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Faisalabad

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UVAS HOLDS SEMINAR ON "EATING AND FEEDING BEHAVIOR IN INFANCY AND EARLY CHILDHOOD"

Lahore: The Department of Food Science and Human Nutrition (FSHN) of the University of Veterinary and Animal Sciences (UVAS) Lahore organised a seminar on "Eating and Feeding Behavior in Infancy and Early Childhood" in City Campus here on Tuesday.

UVAS Vice-Chancellor Meritorious Prof Dr Talat Naseer Pasha and Vice-Chancellor King Edward Medical University Prof Dr Khalid Masood Gondal co-chaired inaugural session of the seminar while number of students and faculty members were present.

Speaking on the occasion, UVAS VC Prof Pasha said that it is direly needed to provide healthy foods to school going children like milk, egg and butter in a day and healthy nutrition is the only way to control the diseases. He said all kind of soda drinks are unhealthy and must be ban in all institutions of Punjab. He said excessive intake of fast foods and carbonated beverages leading to childhood obesity.

In which national and international experts including



Dr Charlotte Wright and Dr Ada Garcia both from University of Glasgow, UK while Dr Saira Afza from King Edward Medical University, Lahore and Dr Samra Imran from Government College of Home Economics, Lahore were delivered their informative lectures on the role of nutrition

for growth and development of children. The aim of the seminar was to create awareness and convey the right message in a convincing manner to change the practices of a society regarding feeding problems of childhood are common concerns encountered in pediatric practice.

MINISTER FOR LIVESTOCK PUNJAB SARDAR HASNAIN BAHDUR DARESHAK VISITS UVAS



Lahore: The Minister for Livestock & Dairy Development Department Punjab Sardar Hasnain Bahadur Dareshak along with Advisor Chief Minister Punjab on Livestock Faisal Hayat Jagwani paid a visit to the University of Veterinary and Animal Sciences (UVAS) Lahore and held a detailed meeting with Vice-Chancellor Meritorious Prof Dr Talat Naseer Pasha and other senior faculty members, administrative officers of the university and Livestock Department officials here on Friday.

Speaking on the occasion,

minister lauded the progress made by the UVAS and Livestock Department in recent years for the develop-

ment of livestock and allied sector. He agreed for providing support to the university in its endeavours for the benefit of poor farming community. He also sought suggestions/expert opinion for making of the affective farmers friendly policies for the enhancement of meat export and also for the betterment of livestock & dairy sector especially for profitability of poor farming community in Punjab.

Prof Dr Pasha said that Pakistan is blessed with the best dairy cattle breeds in world and it is needed to work for enhance the production of our local breed, genetics improvement of this animal. He also suggest to start a school meal programme to

curb the malnutrition issues especially in school going children by serving them a glass of milk and egg regularly in class rooms. He said for the profitability of farmers market is very important where farmers can sale their animals and milk on good rate. He said UVAS focusing on problem solving applied research, socio economic development of country and knowledge transfer.

Earlier, the Vice-Chancellor briefed the minister on UVAS history, campuses, labs, academic, research and development projects, 24/7 clinical services, various farmers, butchers & dairy training programmes, national & international collaborations, industry linkages

and ongoing projects. He also gave presentation on the objectives of recently established Cholistan University of Veterinary and Animal Sciences Bahawalpur (CUVAS) for development of livestock in south Punjab,

which is the hub of live stock. He spoke the meeting about the ongoing construction work of different department of CUVAS.

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THE AUSTRALIAN CENTER FOR INTERNATIONAL AGRICULTURE RESEARCH (ACIAR) AND UNIVERSITY OF AGRICULTURE FAISALABAD (UAF) HAVE INKED A PROJECT TITLED MODERN PULSES VALUE CHAIN WORTH \$1.3 MILLION FOR THE JOINT EFFORTS. ON THE VALUE ADDITION IN PULSES

Faisalabad: The Australian Center for International Agriculture Research (ACIAR) and University of Agriculture Faisalabad (UAF) have inked a project titled Modern Pulses Value Chain worth \$1.3 million for the joint efforts on the value addition in pulses.

Aussie team called on UAF Vice Chancellor Dr Zafar Iqbal Randhawa. Australian scientist Dr Raj Andikan is the project leader of ACIAR project being carried out under the Agri Value Chain Collaborative Research. Whereas, Dr Gerald McEvily, Dr Munawar Kazmi from ACIAR, and UAF Director Dr Aman Ullah, country coordinator pulses project Dr Mubashar Mehdhi and others also attended the

meeting.

Talking to the delegation, Vice Chancellor said the UAF was setting up working group to collaborate ACIAR in the other areas of collaborations for the coming years in order to benefit the people. He added that joint efforts will help address the issues and make the development. He viewed that we have to learn from each experience so that the target of agriculture development and poverty alleviation can be achieved effectively.

