

Agro Veterinary News

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>>> PPA opposes 04 Govt. bid...

COVID-19: Pandemic

>>> IVSA Pakistan organises....

>>> Canine demodicosis 14



'EX-PM GAVE 20 BILLION SUBSIDY ON SUGAR'

Govt. put blame on opposition in sugar scam

AVN Report

ISLAMABAD - Just a week after the release of the forensic audit report that uncovered

wrongdoings in sugar industry and implicated an erstwhile confidante of the prime minister among key political figures for last year's sugar crisis, the government turned its guns on the main opposition party for giving the lion's share in

to mill owners during the past Eve years.

"Ex-prime minister Shahid

Khagan Abbasi, who claims himself as the 'most genius man', had given Rs20 billion subsidy," said Special Assistant



the Rs29 billion export subsidy : to the PM on Accountability and Interior Ministry as well as chief of the Assets Recovery Unit (ARU) Shahzad Akbar

while addressing a press conference recently. Reading out some findings of the commission, Mr Akbar said,

> "The commission is of the view the documentary evidence available as discussed, the calculation of subsidy based on the cost of production in 2017-18 was not done with due diligence while approving the subsidy

of Rs20bn. Mr Shahid Khaqan Abbas could not provide [reasons]."

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Poultry traders warn of strike

AVN Report

LAHORE - Poultry traders recently warned of observing another round of strike for an indefinite period if the government kept ignoring their demands.



"We in a meeting held on Wednesday decided to continue making efforts for getting our demands accepted by the government. But if our issues are not resolved till Sunday, we will resume from Monday our strike, which we deferred before Eid," a press release issued by

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'Farmers are helpless in fight against locusts'

AVN Report

VEHARI - Swarms of locust attacked crops in various areas of Mailsi tehsil of the district during the last 24 hours where farmers were fending for themselves without any help from



fund-strapped agriculture department.

As per local farmers the vegetation-eating insects attacked various areas of Mailsi tehsil, including Nitro, Garah Mor, 149/WB village, Bulandpur, Tibba and damaged the crops, including cotton, wheat, maize, sunflower and vegetables.

They said the locusts had also reached some areas of Multan and damaged various crops there.

The farmers, including Mumtaz, Abdul Rashed, Jawed Shah and Rashid Joiya said they were helpless in face of locusts that were badly damaging their crops. They lamented the apathy of local agriculture department officials who, they claimed, did not provide any professional help or pesticide sprays to them to

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Pakistan's agricultural responses to COVID-19 presented at FAO

AVN Report

ROME - The informal briefing, chaired by QU Dongyu, Director-General of the Food and Agriculture Organization of the United Nations (FAO), brought together the Rome-based Permanent

Representatives of FAO member countries. The briefing focused on FAO's humanitarian response to the coronavirus disease 2019 (COVID-19), and examined best practices and country examples of FAO's work to help mitigate the pandemic's damage to people's lives and livelihoods

In Pakistan, the Food and Agriculture Organization of the United Nations (FAO) is spearheading action to keep the food chains running in the face of the COVID-19 pandemic. In addition to the policy and technical support being provided to the Ministry of National Food Security & Research and provincial governments, FAO is working with the government and other partners to help strengthen resilience by contributing to national efforts to curb the



transmission of the virus. FAO, in particular, is raising awareness amongst rural farming communities in some of the most remote areas across the country where the organization has wide networks and is running parallel campaigns, both online and at the field level, to harness broader networks.

With over 60 percent of the population residing in rural areas, the number of households who derive food and livelihoods from farming make up a significant majority of the population. Together with UN partners and the Government of Pakistan, FAO is helping fill the information gap in rural areas by taking action to

ensure effective dissemination of information to those communities that are most vulnerable to the impacts of COVID-19. FAO Representative in Pakistan, Minà Dowlatchahi presented Pakistan's case on how FAO is managing to continue essential operations in the face of the pandemic focusing on social messaging to farmers, pastoralists and COVID19 risk mitigation. "FAO in Pakistan has worked closely with the government to assist their delivery of services to vulnerable people in some of the most challenging areas of the country," said Dowlatchahi. "We will continue to do our utmost

Continued on Page 15

Wheat seized in drive against hoarding

AVN Report

LAHORE - The city administration on Friday launched a grand operation against hoarders and recovered 9,800 bags of wheat containing 24,500 maunds from three warehouses in rural union councils of the city district.



The wheat hoarded was later dispatched to the food department's procurement centres in Lahore, according to Deputy Commissioner (DC) Danish Afzaal

The DC said a team headed by Additional Deputy Commissioner Asghar Joiya raided a warehouse in Mauza Dhala Kalan and recovered 5,000 bags. The team sent the entire stock to the Kahna wheat procurement centre.

In two other raids conducted by Cantt Assistant Commissioner Marzia Saleem at Hadiara and Barki, the team recovered 4,800 wheat bags and dispatched them to Barki procurement centre. Meanwhile, various teams sealed shops, including three in Gulberg, for violating Section 144. On the other hand, Punjab Senior Minister for Food Abdul Aleem Khan said the Cabinet had included wheat hoarding in the recent ordinance under which hoarders will have to face severe punishments.

"Strict action is being taken against the hoarding of wheat across Punjab and raids are being conducted in every district in collaboration with the

Continued on Page 15

Traders demand Govt. to clearly define hoarding, stock

AVN Report

LAHORE - Rice traders and seed and poultry associations fear that the recently promulgated anti-hoarding law will be misused to hurt their and the country's interests.

Representatives of Rice Exporters Association of Pakistan (REAP), Seed Association of Pakistan (SAP), Asia-



Pacific Seed Association (APSA), Poultry Association of Pakistan and other large-scale sectors held a meeting at the Lahore Chamber of Commerce and Industry here with LCCI President Irfan Iqbal Sheikh in the chair.

They expressed their reservations regarding the anti-hoarding ordinance and demanded clarifying parameters for implementation of the law so that it may not be misused against genuine stocks of eatables, particularly wheat and rice stocks meant for seed and export purposes.

They demanded that the government ensure that the law is not used against the trading community as an arm-twisting measure and sought a clear definition of hoarding and the essential stocks.

PPA opposes Govt's bid to control poultry prices

AVN Report

LAHORE - Pakistan Poultry Association (Northern Region) has urged the Punjab government to allow the free-market mechanism to regulate demand and supply instead of intervening in market prices. PPA (Northern Region) Vice Chairman Chaudhry Muhammad Fargham while talking to media persons recently said the industry was very hurt and depressed by the Punjab government's action of controlling the prices of live chicken and meat. He claimed that the commissioner animal husbandry in the ministry of national food security had submitted cost of production to the Chief Justice of Peshawar High Court as far back as in March 2012 at Rs 31.27 for day old chicks and Rs 132.50/kg for broilers. The current costs are around Rs 45 for day old chick and Rs 160 for broilers. As per calculation of Director PRI Rawalpindi, the cost of production is Rs.145 per kg live.

The association kept the government fully abreast of the situation through different means and said it would lead to an acute shortage of poultry products as the losses



would result in a reduction in production and that prices will shoot up. "We had advised the government that in the event of an increase in price, supply would partially but gradually increase to some extent. We had strongly advised the government not to intervene in free-market mechanism but the governments paid no heed," he added. He said now the market is allowing surviving farmers to recover their losses, the administration is arresting the sellers of chicken meat and forcing them to sell meat at Rs 260/Kg. Such actions would lead to long term closure of poultry farms, which would lead to not only a tremendous increase in chicken meat prices but also mutton, beef and pulses as well, he warned.





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The proposed strategies for livestock and diary development in Punjab against pandemic COVID-19

By Dr. Mazhar Abbas & Dr. Naimat Ullah

Veterinary Officer (Health), Livestock & Dairy Development Department Punjab & Department of Parasitology, University of Veterinary & Animal Sciences Lahore.

ivestock sector contributed 11.2 percent to the national GDP of Pakistan during 2018-19. The importance of livestock sector can be realized from the fact that it is not only a source of foreign exchange earnings by contributing around 3.1% to the total exports, but also a source of 35-40% of income for over 8 million rural populations and high value animal protein.

The current investment in Poultry Industry is more than Rs. 700 billion. Pakistan has become the 11th largest poultry producer in the world with the production of 1,163 million broilers annually. This sector provides employment to over 1.5 million people. Poultry meat contributes 34 percent (1,518 thousand tons of the total meat production of 4,478 thousand tons) in the country.

During the COVID-19 pandemic period, there should be adoption of following precautionary measures in three steps:

(A) Strategies During Crisis Days:

- 1. Field Services should be contained/stopped on immediate bases for the sake of employee's health and limiting the person to person contact. 2. Only OPD should be allowed because by this way we can fully follow the protective measures to combat Corona Virus Pandemic. 3. Masses/Farmers must be convinced through newspapers and National TV Channels to bring Animals at Hospitals because in Hospital hygienic measures would be practiced conveniently.
- 4. CVD's must have full availability of Personal protective equipments (PPE's) for all the employees including Spectacles, Latex Gloves (500 in number per CVD), Masks' supply for one month (e.g., on average 200 masks per CVD), Gowns, Head covers, Gum boots and Lab coats.
- 5. All the precautionary measures must be followed in true sense as devised by health
- 6. Sanitizers and Virucidal must be available in ample quantity for personal hygiene and Desensitization of Civil Veterinary Dispensary and its surroundings.
- 7. On the main entrance of CVD, There must be facility of Foot bath/ dip for proper sanitation. 8. Farmers must be convinced to wash hands with germicidal liquid on the Basin and Tap of CVD before and after Handling and restraint. 9. Suspected Employees showing symptoms of Covid-19 must be screened on the full expenses of L&DD and a health-card must be issued to him for his Family's check-up and
- 10. A health or employee's life insurance scheme should be started on behest of Department.
- 11. There must be provisions of Tele-therapy for the sake of prevention of person to person contact and maintaining isolation.
- 12. Since most of working class population is facilitated to protect themselves by adoption



of Isolation procedures and relaxed from performing duties. But Livestock and Dairy Development Department is one of the few Departments which is on fore front for betterment of National Economy and is the most prone to catch COVID-19 because of close contact to farmers and animals of villages. So Allowances and bonuses must also be introduced as per risks like others departments e.g., Risk Allowance, hard areas Allowance, professional allowances as well as Announcement of one month special risk Allowance bonus equal to one month 's salary. 13. Staff coming from out of District should be rationalized on Temporary bases to fulfill precautionary measures and should be allowed to work at their native areas to obey government rules of lock down, curfew and prohibition of double passenger traveling. 14. Lab vehicles must be operationalized for sampling, testing and screening of animals showing respiratory signs during the pandemic of COVID-19. It would be a novel approach to save community and help them to stay safe if it is zoonotic or anthroponotic disease (i.e., Congo Fever, MERS, SARS & Tuberculosis etc.). For this Virology departments of top Veterinary institutions should be consulted. 15. On immediate bases; Through Video-link, there should be arrangement of Trainings for all in-charges of CVDs i.e., Veterinary Officers on weekly bases regarding COVID-19, data about its presence in animals must be shared, it's zoonotic and anthroponotic importance

must be cleared. 16. NDMA, meteorological Department and Health departments must be connected with Livestock and Dairy Development Department for real time reporting and management. 17. Inter district animal's movements should

Post Crisis Measures: (B) Medium Term Measures:

be allowed after screening.

