of investment and growth and make the tax system simple, predictable, fair and equitable. It is a sad opportunity for the 33rd session of Parliament (Pakistan-India (PTI) to undertake a fundamental reforms, details of which are either available or to be found after publication to win the support of the government, but operational autonomy public authority. We need to establish National Tax Authority (NTA) see details in 'Need for National Tax Authority' Business Recorder, October 20, 2017. This kind of innovation alone can counter massive pilferages in collections that were estimated at Rs 3 trillion by IMF in its country report of 2016, Unlocking Pakistan's Revenue Potential. The existing tax system is not taxing the rich 5 million. Resultantly, income and wealth distribution disparities are rapidly widening. Suitable and harmonized sales tax on goods and services at a low rate of 8% to enhance the size of the pie by shifting to growth-oriented taxation-see details in 'New Tax Model', Business Recorder, August 28, 2015.

The aim of it is providing a fair and transparent tax system for which complete model is available in a study, 'Towards Flat, Low-rate, Broad and Predictable Taxes', published by PRIME institute. This model provides for revenue collection of Rs 8 trillion along with maximizing economic growth. The PTI government must demonstrate a sensible balance between income, capital and consumption taxes. It must spend not on ill-designed programmes to collect taxes but make investments in creating human capital (education, training and health), and necessary public infrastructure to increase productivity of the economy. The following measures/steps are necessary to enforce tax obligations and ensure that the rights of citizens are not being violated. 1. All individuals, whatever the level of income may be, should be required to file simple and easy tax return form which should be available both in English and Urdu-incentive for filing return should be Rs 2000

cash payback in the bank account of the filer. It will help in facilitating the process of tax return, database at national level about households and their earning levels. Households earning below Rs 400,000 should be paid Income Support Allowance of Rs 40,000 per annum (negative income taxation of 10%). 2. Individual income tax rate for taxable income (excluding Rs 1,200,000) should be 10% or 25% of net wealth exceeding Rs 10 million on the last day of tax year, whichever is higher. 3. All non-filers should be given a chance to when all untaxed assesses incomes for refund after verification of genuineness of the invoice (by checking seller's registration number). In this way, the government can develop data base about sales of all persons and then cross verify the same with the receipts declared by them in their respective tax returns. 4. In Pakistan, under the repealed Income Tax Ordinance, 1979 (until assessment year 1995-1996), three specific characteristics were the hallmarks of advance tax, viz. a. Advance tax was paid by the taxpayer on the basis of estimated income for that assessment year; b. Credit for any advance tax collected for an assessment year was accounted for in that year and not the year of collection; and c. 6% mark-up on the amount retained as advance tax was paid to the taxpayer at the time of assessment thereby compensating his cost of funds or opportunity cost for the period his money remained with the government. The above should be replaced by suitably amending section 147 of the Income Tax Ordinance, 2001.

13. Presently refunds of billions are stuck up. This issue needs systemic analysis. Refunds should be issued as expeditiously as possible. 14. Income and sales tax refunds should be issued without application within 60 days of their becoming due. 15. There should be automatic payment of compensation if any refund is issued after 60 days. 16. The officer responsible for incurring compensation should be made liable to pay the amount from his salary. 17. There should be zero tax regime for exporters to avoid refund accumulation. 18. Recovery of tax demand should be made only after decision of the Tribunal and not before. Bank accounts should not be attached without prior notice to the taxpayer and after seeking approval in writing of Commissioner in the light of reply submitted by the taxpayer. 19. In developing economies like Pakistan, one of the biggest problems is a relatively small tax base and the reluctance of ordinary people to file tax returns and thus submit themselves to scrutiny of their affairs by

treatment, guarantee privacy and confidentiality of their declarations, provide assistance by State in tax matters, guarantee unfettered right of appeal through an independent tax appellate system and provide facilities for independent review of disputes with tax authorities. 11. There is massive sales tax evasion-registered persons are not depositing full amount of sales tax. A scheme should be announced entitling a payer of sales tax to get refund of 10% of the amount paid. He/she should send invoices to federal treasury, which can authorize and remit refund after verification of genuineness of the invoice (by checking seller's registration number). In this way, the government can develop data base about sales of all persons and then cross verify the same with the receipts declared by them in their respective tax returns. 12. In Pakistan, under the repealed Income Tax Ordinance, 1979 (until assessment year 1995-1996), three specific characteristics were the hallmarks of advance tax, viz. a. Advance tax was paid by the taxpayer on the basis of estimated income for that assessment year; b. Credit for any advance tax collected for an assessment year was accounted for in that year and not the year of collection; and c. 6% mark-up on the amount retained as advance tax was paid to the taxpayer at the time of assessment thereby compensating his cost of funds or opportunity cost for the period his money remained with the government. The above should be replaced by suitably amending section 147 of the Income Tax Ordinance, 2001.