He added that we have to shift towards value addition for the uplift of the country keeping the people healthy in view. He added that in the same value addition cases, it is observed that adopted

procedure was not good for health. Therefore we have to ensure the procedure which is good for health.

Dr Raj said that 1.3 million dollars project would develop and improve the pulses value addition conditions.

Dr Munawar Kazmi said

that the ACIAR is working

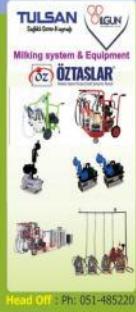
on the ten years agenda and partnership in the area of mutual concern and for the prosperity of the sector. He said that ACIAR provides a variety of resources to support the development of research projects with partner countries. These fact sheets, final reports, maps and other searchable tools have been developed to support the sharing of this knowledge. He said that ACIAR's priorities for agricultural research in developing countries reflects the Australian Government's aid policy and the 2030 agenda for Sustainable Development.



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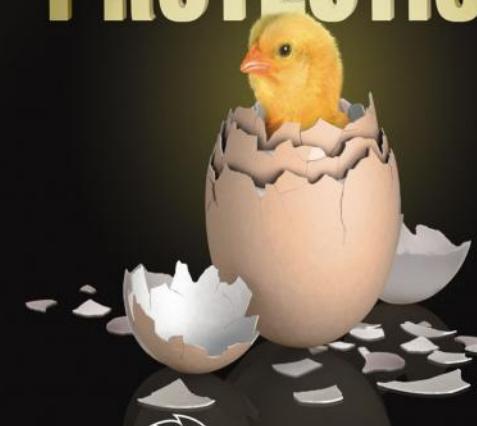
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Horse

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Cattle

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Psittacines</p

THREE DAY SICKNESS FEVER IN DAIRY CATTLE AND ITS PREVENTION

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Cattle and buffaloes are the most important part of dairy sector of Pakistan. If these animals are affected by some disease, we face huge economic losses in terms of decreased production and animals' treatment cost. One of the recent and most important diseases in Pakistan is the three-day sickness disease. It occurs mostly during the late summer and early winter, i.e. during the months August to November. It is commonly termed as "Weld" in Pakistan. It is medically termed as Bovine Epizootic Fever. It is a disease of both the cattle and the buffaloes. It is a viral disease and it is thought to be the flying insects, mosquitoes and sandflies as the vectors for transmission of this disease. The disease begins as the acute febrile condition with temperature 105-107 °F, there is depression, animals are reluctant to swallow, muscles and joints are inflamed as a result shifting lameness develops; there is discharge from the mouth and the nostrils and rarely some nervous



BOVINE EPIZOOTIC FEVER (3-DAY SICKNESS)

signs may also be seen. The animals may lie down and unable to stand. There may also be inactivity of the animals. This condition leads to severe drop in the milk yield causing huge economic loss. There is no specific treatment for this viral disease. Just give the symptomatic and the supportive treatments. The treatment is:

1. Administer the antibiotics like tetracyclines, Inj. Oxy-Tet 25-50ml/animal/day to avoid secondary bacterial infections. Give for 2-3 days.
2. Give NSAIDs (Inj. Dyclo 20ml/animal/day) for 2 to 3 days to relieve fever and pain.
3. Supportive vitamins like B-complex and amino acids.

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WHAT'S THAT SMELL?

By Rachel Feltman

Deodorant, perfume, soapy showers. Most humans make a big effort to smell good. But out in the wild, it's can pay to stink. You probably already know that skunks occasionally spray unfortunate humans (and their pets) with a foul-smelling liquid. The chemical compounds that shoot out of their butts are so funky they can cause nausea and a burning sensation in the eyes and that's the point! A skunk only sprays when it feels threatened. This super-powered stink is the result of natural selection, which allows animals to evolve, or change, over time. A creature that can defend itself against predators is more likely to survive and have babies. That means traits that keep a critter from running into danger are more likely to be passed on from generation to generation. Some species relied on strength and speed, becoming stronger and faster over the course of many, many years. Others got really good at hiding by developing camouflage that matches their natural habitat. And while it might not sound glamorous, some animals evolved to smell bad.

Skunks are the most famous stink-sprayers, but they're not alone. Millipedes creepy crawlers with hundreds of little legs shoot a nasty liquid out of their bodies when disturbed. Bombarider beetles do too, and their stinky spray can reach boiling temperatures. As if the smell wasn't bad enough? There are simpler ways to scare off a predator with

the Washington Post.



ASIA: POULTRY CONSUMPTION OUTPERFORMING GLOBAL GROWTH



Their report, "Foodservice is the new growth driver", found that the relatively low price point for chicken meant that it was highly popular in the four countries. Other factors included food service as a more important channel than retail and the rising influence of millennials.