- 1. On emergent bases, there should be announcement of vacancies to cope with problems of staff shortage by providing one Veterinarian, 3 Paravets and 2 class-iv employees per CVD.
- 2. OPD case numbers, AI cases, Farmers Days, Field Days, School Focus Program and any other targets must be relieved till the situation becomes normal.
- 3. Making 6-8 ft. path paved by bricks all around CVD (Civil Veterinary Dispensary) to

- accomplish desensitization in scientific manner. 4. There must be no work load after Duty hours. There should be no obligation on dealing off time cases.
- 5. Overtime work must be paid in double amount. e.g., if the duty hours are 8am to 3 PM and a person works in overtime of 3.5 hours must be paid equal to full pay of regular duty hours.
- 6. In recent future, there must be formulation and enactment of Transfer policy, to follow isolation, social distancing, lock down and curfew, inter and intra- District movement prohibition during epidemics and pandemics. 7. Animals movements must be allowed after veterinarian's check-up and examination. Antitick must be used one month before slaughtering, and in cattle markets each and every animal must have fitness certificate by concerned veterinary institution.

(C) Long Term Measures:

- 1. First of all rebuilding and furnishing of CVDs, along-with their boundary walls for better and fascinating working environment.
- 2. Farmers should be convinced to bring patient at hospital to facilitate more and more farmers at one point in limited time duration.
- 3. CVHs in town should be double shifted equipped with ultrasonography/ X Ray facility and patients be admitted.
- 4. Patients should be referred to TVH/ Tehsil's CVHs (run under experts supervision of SVOs and APVOs) instead of Pattoki and Lahore.
- 5. MVDs (Mobile Veterinary Dispensaries) must be used as ambulatory services, can be replaced by pick -ups, Mazda or carries.
- 6. Lab and diagnostic services must be available at Tehsil level.
- 7. Housing colonies/ schemes must be established on District level for employees.
- 8. Door step Treatment facilities must be provided only to recumbent Animals.
- 9. Each CVH (Civil Veterinary Hospital) must have one SVO (Senior Veterinary Officer), Two VOs (Veterinary Officer), radiographer, VAs, AITs according to situations and circumstances.
- 10. Clerical staff must also be appointed on CVH level to accomplish schemes related data and digitization purposes.
- 11. Budget allocation to CVD and CVH heads for minor construction work, repair, white Wash and essentially required medicine purchase. 12. Increase in number of staff of c4 to make
- CVDs green, clean and safe (in alternative
- 13. Appointment of 1 assistant per 5000 Large animals, to accomplish vaccination target within 20 days (the ideal time duration as adopted in FMD vaccination by FAO collaboration) and also booster vaccination inoculation which in most of cases starts within 3weeks of first injection.
- 14. In every mouza/village establishment of vaccination point by installing cattle crush/ treatment lanes (for field staff and animals safety too).
- By these ways of empowering institutions and achieving Targets within L&DD would win hearts and confidence of masses by disease prevention and production maximization.

Types of grazing and its importance in the development of livestock production

By Muhammad Ayub Fayyaz Dvm (UVAS, Jhang)

Grazing systems

In agriculture, grazing is a method of animal husbandry whereby domestic livestock are used to convert grass and other forage into meat, milk, wool and other products, often on land unsuitable for arable farming. Farmers may employ many different strategies of grazing for optimum production, grazing may be continuous, seasonal, or rotational within a grazing period...

Different grazing systems that are globally known and being practiced

The flexibility of a grazing enterprise is what makes it appealing to many different managerial approaches. From the part time farmer who has a few head of stocker calves during the growing season to keep the grass short, to the full time producer who has a large cow calf herd maintained year in and year out, grazing is often the preferred way to harvest forage.

Below are descriptions of popular grazing systems and the basic management involved.

1. Continuous Grazing

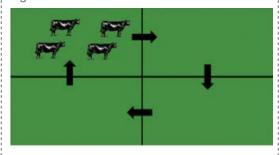
In this method, animals are allowed to have unrestricted, uninterrupted access to a specific unit of land throughout the entire or part of the grazing season. This is often referred to as the open gate method where all gates on the farm are open and cattle have access to every field. Continuous grazing can serve a role in livestock production where animals are encouraged to only eat the "cream of the crop". Generally, forage utilization is low and around 35%.

2. Rotational Grazing

The rotational grazing system is developed by subdividing a large pasture into two or more smaller paddocks/pasture and grazing these

paddocks in a planned sequence. Once all the paddocks have been grazed, the sequence restarts with the first pasture that has been rested the longest being grazed.

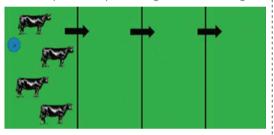
An example of rotational grazing is shown in



Strip Grazing

This grazing technique involves utilizing a movable, electric fence to allot enough forage for a short time period and then moving the fence forward providing a new allocation of forage. Once grazed, cows are moved to the next field which is strip grazed while the previous area is rested.

An example of Strip Grazing is shown in Figure



3. Mob Grazing / Ultra-high density grazing

Mob grazing involves grazing a large concentration of livestock in a small area for a short duration. With stocking densities between 100,000 to 500,000 lbs. or more of body weight per acre, animals are usually moved several

times per day. Paddocks/Pasture are only grazed 2 to 3 times per year.

4. Creep Grazing

When using the creep grazing method, younger animals have access to a pasture of higher quality forage through a creep gate. This allows the young animals to graze the highly nutritious pasture and supplement their mother's milk. This supplemental forage will increase gains in nursing calves and reduce the energy requirements for the cows.

5. Multi-species Grazing

In this method, different livestock species are grazed on the same pasture as one herd or using the forward grazing method. This can increase overall utilization and can be used to control weeds and other "undesirable" plants. Cattle, sheep, and goats prefer to graze different forage species and graze in different ways. When considering this method, an important factor to remember is that these species have different needs and may require increased labor, facilities and equipment.

Importance of grazing and its scope toward livestock status

Appropriate grazing management is an important tool in effectively utilizing land resources. In the Pakistan, we don't need more land or even better land as some areas of the world. We only need to learn and apply the basic principles of grazing management. One basic concept that would add greatly to better production is rotational grazing. However, many pastures and other grassland areas are continuously grazed. Animals are permitted to wander across a pasture or range throughout the grazing season. Continuous grazing produces the lowest pasture yields and leads to deterioration of the forage resource because animals select their favorites and eat them until

Hazards Analytical Critical Control Point (HACCP)

Ghulam Asghar Solangi (SBB-UVAS Sakrand)

Introduction

HACCP is a food safety programme. It was developed during the 1960s through collaboration between NASA and the Pillsbury Company to provide safe food for astronauts on space missions Before HACCP, food safety was measured by the number of complaints received by customers from food borne illnesses & the quality of the end food product as determined by end testing results.

What is HACCP? A Food Safety Programme which moves away from reliance upon 'end testing' of products & customer complaints to understand food safety. It allows manufacturers to identify hazards as they could occur through the stages of production so that adequate measures can be implemented so they can be

prevented. HACCP Team includes: Technical Managers, Company Engineers, Microbiologist, Quality Manager, Supervisors, External Specialists

Hazard identification & Control Measures:

MADGETECH

The HACCP Team needs to identify hazards which are likely to occur throughout the production process. There will be a variety of hazards which could be of microbiological, physical or

chemical origin .Suitable prerequisite information & control measures should be compiled to minimize the impact of the hazards or eliminate the hazard completely. Critical Control Points (CCPs): Manufacturers should assess the severity of hazards using the Codex decision tree (see right). A production process is only a CCP if it is critical to product safety & the hazard posed will not be addressed at a later stage in

production. If these hazards are not controlled then the final product may be unsafe & cause harm to the consumer. Resources should be concentrated on CCP's.

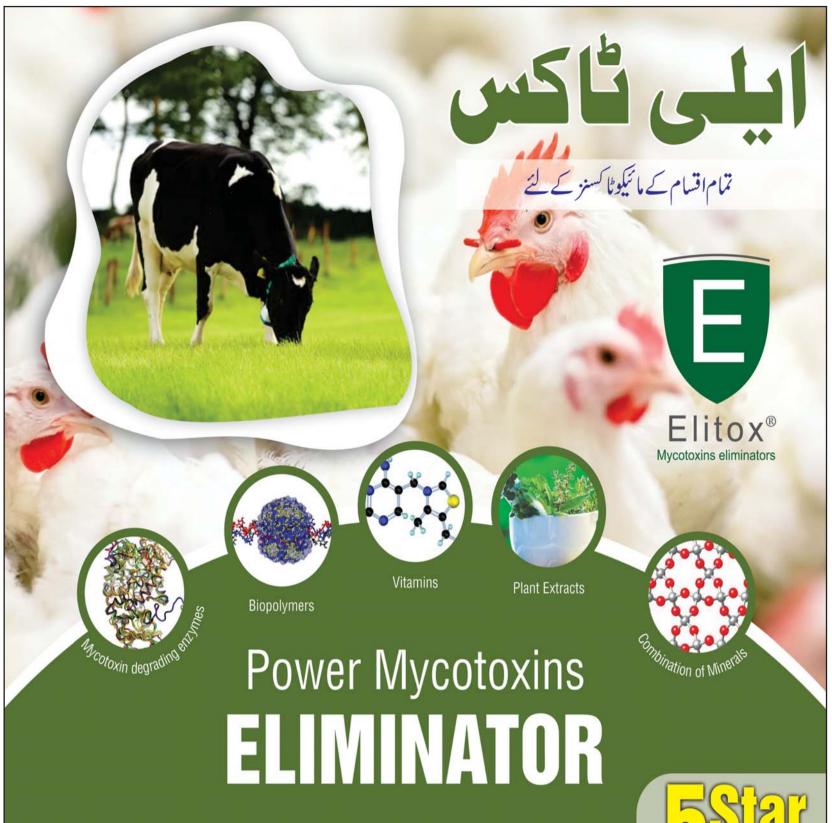
What does HACCP involve?

12 Steps programmed - 7 Principles Assemble. HACCP Team Describe Product Identify Intended Use Construct Flow Diagram On-site confirmation of flow diagram Construct hazard analysis & consider control measures. Determine Critical Control Points (CCP's), Establish criteria for CCP's, Establish corrective actions, Establish a monitoring procedure for CCP's, Establish verification procedures and Establish documentation & record keeping

Use of HACCP Programme:

Food Manufacturers should use the HACCP system to ensure that hazards are identified & controlled before they pose a risk to the end Continued on Page 19

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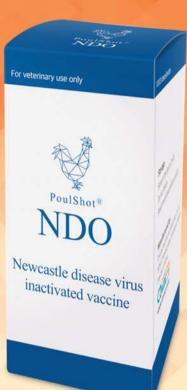






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Climate change and the role of livestock on food security in Pakistan

akistan is an agriculture-based country and livestock plays a pivotal role, as the demand for per capita protein is met by livestock production primarily. Meat production has increased manifold in the past many years, especially the role of poultry and livestock sector has contributed tremendously. Virtually the livestock demand is rapidly growing. Livestock contributes nearly 56% of value addition in agriculture and nearly 11% to the gross domestic product (GDP) in Pakistan, whereby it is estimated that over 35 million people are engaged in the livestock sector.

