

Agro Veterinary News

Pakistan's First Independent Agro Veterinary Periodical

Vol. 32 No. 9 / December 2020 -

Published Monthly Reg. No. MC-1209 ISSN 17228-1512 Rs 100



> Egg prices spike 04 in Pakistan



➤ Controlling viral disease 06 in the poultry ...



▶ Brucellosis: One of the neglected ...



▶ Dr Muhammad Aslam passes away



BIG WIN FOR PAKISTAN

Illegal registration of 'Kernal' rice trademark cancelled: Dawood

AVN Report

In a major success for the country's rice exporters, Pakistan has managed to cancel of illegal registration of the trademark "Kernal" by an overseas rice company. Advisor to the PM for Commerce and Industries, Abdul Razak Dawood took Twitter to announce the aforesaid statement. "I am glad to share that we have achieved cancellation of illegal registration of the trademark "Kernal" by a rice company overseas," informed Dawood in a tweet.

"This was tantamount to unfair



use of intellectual property of : Association of Pakistan Pakistan, as the word is similar to Super Kernel, a premium Pakistani rice variety," he said. The minister thanked the Rice Exporters

(REAP) for bringing the issue to the Ministry of Commerce's notice. "I urge exporters to keep informing MOC of such

Continued on Page 15

PM Imran launches 'billion tree honey' initiative

AVN Report

ISLAMABAD - Prime Minister Imran Khan recently called for enhancing forestation in the county to mitigate the negative effects of climate change as well as promoting the



production of exportable agriculture-related products such as honey, olives, avocado, and other fruits and vegetables for wealth creation.

Addressing the launching ceremony of the

Continued on Page 15

Editorial Board

Ayaz Mahmood

Publisher & Managing Editor
M Hassan Mahmood

Syed Hashim A Hasan

Dr Aamir Ismail Rizvi Dr Hammad Ahmed Hashmi Dr Adil Rasheed

Manager Production & Coordination
M Irfan Ali

Advertising Manager SM Shakil (0300-2559344)

Haroon Rashid (Islamabad) 0300-9710774

Graphic Designer & Layout Sh M Sadiq Ali

Karachi : Mahmood Centre BC-11, Block-9 Clifton Phone : 021-35872289, 35834932, 35833172 021-35836940 irfan@medicalnewsgroup.com.pk mkt.dn@medicalnewsgroup.com.

Lahore: 1485 C-5/4 Alluddin Road, Cantt. Phone: 042-36676296 Fax: +92-42-36673518 Email: g.hassni@gmail.com

Islamabad : Phone : 0300-9710774

{Disclaimer}

UAE royals arrive in chagai for hunting houbara bustards

AVN Report

CHAGAI - Eleven

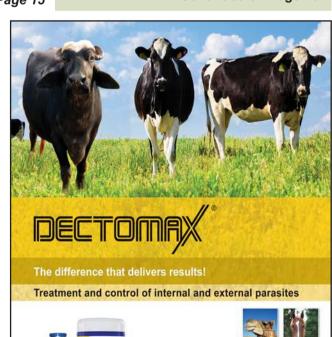
members of the royal family of the United Arab Emirates (UAE) arrived recently in Chagai district for hunting Houbara bustards. According to official



sources, the royal hunters who arrived at Dalbandin Airport in a special plane were led by Sheikh Sultan Bin Tehnoon Bin Mohammad Al Nahyan. Salar Khan Sanjrani, younger brother of Senate Chairman Sadiq Sanjrani, accompanied the royal delegation. The sources said the UAE hunters had arrived in Chagai for the first time as earlier they had been allotted hunting areas in Nokkundi, Taf tan and Saindak. The royal hunters were received by civil and military officials at the airport. Later, they moved to their camp

in the Kachanawar area by road amid tight security. The UAE delegation comprises Sheikh Sultan Bin Tehnoon Al-Nahyan, Arif Mohammad, Mohammad Ismail, Mohammad Matar Obald Dalmouk, Mohammad

Continued on Page 15









Ghazi House, D-35, KDA Scheme No. 1, Miran Muhammad Shah Road, Karachi-75350, Pakisto Tel: +92 21 111 250 365 | Fax: +92 21 3454 3763 | E-mail: mail@ghazibrothers.com.

HAPPY NEW YEAR

WELCOME 2021

with best wishes from







Protectotype The winning combination against IB challanges, NOW from Day-1



The Early Bird Catches Less ND



innovax-ND

Build a solid base against NEWCASTLE disease (ND) For a more profitable business

Nobilis® ND Clone 30 (Lasota)

"Maximum protection minimum stress"



Nobilis® ND Broiler

Water in Oil Emulsion

For control the high challanges of ND disease

Nobilis® Gumboro 288-E / D-78

The World's No.1 name in GUMBORO control



Nobilis® CAV-P4

The First attenuated live vaccine against

Nobilis® Gumboro Inac (Oil Base)

Best against gumboro infection



Nobilis® IB + ND (Oil Base)

Unique Combination

Nobilis® Avian Influenza Vaccines H9N2, H9N2+ND, H5N2

Powerful tools against control avian influenza infectio



Nobilis® IB + G + ND Inac

Perfect 3 in 1 Combination

Nobilis® SG 9R (Salmonella Gallinarum)

The assurance of protection against Fowl Typhoid is SG 9R



Nobilis® AE + POX Ultimate results against POX + AE

Nobilis® EDS One Vaccination sufficient



Head Office

Vety-Care (Pvt.) Ltd.
Office: Plot No. 77, Street No. 6, I-10/3, Industrial Area, Islamabad.
Ph: 051-4441081-83 | UAN: +92 51 111-103-103

Email: info@vetycare.com | Website: www.vetycare.com.pk





(Tilmicosin)

Oral Solution

For the treatment & control of Mycoplasmosis in Poultry





HILON PHARMA

High Quality - Our Strength

Animal Health Division







Monitor chicken prices to minimise demand-supply gap: Hafeez Shaikh

AVN Report ISLAMABAD - Adviser to the Prime Minister on Finance and Revenue, Hafeez Shaikh recently asked the authorities to take necessary measures to control poultry products' rising prices and edible oil. Shaikh advised the provincial governments to monitor chicken prices

cooking oil, mainly imported from Malaysia and Indonesia, while it imports soybean seed and oil from the USA and Brazil. Sovbean occupies the main share in the oilseed import as it swelled to record 2.2 million tons during 2017/18 and 2.6 million tons in 2018/19. The import of oilseeds was strictly and ensure smooth 1.67 million metric tons in

wheat flour, sugar, onions, tomatoes, and potatoes. In comparison, the prices of 17 commodities have increased slightly. Price of 21 items remained stable. The committee was also informed that the profit margin between wholesale and retail consumers' prices is also decreasing. The meeting was informed



supply to minimise the demand-supply gap. Ministry of industries and production was also directed to take necessary measures to control the rising prices of edible oil during a National Price Monitoring Committee meeting to discuss the prices and supply position of essential food items. Prices of poultry products significantly increased in a short span. Chicken prices surged to Rs300-400 per kilogram in Sindh from Rs200/kg during a couple of months, while an egg price increased to Rs15 to Rs18/egg from Rs10. Prices were seen increasing after a halt in interprovincial supply, while farms in the province were yet to recover from fallouts of rains that rendered adverse damages. Pakistan is a major market of crude and refined

2014/15, which jumped to ; 3.4 million tons in 2018/19, showing a surge of 100.6 per cent. During the same period, import of vegetable oil saw an increase of 11 per cent -from 2.98 million tons in 2014/15 to 3.31 million tons in 2018/19. Finance adviser directed the food ministry to conduct an emergency meeting with Trading Corporation of Pakistan, maritime ministry, KPT and other stakeholders to review the schedule's implementation regarding offloading of wheat vessels as decided by the logistic committee. While presenting the price

trend of essential commodities, the finance secretary informed that according to the latest sensitive price indicator, there is a decline in the prices of 13 essential commodities, such as

that at present sufficient quantities of wheat are available to meet existing demand. Further, the prices of perishable items and wheat and sugar show a downward trend due to the improvement in their supply position and pricing mechanism.