Ben Samuels, senior animal protein analyst, said he expected consumption to be boosted in the short term through the ongoing proliferation of smaller world-outdoor poultry kiosks as eating out becomes more common.

"Chains of chicken fast-food kiosks appear well-positioned to win in the changing consumption landscape of Vietnam, India, Indonesia and the Philippines. These kiosks tick all the boxes when it comes to accessibility, infrastructure and direct

customer interaction. However, he added that supply-side factors such as increased competition in the processing sector and sharper imports threatened to tighten margins for local VIPP poultry producers. Poultry producers will need to connect with consumers and improve product availability through their own distribution channels. Umesh Madhavan, consumer foods analyst, added

FOOD FOR THOUGHT!

HUZAIMA BUKHARI AND DR IKRAMUL HAQ



DISMANTLE CONTAINERS' MAFIA

The picture that emerges is of gross inefficiency, maladministration and corruption in an organization that is bound to further perpetually individual and communal self-interest of a few individuals at the cost of Pakistan and her people. On 15AF Container Scam by Office of Federal Tax Ombudsman (January 2011)

The dismal state of affairs prevailing in Federal Board of Revenue (FBR), highlighted way back in 2011 by Dr Shehzad Sadiq, a retired senior police officer and ex-Federal Tax Ombudsman (FTOs), unfortunately persists even in 2018-many billions of rupees that it has, in fact, further deteriorated. The situation will remain the same, unless under the new government of Pakistan Tehreek-e-Insaf (PTI) earnestly committed to reform the FBR, as the culprits have not been brought to book even after a lapse of 7 years though clear instructions to this effect were given by the Supreme Court of Pakistan in the Sos Moto Case No. 16 of 2010.

It is a matter of great regret that at the cost of the country's interests, massive tax evasion continues unabated and many tax advisers, even though being instrumental in it, are now advising the PTI government how to improve things! The repeated warning by the Prime Minister, Imran Khan, of collecting Rs 5 trillion can look like figure from our articles, as noted in ours, backed by our agenda" by these advisers in the past, when PTI was not in power, that every adviser was making an claim of collecting Rs 5 Trillion.

The Supreme Court takes suo moto actions, passes orders and thereby... To date no action has been taken by the Finance Ministry and the government has even seriously pondered about this solution. Way back in 2012, in an order we observed, "It is disturbing reality that customs both inbound and outbound are not scanned in Pakistan. In importation, the collector-businessmen mafia deprives the nation of billions of rupees in the form of evaded duties Customs, Sales Tax and Federal Excise Duty, wherever applicable. These goods then remain outside the purview of income taxation as well. This is the main cause of generation of underground economy. Customs mafia is not ready to accept simple technological reforms of scanning of all the contain-

ers and baggage. The new Chairman has worked in Customs (178 CTP), earlier served in Civil Services Accounts Group (through 156 CTP) and has also previously sold software to FBR for Customs Wing. Expectations are high that he would increase collection of Customs duties-these would automatically lead to better collection of GST, FED and income tax-through the use of modern IT technology that he employed as Chairman NADRA and which was his business after resigning from FBR".

As expected, no response to our above mentioned proposal came from FBR and their favorite tax practitioners. The end of Chairman mentioned in above articles was followed by six chairman but till today no effort whatsoever has been made to plug the main hole from where colossal loss of revenue is occurring on daily basis. In its order of August 30, 2013 in SMC No 16 of 2010, Supreme Court noted that "In order to further ascertain the correct position about the smuggling of arms and ammunition as well as evasion of the duty on different items at the Ports of Karachi and Bus Qasim, we are of the opinion that there must be a strict check and full duty should be recovered because on account of evasion of customs duty, black money is also generated, which allegedly flows inside the country particularly in the city of Karachi and is used by the accused persons in order to promote their criminal activities throughout the country".

Though the Supreme Court passed the above order for

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LARGE MICROBIAL PROTEIN PLANT BUILT IN RUSSIA

The world's first commercial scale plant that turns methane gas into protein, with the use of bacteria, is ready.

They are introducing it to the market in the United States. The technology used in the United States company Ethane has invented the 1.5-kilopilot technology to convert natural gas into microbial protein. The plant can produce 200 tons of protein a day and can be used in animal feed. This patented technology is a vertical pipe structure that provides optimal growth conditions for the bacteria. This is a more efficient and faster way of fermenting than horizontal, conventional bioreactors. Natural gas contains about 89-95% of methane. The company is not using methane coming from ruminants but aims to use waste gas from the industry or natural gas from the ground.



The protein that is produced from having bacteria feed on the methane is comparable with high quality fish meal when we look at the amino acid composition for example.

Russia is the ideal place.

Last July, the construction of the plant was finished. Protex and Unilever are currently testing the plant and expect to commission it by late 2018. The plant consists of U-shaped bio-reactors. Russia was chosen as an ideal site for the production of bacterial protein, as the country has a well-developed compound feed industry and there is access to an abundance of cheap natural gas. The place where the plant is situated is located in an industrial zone holding various international companies and where a lot of the necessary infrastructure is already present to support the project.