Climate change and the livestock sector

The livestock sector contributes 14.5% of global Green House Gas (GHG) emissions, thereby consequential into auxiliary climate change. Subsequently, the livestock sector is emerging as one of the imperative and cardinal key players in the extenuation of GHG emissions. Apropos, climate change poses a great danger to livestock production as it has an impact on the quality of feed crops and forages. It is also influencing water availability, animal and milk production, livestock diseases, biodiversity, and resultantly on animal reproduction. Therefore, in the transition to



By Dr. Hammad Ahmed Hashmi

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sustainable livestock production, there is a need for assessments related to the use of adaptation and mitigation measures tailored to the Pakistan and livestock production system in use, and policies that provide sustenance and facilitates the implementation of climate change adaptation and mitigation measures.

Climate change and food security concerning livestock

Pakistan is one of the most vulnerable countries in the world to the impacts of climate change. It is expected to have a significant impact on all facets of food security in Pakistan - i.e. availability, access, utilization, and stability, thus refining global food security challenges. The livestock sector is an important segment, on which the livelihoods of more than half the population depends, therefore, addressing climate risks to food security merits to be of top priority, especially during the times of COVID-19 pandemic, as the risks it faces are compounded by high rates of food and nutritional diffidence

Conclusion

As the climate continues to change, whether arrays grow more unpredictable, and intense climate-related adversities may become more common. Rates of food insecurity will upsurge even greater. Climate change is expected to have a substantial effect on all aspects of food security, in Pakistan, including availability, access, consumption, and permanency. It will have a strong impact on the agriculture sector, which is extremely vital and on which the livelihoods of half the population in Pakistan, depends. Food security and impacts of climate changes bear a significant priority for the Government of Pakistan, which has also been reflected in the National Development Plan, Vision 2025. Moreover, in the wake of the situation in the eon of COVID-19 Pandemic, the era after recovery from it, the importance of climate change and the value of food

Challenges in prevention of antibiotic resistance for veterinary practitioners in Pakistan

By Hamza Jawad

The Islamia University of Bahawalpur

ntibiotic resistance refers to intrinsic and extrinsic factors which make the microbes resistant to antimicrobials, while limiting treatment options for infectious diseases. It is a complex, multifaceted, urgent global health problem. We need to take 'One Health' perspective to this problem and preserve the usefulness of those antibiotics we currently have by decreasing their overall use in all sectors, and especially the use of broad spectrum agents.

Causes of Antibiotic Resistance

Use of antibiotics exerts selective pressure on pathogens as well as on commensal organisms that are part of the normal flora of humans, animals, and the environment; this favors the emergence of resistant strains and sometimes involves the food supply. Antibiotic resistance is a global public health problem, more dominant in the developing countries like Pakistan. Illiteracy and lack of awareness among the general population is a leading cause, compounded by lack of concern by the veterinary physicians and the pharmacists

selling drugs over the counter. Misuse and overuse of antimicrobials accelerates this process.

Challenges in Prevention of Antibiotic Resistance

Enforcement of standard treatment guidelines for the veterinary practitioners and behavior changes at the owners' end are likely to bring about a change in the situation. It is not much difficult now due to availability of some relevant expertise within the country, proactive media, availability and widespread use of internet across the country. educational infra-structure available and health infrastructure is also available.

Some uses in animals, such as for the treatment of bacterial infections. are appropriate. However, use of antibiotics purely as growth promoters and for some prophylactic purposes is unnecessary and avoidable. These recommendations are aimed at reducing the inappropriate use of antibiotics to decrease the total amount used in livestock without causing harm to human or animal

To improve awareness and understanding of antimicrobial resistance through effective

communication, education and training, in Pakistan we have many opportunities which can be utilized for this

1. NGO and community based organizations can be engaged to improve AMR awareness

2. Expertise available at certain levels can be engaged for advisory and educational purpose

3. Experience from vertical programs like TB can be used to promote awareness and education regarding AMR

4. Strategic Framework makers and politicians can be sensitized to address the AMR related problems

5. Integration of academia and research institutions with clinical/ field professionals

6. International agencies and donors can provide funding for AMR awareness activities and can strengthen the knowledge and evidence base through surveillance and research

We have availability of potential laboratories across the country which can easily generate and share antimicrobial resistance (AMR) data with federal level this data can help us during research and making policies. Available



expertise can be used for establishing surveillance system. Avoid possible resistance by developing new antibiotics (by pass the drug resistance) and judicious use of the existing antibiotics (containing the drug resistance).

Phage Therapy is the therapeutic use of lytic bacteriophages to treat pathogenic bacteria infections. Bacteriophages are viruses that invade bacterial cells and disrupt bacterial metabolism and cause the bacterium to lyse. Bacteriophage therapy is an important alternative to antibiotics. British studies also demonstrated significant efficacy of phages against Escherichia coli, Acinobacter spp., Pseudomonas spp. and Staphylococcus aureus. In order to conserve antibiotic effectiveness in humans and animals, we recommend the following:

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Milk fever

By Maryam Korejo

Shaheed Benazir Bhutto University of Veterinary and Animal Science (SBBUVAS), Sakrand

ilk fever is a disorder mainly of dairy cows close to calving .It is a metabolic disease caused by a low blood calcium level (hypocalcaemia) between 3% and 10 % of cows dairying districts are affected each year, with much higher percentages occurring on some properties. Jersey cows that are mature, fat and graze clover dominant pasture before calving are most susceptible.



Losses are due to deaths (about one in 20 affected cows dies), a reduction in the productive lifespan of each affected cow of about three years, and reduction in milk production.

Signs: In topical cases cows show some initial excitement or agitation and a tremor in muscle of the head and limbs. Then they stagger and go down to a "sitting" position, often with a kink in her neck, and finally lie flat in their side before circulatory collapse coma and death.

A dry muzzle, starting eyes, cold legs and ears, constipation and drowsiness are seen after going down.

Causes: About 80% of the cases occur within one day of calving because milk and colostrum production drain calcium (and the other substances) from the blood. High procedure are more susceptible because the fall in their blood calcium level is greater. Some individual cow families or breeds (for example, jerseys) are more susceptible than others.

Treatment: Treatment should be given as soon as possible. The combined solutions contain additional ingredients such as magnesium, phosphorus and dextrose (for energy), which may also be at low levels in the blood while cows have milk fever.

Packed of solution together with an injection kit are best kept on hand for emergencies. Injection in to a vein should be left to a veterinarians as it can cause sudden death if not carried out properly. Cows that are "flat out" should be propped up in to a normal resting position to relieve bloat. If weather conditions are bad, or the response to treatment is slow.

Recovered cows should not be milked for 24 hours. Then the amount of milk taken should be gradually increased over the next 2-3 days.

Prevention: Management of the diet can be a valuable aid preventing milk fever. Cows should not be on a high calcium diet. When the demand for the calcium increases in calving, calcium can be mobilised much more rapidly from bones than the feed, therefore preventing milk

COVID -19: Pandemic overview

By Lt Col Dr. Hammad Ahmed Hashmi Retd DVM, MSc (Hons), MBA

o prevent and control the spread of COVID-19, there is a dire need to know about the COVID-19 infection, its nature, transmission and control measures. In recent days, pursuing this factor, I have completed an online course from Muhammad Bin Rashid, University of Medicine and Health Sciences. UAE titled "Let's Break the Chain of COVID-19". Also, I have been also certified from Harvard Medical School, USA, on my participation in the enduring material titled "Coronavirus in the US: Facts Fictions and Practical Tips". Based on the knowledge imparted by these courses and material available. I have compiled data on COVID-19, from the ways by which respiratory infections are transmitted, the elements of the chain of infection, and how we can effectively prevent and control the spread of COVID-19 Pandemic, in an easy to understand manner.

Understanding the latest scenario

Since the December 2019 outbreak of the novel coronavirus, also known as "COVID-19", in Wuhan, China, life has changed dramatically for a large number of the population throughout the world. Many people are left muddled and left with many queries, about what they have to do, to prevent the spread. The 2019 Novel Coronavirus is most closely related to Severe Acute Respiratory Syndrome (SARS). Charity begins at home. We should know the steps to help ourselves and help others to pass on the information throughout the community via the medium of accurate knowledge, without creating panic. We will elaborate on the following aspects, for better understanding.

How respiratory infections are transmitted

Let us learn about, how respiratory infections, like COVID-19, are transmitted and what actions we can take to prevent the spread of infections. A virus is a tiny infectious agent that is too small to be seen with the human eye or even under a normal microscope. They can only replicate and multiply if inside a living organism such as a human, animal, or plant which acts as the host. Respiratory viruses like to infect the lungs



and airways. Respiratory infections tend to affect the normal function of the lungs causing breathing problems. COVID-19 is an infectious disease caused by the most recently discovered coronavirus (SARS-CoV2). This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019. The symptoms of the 2019 Novel Coronavirus primarily impact the "Respiratory System".

Coronaviruses (CoV) are a large family of viruses that cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS- CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). The new coronavirus is spread from one person to another primarily through respiratory droplets generated when an infected person coughs or sneezes. According to recent reports, it may be possible that people infected with the novel coronavirus spread the virus before showing significant symptoms. Some patients with confirmed infections with the novel coronavirus have shown little to no symptoms while others have become severely ill and died.

Symptoms of infection include fever, cough, and shortness of breath. At this time, it is believed that symptoms may appear in as few as 2 days or as long as 14 days after exposure. Scientists are working hard to understand this new virus and produce a vaccine. Antibiotics do not work against viruses; they only work on bacterial infections. Therefore, antibiotics should not he used as a means of prevention.

The COVID-19 virus is transmitted through droplet transmission. Droplet transmission happens when an infected person coughs, sneezes, or takes and tiny drops from the infected person enter another person's eye, nose, and mouth.

Contact transmission occurs when there is physical contact between an infected person/contaminated object and another person. Through direct

travels to another person through touch. Through indirect contact when a person touches an object contaminated by the COVID-19. The COVID-19 virus can be transmitted through contact. When an infected person coughs, droplets can land on the objects and surfaces around them. When another person touches these surfaces, their hands can get contaminated with the virus. If they touch their nose or mouth with contaminated hands, they can get infected. Airborne transmission of a virus

contact where the infection

occurs when small particles in the air (less than 5um in size) containing the virus are inhaled into a person's respiratory system. These infected particles can live in the air for a longer period, leading to the spread of infection. Although one study has reported that a virus can remain viable in air for up to three hours, more research to confirm if airborne transmission occurs is needed. Droplet Precautions is the primary safety measure clinicians should take in dealing with potential 2019 Novel Coronavirus patients

Cardinal Steps in the Spread of Infection. There are six steps in the chain of infection and we know that transmission will only take place



if all six elements in the chain are present. A chain of infection refers to the path that viruses take to enter a person and to be transmitted from one person to another. That means we can break the chain.

In evaluating a patient for a potential diagnosis of 2019 Novel Coronavirus, the most important factor for a clinician to consider the "Travel History".