Pakistan, the world's eighth-biggest wheat producer, is importing wheat to plug over two million-ton shortage, caused in part by damage to crops after heavy rains. Private importers have booked 1.09 million tons of wheat, shipped in 18 vessels until January. Wheat is the staple crop and pillar of food security to meet 80 per cent of the dietary needs with a 38 per cent share in calorie intake. It accounts for 8.9 per cent of the value-addition in the agriculture sector and 1.6 per cent of the GDP.

Egg prices spike in Pakistan

AVN Report

ISLAMABAD - Pakistan's economic condition seems to be touching a new low as prices of eggs in the south Asian nation have escalated to Rs 200-240 per dozen.

The price has spiked amid rising demand for eggs in the winter season.



Talking to local media, consumers said that the government has utterly

failed in checking the egg price hike, leaving them at the mercy of poultry farmers and retailers who in turn blame costly chicken feed for a sharp jump in rates.

Egg price in Quetta, the provincial capital of Balochistan, is now pegged at Rs240 per dozen. Simultaneously, in other major cities including Karachi and Lahore see the produce at Rs200 per dozen, the newspaper reported.

Retailers in Karachi told local media one egg used to sell at Rs12-13 in winters, but this year it has crossed the Rs17 per egg mark -the highest in country's history.

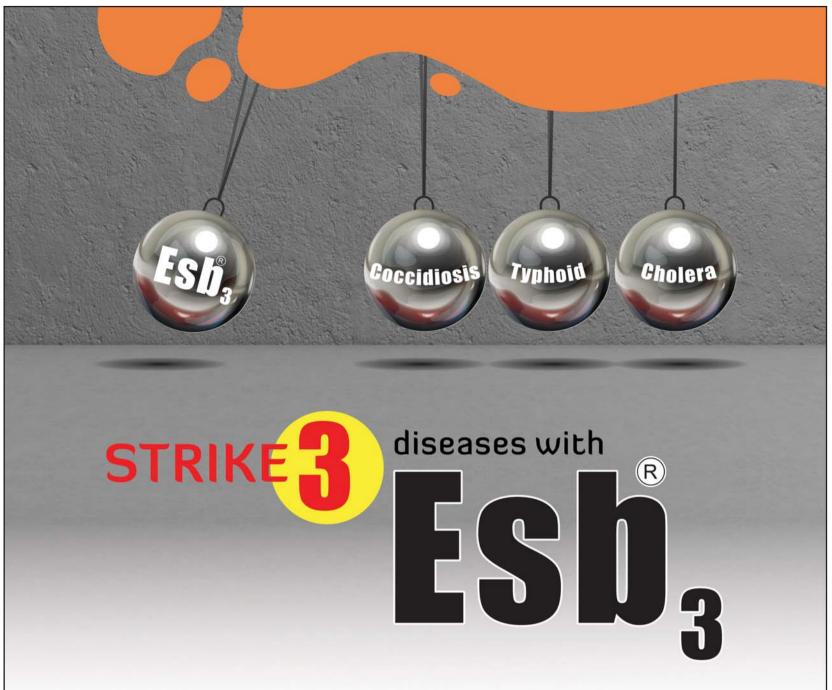
Talking to local media, General Secretary Sindh Poultry Wholesalers Association (SWPA) Kamal Akhtar Siddiqui said, "Wholesale egg price is now at Rs5,850 per 30 dozen or Rs195 per dozen. Two months ago, 30 dozen eggs were pegged at Rs4,500 or Rs150 per dozen two months back." He told the newspaper that the hike in the prices of live birds and eggs to rising feed prices. "Wholesale live bird and its meat prices are Rs240 and Rs360 per kg, respectively," he added.

MEDICINE BUSINESS OPPORTUNITY



EU/Singapore Imported Health & OTC, good quality medicines are available for exclusive distribution country wide with Form 7 on indent or LC cost, including poultry/dairy farm level products like multivitamins, electrolytes, disinfectants, organic acids, immunity booster, emulsifier and feed additives like prebiotics, enzymes, toxin binder, gut health, vitamin/mineral premix. Interested importer/marketing personals looking for long term partnership may contact at

"jawadimpexint@gmail.com" with their business profile & requirements.



- Wide anti-coccidial and anti-bacterial activity
- Highly effective and well tolerated in critical conditions
- High solubility and palatability
- No adverse effect on feed utilization, laying performance or egg shell quality

Composition: Esb3 contains: Sulphaclozine sodium 30%





DNA VACCINE

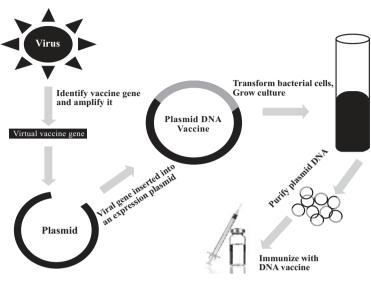
Controlling viral disease in the poultry industry

by Dr Maria Jamil¹, Dr Aisha Khatoon¹, Dr Muhammad Kashif Saleemi¹, Dr Muhammad Tahir Aleem²

¹Department of Pathology, Faculty of Veterinary Science, University of Agriculture, Faisalabad.

²MOE Joint International Research Laboratory of Animal Health and Food Safety, College of Veterinary Medicine, Nanjing Agricultural University, 210095 Nanjing, P.R.China

"DNA Vaccination is a transferring of specific antigen DNA coding sequence onto the cells of an immunized species.' For the sufficient growth of the poultry sector, proper health management of birds is essential. Several diseases affect the birds and lead to a probable threat to the poultry sector through large economic losses. Against infectious diseases are extensively followed a vaccine, while conventional vaccines have definitive drawbacks. Advances in recombinant DNA technology leads to the development of new generation vaccines as a safe replacement to the traditional vaccines. Compared to genetic protein DNA vaccine has one or more genes encoding that offers several benefits over the conventional vaccines. In DNA vaccine, antigens' appearance in the target host resembles native pathogen epitopes and hence preserve the protein structure and antigenicity than the traditional vaccines. Furthermore, DNA vaccine is capable to effectively produce both cellular and humoral immune response to protein antigen and therefore efficient against a large number of pathogens. Simultaneously, the effectiveness of the DNA vaccine in birds depends on several factors apart from their efficiency. They are comparatively costeffective, easily administer and stable under field conditions. Furthermore, as poultry is a food animal, the presence of vaccine residues in tissues is detrimental. This has been prevented through the intradermal (ID) and subcutaneous (SC) route of vaccine administration rather than the intramuscular route (IM). The plasmid vector is easily constructed and may be stimulated rapidly and inexpensively compared to conventional vaccine. Additionally, a very minute amount (micrograms) plasmid vector may distribute numerous antigens in a single shot that offers immunity against various pathogens at once. All these factors markedly decline the expenses acquired through vaccination. The efficacy of the DNA vaccine may be improved through molecular adjuvants, i.e. toll-like receptor (TLR) ligand and



cytokine. A prominent example of TLR ligand includes CpG (TLR21) and flagellin (TLR5) and cytokines, i.e., IFN-? and IL-12. Various studies had documented that when DNA vaccines were administered along with TLR ligands and cytokines, this leads to Upregulation of immune response.

Summary of DNA vaccine production

Advantage of DNA vaccines:

- ➤ As compared to the conventional vaccine, stimulation of DNA vaccine is simple, economical and rapid.
- ➤ The DNA vaccine is more thermostable than the traditional vaccine, thus not required the cold chain.
- ➤ It eradicates the threat of reversion of pathogenic phenotypes
- ➤ In DNA vaccine exist antigen to both MHC-I and MHC-II molecules
- ➤ Only against an antigen of interest, the immune response provokes through DNA vaccine
- Cost-effective and easy to develop
- ➤ Natural infection mimics through DNA vaccine. Antigen

protein looks like the standard eukaryotic structure and posttranslational alteration.