Upcoming soon

The plant has a production capacity of approx 6,000 tonnes per year. The companies expect a rapid capacity increase to 100,000 tonnes per year soon. Unilever has a small production plant in Kalundborg, Denmark. All About Feed recently visited Unilever at their offices, located at the campus of the Technical University of Denmark in Lyngby. We met up with Dr Karthik Jilegudar, animal nutritionist and Michael Jensen, chief commercial officer about the potential of their microbial protein in animal feed.

ANYONE FOR CAMELCINO? CAMEL MILK SET TO BE BIG BUSINESS FOR EAST AFRICA

Camel milk is increasingly being recognised for its health benefits, and the FAO estimates the trade could be worth \$10bn



Building the microbial food plant at Hamza SMC, Somalia, in general North Africa, is the second country to be developed mainly by auto-Somali office workers during their lunch hour, one stands out from the list of delicious Somali cuisine: camel milk tea.

Over the sole preserve of nomadic Somalis and Middle East communities, camel milk, which is naturally semi-diluted, three times as rich in vitamin C as cow's milk and packed with antibodies, is increasingly being recognised for its health benefits by the Food and Agriculture Organisation (FAO) and health conscious consumers.

In Nairobi, camel milk is now available in restaurants and supermarkets. For more adventurous foodies, camel milkshakes and camelio, a cappuccino made with camel milk, can be found in some cafés.

But for pastoral communities in Kenya, who depend on camels for their survival, the handy animals that can go for 10 days without water offer more than milk in a coffee cup. Unlike cows and goats, camels can produce milk during the dry season and in times of drought which is why they are considered to be "one half of God" by the Rendille community in north-east Kenya.

Their drought-resistant qualities have led the Kenyan government, NGOs and the private sector to start paying attention to what camels have to offer.

According to a study commissioned by SNN, a Dutch NGO, an estimated 340m litres of camel milk was produced commercially in 2007, valued at more than 8bn Kenyan shillings (901m) at the farm level. This makes the sub-sector larger than cotton and comparable with coffee.

At the international level,

the FAO estimates that camel milk trading could be worth \$10bn if key improvements are made and proper marketing is done. With this in mind, the Kenyan government is making a strong effort to strengthen the sub-sector and link pastoralists to wider markets.

"We are in the process of building a milky dairy processing centre in Garissa, Mijia, and are also encouraging camel ownership in the communities where camel keeping is not common but the dry land and climate are suitable for camel rearing," says Juma Kariso, executive director at the ministry of livestock development.

At the helm of efforts to commercialise camel milk and make it widely accessible to consumers is a small group of women in the town of Isiolo, 235km from the capital, Nairobi, in pastoralist societies, camels are a symbol of wealth and status. Men are usually the dairy owners and women are responsible for milking and selling the milk, and other by-products.

Women got together and formed the Isiolo co-operative, to share the costs of renting facilities and transportation to send their milk to the lucrative markets of Eastleigh, the Somali enclave in Nairobi, where camel milk sells at more than three times the price of cow's milk. "We started as a group of 35 women, now we are 200," says Safia Kalow, the chair-

woman of Anelot. "It was very hard at first, and there were many challenges. There was little profit, and we used to send small amounts of milk to Eastleigh via trucks and the buses. Buyers would enquire the driver whether there were cases of theft, which ate into our profit."

Anelot women initially targeted the Somali community in Eastleigh, but a survey showed there was demand for camel rearing," says Juma Kariso, executive director at the ministry of livestock development.



Safia talks about how profitable business has become since they scaled up production and pooled resources. To receive payment, the women use Mpesa, a money transfer service using mobile phones, pioneered in Kenya.

"Now we are making good profits, out of this trade we are able to pay school fees," she says. "Also, we have been able to start investing in other business. I now have a shop selling women's clothing. Others have bought camels and become camel owners themselves, independent of their husbands."

"Soon, we want to buy our own buses and brand our milk, packing it, and place it in shops and supermarkets."

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RUMEN AT THE HEART OF FEED EFFICIENCY

The rumen is actually the keystone of feed efficiency: it is the main first organ of the cow digestive tract.

What can be done to further optimise it?

Feed efficiency can be defined as the ratio between performance and feed consumption. In dairy farming, performance can be expressed by Energy Corrected Milk (ECM), which takes into account milk yield, but also protein and fat contents. Feed consumption is commonly expressed in kilograms of Dry Matter Intake (DMI). Production of feed intake is commonly measured in beef cattle, poultry or swine production to control economic performance.

amount and profile of MP supplied to the gut, which cannot be easily controlled in farming conditions. Up to 80% of energy supplied to ruminants comes from VFA. Rumen fermentation produce mainly acetic, butyric, lactic and propionic acids. Levels and ratio of each VFA, for optimum rumen fermentation have been determined after years of research and constitute minimum standards. Due to a high level of concentrates in modern dairy farming, rumen functioning can be

affected by complex polyphenolic compounds of plants. They can vary a lot in types and concentration from extraction. Their nature allows binding with proteins, notably, the quantity and the quality of the extract is very important to ensure adequate binding in the rumen and liberation in the gut.