Getting sick or becoming ill

Do you ever wonder about how you got ill? For an infection or disease to happen, six elements must be in place. This process is known as the chain of infection. The first element in

Continued on Page 15

IVSA Pakistan organises online veterinary session

extension in lockdown and closing of institutes, it's has been imperative to motivate the veterinary students throughout this current period of uncertainty by keeping them in touch with

of Hoof". 13 Veterinary Institutes all across Pakistan actively participated in it. Online Certification has been given to all the participants and organizers. The guest speaker for the session

Lameness and Affections: veterinarians from different institutes. The numbers of participants from 13 veterinary institutes all across the Pakistan are as International Veterinary

Students' Association (IVSA) is a non-profit, non-

Institutes	No. of Participants	Institutes	No. of Participants
University of Veterinary and Animal Sciences	41	LUWANS	06
University of Agriculture Faisalabad	09	Sindh Agriculture University	08
Arid Agriculture University Rawalpindi	08	Shaheed Benazir Bhutto UVAS	05
The Islamia University of Bahawalpur	20	University of Agriculture, Peshawar	02
Bahauddin Zakariya University	11	KBCMA	07
CVAS Jhang	17	Riphah College of Veterinary Sciences	07
University of Peshawar	03	, i	

veterinary knowledge. It was a golden opportunity to use this lockdown presented by COVID-19topreparefor the fast online education system. This was also a versatile way of learning and easily accessible for all over country. So, IVSA Pakistan, took it as a challenge to held first ever online veterinary session. The event was an online session on social media app Google Meet. The event was titled "Equine

was Dr. Naveed Hussain. Equine Expert since 2004 and currently serving in Department of Veterinary Surgery and Pet Sciences. UVAS Lahore. 144 veterinarians took part in it. It was very helpful and informative session especially for those who seek equine practice in future.

The activity was all possible due to great effort of IVSA Pakistan Team lead and rest of the team who registered

partisan organization run by the volunteer efforts of veterinary students worldwide. It was established in 1951 to promote the international exchange of veterinary skills, education and knowledge. IVSA Pakistan a National Chapter of IVSA in Pakistan which was held during2016. The chapter is running with great efforts and arranging many activities, events. awareness sessions and many others. -PR

All Pakistan online drawing contest-2020

LAHORE- In the time being, when the whole world is struck

with a deadly virus, with people being in sheer anxiety and when chaos is in order, IVSA Pakistan Jhang takes a small step to stir up some fun and bash the worry in air. "Draw Your vision on the paper, draw for the love of drawin', draw for them to see what you see" Introduction: IVSA-International Veterinary students' Association provides a platform for veterinary students to polish their skills and talents and come up as enriched

Institute	Artists	Institute	Artists	Institute	Artists	Institute	Artists
UVAS	10	NMU	03	UAF	06	IUB	05
CVAS	07	UAP	04	BZU	05	GCUF	04
GCUL	05	SBBUVAS	05	CUVAS	05	NSMC	03
Chenab College	04	SAU	04	DCD	01	KBCMA	03
GCUF Layyah	03	GOMAL	03	PIASS Kasur	06	PMAS AAUR	02
Garrison Jhang	02	PMU	02	BZU Lavvah	03	LCWU Thang	05

personnel of the society. Under the head of IVSA, its local chapter IVSA Jhang organized an "All Pakistan Online **Drawing Contest** 2020" on the topic of "CORONA

Awareness". Deadline for submitting work was 5th May, 2020. Along with the veterinary students.

DHAM Proudly announce the winners of ALL Pakistan online DRAWING CONCEST

IVSA PAKISTAN

artists from non-vet institutes joined in enthusiastically in the contest. There were 100+ artists from 24 institutes of the country. All participants submitted their art works depicting importance of prevailing COVID-19.

Art works were judged by Associate Professor UVAS Jhang, Dr. Syed Ihtisham-ul-Haq, Mr. Muhammad Bakhsh, Mr. Imran Ullah Gondal and Ms. Amna Shahid. IVSA Pakistan also helped in the final selection. Results were compiled and announced on 7th May, 2020.

Results: Ms. Hira Mehmood from Nishtar Medical University (NMU) secured 1st place in the drawing contest, on 2nd place Ms. Fabarah Israr from Islamia University Bahawalpur (IUB), Ms. Asima Yasin from CVAS Jhang on 3rd, Mr. Irfan Iqbal from UVAS on 4th and Ms. Momina Ahsan from UAF secured 5th place in the contest. Certificates of appreciation were awarded to the winners and participants via online portal. -PR

IVSA holds esaay writing contest

LAHORE - IVSA Sakrand recently announced " IVSA Essay Writing Contest 2020" in order to show the importance on both human and animal health to keep the students in contact with Veterinary Sciences and its related information. It was a brilliant chance to utilize this lockdown introduced by COVID-19 to get ready for the quick online education system. This is an additionally an adaptable method for learning and effectively open for all over nation. In this way, IVSA Pakistan, accept it as a test to hold a solid Essay Competition. The event was named as "IVSA Essay

Writing Contest 2020" and it held online. Winners, participants and organizers also received online certificates.

The event consisted of two categories: Category A & Category B.

The first category included first, second and third year students and their topic was "Antibiotic resistance & veterinary practice in Pakistan."

Winners of ESSAY contest:

The second category included fourth and

Category A	
Haris Raza	1st
Ghulam Jelani	2 nd
Muhammad Awais Somroo	3rd
Bilal Haider	4 th
Marriyam Afzal	5 th
Category B	
Muhammad Faizan	1st

Raiz Ahmad Gul Hamza Jawad Muhammad Ammun Bashir Mashood Hussain Qazi

fifth year students and their topic was "Challenges in prevention of antibiotic resistance for veterinary practitioners in Pakistan."

The candidates were judged on the basis of their writing skills and ways to inculcate useful knowledge and effective ideas. The aim was to develop information based social association among the vets throughout the Pakistan. International Veterinary Students'

Association is the biggest veterinary understudies' relationship on the planet which covers 73 nations with 194 part associations and enlisted 38,000 + understudies. IVSA Pakistan is perceived as National Chapter of IVSA Global In following years. -PR











POULTRY BIOLOGICAL RANGE

LIVE AND KILLED VACCINES FOR BROILERS, LAYERS AND BREEDERS



By Manoj Karki

demodicosis is a severe parasitic skin disease of a dog caused by



overpopulation of the follicular mite of various demodex species. One of the most common cutaneous infection encountered in canine practice is demodicosis. Demodex mites are normal flora localized in the skin of most apparently healthy dog, when econdary bacterial infection of the hair follicle often occurs, and rupture of the hair follicle wall may lead to presence of free mites in the dermis and a severe pyogenic infection. Although, demodex canis is acquired by puppies within the first few hours of suckling it is a normal inhabitant of canine skin and demodicosis is not a contagious disease

Etiology: Demodex canis is the main causative agent of canine demodicosis. The mites residue in the hair follicle and sometimes the sebaceous gland. Four stage are seen, the diamond shaped egg, the 6 legged larvae and 8 legged nymph form which develops into adult.



Fig: 4. Demodex canis and Demodex cornei (blue box) at 10× magnification.



Fig: 5. Demodex injai (10×magnification

Generally three types of Demodex mites are found in dog. Demodex canis (long bodied mites), Demodex injai (large bodied mites) and Demodex cornei (short bodied mites)

Pathogenesis: The mites enter the hair follicle, reach the root and multiply. Due to inflammation the papilla is destroyed and the hair is lost. The parasite then enter the sebaceous gland where condition appear to be very congenial for the growth of mites, since the altered sebum is a very favorable medium for them to grow. The sebaceous gland may be dilated and become cystic and lined by squamous epithelium. Thus the skin comes to be covered by scaly material which

Canine demodicosis

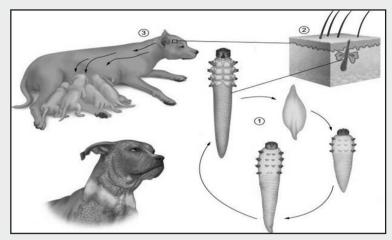


Fig: 1. Life cycle of Demodex canis: (1) the life cycle of Demodex includes, apart from the adult mite, egg, larva, and two nymphal stages; (2) the lifecycle happens in hair follicles. The puppy is infected by the dam during the first days of its life. The infestation is preceded by the multiplication of the mites on the dam's skin (3). The mechanism, which accelerates the multiplication just before whelping, is not known. Most dogs harbor single, latent Demodex mites in their hairfollicles, living in quiet seclusion. In some individuals and in some circumstances the mites can start to multiply uncontrollably, leading into the symptomatic demodicosis.

may be desquamated. The sebaceous cyst may rupture, the spilled sebum causing inflammation locally. The blood vessels are congested and dilated.

Clinical sign: The most common clinical sign are alopecia, scalycrustly thickened skin with hyperpigmentation, leechinification, erythema, pruritus and seropurulent discharge seems mostly on per ocular area, face, neck, shoulder and fore quarter region. Anemia may also occur in this condition due to loss of skin proteins and leukocytosis. Most case of demodecosis are non-pruritus unless there is secondary pyoderma. Very rare ulceration may develop, especially on the face and mucocutaneous area which may mimic autoimmune disease. Canine demodectic mange is classified as:

- Localized form: The localized form typically starts as one or more focal alopecic lesion, erythema and comedomes in dog less than 1.5 years old. Usually only the head (peri-oral, peri-ocular) or the forelimb are involved. There is no significant pruritus. This is commonly seen in pups of 3 to 9 month old and spontaneous recovery without treatment.
- Generalize demodicosis is a severe disease requiring aggressive therapy. This form involves the large part of the dog's skin and bears a guarded prognosis. Generalized form is however, characterized by number of area of localized disease or even infection in entire skin areas. Generalized demodicosis can be severe often complicated with secondary bacterial infection and life threatening.

It should be remember that every case of generalized demodicosis was localized

Juvenile onset demodicosis (onset prior to puberty) and adult onset demodicosis

Juvenile onset is by far the most common and although a serious disease, often a better prognosis than does adult onset. Adult onset is usually associated with severe internal disease and is often very difficult to control.



Fig: 2. Dog with lesions at face and neck regions



Fig: 2. Alopecia and scale/crusts formation throughout the body due to infestion of demodectic mite

Diagnosis: Canine demodicosis is usually diagnosis by identifying mites in skin scrapping and hair plugs. Performing of skin scrapping:

- > Some 3-5 site are selected for skin scrapping
- > The hair, if present, is clipped
- > The skin is gently squeezed between thumb and forefinger to force the mites more superficially in the hair follicle.
- > The skin is moistened with liquid paraffin or mineral oil
- >Some is also placed on the slide
- > The skin is then scraped using a blunted scalpel blade until

capillary bleeding is observed.

- > The material is transferred to the
- > The entire slide is scanned using 10X objective
- > Focus on suspicious area using the 40Xobjective if necessary.
- > The proportion of live and dead mites of adult and young forms and of eggs should be recorded. The scraping was placed in the test tube and 10% KOH solution was added. Then, the solution was gently heated (near up to the boiling) with frequent shaking for about 5-10 min until all the debris was digested. Often the solution was allowed to cool for some time and was allowed to centrifuge at 2000 rpm for 10min, supernatant were discarded and remaining sediment were a coverslip. The sediment was observed for mites

Prognosis: The prognosis for iuvenile onset localized demodicosis is very good. The prognosis for juvenile for onset generalized demodicosis is always

with the help of compound (10x)

microscope.