Major poultry diseases and DNA vaccine antigens:

The poultry industry suffers various infectious diseases such as infectious bursal disease (IBD), infectious bronchitis (IB), Newcastle disease (ND), avian influenza virus (AI), and Eimeria species. Inactivated, as well as the live vaccine, is extensively used against such diseases in the poultry industry. At the same time these vaccines are linked with their inherent drawbacks. Through several studies have been revealed that the DNA vaccine is effective against infectious diseases in poultry. Furthermore, without live pathogen DNA vaccine encodes antigenic proteins; it supports to prevent the existence of problem linked with reverted virulence, conflicting mutants and decrease the environmental pollution.

In chicken DNA vaccine, antigenic Protein encoding pathogen genes are used (specified in Table) and used molecular adjuvants to increase the efficiency of the vaccines' efficiency.

Pathogen	DNA vaccine candidates	Adjuvant	References
Chicken infectious anaemia virus	VP1, VP2	HMGB1 ▲C	Sawant PM et al., 2015
Avian influenza virus	HA, NA	MDP-1, Esat-6	Oveissi S et al., 2010
Infectious bronchitis virus	S1 glycoprotein, nucleocapsid protein, M protein	IL-2, GM-CSF	Yang T et al., 2009
Infectious bursal disease virus	VP2, polyprotein VP2-4-3	IL-2, CpG, IFN-Y, IL-6, Truncated Hsp70 of mycobacterium tuberculosis	Maity HK et al., 2015
Newcastle disease virus	HN, F	IFN-γ, IL-4	Zhao K et al., 2013
Colibacillosis	(K88) FacG	IL-6	Cho SH et al., 2004
Eimeria tenella	EtMIC2, 5401, TA4	IL-2	Xu Q et al., 2008
Eimeria acervulina	3-1E, cSZ-2	IL-2, IL-8, IL-15, IFN-γ	Shah MAA et al., 2011

CONDOLENCE

The Publisher, Editor and the staff of AVN Pakistan express their heartfelt condolences on the sad demise of Chairman, Pakistan Poultry Association, and Managing Director, Islamabad Group of Companies,



Muhammad Aslam and pray that God gives his soul eternal peace and enough courage to the family member to bear this irreplaceable loss, Amen!

Livestock facilitates farmers to increase meat, milk

AVN Report

SIALKOT - Livestock and Dairy Development Director Dr Khalil Ahmed has said that the department has successfully implemented programmes to provide facilities to farmers to increase meat and milk production.

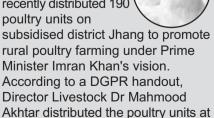


In a briefing regarding ongoing projects of the department, he said that 3,000 units of chickens and hens had also been distributed in Gujranwala at a discount price of only Rs 1,050 per unit for the promotion of domestic poultry.

Dr Khalil Ahmed said that fresh milk was being delivered to people's homes at cheap rates daily in Kamunke and Wazirabad tehsils. He said that there were ample opportunities for development in the livestock and the Punjab government was providing all possible facilities to farmers.

190 poultry units distributed in Jhang

AVN Report
FAISALABAD - The
Livestock Department
recently distributed 190
poultry units on
subsidised district Jhang to promote



Live Stock Office Jhag.
He said that 190 units comprised five birds each, and the units were distributed among applicants in district Jhang. He said that the price of each unit was Rs 1050. He said the objective of the effort was to provide cheap and quality protein to people.

COVID-19 VACCINES

Good news but challenges lie ahead

by Khalid Munir (PhD, DVM) PetLife Veterinary Professional Corporation, NJ, USA,

Hamna Khalid (B.S, Chemical Engineering), Villanova University, PA, USA, Isra Munir (BS, DMD), University of Pennsylvania, PA, USA, M Akram Muneer (DVM, PhD), Ripah International University, Lahore, Fraaz Mahmood (BASc PH&S, DVM, MSc), Health Canada, Ontario, Canada, Hammad Ahmed Hashmi (DVM, MSc(Hons), MBA, CMILT), DHA Kennel Club, Lahore.

he severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the causative agent of coronavirus disease 2019 (COVID-19), has resulted in more than 74 million reported cases and over 1.6 million deaths worldwide since December 2019. The pandemic continues to devastate public health, the global economy, and social order. Safe, productive, and effective vaccine(s) are urgently needed to halt the pandemic, i.e., to curtail further SARS-CoV-2 infections, viral shedding, transmission among humans, disease severity, hospitalizations, and deaths as well as to minimize post-infection complications and potential virus transmission from humans to certain animal species and vice versa (reverse zoonosis and zoonosis). The typical outcomes desired of a successful immunization (vaccination) campaign include a statistically significant reduction in infection (assessing sterilizing immunity) and severity of consequential clinical disease (considering disease-modifying immunity) or duration of infectivity. The primary goal of widespread vaccine deployment is to develop herd (population) immunity (also known as herd protection). Typically, about 65 to 70 % of the people in a geographic region needs to be immunized (having protective immunity) to exhibit herd immunity against a pathogen (an organism that produces disease in humans and animals) such as SARS-CoV-2 The vaccine development against SARS-CoV-2, like any significant pathogen, is a costly, time-dependent, complex, and laborious process that can typically take more than a decade. It consists of the exploratory stage, preclinical stage, clinical-stage, review and approval (licensure by the competent authority) stage, post-licensure manufacturing/ production (initially on a smaller and then on a mass scale), and post-marketing surveillance stage (also known as Phase IV or vaccine effectiveness testing), and quality control. The preclinical stage may involve in vitro studies in cell culture and in vivo studies in animal models such as mice, Syrian hamsters, ferrets, and rhesus macaques. The clinical-stage consists of three phases, i.e., Phase I (safety testing in a small number of individuals), Phase II (expanded safety testing in a few hundred to a few thousand individuals), and Phase III (vaccine efficacy usually testing in many

Recent approvals and licensure of COVID-19 vaccines from Pfizer and BioNTech, Moderna, and AstraZeneca-University of Oxford are based on these vaccines' statistically significant efficacy in Phase III Clinical Trials. This is very encouraging, but a substantial amount of work is needed to overcome several challenges that

thousand individuals).

The most crucial efficacy endpoint is protection against severe disease and death, difficult to



assess in Phase III Randomized Clinical Trials. Additionally, vaccine efficacy does not always predict vaccine effectiveness, i.e., protection attributable to a vaccine administered nonrandomly. Under field conditions, many factors such as age, ethnicity, gender, co-morbidities,

Currently, more than 200 COVID-19 vaccines using multiple platforms are under development in various research facilities worldwide. Remarkably, several vaccine candidates have entered or completed Phase III clinical trials in less than a year.

immuno-competence of individuals, political issues, vaccine hesitancy, differences in infrastructure, quality assurance, control and maintenance, cold chain distribution and storage temperatures (e.g., load shedding in countries like Pakistan and India), geo-genetics, pre-existing immunity to SARS-CoV-2 and cross-immunity from other coronaviruses' infection (what will be the magnitude effect of these in neutralizing the response to the vaccine?), timely vaccine distribution and inoculation (vaccine logistics globally), compatibility of vaccine with the field strain of SARS-CoV-2 (mutations in the virus genome could result in vaccine having limited effectiveness against the mutant strain of the virus), affordability, and literacy rates. COVID-19 is more common and severe among individuals often underrepresented in clinical trials, including older individuals, people with chronic illnesses, and persons in racial/ethnic minority populations. Different groups of people may not have the same level of the immune response to vaccination.

Thus, many unanswered questions will require post-vaccination assessment. First, to assess how effective are the vaccines in high-risk individuals (e.g., older, obese, and diabetic individuals). Second, how effectively vaccines protect against severe COVID-19. Third, how

effectively vaccines prevent virus transmission from infected individuals to susceptible individuals. Fourth, the magnitude of protection across population subgroups defined by age, race, and ethnicity. Fifth, the duration of protection conferred by various vaccine types. Sixth, a more comprehensive understanding of different COVID-19 vaccines' long-term safety, including rare complications; vaccination may be associated with mild adverse events like soreness at the injection site, fever, fatigue, and myalgias. More severe reactions severe as otherwise unexplained neurologic or inflammatory processes would raise concerns. Seventh, the duration of naturally occurring immunity to infection with SARS-CoV-2 is not decisively known and may wane with time. Eighth, protective and pathogenic aspects of the immune response to SARS-VoV-2 are not fully understood as scientists' understanding of this new virus, host immune responses, and disease pathogenesis is still evolving. The correlates of protection against SARS-CoV-2 in COVID-19 have not yet been conclusively established, i.e., it is, however, to determine whether systemic antibody-mediated (IgG), Tcell mediated or local (IgA or mucosal) immune responses in the upper respiratory tract or a combination of these responses is protective in susceptible individuals. Antibody-dependent enhancement (ADE) of infection, reported in rare other coronavirus infections, is also a likely concern. There is a possibility that just as seasonal influenza vaccines are updated yearly to match the vaccine virus strains with the field (circulating) virus strains, COVID-19 vaccine(s) may also need to be updated periodically to check the antigen targeted in the vaccine with the field strain(s). Because SARS-CoV-2 is an RNA virus, it will continue to evolve genetically and phenotypically. Finally, will COVID-19 vaccines protect against both developing clinical illness and prevent virus transmission? Different infection routes and the type of immunity that confers the highest protection may also dictate vaccine development.