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FOOD FOR THOUGHT!

HUZAIMA BUKHARI AND DR IKRAMUL HAQ

BUDGET 2019-20: ESSENTIAL REFORMS

simple tax system that is managed by an efficient and competent administration, which is now the root cause of major fiscal ills. It is strange and shocking that we want to reform a system that needs to be dismantled in entirety and should be replaced with all together a new one. Reforming the incorrigible is a futile and Sisyphean task. Unfortunately, successive governments-military and civilian alike have been ignoring or sidetracking fundamental institutional reforms to achieve a higher rate of investment and growth and make the tax system simple, predictable, fair and equitable. It is a sad opportunity for the 33rd session of Parliament (Pakistan-India (PTI) to undertake a fundamental reforms, details of which are either available or to be found after publication to win the support of the government, but operational autonomy public authority. We need to establish National Tax Authority (NTA) see details in 'Need for National Tax Authority' Business Recorder, October 20, 2017. This kind of innovation alone can counter massive pilferages in collections that were estimated at Rs 3 trillion by IMF in its country report of 2016, Unlocking Pakistan's Revenue Potential. The existing tax system is not taxing the rich 5 million. Resultantly, income and wealth distribution disparities are rapidly widening. Suitable and harmonized sales tax on goods and services at a low rate of 8% to enhance the size of the pie by shifting to growth-oriented taxation-see details in 'New Tax Model', Business Recorder, August 28, 2015.

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PETS OF THE MONTH: CAT

MUHAMMAD UMAIR AND RAO ZAHID ABBAS Department of Parasitology, University of Agriculture Faisalabad

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A pet is a companion animal, which is reared neither for working nor for laboratory purpose. The pets are reared for entertainment and company. They provide emotional and physical benefits to the owner. Some pets are commonly reared e.g. dogs, cats, fancy birds, rabbits, rodents and snakes. Among these animals, cats and dogs are prioritized. Having a cat as a pet is getting more popularity than a dog because it is affordable, require less space, less tendency to destroy toys and quieter than dogs. Cats are superior pets, as they need less care; its poop is easily

manageable as cleaning the litter box is easier than to take him for a walk. Self-grooming and self-cleaning is a good habit that is why it remain fluffy and clean which make them cute. Women that are having pet, among them most of the women love to have a cat as a pet. 39% of all American households own a dog compared to 23% of American households with cats (Stanley-Coren, psychologytoday.com). Having a cat as a pet is better than some demerits are also there. Many problem can occur while having a cat as pet. It includes cat scratch

disease, rabies, ringworm, external parasites and *Toxoplasma* etc. Among all of them *Toxoplasma* is more important because miscarriage of a baby in humans can also happen due to *Toxoplasma*. A very few cat owners know about the toxoplasma. *Toxoplasma gondii* is a protozoan that is present in cat but it can also be found in humans and other mammals. If a cat acquires this infection, the cat will show clinical signs like fever, oral inflammation, off feed, lethargy and loss of weight. If a cat acquires *Toxoplasma gondii* infection, it will shed

ocysts (infective stage) after 2 to 3 weeks of getting infection. *Toxoplasma*'s infective stage is excreted in feces of cat. It requires five to seven days to be mature so that it can cause transmit infection to other mammals like humans. Infective stage is transmitted to human by contaminated water and food or due to consuming the unwashed vegetables and fruits that are contaminated with soil having infective stage of *Toxoplasma gondii*. Accidental ingestion of infective stage after cleaning the litter box of cat. Infection can be transmitted from cats to humans but it cannot directly transmit from human to other human. It can be transmitted from mother to child. It can also be transmitted through blood transfusion or organ transplantation but this type of transmission is rare because it only occur when donor is infected with *Toxoplasma gondii*. It cause abortion in pregnant women. Sometimes if abortion does not occur it will lead to stillborn or consequences in unborn child like eye and nervous problems. Disease can be diagnosed by detecting the parasite directly under the microscope. It requires stained sample or biopsy of