The demodicosis mange up to 1 year of age were more susceptible to infection and the highest prevalence of the disease was found in winter season rather than summer or rainy season. Demodicosis is highly prevalent in dog whose immune system is distributed or not well developed.

So it is highly recommended that dog should be given proper nourishment, immunization, deworming and care to avoid skin disorder like demodicosis.

Treatment and prevention:

Treatment should be occur in localized and generalized demodicosis

In localized, this is usually a selflimiting disease that cures spontaneously. Treatment with parasiticides is usually not warranted. But 10 % of case of localized demodicosis go on to become generalized. Therefore whether or not treatment is given a careful follow up is necessary. In generalized demodicosis, it can be one of the most frustrating skin disease, one will ever treat. Specific treatment of demodectic mange are:

- Amitraz: 0.025% whole body dip applied every 2 weeks interval 5-8 application or till skin scraping are negative. Not recommended for cat and puppy
- **Vermectin:** 0.3-0.6 mg/kg bwt
- Moxidectin: 0.4mg/kg bwt Before application of medicine crust, scale and debris should be removed with soap and shampoo. A course of antibiotic should be given to inhibit bacterial infection. Antibiotic therapy should be continued until the mite population is well controlled.

Ex-PM gave 20 billion ...

Continued from front page

that as per the documentary evidence available as discussed, the calculation of subsidy based on the cost of production in 2017-18 was not done with due diligence while approving the subsidy of Rs20bn. Mr Shahid Khagan Abbas could not provide [reasons]."

However, Mr Akbar exonerated the federal government of Pakistan Tehreek-ilnsaf (PTI) in giving any subsidy on sugar in its tenure, "The credit goes to the government of Pakistan Tehreelei-Insaf (PTI) which probed sugar scam, collected evidence, made the report public and now is going to take corrective measures," he said

The inquiry commission, which was constituted by the government in the first week of April, released inquiry reports on the issue of artificial shortage of sugar in the country and sudden increase in their prices in 2019.

The PM's aide, however, did not attempt to defend Chief Minister Usman Buzdar for giving Rs2.4bn subsidy to the sugar mills last year. He said the food and agriculture secretary had admitted fault of the provincial government regarding the provision of export subsidy.

In response to a question, he said cases against all those involved in the scam would be sent to relevant investigation departments, such as National Accountability Bureau (NAB), Federal Investigation Agency (FIA) and Federal Board of Revenue (FBR). "Irrespective of their party affiliation, the government would take action against all culprits exposed in the investigation report of the commission," he

The investigation found that sugar production was more than the local requirement over the past few years and said it was therefore imperative to include this aspect related to sugar export, including any subsidy given, its impact on local prices and eventually major beneficiaries of such export subsidies, if any. The inquiry committee found the sugar export was not justified as sugarcane production was expected to be low in harvesting season 2018-19

The commission in its report wrote about the subsidy given in 2017 by ex-PM Abbasi that on the basis of superficial calculations, a subsidy of more than Rs20bn was allocated from the public exchequer to the sugar mills.

The PM's aide also blamed Salman Shahbaz, son of opposition leader Shahbaz Sharif, as a 'facilitator' who by leading the 'cartel' of Pakistan Sugar Mills Association (PSMA) convinced ex-PM Abbasi for giving subsidy of Rs20bn.

Mr Akbar said a fresh case against Shahbaz Sharif, PML-N president and leader of the opposition in the National Assembly, was ready to be filed by NAB and said although the opposition leader

returned from London to lead the nation, he had self-quarantined himself allegedly to avoid appearance in the accountability court to face corruption charges against him. "No matter what, Shahbaz Sharif would have to submit before the court of law in corruption cases against him," he

Prime Minster Imran Khan will be briefed about the findings next week and he is likely to direct the National Accountability Bureau (NAB), Federal Investigation Agency (FIA), Security and Exchange Commission of Pakistan (SECP) and other departments to file references in court, in the light of commission's report.

The PM's aide said ex-PM Abbasi had given subsidy on sugar export when sugar price was quite high (\$577 per metric tonne) in international market. There was no justification of giving subsidy to the mill owners then, he argued.

"If he (Mr Abbasi) was such a 'genius' he should have allowed export of entire stocks of surplus sugar in the country without giving any subsidy so that ample foreign exchange could be fetched," he

Later, Mr Akbar also criticised the controversial role of government departments such as the SECP and Competition Commission of Pakistan for favouring mill owners in their wrongdoings.

Poultry traders warns of ... Continued from front page

the Lahore poultry traders association reads The poultry traders had deferred their strike in view of the Eid and the increasing public demand for chicken meat. They also decided to file a writ petition in the Lahore High Court soon after Eid against the government for capping the live chicken and meat prices, ignoring the mechanism of rates based on demand and supply. Owing to the strike no trader and retail outlets had chicken to sell before Eid that led to increased price of Rs350 per

"We request the government to accept our demands keep chicken price open as per previous mechanism rather than regulating it, stop arresting traders and retailers to press them to sell chicken at the regulated rate till Sunday, failing which we will have no option but to observe strike in Lahore and other districts of Punjab," the association

Farmers are helpless in ... Continued from front page

destroy the locusts.

Agro

They demanded the Punjab government should provide spray machines and pesticides to them so that they could save their crops f rom locusts. On the other hand, agriculture Deputy Director Rana Arif claimed that the department officials had already sprayed the crops with pesticides. However, he said the department was short of funds required to spray pesticides in all the affected areas

An official, Mehr Iqbal, admitted that the farmers were trying to save their crops from locusts attack on self-help basis as the local agriculture department had no funds for the purpose.

The farmers demanded the provincial government should immediately look into the matter and help the farmers save their crops.

Pakistan's agricultural ... Continued from page 04

to help the people of Pakistan face down the challenges of COVID-19," she added.

As part of its work in rural communities. FAO is raising awareness regarding the potential impacts of the virus' spread on food and agriculture, value and supply chains, food prices and food security through various means of communication to support the Government of Pakistan in responding to the COVID-19 pandemic.

Various digital campaigns are being run across all provinces in Pakistan where FAO is sharing important information with different farmer groups and local communities in an effort to sensitize local communities on the measures that can help protect against COVID-19. FAO teams are conducting regular online awareness sessions with local farmers, agriculture and livestock workers and technicians to help them understand how farmers can help curtail the spread of the virus by adopting practices such as handwashing, physical distancing and other precautions.

Wheat seized in drive ... Continued from page 04

local administration and intelligence agencies," he said in a press release.

According to Mr Khan, a large quantity of wheat was recovered in six districts of Punjab -Dera Ghazi Khan, Rahim Yar Khan, Pakpattan, Bahawalnagar, Mandi Bahauddin and Lahore.

Challenges in prevention ... Continued from page 10

- 1. Track rates of veterinary antibiotic use, resistance. and residues through a nationwide surveillance and monitoring system
- 2. Change incentives to discourage unnecessary antibiotic use in animals
- 3. Educate farmers, veterinarians, and consumers on the dangers of antibiotic resistance
- 4. Phase out the sub-therapeutic use of antibiotics

Veterinary antibiotic use, residues, and resistance have not been tracked systematically in Pakistan. To fill this knowledge gap, a sentinel surveillance

system should be initiated, collecting qualitative (i.e., patterns of use) and quantitative information to track patterns of use and resistance levels over time. The system could be designed and overseen by a working group that includes veterinary scientists, representatives from the ministry, and surveillance experts. Preliminary steps would include determining implementation partners and the microorganisms and antibiotics that would be a part of the surveillance program.

Change incentives to discourage unnecessary antibiotic use in animals. There is a need to develop incentives that will reduce antibiotic use without ieonardizing animal or human health. For instance, trials might explore the impact of subsidizing microbiological tests for bacterial infections in animals; introducing national certificates for antibiotic-free animal food products sold for human consumption; or the implementation of alternative methods for disease control.

Educate farmers, veterinarians, and consumers on the dangers of antibiotic resistance. Worldwide. there is still a lack of awareness about antibiotic resistance. A national strategy would ensure that all segments are covered and that the messages delivered to this diverse set of audiences are consistent. Farmers could be targeted at market days and fairs, through extension education conducted by veterinary and agricultural universities, and by radio, television and print campaigns. Veterinarians can be educated by modifying college curricula to include antibiotic resistance content more then present. Awareness raising among the general public, through regular and social media, may be able to generate increased demand for antibiotic-free products.

Phase out the sub-therapeutic use of antibiotics in animals. It has the potential to greatly reduce overall antibiotic use and resistance. This use should be phased out over time, with monitoring to ensure that the phase-out does not have unintended negative consequences for animal health and that overall antibiotic use does decrease. The approach to the phase-out will vary between animals, depending on how sub-therapeutic antibiotics are administered. The total amounts of antibiotics used and total production costs should be monitored. Conclusion

Finally concluding all above discussion, it is much necessary to stop quackery in field practices. Quack does not know pharmacology and how to calculate exact amount of drug dose in this way resistance is increasing day by day.

COVID -19 Pandemic ... Continued from page 11

the chain is an infectious agent, which can cause disease. It could be a virus, bacteria, or fungi. The second element is the reservoir or the place where the infectious agent lives. It can be a person, an animal, soil or water. The third element is a port of exit, which is the way the agent leaves the body. This can happen through the mouth, if a person coughs or sneezes, through a cut, if a person is bleeding, during diaper changes or toileting. The fourth element is the mode of transmission, which is how the infectious agent is transmitted from one person to another. It can be in the form of droplets, direct or indirect contact, or through airborne transmission. The fifth element in the chain of infection is the port of entry or the place where the infectious agent enters another person's body. This is similar to the port of exit, it can be a mouth, nose, eyes, an open cut, etc. Finally, we have a susceptible host (The sixth element)- it's either a baby, an elderly person or someone with a weakened immune system. To prevent the spread of the disease, one of the links in the chain of infection must be broken.

Joint Task/activity to break the chain in the spread of infection COVID-19. This is not the task of the Governments and the NGOs to contain and stop the spread of COVID-19, everyone has to work on their part to slow and stop COVID-19 from spreading and to help break the chain of spread. Protection and Prevention

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Renewal

World Migratory Bird Day

By Hamza Jawad¹, 1Riaz Ahmad Gul¹, M Ahmad²

¹DVM 4th Year, Faculty of Veterinary and Animal Sciences, The Islamia University of Bahawalpur ²Shaheed Benazir Bhutto University of Veterinary & Animal Sciences, Sakrand

n Saturday, 9 May 2020, people around the world are celebrating World Migratory Bird Day (WMBD), The first World Migratory Bird Day was launched on the weekend of April 8 and 9 of 2006. The event was created to help to turn the world's attention to the wonders of bird migration and the need for their conservation. Now it is an annual awareness-raising campaign aimed at people living in all the major flyways that highlights the ecological importance of migratory birds and calls for their global conservation through international cooperation. It was established by the Secretariat of the Agreement on the Conservation of African-Eurasian Migratory Water birds (UNEP-AEWA) in collaboration with the Secretariat of the Convention on the Conservation of Migratory Species of Wild Animals (CMS).