The COVID-19 vaccines alone will not end the pandemic immediately. Due to many variables involved, effective vaccines along with hygiene measures are required to control the current pandemic, which, if successful, may take another year or two. Hence, the public must continue to observe public health measures such as social distancing, hand washing, best personal and public hygiene practices, and mask-wearing. The COVID-19 scenario highlights the importance of the One-Health concept, global interconnectivity, global health security, and the need for adequate resources and investment in science and research. To end the pandemic and return to life as we know it, interdisciplinary cooperation and efforts on the individual, regional, national, and global levels are of utmost importance.

COVID-19 pandemic: An overview

by Lt Col Dr Hammad Ahmed Hashmi Retd DVM, MSs(Hons), MBA

1. Background

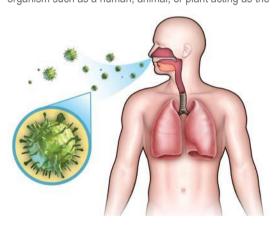
To prevent and control the spread of COVID-19, there is a dire need to know about the Corona Virus Infection COVID-19, its nature, transmission and control measures. In recent days, pursuing this factor, I have completed an online course from Muhammad Bin Rashid University of Medicine and Health Sciences,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

2. 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 many populations throughout the world. Many people are left messy 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 pass on the information throughout the community via accurate knowledge, without creating panic. We will elaborate on the following aspects for better understanding.

a. How respiratory infections are transmitted. Let us learn about how respiratory infections, like COVID-19, are shipped and what actions we can take to prevent the spread

A virus is a tiny infectious agent that is too small to be seen with the human eye or even under an ordinary microscope. They can only replicate and multiply if inside a living organism such as a human, animal, or plant acting 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.

- b. COVID-19. COVID-19 is an infectious disease caused by the most recently discovered coronavirus (SARS-CoV2). This new virus and infection were unknown before the outbreak began in Wuhan, China, in December 2019. The symptoms of the 2019 Novel Coronavirus primarily impact the "Respiratory System".
- c. 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 demonstrated

- d. Symptoms of infection include: These include fever, cough and shortness of breath. At this time, it is believed that symptoms may appear in as few as two days or as long as 14 days after exposure.
- e. Handicaps/impediments. 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 be used as a means of prevention.
- f. 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
- g. Contact Transmission. Contact transmission occurs when there is physical contact between an infected person/contaminated object and another person. Through direct connection where the infection 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 communication. When an infected person coughs, droplets can land on the items and surfaces around them. When another person touches these surfaces, their hands can get contaminated with the virus. If they feel their nose or mouth with contaminated hands, they can contact infected.
- h. Airborne transmission. Airborne transmission of a virus 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 time, leading to infection spread. Although one study has reported that 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
- 3. Cardinal Steps in the spread of infection. There are six steps in the chain of disease, and we know that transmission will only take place if all six elements in the chain are present. A chain of illness refers to the path that viruses take to enter a person and 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 critical factor for a clinician to consider the "Travel History".

a. Getting Sick or becoming ill. Do you ever wonder about how you got sick? 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 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,

little to no signs while others have become severely ill and 🕴 during diaper changes or toileting. The fourth element is a 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 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 older adult or someone with a weakened immune system. One of the links in the chain of infection must be broken to prevent the spread of the disease.

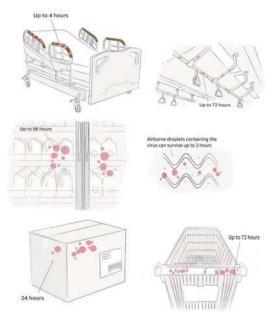
> 4. Joint Task/activity to break the chain in the spread of infection COVID-19. This is not the government's task and the NGOs to contain and stop the spread of COVID-19, each and every one of us can do our part to slow and stop COVID-19 from spreading and helping you and your community Break the Chain of spread.

5. Protection and Prevention.

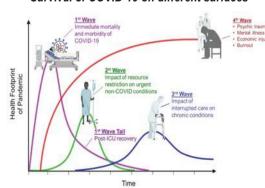
Considering the defensive and pre-emptive measures is of paramount importance, which plays a pivotal role in



Moral Obligations of a responsible Citizen



Survival of COVID-19 on different surfaces



Continued on Page 19

INSTALL THE ULTIMATE **ANTIVIRUS**







For the active immunization of chickens against ND and Marek's Diseases.

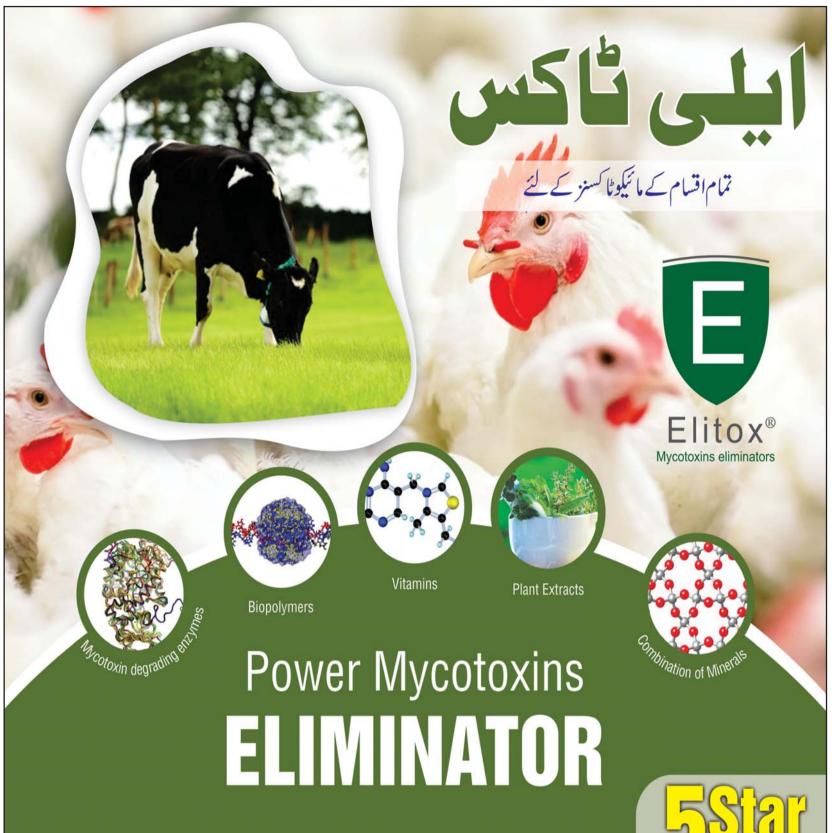
Vectormune HVT ND V® reduces Newcastle Disease virus shedding, with maximum protection and no side effects.