required organ. This technique is not used because it is difficult to get the sample from required organ. Serologic tests are best to diagnose the parasite. DNA of the parasite is detectable through Molecular Techniques. Healthy people (non-pregnant) recover without any treatment but pregnant women and immuno-compromised persons have to be treated with certain drugs like sulfadiazine, plus folinic acid and pyrimethamine. Parasite remain in the tissue because it cannot be eliminated completely but it is not much active. It is present in such a tissue where medication is difficult to completely eliminate the parasite from the body. To lower the chances of infection we can take some management steps while petting a cat. Do not let the feces remain in litter box for days. It should be clean on daily basis. If one cannot do this then train your cat to use the toilet. Pregnant women should not change the litter of cat. Wear gloves while cleaning the litter box and wash hands properly with soap. Avoid adopting a stray cat or new cat when women are pregnant. Try to keep the cat indoor so that it cannot

ORGANIC CERTIFICATION OF INSECT FARMS: FEED IS AN ISSUE

Insect farming is booming, but what about organic certification of insect farms? There are no specific rules in the EU yet, but a start has been made. But are the rules realistic?



While insect production is already eligible for organic certification in certain non-EU countries (e.g. USA, Canada or Switzerland), EU insect producers are not eligible for (public) organic certification, due to the absence of EU organic standards for their products. However, the European Commission (EC) wants to develop specific rules for insect organic production destined for human consumption and/or for animal feed. The EC therefore recently published a draft document (i.e. draft delegated act) in the wake of the new EU legislative framework for organic production (Regulation (EU) 2018/848).

The International Platform of Insects for Food and Feed (IPIFF) warmly welcomes the latest developments from the EC in the field of organic certification of insect production activities. The new provisions of the draft European Commission delegated act represent a milestone for our sector. In particular, we salute the initiative to extend the scope of the proposal to insects as food. In addition, the recent revision brings added value, since it takes into account the particularities of insect production activities, but also the peculiar conditions found in such farms," says Antoine Hubert, the IPIFF president. Yet, the IPIFF association is of the opinion that not all provisions are entirely compatible with the specificities of the sector and the exceptional life-cycle of insects. The IPIFF has therefore published a **Contribution Paper on EU organic certification of insect production activities** with some recommendations for the EC.

Organic feed materials can be an issue
 One of the things that can be difficult for insect farms are the rules regarding organic feed. In organic livestock farming, the animals should be fed with almost 100% organic feed materials, but is this realistic for the feed (substrates) used for insect farming? Insect farming is known to be a sustainable, circular system where agri-food co-products (e.g. co-products from cereal, starch or breweries, unsold products from supermarkets and local food producers or bakeries) can be efficiently converted into insect products. So, unlike traditional animal husbandry, insect rearing relies on a wide range of inputs, that have different characteristics. "As part of our approach, we intend to use local resources and to facilitate the implementation of circular strategies. However, we expect that our sector would have serious difficulties in sourcing insect feed that is 100% organic feed, due to very limited availability of organic feed materials on the EU market," explains Adriana Casillas, the IPIFF vice president. "In practical terms, this would indeed seriously limit our scalability potential," according to Casillas.

Some adaptations needed to make it workable
 IPIFF believes that organic certification should be based on robust but realistic standards, that take into account the conditions on farm level, but also the biological needs of the animals. In the contribution paper, the IPIFF therefore formulated a series of recommendations to adjust those 'general' rules to the specificities of insect production, mainly focused on feed, and stocking densities and breeding.

1. Regarding the proposed rules on 'own farmed' or 'locally sourced feed materials' point 1.9.7.1 'on Nutrition'
 IPIFF agrees that insect producers should be encouraged to give preference to locally produced materials, as a means to limit the environmental impact of their production. However, IPIFF finds it unrealistic to require a minimum % of the feed to be sourced from the agricultural holding from which the insect animals are kept (see as suggested in the draft proposal). The vast majority of insect producing companies are indeed exclusively dedicated to insect production activities, consistently with EU food and feed safety requirements (e.g. Regulation (EC) No 142/2011 and Regulation (EC) No 999/2001).