Birds Connect Our World

It is a world-wide campaign dedicated to raising awareness of migratory birds and the need for international collaborations to conserve these birds. This year the theme of World Migratory Bird Day is 'Birds Connect Our World' and theme is an important part of the program, providing you with specific messages and information about birds and their conservation. This theme is selected by a team of biologists and educators, with input from the general public and World Migratory Bird Day host

It is chosen to highlight the importance of conserving and restoring the ecological connectivity and integrity of ecosystems that support the natural cycles that are essential for the survival and well-being of migratory birds. The theme also underlines the fact that migratory birds are part of our shared natural heritage and they depend on a network of sites along their migration routes for breeding, feeding, resting and overwintering.

World Migratory Bird Day Celebrations

In Pakistan annually many birds' events are arranged, including many gatherings of school groups and other public events which took place in city parks and other places around the country. The famous annual IUB Pet Show is its best example. In comparison to past years, the celebrations of people and their fascinating annual migrations will look very different this year because of the unprecedented global health crisis the world is facing from COVID-19.

On Global Level

In 2020, throughout the year, birds experts' are working on the tracking technologies, researchers use not only to learn about migratory routes but also to examine the hazards along these routes and to implement conservation actions that help migratory birds throughout their journeys. 'Birds Connect Our



World' will be celebrated across the globe, and plans are already underway to launch the event at schools, parks, zoos, wildlife refuges, museums, libraries, and other locations. 'World Migratory Bird Day' reminds us that now, more than ever, we need to step up our actions to protect migratory birds and their habitats. Many bird species are in decline around the world, and the continued loss and destruction of nature has also been linked to the kinds of infectious diseases we are now combatting.

What you can do?

There are many ways for people to voice their support for bird conservation, and to celebrate and share their appreciation for migratory birds in countries, cities, towns and villages around the world. While public gatherings (even in small groups) will be impossible in most localities, there are numerous alternatives that people could consider.

There are many things you can do right from home to protect, celebrate, and enjoy birds. Here are some bird-friendly actions you can take on World Migratory Bird Day, and every day to help bring birds back.

Make a Bird-Friendly Place in Your Yard or Neighborhood.

Provide shelter, nesting areas, and food for birds.

- Watch Birds Near Home and Share What You See with others by social media
- Skip the Pesticides. Avoiding pesticides around your home and in your food is a healthy choice for wildlife and your family.
- Reduce and Reuse Your Plastics. Plastic waste is so pervasive that

microplastics can be found in drinking water, and trash in the ocean entangles birds or is mistaken for food. • Provide good habitat for your local birds by planting bird-friendly trees or shrubs, install nest boxes and protect them from possible predators such as house pets

- Take part in an event online (or even organize one yourself); here are some ideas:
- > Use your social media channels to share your appreciation of migratory birds and the need for their conservation with the world! You can do so right away or wait for the peak celebration day on 9 May. If you do, please use the primary hashtags linked to the campaign, which are:
 - "#WorldMigratoryBirdDayWMBD2020"
 - "#BirdsConnectOurWorld"
 - "#BirdsConnectUs"
- Create a book club or run a virtual reading session for children with stories where the main characters are our beloved birds
- > Launch or participate in a photographic contest 'Birds in your garden/in your city'
- > Post and share the photos on your social media account with the hashtag: #Birds
- > Host craft lessons (origami, painting get creative!) that allow people to learn about birds
- > Reach out to the bird specialists in your country such as the local Bird Life Partners or EFTA and host virtual conferences to expand on the subject of ecosystems connectivity and its importance for birds
- > Look for and participate in virtual meetings and/or create a video for social media highlighting the importance of protecting migratory birds
- > Donate your time or support to an organization that supports bird conservation
- > Provide good habitat for your local birds by planting bird-friendly trees or shrubs, install nest boxes and protect them from possible predators such as house pets
- Take one or more of these actions for birds on World Migratory Bird Day, Saturday, May 9, and keep it up. Watching birds is a relaxing and uplifting activity, and helping them out will ensure they will keep returning for years to come. We can use this time to reflect and reconnect with nature and commit to helping migratory birds wherever they are found.





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Water and dairy cattle: Brief insight

By Muhammad Shahbaz Zafar¹, Muhammad Gulzaman Buzdar²

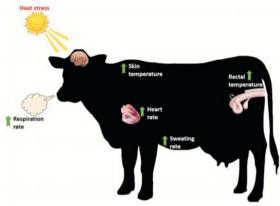
¹M.Phil. (Animal Nutrition) CVAS, Jhang. ²M.Phil. (Vet.Medicine) CVAS, Jhang.

- Water is the most important and most neglected nutrient in the animals.
- · Intake of water is related to the feed intake, size, age of the animal, activity of the animal, stage of production in the case of dairy cattle and that of the environment. Lack of water will result in the decrease intake and it will ultimately leads to decrease in production, milk production in the dairy cows.
- · The importance of water is clear as it is the 2nd most important thing after oxygen yet is the most ignorant one.
- The both quality and availability of water are important as the water quality is directly related to the health of the animal and can affect the production.
- · Dairy cattle require water to maintain its blood volume, keep the organs and tissues functioning and to aid in the digestion, absorption and metabolism of the feed. It is also needed and play an important role in the production of the milk as milk is 87% water in its nutrient profile along with 13% solids including mil fat, proteins and minerals.
- · The total weight of dairy cattle is 56-81% of the water.
- · There are three sources of water for the
- Drinking water full fills 60-80% of the daily
- Water in the feed full fills 25-35% of the daily requirements
- Metabolic water full fills <1% of the daily requirements

The major portion of the water is free intake of water i.e. drinking water.

- On an average a dairy cattle require 25 gallons of water per day (1 gallon = 3.8 litre). The dairy cattle requires 60-70 litre of water for maintenance and 4-5 litre of water for each litre of milk produced.
- The water consumption and requirements increase with the increase in temperature. An increase in 4 0 C will increase the water consumption 6-7 litre/day.
- · Consumption of the water in the dairy cattle





Cow milk component	Approximate percentage (%)
Water	86.5
Milk sugar (lactose)	4.8
Fat	4.5
Proteins	3.5
Vitamins and minerals	0.7

depends on the quality of the water used. We : can calculate the daily intake of the water of dairy cattle by using the following formula. Murphy equation suggested by NRC 2001.

Free Water Intake
$$\binom{Litre}{Day}$$
 = 15.99 + $\left(1.58*DMI\frac{kg}{d}\right)$ + $\left(0.9*\frac{minck}{kg}\right)$ + $\left(0.05*Na~intake;\frac{g}{d}\right)$ + $\left(1.2*min.Temp~^{\circ}C\right)$

- · Understanding of the drinking behaviour of the cow is very important to increase its water consumption. The dairy cattle is social animal and like to drink water together.
- · The peak water requirements are after milking as most of the studies reported that a cow consumes 30-60% of the water shortly after milking, in the late afternoon and in the

early evening and this will put pressure on the water trough.

- After the milking the cow must have access to the drinking water.
- In the confined housing system there must be one waterer for each 15-20 cows.
- The 10% of the cows must have access to the water at a time and depending on the size of the animal each animal must have 70 cm space during drinking.
- Cows prefer moderate water temperature instead of extremely cold or hot and this desired temperature ranges between 5-20°C.
- · Quality of water is critical parameter to maximize its consumption.
- To be frank if you are unable to drink the water the cow doesn't want to drink it either as cow have sensitive sense of smell and choose to drink or not. This will decrease water intake and ultimately affect the feed intake and milk production.
- · When it comes to assessing the water quality, we consider physical proprieties pH, TDS (Total Dissolved Solids) hardness, taste, odour and colour of the water, presence of the access minerals and the chemicals. So cleaning of the waterer is important and for this ease the troughs must be used as easy to clean and animals can easily drink the water as well.

Common Signs of Poor Water Quality

Poor quality drinking water can result in decreased milk production and cow reproduction failure. Some of the common signs of poor water quality in cows include:

- · Depressed immune function and elevated somatic cell count it can lead to reduced milk production and quality
- Increased cow reproduction failure, including conception failure, early embryonic death and abortions
- · Increased off-feed events and unpredictable eating patterns
- · Health and performance issues
- Scours or digestive upsets in replacement
- Deteriorating health status of newly arrived heifers or dry cows
- Off flavor, smell or color of drinking water.

Hazards Analytical ... Continued from page 07

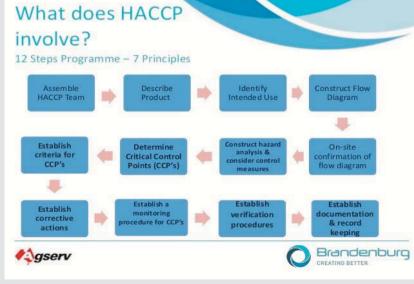
consumer of the product. In many countries is a legal requirement to follow the principles of HACCP.

Flying Insect Control fit into HACCP:

Personal hygiene, Pest control, Customer complaints cleaning & disposal of waste and supplier specification these all are the prerequisite procedures must be in place & in operation before an effective HACCP programme can be implemented.

Pest Control Pre-Requisite Flying Insect Control -Prevent Infestation (IPM)

Flying Insect Control should be used as part of a wider pest control management programme to help prevent reactive & costly treatment. Flying insects are hazards in food manufacturing / production areas & Critical Control limits should be set An acceptable limit in an abattoir



for the acceptable number of flies that can be caught within a specific timeframe given the environment (may vary per business).

Critical Control Examples:

may be 30 flies caught per week. An acceptable limit in a cheese factory may be 5 flies caught per week. Regular monitoring of the control board system provides insight into whether these critical

control limits are being met (this information should be documented).

Integrated Pest Management:

Regular monitoring of the control board system allows the species of fly caught to be identified - this is important as different species have different behavior and breeding patterns. By recognizing the species of fly caught, effective prevention strategies can be implemented. For example, Fruit flies live & breed within drains so preventative treatment around waste areas would be ineffective. N.B Different insect light traps around your premise may have caught different fly species & so may require different corrective & future preventative strategies .Once treatment following an infestation has occurred an insect light trap can be used to monitor how effective treatment has been by monitoring fly catch against critical control limits.