For complete details please contact our local representative - or - Call at the number given below:



CEVA's Exclusive Distributors for Pakistan 117-A, Ahmad Block, New Garden Town, Lahore. Phone: +92 42 111 (MARUSH) 627 874 Fax: +92 42 35887467

MARUSH E - mail: info@marush.com.pk



Afla Toxin
Ochra Toxin
Fumonisin Toxin
Zearalenone Toxin
Trichothecene Toxin
Deoxynivalenol Toxin

Enzymatic Detoxification of Non Polar Mycotoxins

Adsorption of Polar Mycotoxins Non-Toxic Metabolites

Dosage: Poultry: 0.5 - 1.5 Kg / ton feed Cattle: 10 - 20 gm / head / day Or 0.5 - 1.5 Kg / ton cattle feed

Sole Distributor in Pakistan:





In Agrisolutions **Since 1953**

ZAGRO

VITAMIN & MINERAL PREMIX

Balanced formulation for optimum performance

balanced formula to manufacture feed for 🎢 BROILERS &





- For better growth
- For better FCR & Egg Production
- To overcome stress conditions
- To prevent from vitamins & minerals deficiencies Dosage:

Anavite Vitamin Premix.....500 gm / ton feed.

Anavite Mineral Premix.....500 gm / ton feed.

Sole Distributor in Pakistan: NTERNATIONAL

www.jawadimpexintl.com

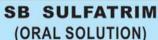


www.zagro.com



WE ARE PROUD OF PROVIDING BEST QUALITY SB CHICKS & FEEDS





SB SULFATRIM (ORAL SUSPENSION)

SB TYLAN 10% (WATER SOLUBLE POWDER)

SB NEOXY (WATER SOLUBLE POWDER)

SB ADLEK (WATER SOLUBLE POWDER)

> SB CIPRIN 20 (LIQUID)

SB TOLCOX (POULTRY COCCIDIOSIS)

> SB S3 (ORAL POWDER)

SB TYLAN 10% (FEED PREMIX)

SB COMBIF.T (ORAL DRENCH)

SB FLUKINEX (ORAL DRENCH)

SB LEVONEX (ORAL SOLUTION)

SB TIAMULIN 45% O/P TIAMULIN HYDROGEN FUMARATE

SB AMOXYTIN O/P AMOXICILLIN TRIHYDRATE COLOSITINE SULPHATE

SB EXITIL
ALBENDAZOLE 12.5%



New Introduces a new range of most effective & economical LIVESTOCK & POULTRY MEDICINES

SB PIPRAZINE (POWDER)

> SB HELMIN (SUSPENSION)

SB AMPROL 50 (WATER SOLUBLE POWDER)

SB COXINIP (WATER SOLUBLE POWDER)

SB RENAL (WATER SOLUBLE POWDER)

SB VITA POWER (WATER SOLUBLE POWDER)

SBC 20 (EFFERVESCENT GRANULES)

SB TIACLOR O/P
TIAMULIN HYDROGEN
CHLORTETRACYCLINE HCL

SB TIAMULIN 12.5% O/P TIAMULIN HYDROGEN FUMARATE

SB TIAMULIN 12.5% O/L TIAMULIN HYDROGEN FUMARATE SB ASPER C (EFFERVESCENT GRANULES)

> SB VITA L (FEED PREMIX)

SB MINERAL MIX (FEED PREMIX)

SB ENROFLOXACIN (ORAL SOLUTION)

SB ENROFLOXACIN (POWDER)

SB ORAMOX 20 (WATER SOLUBLE POWDER)

SB ORAMOX + (WATER SOLUBLE POWDER)

SB PROTECTIN O/P

TYLOSINE TARTRATE
DOXYCYCLINE HCL
COLOSTINE SULPHATE
PHENYLBUTAZONE
BROMOHEXINE



SB Pharma

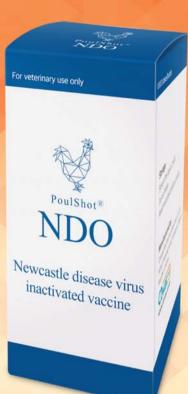
48 - C, Satellite Town Near Chandni Chowk, Rawalpindi PHONES:051-4927501 - 13 (13 LINES) UAN: 111-50 50 50, FAX: 051-4927520 E-mail: sbpharma@isb.paknet.com Website: www.sadiqbrothers.com





MAXIMUM PROTECTION NDV LOG109 EID50









ND Killed Vaccine
Conferring Protective Antibody Titers



Brucellosis: One of the neglected issues to ponder upon

by Dr Muhammad Ahmad Department of Pathology, University of Veterinary & Animal Sciences (UVAS), Lahore

rucellosis is a very contagious and zoonotic disease that can be transferred from animals to animals and from animals to humans. The causative agent of this disease is a small microorganism 'Brucella' which is a bacterium. For the first time, it was discovered by a Scottish Pathologist and Microbiologist. David Bruce in 1886 from the spleen of a dead army sepoy in Malta. That is why this disease is also known as 'Malta Fever.' David Bruce named this microorganism as 'Micrococcus melitensis' which was further changed to 'Brucella melitensis' concerning the services of its inventor. Further investigations confirmed that the dead army sepoy drank goat's milk a few days before his death. Later on, this microorganism soon recovered from goat's milk. In 1897 and 1917, this microorganism recovered from cow's teats and swine respectively. Till now almost nine different species of 'Brucella' genus have been identified that cause brucellosis in different animal

According to the "World Health Organization", brucellosis is included in the list of "most neglected diseases" of the world whereas, after rabies, it is considered as the second most dangerous disease of the world.

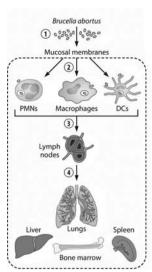
Sign Symptoms in Animals: In the pregnant animals during the last trimester, brucellosis may cause abortion, preterm birth of a weak calf or even death of the newly born calf. It may cause infertility in the affected animals. While in affected bulls, it may cause testicular abscess and inflammation of testicles as well as epididymis.

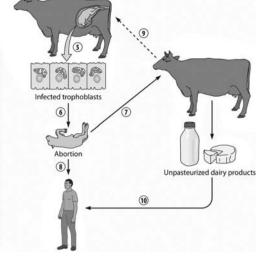
Transmission: The transmission of brucellosis can occur among animals through contaminated water and air, by licking or ingestion of contaminated placenta and via direct contact with the contaminated body secretions of an infected animal. As an infected animal becomes "Carrier" for the rest of life so may be considered as a potential source of infection to the healthy animals on the farm. "Brucella" remains in urogenital secretions and milk of the carrier animals for a longer period so it can be easily transferred from infected animals to humans. Veterinary doctors, veterinary assistants, laboratory personnel, labour working on the farm as well as the butchers are at high risk of contracting the disease. Sign Symptoms in Humans: Brucellosis is transmitted to humans through the use of contaminated dairy products, direct contact with the infected animal or through aerosol transmission. It may cause long-lasting symptoms such as intermittent fever, joint pain, back pain, anaemia, malaise, hepatitis, endocarditis, and sometimes orchitis. While in pregnant women preterm delivery or abortion in the second or third trimester is evident.

Diagnosis: Accurate and ontime diagnosis are the key factors to control any disease. According to the World Health Organization (WHO), the best method to diagnose brucellosis is 'Isolation and Identification.'

'Brucella' can be isolated from body secretions of infected animals but this type of diagnostic method needs extra caution as the laboratory staff may get this disease during their work. Till now many diagnostic methods have been established but expert laboratory technicians, laborious laboratory and reasonable price are the biggest hurdles to diagnose brucellosis in the world Lateral flow assay is a simple,

portable, and easy to use a diagnostic device to confirm a specific antigen in a given sample. The key benefit of this method is the probability of fast testing with inexpensive equipment which makes it fit for off-laboratory use. This assay needs colouring agents like gold nanoparticles which are used for detecting a target analyte in food as well as in the milk and blood of the suspected animals for serodiagnosis of infectious diseases. In a Technology development fund (TDF-HEC), Dr Muhammad Ahmad (MPhil-Scholar) from the Department of Pathology, the University of Veterinary and Animal Sciences,





Lahore Pakistan under the kind supervision of Dr Raheela Akhtar. Associate professor Department of Pathology, UVAS Lahore has succeeded in the development of the above-mentioned strip for the diagnosis of brucellosis in the suspected cattle, buffalo and humans within 60 seconds. This test does not require any expertise or laborious laboratory. Strip base diagnostic tests may consider the as easiest and accurate method of diagnosis of brucellosis in Pakistan.