• **Tannins:** complex polyphenolic compounds of plants. They can vary a lot in types and concentration from extraction. Their nature allows binding with proteins, notably, the quantity and the quality of the extract is very important to ensure adequate binding in the rumen and liberation in the gut.

Essential role secondary metabolites and volatile components.

There are various families with different modes-of-action. In the literature, these compounds have shown antimicrobial activities and can affect rumen microorganisms and rumen metabolism of protein and energy.

Saponins, such as paprika extracts.

They have shown to increase dairy cows' intake in different trials, and have been linked to an increase of the natural buffer from saliva, positively affecting ruminal pH.

Tested in a Holstein herd.

One of these products, Valspes, has been recently tested in a commercial context in a field trial in Ontario, Canada. A herd of 70 Holstein dairy cows was supplemented with 20g/day of the product during 4 months after 1 month of pre-experiment control. Milk yield increased from 29 to 32.2 liters/cow/day, protein content from 3.15 to 3.27% and fat content decreased from 4.31 to 4.05% (mostly due to dilution). Protein, energy and fat digestibility were increased from 88.15 and 158.1 respectively, down to 90.0 and 160.0%.

As a result of the trial, due to the increase in milk production and the reduction of feed cost, the farmer revenue was increased by \$58.3/day.

Conclusion



Dairy farmers have historically fed diets with a protein level beyond cow requirements, notably to counteract a naturally poor use of proteins by the cows.

Feed efficiency is poorly used

Whereas it has great influence on farmers' income, feed efficiency is poorly used either by the farmers or by the dairy industry in general. Several studies measured feed efficiency across dairy herds, and demonstrated important variations, from 1.1 to 1.9 kg ECM/kg DMI. In terms of revenue, this difference represents \$5.00 cow/day (from Cattetra, 2009), assuming a milk price of \$0.26/kg and a diet cost of \$0.22/kg (DMI). Feed efficiency monitoring has become more and more important to secure farm income. Indeed, milk prices are still volatile in different markets and tend to decrease, whereas raw materials prices globally increase.

What causes actual variation in feed efficiency?

Important variation in feed efficiency can be measured among animals and numerous possible causes have been identified. This includes variation in milk, body weight, change, activity, etc. However, main factors are linked to feed itself: diet composition, raw materials digestibility especially forages as well as distribution, palatability or rumen passage rate.

Rumen is actually the keystone of feed efficiency; it is the main first organ of the cow digestive tract. This large vault harbours a wide microflora population responsible for nutrients digestion and distribution to the host organs and tissues. Rumen, in association with the reticulum, is indeed a very effective fermenter that breakdown diet constituents: starch, cellulose, proteins and, to a lesser extent, fat. Among the multiple processes happening in the rumen, 2 main outcomes are expected from ruminant functioning:

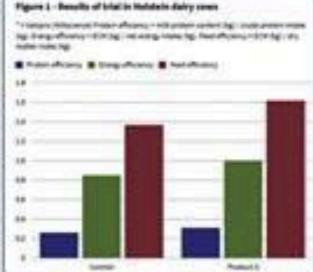
1. Volatile Fatty Acids (VFA)

2. Metabolizable Protein (MP)

Improving feed efficiency, from ruminant perspective, means a maximal availability of these 2 nutrients in the intestinal tract.

Effect of feeding practices

Dairy farmers have historically fed diets with a protein level beyond cow requirements, notably to counteract a naturally poor use of proteins by the cows. Indeed, research has demonstrated that usually less than 30% of protein intake can be retrieved in milk protein content form. Such practice can also be advised by nutritionists in order to provide sufficient essential amino acids supply for absorption in the gut. However, rumen cation and degradation of proteins as well as microbial synthesis variation can randomly change the



monitored with indicators such as:

- Total Digestible Nutrients (% of Dry Matter).
- Digestible Energy (Mcal/kg).
- Protein Digestion rate (%/hr).
- Metabolizable Protein (g/day).

Then, as mentioned before, rationing should take into account synchronisation and balance of ruminal protein and carbohydrate digestion.

Since the last decades, specificities have emerged on the market, providing solutions to increase by-pass nutrients supply at the intestinal tract. They include source of proteins treated with different methods (formaldehyde, heat, reducing sugars, etc) and single amino acids protected from ruminal degradation by fat or ethyl-cellulose encapsulation.