The decline of sparrow species in Pakistan

By Ghulam Raza Shah

Shaheed Benazir Bhutto University of Animal Science, Sakrand

do like to see sparrows getting into fights, taking a nice dust bath, or whatever: they are so watchable. They are one of my favourite birds. Once extremely common in Pakistan, their numbers have dropped sharply in last few years and nobody really seems to know why. The two most mesmerizing things about early mornings have always been the beautiful sunrise and the melodious chirpings of early birds. Unfortunately, in our major cities, both these beauties are fading away at an alarming rate, mostly due to rapid urbanization and the factors associated with it. It doesn't take much effort to observe that the bird population in major cities is declining fast. Even the population of common birds like sparrows, which are often taken for granted, is also dropping at a rapid rate. This decline in population of sparrows can be observed throughout the world. Sparrows have become a threatened species, and have seen a long term decline in both urban and suburban and as well as rural

environments. What can possibly be the reason that a species of birds, so common to sight and so successful in adapting to the fast-paced urbanization taking place around its habitat, is declining at such an alarming rate. In Pakistan, the decline in the population of sparrows can be attributed to many factors including rapid urbanization, resulting in excessive deforestation and cutting of native trees and plants, which not only provide hiding, resting, roosting and nesting places for small birds including sparrows but also provide the seeds and insects necessary for raising their chicks. In cities, sparrows are now seen nesting in odd places; in buildings or in gaps between shutters, which is not a suitable and rather highly dangerous breeding ground. Urbanization is also resulting in pollution, which has contaminated food and water sources of



sparrows. It is also believed that electromagnetic radiation caused from cell phone towers is lethal for sparrows and their chicks, who are highly sensitive to these rays which interfere with the navigation and nervous system of these birds. Moreover, the excessive use of pesticides and unleaded petrol also kills insects, which sparrows feed their chicks.

The increase in demand for sparrows as food is also one of the reasons for its decline. Some eat it out of superstition or the common belief that male sparrows' meat and bones have an aphrodisiac effect on men.



Another major reason for the decline of the sparrow population is an increase in the population of birds higher in the food chain who feed on sparrows, such as kites and crows, as well as an increase in the population of rival species of sparrows such as wild pigeons. Among the most important reasons for the increase in population of these bird species is garbage, open slaughterhouses and offering of sadaga, where people throw meat scraps for kites and crows, and feed wild pigeons as good deeds and to remove the evil eye. Whenever there is enough food for birds of prey, the environment will suit them and their population will increase at a faster rate scaring smaller, chirping birds away. Sparrows are too small in size to defend themselves or their chicks and become an open feast for birds of prey. An increased population of pigeons means increased burden on food resources. Wild pigeons are much larger in size as compared to sparrows and therefore are no match with their rival in the fight for survival.

Another form of sadaqa, which one can easily observe, is the concept of freeing some birds as a good deed. You can easily spot vendors sitting on roadsides with a cage full of sparrows which can

anybody be convinced with the idea of imprisoning a living creature only to set it free afterwards as a good deed: this is one thing I fail to understand at all. Sparrows form an important part of our ecosystem as nothing in this world is ever useless no matter how small it is. Everything is interconnected. Sparrows not only serve as a source of food for animals and birds higher up in food chain, but also spread seeds while feeding on fruits and berries, to different places, which is important for germination. By spreading seeds, sparrows help with the survival of many plants that are producers in the ecosystem. Sparrows also feed on small insects and worms, some of which destroy plants and crops. So, sparrows again play an important role in the preservation of the ecosystem by keeping the population of these insects and

be freed by paying the vendor a

certain sum. Imagine what those

poor creatures must go through

while being caged. How can



Iss baar jo eendhan ke liye katt ke gira hai, Chirriyon ko barra pyaar tha uss boorrhe shajar se

worms in check.

We may be able to send a man to the moon or even to Mars but it is impossible to bring back an extinct species. There is a dire need to put in some serious and concerted efforts towards the preservation. The government should also make serious efforts by promoting awareness among the masses. Indigenous trees native to the areas must be planted in abundance instead of exotic trees. There should be parks in all major areas within cities, housing these native trees. The practice of capturing and eating sparrows should also be banned by The government and strict punishments must be enforced among those found involved in these practices. There should also be a check and balance, and proper environmental feasibility of cell phone towers in cities.of sparrows.

What we can do?

- Simply place few nesting boxes at your homes where they can breed.
- Allow them to eat your left overs or place/hang a bird feeder with bird feed like millets or other small sized grains of which they can feed.
- Plant more indigenous trees, which provide hiding, nesting and roosting place for these birds.
- Another important thing that we can easily do is to place a bowl full of fresh water in a shady place for these innocent bird to give them some relief in summer heat.

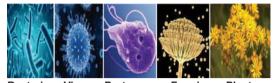


Bioterrorism: A possible future weapon

By Khalid Mehmood Veterinary & Animal Science Lahore (Sub -campus ihang)

Bioterrorism:

It is defined as a type of warfare in which we use biological agents as a biological weapon to harm their enemy is called bioterrorism. There are different types of biological weapons like toxins or chemicals that are produced by



Protozoan

the plants and animals .They may be infectious agents like bacteria, viruses ,protozoan's and fungi. These infectious agents are microscopic in nature and invisible but multiply rapidly.

Objective Bioterrorism:

Aim of bioterrorism is to create social disruption, economical losses, religious or political purpose and this is carried out by terrorist and mostly they are non-state actors.

Forms of bioterrorism:

- > Classic" terrorism"---- against persons and institutions
- > Agri-bioterrorism----against crops/foods/plants
- > Product tampering-----directed against consumer and commercial products

Historical timeline:

We are thinking about the word bioterrorism and if we assume that this is a new term which we are studying but this statement is not true. The use of biological agents or their toxins as a biological weapons were used in past .There are different historical time line that are given

4 th century BC	Earthen pots are thrown toward enemies having serpents in it as weapon.		
5 th century BC	To conquer South America natives wer given clothes that were full of viruses as a weapon		
6 th century BC	Poison of plants and animals were used to contaminate drinking and bathing water enemies.		
1346 plague	Mongols used plague infected corpses as a weapon on enemies' walls.		
1763	Native Americans were given blankets and handkerchiefs contaminated with small pox.		
1860-1965	Dead bodies were thrown into water to contaminate it.		
1914-1917	Cholera organism was spread in Italy by Germany.		
1941	British experimented on anthrax bacteria		
1964	A virus and rickettsial production plants were constructed		
1995	Iraq acknowledged that they had 100 botulinum toxins, 50 Anthrax and 16 Aflatoxin prepared for use.		



Classification of bioterrorism:

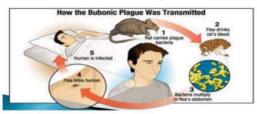
Classification of bioterrorism is on the basis of potential of agent to transmit from person to person or place to place and how much difficulty is required in its handlings. There are three types of bioterrorism.

Class A:

It is first type of biological warfare and having following features;

- Can be easily transmitted from human to
- · Highly rate of mortality

Bubonic plague



- Public panic and social disturbance
- Require special action and full bio-safety and bio- security protocol to handle these
- Mostly BSL2 is used but there should be proper use of BSL3 OR BSL4 Lab. Examples
- Bacillus anthracis (anthrax)
- Yersenia pestis(plague)
- Clostridium botulinum toxin(botulism)

Class B:

A second type of biological warfare;

- Having moderate potential
- Mortality and morbidity rate is moderate
- May be transmitted from human to human
- BSL2 lab mostly used for it and in this lab we can handle these agents.

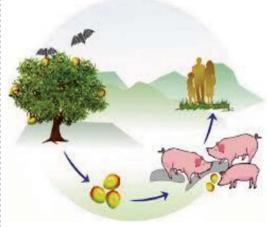
Q fever



- Coxiella brunette(Q fever)
- Burkholderia mallei(glanders)
- Brucella species(brucellosis)

Class C:

In this type those pathogens are reside which may have future emergence and chance of disease dissemination.



NIPAH VIRUS DISEASE

Example

- Hantavirus
- Nipah virus
- Yellow fever
- · Tick-born encephalitis

Manufacturing countries

There are 16 countries that have biological weapons

China, Cuba, France, Germany, Iran, Iraq Israel, Japan, Libya, North Korea Russia South Africa, Syria, United Kingdom, United State. Taiwan etc.

Bioterrorism as a future weapon

In future scientists are thinking about bio warfare and they reached on a conclusion that biological agents are more dangerous than any types of mechanical weapons. This is all become possible due to the advancement in field of science especially Biochemistry and biotechnology.

Transgenic animals and plants are made on which foreign DNA are inserted and desired properties can be obtained. We are familiar with a term of Recombinant DNA or recombinant technology. This technique has





changed our era and everything are made possible by this process. Biotechnology provides us different treatment of diseases and products like insulin and growth stimulating factors but it also developed worries for human beings and different pesticides resistant bugs are made which can destroy crop and cause an economical loss

Conclusion

Now I concluded by saying that this word "bioterrorism" has a lot difficulties in future for human beings, animals and plants also. People should have proper knowledge about this, and strict punishment is required for those peoples or states who are working on it .Every country should follow rules regarding bioterrorism.

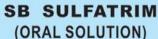
There are following steps which can be helpful as a precautionary measure for all countries

- Well trained epidemiologist
- Increase laboratory capacity
- Health alert network
- National level awareness regarding bioterrorism
- Individually care of every person and their dear ones
- Legislation should be made.
- Well bio-safety and bio-security protocol



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کی بوآنے لگی جے مرغی نے ایگزاسٹ فین آن کر کے ختم کردیااور ہم نے سکون کی سانس کے ساتھ فنٹاسٹک جائے کا ایک سِپ لیااوربسکٹ کوابھی نندن سمجھ کر دبوچ کر دانتوں سے کچل دیا۔اتنے میں مجھے بھی منسٹر کا فون آیا کہ جلدی پہنچوتو ہم نے میز بان مر غی کاشکریدادا کرنے کے بعد یکفی لی اور فوراً مارکیٹ بینچ کرمنسٹر کی پرچی نکالی اور دکان دار سے بولا بھائی مجھےایک مرغی بنادو۔وہ بولا مجھے جادوگر سمجھر کھاہے کیامیں تہہیں انسان سے مرغی کیسے بنادوں؟ تو دوکان پر کھڑی ندِ ابولی، دانیال بھائی ایکے لیے مرغی کا گوشت تیار کردیں۔ بیمنظرد مکھ کر جماری آنکھوں میں یاس مفہری بدا کیلئے دل کی گہرائیوں سے جذبات پيدا ہوئے اورايك وفعه پھر ہم اپنے جلدى شادی کے فیصلے کوکو سنے لگے اور یوں ہم کلام ہوئے ان حسرتوں سے کہددوں کہیں اور جابسیں۔اتنی جرات نہیں ہے کہ دوسری کرالیں۔رات کوبستر پر لیٹا توایک دفعه پهرند ا کاخیال آیااورآ واز آئی که سردیاں شرع ہوگئی ہیں اورکل مار کیٹ سے گرم سوٹ بھی لینے جاناہے۔ یین کرمیں بیہوش ہو گیااورا گلے دن اكلوتى بيكم كيساته ماركيث مين فليث ييل والى دوكان

دھونڈنے میں وفت گزارنے لگا۔

استعال کئے جاتے ہوتے تو کیا مرغیاں خودا سکے زهريلي اثرات ہے متاثر نه ہوتیں جبکہ حقیقت پہ ہے کہ مرغیاں بہترین ایف ی آر (گوشت پیدا