Control: Accurate and on-time diagnosis is one of the best ways to control brucellosis. Developed countries of the world like Japan, Australia, Canada, New Zealand, North-western Europe are considered brucellosis-free countries. These countries have controlled brucellosis through Mass vaccination programs, test and slaughter policies, and by separation of infected animals from healthy animals. While it is still present as 'Endemic Disease' in the Mediterranean region, Middle East, Africa, Latin America and few countries of Asia like Pakistan, India, Afghanistan, Bangladesh and some provinces of China. According to WHO, brucellosis is a reportable disease in the world. Unfortunately, it is not reported in Pakistan and the number of cases is increasing day by day. This is because there is no "Culling policy or law" from the government to compensate the poor farmers for the culling of infected animals. Hence the poor farmers do not report this disease.

To effectively control brucellosis, it is the need of the hour that the government must devise test and slaughter policy along with compensation cost.

Prevention: Through the application of the World's renowned and most practical proverb 'Prevention is better than cure.' brucellosis can be prevented. Milk and meat should be used after boiling and cooking at recommended temperatures. The use of dairy products prepared from raw milk should be avoided. Before purchasing new animals for the farm, screening tests must be performed. There should be prior testing and separation of newly purchased animals for at least 30 days or till the confirmation of results. All the recommended measures should be strictly followed during the disposal of placentas or aborted fetuses of infected animals.

Treatment: As 'Brucella' is an intracellular microorganism rendering most of the antibiotics ineffective against brucellosis. WHO recommended antibiotics like Streptomycin, oxytetracycline, doxycycline or combination of all of these antibiotics show excellent results equally in humans as well as in animals. The duration of treatment is as long as six weeks and as short as two weeks both in affected animals and humans. Suggestions:

Pakistan is an agricultural country. Almost 60% of the country's population belongs to rural areas. People from rural areas for their lives depend upon the rearing of livestock and the cultivation of different crops. Both of these departments are considered as the backbone of Pakistan's economy as agriculture and livestock's share in the gross economy according to economic survey 2017-18 is 18.8% and 11.11% respectively. While livestock's share in agriculture is about 58.92%. Unluckily the growth of both of these two departments is too low because of the lack of interest in previous governments.

It is the need of the hour that the current government must follow up with the poor economic policies regarding livestock and agriculture departments. The government should design the farmer's friendly policies to uplift the wobbling economy. Prime minister's Calf fattening and poultry farming schemes, the use of modern technologies in the agriculture sector and the provision of proper subsidy on newly implemented taxes are the best ways to boost up the country's economy.

الندن میں زرتعلیم ہے۔اگلےسال آجائے گا۔اور یہاں آگر كاروبارسنجالےگا۔ پچھلے دس روز سے جب سے میں نے ان کے جانے کی خبر سی تو اٹھتے بیٹھتے سوتے ہوئے اور شج بیدار ہوتے ہوئے میراان سے بیر کالمہ جاری ہے وہ ہمتن گوش خاموثی سے من رہے ہیں اور آج رات تو عالم خواب میں اپنی گاڑی کی ایک کھلی کھڑ کی ہے ہمیشد کی نیم مسکراہٹ کے ساتھ یاس سے گزرگئے۔ اب میں سوچتا ہوں کہ معلوم نہیں ہم کب اور کس حالت میں رب کے ہاں لوٹیں گے گرا گرڈا کٹر اسلم آٹھ ماہ پہلے ل جاتے توان کو کندھوں ہے پکڑ کرجھنجھوڑ تا کہ بس کر و!اب واپس گو گیرہ کی گلیوں اور ویٹرنری کالج کی راہدار یوں میں لوٹ جاؤ ،اسی میں تمہاری خوشیاں ہیں اوراگروہ ڈاکٹرائے ڈی سیال کے ہاتھ لگ جاتے تو وہ بھی کہتا ڈاکٹر اسلم کو''صم بکم'' یا کران کا'' کثانہ'' بھی مايوس ہوجا تا ڈاکٹرعلی افضال سيال گھنٹوں ڈاکٹر اسلم کی مجلس میں بیٹھا کرتے تھے اور میں سوچتا تھا کہ بیکونی خاموثی کی زبان جانتے ہیں کیونکہ ڈاکٹر اسلم کی پیغاموثی ،اس کے اپنے قریب ہوتے ہوئے بھی ہمیں بددھوکددے گئی کداس کی بیاری کی خبر بھی ہمیں آٹھ نو ماہ بعد ملی' اسلم تو چنگانہیں کیتا''لیکن مجھے میرے مہربان رب پر پورایقین ہے کہ وہ مجھے ایسے''غریب کے بال'' يرتاج شاباندر كالرنجقي يكسر بهول نبيس كياموكا تيرا كهرانشا بالله جنت میں ہوگا اور وہ یقیناً اسلام آباد فارم سے بڑا اور بہتر ہوگا۔ اسلم!تم توبہت زیرک اور ٹھنڈے مزاج والے تھے پرکہیں تو آپ كورفان سے بعول ہوگئي آپ خلائي سفريين" آسيجن كا سلنڈر''رکھنا بھول گئے نا؟؟ اور پھر یوں ہوا کہ..... گوگیرےاورلا ہورویٹرنری کالج کا جواں سال''اسلم''جوانی میں دل تو ڑ گیااوراسلام آباد کا'' ڈاکٹر اسلم''بڑھایے کی دہلیز پرسب







ملك بھى جائداد بنالى يہاں تك كدايك بار مجھے كہنے لگے كه "پرزاده صاحب!ميرے ياس كيا تھا؟ابميرے ياس اتنا ہے کہ چودہ پشتی آرام سے بیٹھ کر کھاسکتی ہیں' مگریمی میراپیارا دوست الله كريم سے صرف دوسال كى مہلت طلب كرتے اس د نیامیں چلا گیا جہاں سے بلٹ کرد کھناممکن نہیں۔وہ ہرسال تقریباً رمضان کی 27ویں شب مدینه یاک میں گزارتے، مریضوں کے کھانے کا اہتمام کرتے ،غریبوں کی معاونت کرتے ،اینے عملے کے لوگوں کی ضروریات کا خیال رکھتے اور کوشش کرتے کہ دستیاب عملے برہی کریں اور آئے روز کی تبدیلیوں کے حق میں نظر نہیں آتے تھے۔ دوایک بارمیرے کہنے یر،ان کی کاروباری ضرورت کےمطابق دوایک لوگوں کوایے ہاں انہوں نے جگہ دی اورایک بار مجھے کہا کہ'' پیرزادہ صاحب! آپلوگوں کے کئے مجھےسفارش ندکیا کریں۔ ڈ اکٹر اسلم ارب ہاپتی بن گے انہوں نے ملک اور (غالباً) بیرون تخری ملاقات میں جب میں نے محمد علی اسلم کا بوجھا تو بتایا کہ وہ







حاصل کر کے اسے اپنے کاروباری مقاصداور ساجی حیثیت کو فروغ دینے میں گئے رہے۔ یہاں تک کہوہ،وہ کام بھول گئے جوضروری تھاڈ اکٹر اسلم کاروباراورساجی رہنے کو بڑھاوا دیتے، اندر کے اسلم کو مار بیٹھے، وہ انتہائی درجے کے کفایت شعار تھے یہاں تک کہ وہ اینے لباس اور خوراک پرخرج کرتے نظرنہیں آتے تھے کئی بارتو وہ ایک لباس مہینوں زیب تن کرتے اورایک گاڑی برسوں استعال کی ان کی سوشل لائف بھی بہت محدودتھی گو کہ بعد کے''سوشل بروفائل''میں وہایئے گردایک ایساحلقہ بنانے میں کامیاب ہوئے جوان کی ساجی پیچان اور کاروباری ترقی میں کسی قدر بیسا تھی تصور کیا جا سکتا ہے مگروہ خوداس طقے میں جکڑ کر بن گئے اور باہر تکنا چھوڑ دیاان کے پرانے ساتھی ان کےاس رویے پرشا کی نظرآتے مگروہ اس ججوم کی بھیڑ کی نذر ہو گئے جہاں بندہ خودگم ہوجا تاتھا۔