Whereas these solutions have shown consistent results on feed efficiency, they only provide a limited amount or type of nutrients to

BIOTECHNOLOGY AND POULTRY NUTRITION

Zeshan Zulfiqar*, Shahid Ur Rehman, Muhammad Khalid Bashir, Muhammad Ashraf and Rahat Mobeen

* Email: zeshan@gmail.com

Department of Poultry Science, UAF Sub Campus Toba Tek Singh

The objective of biotechnological research in poultry sector is to enhance the production efficiency and to reduce the unit cost of world's food supply chain.

For sustainable poultry production regarding egg and meat, the role of biotechnology in poultry nutrition is enormous.

Food is major component of poultry production

constituting 60-70% of the total cost of production.

Application of biotechnological methods not only improve the utilization of feed but also reduce the cost of production.

Food can be better utilized by the bird in two ways by supplementing enzymes.

A) The newly laid hen chick does not have the enzymes in the diet taken by the bird but these enzymes work at their specific pH.

Fod can be better utilized

by the bird in two ways by

supplementing enzymes.

Enzymes help to break down

the food into smaller

units.

These enzymes are produced

in different stages of GIT

in the chick.

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INDONESIAN AMBASSADOR IWAN S. AMRI CALLS ON UAF VICE CHANCELLOR DR ZAFAR IQBAL RANDHAWA AT VC CHAMBER



Faisalabad Indonesian Ambassador Iwan S. Amri has said that Pakistan and Indonesia will further strengthen their ties in trade, research and agricultural sector.

He was talking as chief guest at the inaugural session of International Conference titled "Pulse, Oil, Health, Nutrition and Development" arranged by National Institute of Food Science and Technology (NIFSAT), Faculty of Food, Nutrition and Home Sciences, University of Agriculture Faisalabad (UAF).

UAF Vice Chancellor Dr. Zafar Iqbal Randhawa, Faisalabad Chamber of Commerce and Industry President Shabir Hussain Chawla, Madiun Group of Industry Director Mian Haider Amin, Dean Faculty of Food Sciences Dr. Mansoor Ahmad Sadig Butt, NIFSAT DG Dr Tahir Zahoor, Dr. Hanif Saeed and other notable also spoke.

The Ambassador said that palm oil production is important to economy of Indonesia as the country is biggest exporter worth 22 billion US dollars, whereas Pakistan share in palm oil import is 10 percent. He said that people in South Asia were using Palmolein glue that was made of the animal fats. It is not only the matter of health but also habit and culture. He said that Indonesia-Bangladesh Agricultural University, Faisalabad Chamber of Commerce and Industry, and University of Agriculture Faisalabad will enhance trade and research ties to boost the academic and industrial linkages. He said both countries had the similarities in the culture and way of living. He also congratulated for successful election in Pakistan.

UAF Vice Chancellor Dr. Zafar Iqbal Randhawa said that Office of Vice-Vice-Chancellor comprising six liaison offices will be provided to the industry to set up their offices for academic-industry linkages so that they could devise demand driven mechanism for research and help generate more employment for poverty alleviation. He said that strong academic-industry partnerships are essential to fight the challenges of modernization and to alleviate poverty from the country. He said that the academia-industry strengthened ties would help raise income of people, way of living and to meet the challenges of the modern era. He urged the researchers to work on the real issues of the common man. He added that Indonesia and Pakistan strengthened relations would help address the common challenges.

THE COLLABORATIVE EFFORTS AMONG THE UNIVERSITIES AND RESEARCH INSTITUTES IN THE CITY WOULD HELP ADDRESS THE PROBLEMS OF LOCALS AS WELL AS THE ENTIRE NATION: DR ZAFAR IQBAL RANDHAWA



Faisalabad: The collaborative efforts among the universities and research institutes in the city would help address the problems of locals as well as the entire nation, said University of Agriculture, Faisalabad, Vice Chancellor Dr. Zafar Iqbal Randhawa.

FAST National University Chairman, Faisalabad Campus Director Dr Attaf Ahmad, University of Faisalabad Pro Rector Dr. Zahir Ahmad Paracha called on UAF Vice Chancellor Dr. Zafar Iqbal Randhawa at VC Chamber and discussed the areas of mutual collaborations. Office of Research, Innovations and Commercialization Director Dr. Zahir Ahmad Zahir, Dr. Asif Ali Chatha and Dr. Khurram Zia attended the meeting.

He said the teaching community and parents have to put a special focus on inculcating faith, discipline and honesty in youth as per vision of Quaid-e-Azam Mian Mohammad Ali Jinnah.

He quoted the sayings of the Quaid-e-Azam: with faith, discipline and willless devotion to duty, there is nothing worthwhile that you cannot achieve."

He said that under the leadership of Quaid-e-Azam, a new state for Muslims surfaced on the map of the world in 1947 while the Muslims spend their lives in peripheries of Islam and Sunnat.