کرنا) کے ذریعے فارمزاور ملک کی ترقی میں بھریور کردارادا کررہی ہے۔ دوران انٹر پومیں نے چکن کیک کواینے اند محفوظ کرتے ہوئے بوائلڈ انڈوں کو محورِ نگاه بنارکھا تھا۔ بیہوش رہامنظرد مکھ کر ہماری میزبان نے اپنی چونچ سےانڈے کو کیلشم شیل کی قید ہے آزاد کیااور کالے نمک کی برسات میں ہمیں پیش کیا۔ یہ سن سلوک دیکھ کرہم نے بھی تہی کرلیا کہاس انٹرویوکومین پیچ پرشائع کیا جائے گا۔ہم نے میزبان سے پوچھا کہ آ یکے موبائل پربار بارفون آ رہاہے النیند کیونہیں کر لیتی آپ۔مرغی نے جواب دیا کہ سرحد پارکرن جو ہرفلم ڈائر بکٹر کافون ہے وہ اپنی ایک فلم میں ہیروئن کے رول کیلئے اصرار کررہاہے مگر میں رضا مندنہیں ہوں کہ ایک طرف تشمیر میں 4 ماہ ہے کر فیولگا کرمسلمانوں کی زندگی اجیرن کر دی ہے۔ دوسری طرف ہم اتنے بھی کم ظرف نہیں کہ چند ٹکوں کی خاطرانکے پراجیٹ میں حصہ لیں۔ ہاں اگر معاوضه بره هاد بے توامن کی آشنا کا گیت گا کرہم بھی

بچھ كمائى كرليس بيات س كر مجھے مرغى سے غدارى

كه برانكر مرغى كو ہارمونز لگا كروز ني بنايا جا تا ہے اور یہ تو خود کھڑی نہیں ہوسکتی ہمیں کیا طاقت فراہم کرے

یہن کرمرغی نے سگار کالمباسائش لیااوردھوئیں کا مرغولا بناتے ہوئے یوں بولی کہ پہلوان کے بھاری جسم اوراتھلیٹ کے پھر تیلے دبلے بدن کا کیا موازنہ چنی بابوا گر پھرتی چیک کرنی ہے میری خالہ زاد بہن ليئرانلا _ والى مرغى كو پكڙ كرد يكھاؤاور 1.5 گلوگرام خوارک کھا کرایک کلوگرام وزن حاصل کرنا ہوتو پیر ٹارگٹ حاصل کرنے کیلئے ہم کھڑا ہونے اور چلنے پھرنے میں اپنی تو انائی صرف نہیں کرتی ۔جبکہ ہارمونز ہے گوشت پیدانہیں ہوتا کیونکہ ہارمونز خوراک کے ذر یعے استعال ہی نہیں ہو سکتے اوراتنے مہنگے ہوتے ہیں کہا گراستعال ہوں تو آپ لوگ مہنگی مرغی کوخرید ہی نہ کیں۔سادہ می بات سمجھ لیں اگر برانکر مرغی مضرِ صحت ہوتی کیا گورابرامکر کو استعال کرتا؟ یہ مكمل صحت مندہے اور شرق وغرب بلاتفریق مذہب وملک ہرکسی کی پینددیدہ ہےخوشی کی بات بیرکہ یا کتان کی اعلیٰ ترین عدالت کا فیصلہ جاری ہواہے کہ برامکر مرغی کو کچھ مضرصحت اجز انہیں دیے جاتے۔ يمل محفوظ خوارك ہےاورا گر پچھ مضرصحت اجزاء

ایک دِن مرغی کیساتھ

تکلیف کا حساس ہوسکے جوایک انڈہ پیدا کرتے وقت مرغی کوسہنارٹر تاہے۔ بین کرمیں اینے آنسوں کوآ نکھ میں مزید قیدنہ کرسکااور پیے ہوئے میرے گالوں پر کیسرچھوڑ گئے۔اپنی مرغی کی بیہ بات جاری تھی کہ ایک کم عمر مرغی ٹرالی لے کرڈ رائنگ روم آگئی ہاف بوائلڈایگ کےعلاوہ چکن کیک نےٹرالی کی خوبصورتی کوجارجا ندلگائے ہوئے تھے۔ چکن منچورین کے فرائی یان سے پیدا ہونے والی شرر شرر کی آوازنے بیٹ کے چوہوں کو جگادیااور سلائیوری گلینڈز (لعاب دہن والےعذور)نے بھی سگھڑ خیالی بیوی کی طرح اپنا کا م کرنا شروع کر دیا۔ كھانے كيساتھ ساتھ انٹرو يوجارى ركنے يرجميں ایک وفت 2 محاذ ول پر کار کردگی کا مظاہرہ کرنا تھا جسکے ہم جمپیئن رہ چکے تھے مرغی نے دوران انٹرویو بیہ انکشاف کیا کہاہے ہمارے اس پروگرام کے بعد اسلام آباد میں اعلی سطحی میٹنگ میں شرکت بھی کرنی ہے جسمیں بچوں میں موجود کم نشونما کی روک تھام میں مرغی اورانڈوں کے ذریعے پروٹین کی فراہمی یقینی بنانے کا طریقہ کار طے کیا جائے گا۔ جب مرغی سے سوال یو چھا گیا کہ پلک میں ایک نظریہ بیہ



مرغیوں میں رانی کھیت کی بیاری کی دیکسین PESTIPHARM

New Castle Disease

برسيفارم مرغیوں میں گمبورو بیاری کی ویکسین

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Infectious Bursal Disease Strain 2512 (Intermediate Plus)







_EVAVETo-15



GASTRO-INTESTINAL NEMATODES:

- ✓ Trichostrongylus spp
- ✓ Bunostomum spp
- ✓ Oesophagostomum spp

PULMONARY STRONGYLES:

Dictyocaulus viviparus





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انڈہ پیدا کرتے وقت مرغی کوسہنایڑ تاہے۔ پیہ س كرميں اينے آنسوں كوآنكھ ميں مزيد قيد نه کرسکااور پیرہتے ہوئے میرے گالوں پر لکیرچھوڑ گئے۔اپنی مرغی کی یہ بات جاری تھی کہایک کم عمر مرغی ٹرالی لے کرڈ رائنگ روم آ گئی ہاف بوائلڈایگ کےعلاوہ چکن کیک نےٹرالی کی خوبصورتی کوجارجا ندلگائے ہوئے تھے۔ چکن منچورین کے فرائی یان بقية صفحة نمبر 24

کے ساتھ اگرور کرویلفیر کولمحوظ خاطررکھا جائے تو شیڈ میں ائر کوالٹی انڈیکس (ہوامیں آلودگی کامیار) بہتر بنایا جاسکتا ہے۔جارا كيونكها نتهائى مختضرزندگى كابيشتر حصهان وركر کیساتھ بسر ہونا ہوتا ہے۔اسلیے ڈاکٹر حضرات شیڈ میں فیس بک پرنوکری کرنے کی بجائے ہفتہ وار ور کر کیسٹی بلڈنگ پر ڈسکشن کا اہتمام کریں تا کہ پرائمری تعلیم یافتہ ورکز رکو ہاری اس تکلیف کا احساس ہوسکے جوایک

جاری رکھا۔ بائیوسکیورٹی کے بیاریوں سے بحاؤ كيلئے اقدامات كے حوالے سے شير ما لکان عدم دلچیسی کا مظاہرہ کرنے میں بالکل نہیں پچکچاتے بسااوقات شیڈور کرز کے ہاتھ اتنے میلے ہوتے ہیں کہ ہم مرغیوں کے میک اپ کاستیاناس کردیتے ہیں۔مرغیوں تک کے سیانک بگاڑ دیتے ہیں اور اکثر ورکر رویت ہلال تمیٹی کے اعلان کیساتھ ہی نہانے دھونے کی ترکیب بناتے ہیں۔شیڈ کی صفائی

ایک دِن مرغی کیساتھ

ملک میں استعال کے بعد دوسرےمما لک کو فروخت کر کے کمائی کرسکتا ہے۔ توہم بیاس ہے بہتر کر سکتے ہیں۔ مہنگی دیکسن بھی مرغیوں کودیکسین نہ کرنے کا بلاتبره ایک اہم عضرے۔ اگرایک شیڈی سالا نەدىكسىن قىمت4-3لا كەمىں دستياب ہے۔ تو قیت کے کم ہونے پر فارمریقیناً ویکسین استعال کرنے برجیشکی

تحرمر: ڈاکٹر محماعلی برز دار

سوشل میڈیا میں مرغیوں پڑکس بندگا ناوائرل ہوا تو مرغی کے نخرے بھی بڑھ گئے جسکی وجہ ہے گوشت کاریٹ آسانوں کو چھونے لگااور ٹیلوژن پرخبر گردش کرنے لگتی ہے کہ مرغی عام انسان کی پہنچ ہے دور ہوگئی اور مرغی کی قیمت کو یرلگ گئے ۔اباگرانسان کی پہنچ ہی تھوڑی ہویا پرائس کنٹرول کمیٹیاں غیرفعال ہوجا کیں











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كرے كا۔جس سے بيارى كے حملے میں خاطرخواہ کمی ظاہر ہوگی۔دوسراویکسین پروڈکشن میں کثیرروز گارپیدا ہوگا۔اور مقابله کی صورت میں بہتر چیز ارزال نرخول پردستیاب ہوگی۔ سوم بیرکدامپورٹ کم ہوگی اور ملک کاسر مایه گورول کی بجائے سانو لی جلدوالوں کے پاس آئے گا بس سے ملک میں بالخصوص گھروں میں خوشحالی آئے گی اور عورتوں کے جوڑوں کا در دکم ہوگا _جب وه گرم جيب والےشو ہر کے ساتھ برانڈ ڈجوڑوں کی شاینگ پرجائیں گی۔ اس انٹرویو کے دوران مرغی نے جب دوسرے مسئلے کی طرف نشاندہی کی توہارے کیمرہ مین کی آنکھوں میں آنسوآ گئے اور میرے کندھوں برگرے۔تو میں نے بھیگے شانوں کے ساتھانٹرویو

تومور دِالزام مرغی کوتھبرایا جا تاہے۔ورنہ تو مرغا بھی اس ہالیہ ہے اونچے گوشت کے ریٹ کاا تناہی ذمہ دارہے جتنااسکی گھروالی۔ بہترین آیف ی آرگوشت کے حصول کیلئے جہاں مرغیوں نے اپناباڈی فگر تک داؤیرلگا دیاوہاں نت نے پوٹرن تبدیل ہونیوالے لینے والے وائرس نے انکی تنھی سی جان کو مشكل ميں ڈالا ہواہے۔ايک محت وطن كى طرح ایخ سینوں پرویکسین انجکشن لگوا کربھی وائرس کے سیز فائر کی عہد شکنی کونہیں روک سکی ۔ توسر عام کی ٹیم نے مرغیوں کے مسائل کو اجاگر کرنے کے لئے ایک مرغی سے انٹرویو کیاجس نے اپنانام میڈیا پر ظاہر نہ کرنے کی شرط پرہم سے اپنے مسائل کا تذکرہ کیا۔ جے ہم ضروری کانٹ جھانٹ کے بعداینے قارئین کی خدمت میں پیش کررہے ہیں۔ جس طرح صف نازک کی زبان کنٹرول نہیں ہو علتی اسی طرح وائرس کو قابو کرنامشکل ہے۔ ویکسن کا کردارکوئی دومعنی نبیس رکھتا کہ بیہ بماریوں سے بچاؤ کااہم ذریعہ ہیں۔اگر گوری چیزی والا ویکسین بناسکتا ہے اور اپنے