2. Regarding the proposed rules covering insect husbandry practices point 1.9.7.1 'Nutrition'
 Cannibalism is for some species a natural instinct. One must therefore acknowledge that those behaviours cannot be completely prevented in insect farming, while these contradict animal welfare paradigms. We therefore suggest to delete the reference to the 'prevention of cannibalism'. Besides, the setting of maximum population density levels (as foreseen under the general livestock rules: annex II part II point 1.6.3) is irrelevant in the case of farmed insects: many species indeed thrive when bred in a densely populated environment, IPIFF says. IPIFF therefore pleads for applying a derogation from the 'general' livestock requirement which concerns stocking density. However, IPIFF agrees that insect producers should not use materials that could cause injuries to insects: IPIFF therefore concurs with the proposed prohibition to use materials made of recycled paper or board or eggs carton, if evidence is shown that those materials may entail adverse effects on insects (i.e. presence of harmful contaminants).

3. On proposed breeding practices point 1.3.4.4.4.6
 Following in-depth investigations conducted among its members, IPIFF concludes that the proposed limitations of 0.5% for stock renewal of non-organic breeding (per calendar year) will be challenging to implement for operators. As an alternative, IPIFF proposes a threshold of 5%.

MODEL DRIP IRRIGATION PROJECT LAUNCHED AT NARC

BY AMIN AHMED

Islamabad: Though drip irrigation has gradually been embraced by progressive farmers at some scale, the adaptation of this water-saving technology in the water stressed regions of the country has been hampered by its high costs and lack of awareness.

According to Dr. Munir Ahmad, Director of Climate Change, Alternate Energy and Water Resource Institute at the National Agricultural Research Centre (NARC) Islamabad, only 40,000 acres in the country is under drip irrigation. In contrast, the total irrigated area in Pakistan is estimated to be 20 million acres. A model pilot project has been launched at NARC to advise farmers on the efficient use of water.

The solar-powered project spreads over seven acres and comprises three components: citrus orchard on one acre, sprinkler orchard on 2.5 acres and raised bed on 2.5 acres.

As part of its 'Caring for water initiative', Neslco, one of the largest multinational food companies, has made an investment of Rs4.5 million in the project to promote the drip and sprinkler technology, said an official of the company. The firm has already launched an agricultural efficiency project in Sheikhupura in collaboration with the Punjab government which has the potential to help save 54 million litres of water annually.

Talking to a group of newsmen during a visit to the pilot project, Dr. Munir Ahmad

said the institute had been mandated to develop and disseminate science-based effective technologies and innovative practical management of water, energy and resources in collaboration with provincial and national research and development organisations.

In view of the effects of climate change on agriculture, there is a need to bring high value crops under sprinkle and drip irrigation as well as solar pumping irrigation, he said.

Farmers in water-stressed regions of Balochistan have taken keen interest in the drip irrigation technology and have been visiting the pilot project to gain knowledge to adapt it to promote agricultural productivity. High cost of imported valves, pipes, tubing and emitters from China is the major hindrance in the way of promoting drip and sprinkle irrigation.

Dr. Ahmad suggested that the government should seriously consider encouraging the private sector to produce drip irrigation devices locally that can help introduction of drip irrigation at a large scale, he said. In the absence of local industry manufacturing drip irrigation devices, there is less availability of skilled manpower since the technology requires sediment-free clean water and hindrances in agronomic practices. He said proposals had been submitted to the prime minister's task force on agriculture and the recent measures to promote agriculture such as green technology would boost introduction of drip irrigation.

Explaining advantage of drip and sprinkle irrigation, Dr. Ahmad said 40 per cent of water can be saved through this technology compared to flood irrigation. The technology also helps efficient utilisation of fertilizer whereas crop yield increases by up to 40pc and water application uniformly reaches over 90pc, he said.