The country has been achieved after the great sacrifices and now it is our duty to move it to the next horizon

of development and prosperity.

Dr. Zahir Ahmad Paracha said that public sector universities and private educational institutes have to come forward with joint venture for the welfare of the society. He said that his university was making all out efforts to collaborate with public and private sector to address the problems of the society.

Dr. Attaf Ahmad Maroof said that we have to move the country to new heights of progress by hardworking and honesty as per vision of Quaid-e-Azam. He said that no nation can make progress without ensuring quality education. He added the demand driven and problem solving research are need of the hour to compete with the rest of the world.

IS PRICE CONTROL KILLING THE MEAT INDUSTRY?

By Amjad Mahmood



PAKISTAN'S red meat consumption tripled from 11.7 kilograms per person in 2000 to over 32kg in 2016. It is set to go further up to 47kg by 2020 because of two main reasons: higher incomes and a changing lifestyle due to growing urbanisation in the last two decades, enabling people to go for protein-rich food.

No apparent efforts are being made by either public or private sector to meet growing demand for red meat. We are illegally slaughtering female animals at private abattoirs and less-monitored municipal facilities to fill the gap. The practice is depleting our livestock reserves, which currently stand at around 169 million head. Of them, 54% are cows and buffaloes and 55% are sheep and goats. It is feared that if this trend is not checked, the livestock-scarce country may face a shortage of animals in the near future.

In order to maintain a healthy stock of cattle herd and sustain the provision of quality meat for domestic consumption and exports, experts and consumer representatives suggest abolishing the official capping of meat prices, which is discouraging investment in the sector.

Consumer Safety Forum's Mohsin Bhutta claims that at least 50 per cent of around 20,000 animals slaughtered in Lahore every day are female. Their illegal slaughter is carried out at homes of butchers, service stations and in villages at night.

Low meat prices make herd owners sell their 12 to 14-month-old animals, both male and female. They should ideally wait until animals are 22 months old, he says. This deprives consumers of healthy meat.

The sector holds great investment potential, which may bring prosperity to livestock farmers in the countryside provided the artificial price-setting mechanism that is holding it hostage is dismantled, says Dr M. Hayat Jaspal, chairman of the Meat Science and Technology Department at the Lahore Veterinary University (LVAS).

Hungry market forces will ensure that quality red meat is available at the cheapest rate to consumers just like in the poultry sector, which is free from the official price mechanism. "Wholesome gains can be ensured in any sector through price reforms, they declared.

However, meat experts apprehend that if the capping mechanism is abolished, the outcome will become adverse and the experts say it is already at the cost of the last couple of years. "We're already facing big problems due to various factors."

Low meat prices will lead to a hike in local and national markets thus making export commitments more expensive and uncompetitive in the world, says Shahzad Afzal Chaudhary, a Lahore-based exporter of red meat.

But Dr. Jaspal dispels the price hike fears. If prices play a big role, perhaps as the main export volume of the decline even at the existing low-official rates. He says that meat may go up in price initially but stabilize after a year. That is because by then new investment will improve the supply and, later in the poultry industry, market growth will also proclaim control of hawks before

supply and demand.

Even if raw farms are negatively affected by the low meat prices, it will enable farmers to sell the feedstock to them up their cattle, which is not feasible at the present price level. Endoring these views, Dr Sheer Al of LVAS says that quality meat from fast-fed animals will help exporters earn at least 25% more than their existing constituents, which are sent to low-end foreign markets because of poor meat quality. At the current officially notified rates, he says, it is impossible to produce quality meat. The university itself, despite enjoying certain subsidies, could produce quality beef at Rs 50/kg in its ongoing pilot project while the official rate of beef is around Rs 400.

Haleem Usman, a progressive goat farmer, says the negative pricing system is preventing him and other players from making large-scale investments in the sector. Presently, we've got only a small consumer base in the form of exporters. The domestic market is practically closed to us because we cannot supply meat products at the officially notified rates, which are a lot less than our production cost. We will think about making further investment only if the government uncaps the prices or guarantees a matching subsidy to offset the negative impact of the current price mechanism.

BRAZIL RAISES SOYA EXPORT PROJECTION

SAO PAULO: Brazil's government on Tuesday raised by 2 million tonnes its projection for soybean exports in the 2017/18 crop to 76 million tonnes amid strong Chinese demand, reducing the crop's end-stocks to the lowest on record. Agricultural statistics agency Conab raised by 300,000 tonnes its projection for the country's 2017/18 soybean crop from August to 119.3 million tonnes, the second-highest output ever, but even with that increase soy and stocks fell to 434,000 tonnes from 638,000 tonnes last month. The report was another indication that Brazil would likely run out of soybeans before the new crop starts to reach warehouses around January, which could force Chinese buyers to buy from the United States despite the 25 percent additional import tariff imposed by China in its trade spat with the Trump administration. Conab said in its report that Brazil is likely to continue to send soybeans to China until there is nothing left, due to the weak currency and high port premiums.