بقیه: ڈاکٹرمحمد اسلم کی ۔۔۔ وہ بمیشہ دریے بیدار ہوتے تھے۔ حیرت کی بات پیھی کہوہ سال کے آخر میں دوماہ دل لگا کرمحنت کرتے اورا چھے نمبروں ے کامیاب ہوتے۔وہ کالج یونین کےالیکشن میں سرگرم رہتے جب بھی ان سے کالج کے زمانے کے سوشلسٹ اسلم کی بات ہوتی تووہ اسے بچینااور حماقت گردانتے ہلیکن نفسیات اور ساجی علوم کےایک طالب علم کےطور پر میں اس نتیجے پر پہنچا ہوں کہوہ اب معاشی قوت کے ذریعے وہ منزل یانا جائے تھے جوطالب علمی میں وہ سوشلسٹ نظریے کے پیروکار کے طور برحاصل کرنے کے لئے کوشال تھے۔اس طیمن میں انہوں نے اپنے گاؤں خصیل وضلع میں اپناایک کھڑا کرنا شروع کیا۔وہ خودالیکش نہیں لڑتے تھے ECLECTABLES کی مالی معاونت کر کے انہیں برسرافتد ارلا کرا پناسیاسی اور ساجی اثر ورسوخ اور قد بڑھانے میں تادم مرگ متحرک رہے۔انہوں نے اپنی اس حکمت عملی کا مجھے سے خود ذکر کیا اور ایک دفعہ تو مجھے میرے آبائی حلقے سے یارلیمن کے الیکن کی ترغیب دیتے ہوئے سپورٹ کرنے کاعند بیجمی دیا۔

(چینیوں) کی طرح ٹھنڈے مزاج کے ساتھ سوچنے والے، کم گو اورزیادہ سننے والے، دھیرے دھیرے اور دیریاراستوں پر چلنے والے تھے کہ وہ (ککراؤ) ہے بیچتے ہوئے کاروباری وسعت میں يكسوموكرجة رب-ان كابيبداتا مواطرزعمل بنيادي طوريران کے مزاج میں گھبراؤ،غیر معمولی ذبانت اور معاملہ نہی کا نماز تھاجو انہوں نے ایک اچھی طالب علماندروش سے معاشرے کے كامياب طبقول بشمول سياسى عسكرى اورصحافتى سدوابط بزها كرسيكها ـ ايك وفعه مجھے بتايا كه انہوں نے اپنے حلقے كے ايك طویل عرصه تک مقتدر سیاستدان یلیین وثوسے ان کی کامیابی کا راز پوچھاتو وٹو صاحب نے بتایا کہ بس دھیرے دھیرے چلتے رہواورڈ اکٹر اسلم نے بیمل اپنالیاوہ ان تمام حلقوں تک رسائی

Big win for Pakistan Continued from front page

تیری لحد پرشبنم گل افشانی کرے

keep informing MOC of such violations so that we can protect Pakistan's intellectual property overseas," he added.

About 838,770 metric tons of rice valued US \$499.485 million exported during the first four months of the current financial year as compared the exports of 1,176,228 metric tons worth US \$633.797 million of corresponding period of

According to the data of Pakistan Bureau of Statistics, rice exports from the country during the period from July-October, 2020-21 decreased by 21.19 percent as compared to the exports of the same period of last year.

PM Imran launches ... Continued from front page

"Billion Tree Honey" Initiative here, he said with the depleting forest cover and increasing air and water pollution, Pakistan had become the fifth country in the world being affected by climate change. The initiative-part of the Prime Minister's vision of a Clean and Green Pakistan, is aimed at

promoting tree plantation to support the production of honey in the country under the Ten Billion Tree Tsunami Programme (TBTTP).

"With 70 percent depletion in the country's forest cover due to the negligence of previous regimes, one of the big challenges faced by this government is to reverse the situation through various measures such as the initiative of 10 Billion Tree Tsunami Programme," Khan said. He said contrary to the past regimes which did not think about humans and coming generations but for the next elections, the present government was fulfilling its obligations of putting the country back on the right track of the clean environment.

The Prime Minister said the initiatives like "Billion Tree Honey" would help protect the forests as the local people, including beekeepers, would take ownership of the area and not let anyone cut trees due to their financial

Such initiatives supported by the government, he added, would also help promote the culture of

enhanced tree plantation for the benefit of the people and the country alike, besides creating employment opportunities. He said the country's known forests in Kundian (Mianwali District) and Changa Manga (Kasur District) had been devastated due to ill planning and leasing of lands to the people on political grounds in the past.

"Pakistan is bestowed by Allah Almighty with diverse climatic zones due to mountains, plains and coastal lines, so there is a need to tap the natural potential by promoting tree plantation and production of a variety of fruits and vegetables to enhance exports." For instance, he said, the areas of Sulaiman Range, at the right bank of Indus River, was best for the planting of precious olive trees, which could help check the country's annual US\$ 3 billion edible oil import bill. Similarly, he said, fruits like avocado could be produced for

export. He, however, added that

exports of fruits and vegetables,

there required quality control and

particularly in the Middle East,

in order to achieve enhanced

effective branding and marketing of the products.

Earlier, Minister of State for Climate Change Zartaj Gul and Special Assistant to the PM on Climate Change Malik Amin Aslam highlighted various aspects of the "Billion Tree Honey" Initiative. They said about 10,000 beekeepers were using 300,000 colonies for producing 7,500 metric tons of honey annually. The potential can be enhanced to produce 70,000 metric tons of honey from the same harvest by using modern bee-keeping gears, training on the latest techniques.

standardisation/certification of the product, and intensive marketing, they added.

UAE royals arrive in ... Continued from front page

Saeed Shuwain, Eid Jauaan Mohammad Al-Shamsi, Rashed Nayel Rasheed, Abdullah Awadh Saeed, Abdul Sattar, All Musabeh Mishar, Saeed Abdullah Ahmed and Tanveer Zia Dar. The sources said the delegation, which was equipped with hunting instruments and falcons, would stay in the area for one week.

ELKOMEC-TRI DRENCH

Ivermectin 2mg/ml Triclabendazole 120mg/ml

For the treatment and Control of Internal and **External Parasites of Cow,** Buffalo, Camel, Sheep and Goat.

Delivers results for fluke and worm control in one easy oral dose





shaheenenterprises96@hotmail.com Tel.: +92 21 35082488









GUMBORO CATCHER WINTERFIELD-2512







- Early and strong protection against vvIBD and classical IBD.
- Safe & guaranteed immunocompetence





The Unique selling proposition (USP) OF AB 20 is that: * It binds my cotoxins NOT Nutrients. * It does not depress animal growth. * It does not depress tibia mineral concentrations. * It does not interfere with the metabolism of nutrients in the animal degestive tract. * AB20 is a specially processed smecife or montmorillonite clay, an. aluminosilicate material with a 2:1 layered structure. * The only toxin binder in market which is characterized by alternating layers of tetrahedral silicon and octahedral aluminum layers coordinated with oxygen atoms. * The fineness of AB20 provides a large surface area accessible for binding to more my cotoxins.

WILL STATE OF THE STATE OF THE

PHIBRO ANIMAL HEALTH CORPORATION

Glenpointe Centre East, 3rd Fl 300 Frank W. Burr Blvd., Ste 21 Teaneck, NJ 07666-6712

Represented by ELITE MARKETING ASSOCIATES

28, Empress Road, Lahore
Ph# 42-3-6375791, 6368548
Email: info@elitemarketingassociates.pk

Email: info@elitemarketingassociates.pk
Website: www.elitemarketingassociates.pk

COVID-19 pandemic

Continued from page 08

protecting ourselves and our loved ones through simple and practical changes in our daily behaviours and routines.