PAKISTAN RANKS FIFTH IN GLOBAL MILK PRODUCTION

Sialkot: Dairy and livestock sector has great potential to accelerate the pace of economic development of Pakistan. The Cheese production is an emerging sector for domestic and international investment. Small and Medium Enterprises Development Authority (SMEDA) has prepared and published "cheese" value added dairy product-prospects for Pakistan. Official sources told Business Recorder on Sunday that rank of Pakistan is fifth in global milk production with over 50 billion litres annually. It is estimated that annual demand of cheese is more than 5000 tonnes in the country whereas local production remains at around 3049 tonnes and cheese production is emerging as an important potential sector. SMEDA in this regard has prepared and published Cheese Value Added Dairy Product-Prospect for Pakistan with the objective to evaluate investment potential of this sector and disseminate information for local and international investors to make future investment decisions. The report has been prepared with consultation with stakeholders and development experts and has been reviewed by technical experts. The study conducted by SMEDA will be helpful for the domestic and international investors to take initiative for investing in this emerging potential sector, sources added. Meanwhile, Ch. Ataf Ahmad and Muhammad Bashir, progressive stakeholders engaged with dairy and livestock sector, while expressing their views said that it is high time for the government to take drastic steps for the promotion of cheese sector at grass roots level and announce special incentives for the purpose.

CHICKEN FEED, WATER SAMPLES IN CITY FOUND CONTAMINATED WITH HEAVY METALS

Karachi: A large number of samples of chicken feed and water collected from poultry markets and shops in the city were found contaminated with various heavy metals, a Karachi University (KU) study shows. The study Distribution & occurrence of heavy metals in poultry feed and water in Karachi - as conducted at KU's Institute of Environmental Studies (IES) by Dr. Aamir Alamgir, Prof. Mozam Ali Khan and Matiza Javed.



The second major contamination source, in his opinion, might be city's water. Multiple studies have found city's water unsafe for consumption. One important reason behind it is the use of sewerage lines with water lines at many places, he said. On health hazards posed by food contaminated with heavy metals, he said that studies had linked prolonged exposure to heavy metals to various illnesses including damage to lungs, kidneys, central nervous system, respiratory and cardiovascular systems and reproductive system.

Heavy metals in poultry feed Ninety-one per cent of feed samples had lead values above the WHO 2011 guidelines (0.2mg/kg) while as they all crossed safe limits for nickel. The maximum level of lead was found in the Quaidabad sample. Samples collected from Shadman, Shah Faisal Colony and Malir contained lead within the guideline value. Copper was observed above the guideline values in 67pc samples of poultry feed. Its maximum value was found in the sample collected from Nazimabad.

Eighty-two per cent of samples showed iron above the guideline value. Samples from Malir, Kala Board, Jinnah Square, Nazimabad and Shah Faisal (one sample) were within the safe limit. Seventy-nine per cent samples had chromium concentration above the guideline limit (0.5mg/kg). Its highest concentration was found in Saddar. All samples had nickel above the guideline limit. Arsenic contamination was detected in samples collected from Jauhar Chowrang, Saddar, Liaquat Market, Malir RCD and Khoso God. Water samples also tainted All water samples had iron and nickel above the WHO 2011 guidelines. Their highest concentration was recorded in Korangi, Saddar and Quaidabad, respectively.

Copper, however, was found within safe limits in all water samples. Fifty-five per cent of water samples were above the WHO guideline for chromium (0.05 mg/L). The maximum concentration of chromium was found in the Dawood Chowrang sample. According to the study, arsenic in water is a major concern in Pakistan because it is also found naturally in water reservoirs and can originate from pollution by industrial activities or specific feed additives. Thirty-four per cent of all samples had arsenic values above the WHO guideline and the highest arsenic concentration was found in Korangi.

Last year, a study published in the International Journal of Community Health Sciences had found samples of lentils, potatoes and chicken meat brought from the open market in Karachi, both in raw and cooked form, tainted with metals known to cause human poisoning. The study was conducted by the department of community health sciences at the Aga Khan University in collaboration with the department of environmental and preventive medicine of Jichi Medical University in Japan. The chicken meat was uniformly contaminated with high arsenic levels irrespective of the utensil material used for cooking.



One day Second annual pet show has been successfully concluded at college of veterinary & animal sciences jhang.

AGRICULTURE IS IN TROUBLE

The agriculture sector is in trouble. The government admits that the sector cannot grow more than 1.9 per cent in the current fiscal year.