The agency said that even Brazil's soy processing industry is suffering due to the trend, unable to increase processing volumes despite high international prices for soybean and soymeal. It hinted at possible soy imports.

"There is a remote chance that Brazil will need to import soybeans to supply the local industry," said the government agency in the monthly grain crop report. Conab cut its projection for corn exports in the 2017/18 crop to 25.5 million tonnes from the 27 million tonnes seen in August, reflecting a smaller harvest and strong local demand.

It estimated cotton lint production at 2 million tonnes versus 1.97 million tonnes previously. The agency also raised its estimate for this year's wheat crop to 5.24 million tonnes from 5.14 million tonnes projected last month. Reuters

NUTRITION IS KEY FOR TRANSITION COWS

Nutritional management of cows during the transition period can have substantial effects on reproductive success. This was concluded from a large literature review.

Poor reproductive performance of lactating dairy cattle is a complex disorder that reflects associations with interrelationships of production and increased milk production. However, it is difficult to determine a causal basis for the decrease in fertility, as genetics and environment have changed markedly over the last decades. Nutritional influences on fertility have been examined and frequently reviewed, but differences and inconsistencies in study design exist. Studies must have large numbers of experimental units to identify biologically and economically important differences in proportion of cows pregnant. Nutritional influences during the transition period may be of particular importance, as it is clear that the effect of diet on fertility during this period is complex and multifactorial. The objective of the current study was to use carefully described dietary information from the available literature to explore the effects of the diet during the transition period on measures of pregnancy, lactation, and milk production.

The type of carbohydrates also influences the risk of acidosis, with sugar posing a greater risk than starches. Consequently, carbohydrates have positive and negative effects on fertility. The positive association of starch intake and negative association of sugar intake are well identified in early lactation, as well as identifying factors that may explain variation in these responses. This research looked at 118 diets containing 109 experiments to see what the effects on nutritional interventions fed during the early postpartum period.



After calving, it is important to keep the dairy cow's dry matter intake at a high level.

Higher milk output, lower fertility

The extensive literature has

shown that increased CP

intake and reduced

lactation, and increased

acidosis, and decreased

reproductive performance.

Increasing CP content of the diet may not necessarily increase MP intake (kg/d) and proportion pregnant in the univariable analysis. The review also mentioned that a negative association was found between increased CPMP and metabolizable protein (MP) balance is also important for successful reproduction. In this review study, improved early-lactation MP balance tended to increase the proportion pregnant. Increasing crude protein (CP) intake with proportion pregnant were identified in univariable analyses. The review also mentioned that a negative association was found between increased CPMP and metabolizable protein (MP) intake (kg/d), possibly because of a slower fermentation rate than sugars, and negative associations of soluble fibre and sugar intake (kg/d) with proportion pregnant were identified in univariable analyses. The review also mentioned that a negative association was found between increased CPMP and metabolizable protein (MP) intake (kg/d), which was negatively associated with the proportion of cows pregnant.

Unmetabolized protein may decrease fertility by reducing feed intake, producing a metabolic acidosis, leading to detrimental alteration of uterine environment, stimulating prostaglandin release, and resulting in heterotrophy in a process analogous to that of neurons.

Conclusions

This study highlights several important findings for future research on the effects of transition nutrition on fertility. It confirms that nutritional management of cows during the transition period can have substantial effects on reproductive success, and this finding is consistent with previous meta-analytical studies in this area.

Overall, this study confirmed earlier findings that excessive protein intake can impair fertility, but that a positive MP balance is consistent with better fertility.

However, it may be necessary to increase protein intake when feeding fats, and other work suggests a need to control the MP balance before calving. The role of specific metabolizable AA needs further study. This

study also, critically, identified potential effects of specific carbohydrate fractions, especially sugar (kg/d), starch (kg/d), and physically effective NDF (kg/d) on reproductive outcomes. This article is a short summary of the original paper, *Effects of nutrition on the fertility of lactating dairy cattle*, by R.M. Reddy, J.P. Celli, K. Krishnamoorthy, and J.E.P. Somer, published in the *Journal of Dairy Science*, Volume 101, Issue 6, By Professor Ian J. Lewis

and body weight and body condition score.

Positive effects of fatty acids

Microbial lipolysis and hydrolysis in the rumen ensure that intake of fatty acids and those available for absorption in the duodenum differ. Hence, these issues were explored separately. Fats not only provide an energy source but also are essential precursors for steroid hormones, and the beneficial effects of fat have been observed independently of the precision of energy. The researchers of this review noted that

study also, critically, identified potential effects of specific carbohydrate fractions, especially sugar (kg/d), starch (kg/d), and physically effective NDF (kg/d) on reproductive outcomes.

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