We know that because the government shared this news with Sindh, after the recent approval of the 12th five year plan. It also envisages 4pc economic growth for this year. Towards the end of the PML-N's five-year term, policymakers had set targets of 3.8pc and 6.2pc for agriculture and economic growth. So either policymakers were too optimistic at that time or the political transition has proved to be too depressing for agriculture. The recently released second quarterly report of the State Bank of Pakistan (SBP) does not project a growth rate for agriculture. But it says that overall economic growth will remain in the range of 3.5pc and 4pc. The SBP report says outputs of three key crops cotton, rice and sugar cane have been in decline. It casts doubt on the likelihood of achieving the wheat target of 25.6 million tonnes as well. The report informs us that all minor crops, minus gram and sunflower, have shown a declining trend in output. So, the crop sector is in trouble.

We know that it is in trouble due to the shortage of water and the resultant shrinkage of the area under cultivation. Other reasons include higher costs of inputs after the rupee depreciation, an uptick in headline inflation, little interprovincial coordination and strained relations between Sindh and the federation. The central bank report does not shed light on the performance of livestock, fisheries and poultry sub-sectors that are also a part of agriculture. But it is hard to assume that the livestock sector can grow at a time when there is not enough water for crops and slower economic growth has reduced people's disposable income. The performance of the livestock sector will become known after the release of the Economic Survey of

Pakistan before the close of the fiscal year in June. The same is true for poultry. But seafood exports always give us a clue about the output of the fisheries sector. In the first eight months of this fiscal year, export values of seafood have declined about 2pc to 111,000 tonnes.

By the way, meat exports increased 10pc to 39,500 tonnes during this period, but that alone does not indicate output growth in the livestock sector. After stating that agriculture will grow just 1.9pc in 2018-19, policymakers have set agricultural growth targets of 3.2pc for 2019-20, 3.7pc for 2020-21, 3.9pc for 2021-22 and 4pc for 2022-23.

The way the federal government has strained its relations with Sindh, the country's second largest agricultural hub, should be a cause for concern. We need more transparency on agricultural cooperation between Pakistan and China under the CPEC to achieve these growth rates. It is necessary so that the provinces can develop their annual agriculture development plans accordingly. Politically sensitive topics, like the new National Finance Commission (NFC) award, judicious distribution of irrigation water among the provinces and specifications about a possible repeal of the 18th Amendment to the Constitution, will continue to affect the performance of agriculture in years to come. Under the 18th Amendment, agriculture is a provincial subject, although there is a genuine need and scope for better coordination between the provinces and the Federation.

On March 18, Prime Minister Imran Khan approved a national agricultural emergency programme of Rs290bn to fulfil his promise of revolutionising the sector. Next day, the National Assembly special committee on agriculture held its maiden meeting and elected the speaker of the assembly, Asad Qaiser, as its chairman. This emergency programme is to be implemented over a five-year period. It is aimed at boosting agricultural research and overcoming the shortage of certified seeds and lack of proper storage facilities besides promoting technological advancement, eco-innovation in the use of water for agriculture and import substitution in the edible oil sector. Since all the four provinces are represented on the parliamentary committee, one can expect that it can come up with an implementable road map for agriculture growth. All sub-sectors of our agriculture continue to suffer from low productivity. In the crops sector, per-hectare yields are far less than those in other countries. One of its reasons, according to a recently released World Bank report, is a consistent disparity between the crop yields of rich farmers and poor farmers in Pakistan. An increasingly unequal distribution of landholding and failure to reform a land tenure and agriculture system that significantly favours large landholders' has given rise to a politically influential land-holding class, according to the report titled Pakistan@100: Shaping the Future.

Agriculture may not grow at a sustainable high rate unless this problem is addressed. Can the government do this? Will it be able to garner support from the provinces in so doing? Only time will tell. In the current environment of political confrontation and uncertainty, it seems too difficult. With energy prices shooting up every month as oil prices rise, prices of agricultural inputs, including seeds and fertilisers, will likely continue to increase. Currently, this is a major concern for farmers. Water shortages may become more acute as no initiatives have been taken in the past eight months for building small dams and rainwater reservoirs. If the country faces a super flood due to the faster melting of glaciers and increased mercury level, as the Federal Flood Commission fears, agriculture will suffer more.