- a. Practising good hand hygiene (handwashing). Washing your hands is one of the best ways to prevent you or someone you know from getting infected. Washing your hands frequently helps to remove potentially harmful microorganisms from your hands. And this helps stop the spread of infection. The WHO (World Health Organization) recommends washing your hands by following the seven steps shown in the image below.
- b. Use of Hand Sanitizer. When you don't have access to soap and water, using hand sanitiser containing at least 60% alcohol is a great way to ensure your hands are clean. You should follow the same steps you do when washing your hand. However, the best way to ensure sparkly clean hands is by using soap and water for 20 seconds.
- c. Cough Etiquette. Droplets from coughs and sneezes travel quite far. This is why we must practice cough and sneeze etiquette. These simple steps can help to reduce the spread of COVID-19
- Cover your mouth and nose with a tissue when coughing or sneezing and dispose of the tissue immediately.
- If you do not have a tissue, sneeze into your elbow rather than your hands. · Wash your hands with soap and water immediately.
- 6. Cleaning your everyday environment. How many times a day do you touch
- a. Your phone
- b. The steering wheel of your car
- **c.** The doorknobs in your home

Now think, how many times have you cleaned those surfaces? To break the chain and prevent infection, it is essential to be more mindful about the surfaces we touch and to keep those surfaces clean. There are several ways to keep your surfaces clean and disinfected. And you probably already have some of these ways in the house!

7. Use of bleach. You can also use a regular household disinfectant or alcohol spray of at least 60% alcohol. Both can be purchased at any grocery store.

- Mix 3/4 cup Regular Bleach with one gallon of water
- Using a rag or spray bottle, wash or wipe this solution onto surfaces
- Allow solution to stand for at least 5 minutes
- Rinse with regular water and let air dry.



- 8. Social Distancing. Social distancing is a public health measure known to help stop or slow the spread of infectious diseases. This is especially important with COVID-19 because even those who do not show illness signs may be sick and can spread the virus. If we stay at home and limit contact with others, we will slow the spread of COVID-19. Following are the common Ways to social distance:
- a. Closing schools and moving to distance learning
- **b.** Working from home
- c. Postponing or cancelling social events and travel
- d. Maintaining a physical distance of at least 2 meters between other people while interacting with colleagues or workers.
- 9. Wearing Masks. No doubt you have seen pictures or even people walking around wearing surgical or protective N95 masks. While this might seem like a good idea, wearing a mask in many cases does more harm than good to you and your community. As per WHO reference number: WHO/2019-

nCov/IPC_Masks/2020.3, regarding advice, on the use of masks, in communities, during home care, and in health care settings in areas that have reported cases of COVID-19. It is intended for individuals in the community, public health and infection prevention and control (IPC) professionals, health care managers, health care workers (HCWs), and community health workers. This updated version includes a section on advice to decisionmakers on the use of masks for healthy people in community

Healthcare workers are the only people who can help us get better when we are sick. Because of the current shortage of

face masks globally, healthcare workers are at increased risk of contracting COVID-19. If healthcare workers get sick, there will be no one to take care of the sick people, and COVID-19 may continue to spread. So...do you need to wear a mask? The answer to this question for most people is No.

10. When to wear a mask. As a part of our society's solution, we should be advocating ordinary people, by urging them not to buy masks or protective gloves for their use, unnecessarily. These are a limited resource, desperately needed by our healthcare workers and the sick.

a. You should only wear a mask if:

- You are a healthcare provider caring for potentially sick patients
- You are sick or are caring for a family member who is sick
- You are instructed to do so by your doctor or healthcare
- You are instructed to do so by your local government authorities
- 11. N95 Mask. An N95 mask is specially designed to filter airborne particles. It needs to be fitted properly to ensure its effectiveness. It prevents inhalation of airborne particles (that may contain infectious agents). It can also be used when minute particles in the atmosphere cause air pollution such as haze. N95 masks are recommended by the healthcare workers, however
- 12. Surgical Mask. Provide barrier protection against droplets, including large respiratory particles. Protect both residents and healthcare professionals against possible respiratory infection. Surgical masks are recommended for those who have diseases or those looking after close contacts with the disease at home. A surgical mask has three layers (3-ply) which serve different functions:
- a. Outer layer fluid-repelling;
- **b.** Middle layer a barrier to microorganism entry; and
- c. Inner layer moisture-absorbing.
- 13. Conclusion. To minimise the spread of the COVID-19, prevention and protection are the main key points, which we must exercise to make ourselves safe from this menace and protect our loved ones in the community, country, and worldwidepraying for the safety of patients, health care workers, volunteers, NGOs, philanthropists, law enforcing agencies and the armed forces, worldwide.





VAVETo-15



GASTRO-INTESTINAL NEMATODES:

- Trichostrongylus spp
- ✓ Bunostomum spp
- ✓ Oesophagostomum spp



Dictyocaulus viviparus







Orient Traders International =





کم گواور ہمارے کالج میں جونیئر تھے میری اور اسلم کی دوسی کامحورایک غیرسیاس شوڈنٹس کلب يعنى ويثرنري ستووثنش فرنث تفاجس كاميس باني صدراوراسلم اس کاجنز ل سیکرٹری تھے۔اس وقت وہ ایک گرم جوش سوشلسٹ نظریے کے حامل تھے جبكه ميس ذ والفقارعلى بهثوشهبيدكي بصيرت اور قائدانه صلاحيتول سے بہت مرعوب تھا۔ اسلم یڑھائی میں دلچیں کم لیتے یہاں تک کہ ہرروز وہ پہلی ایک دوکلاسز سے غیرحاضر ہوتے کیونکہوہ

اوراس کے'' کھلنڈرےکلب'' کے دوستوں کے علاوہ ان دنوں کے دواور دوست بھی قابل ذکر ہیں۔ایک اس ہے عمر میں کہیں بڑے، پنجاب یو نیورٹی کے محکمہ امتحانات کے المكاراسلام صاحب تتح جوبهت خوش طبع اورخوش گفتار تصاوراین پرمزاح گفتگوسے ماحول میں رنگینی پیدا کرتے اوراسلماس دوران بحوں کی طرح قبقیے بلند تے نظرآتے۔ دوسرے اظہر تھے جو بعد میں ان کے برا درسبتی کھبرے۔اظہر غیر معمولی حد تک



ڈاکٹرمحمراسلم کی کہانی ، میری زبانی

ایک ایک ہوکر بکھرنے لگے جوبطور کلاس فیلو، ایک دوست اور بعد میں بھائی جیسے رشتے میں ان کے ساتھ وابستارہ کے گزرے،اور یکا یک مجھے ایک مغربی ملک کی اس زس کی کتاب کا اقتباس یاد آیا جواس نے اس مخصوص مبتال کے ان برقسمت مریضوں کی آخری خواہش جاننے کی جنجو میں لکھ ڈالی جوایئے آخری ایام گزاررہے تھے اورجس کا

حاصل كلام يدقفا كدوه سب ايك بار ''خود کے لئے جینا''،'' بحیین اور جوانی کے دوستوں سے خوش گیمیاں'' لگانے اور'' قبقہوں کی برسات''میں لوٹ جانے کی تمنا کرتے نظرآتے ہیں۔ایسے میں مجھےستر کی دہائی کے اولين حارسالون كاوه محمداسكم يادآيا جوویٹرنری کا کج لا ہور میں کھلنڈ رے دوستول كے جھرمث ميں قبيقے لگاتا اوربچوں کی طرح ہنستا تھا۔اللہ دینہ سيال، رياض شاه، الطاف، اعجاز شاه ایسے کھلنڈرے دوستوں کی معیت مين بياسلم جس كا نام اسلم تفاتبهي ا تناسنجيده نہيں ديکھا گيا۔ جو بعد ميں اس سے ملنے والے پرانے دوستوں ے ہاتھ ملا نااورمخضر بات کرتے نظر آتاتها گوياسلم كايي بهم زاد كوئي بہروپ تھا۔اے گدگدی کر کے بھی ہنسانے کی کوشش شایدا کارت جاتی کیونکه گو گیره (اوکاڑه) کی گلیوں میں براہونے والاویٹرزی کالج کی رامداریوں کی رونق وزینت بن گیا تھا۔ابایک جیسادھے ''روبوٹ'' کی مانندڈ اکٹر اسلم سے معانقة كرتے بھى بھى مجھےاييا گمان

ہوتا کہوہ جس خلائی سفریرنکل کھڑا

ہوا ہے اس سے بلٹنا اب اس کے

لئے شایدممکن نہ ہواورخلاء میں

ہ مسیجن نہیں ہوتی کا لج کے دنوں

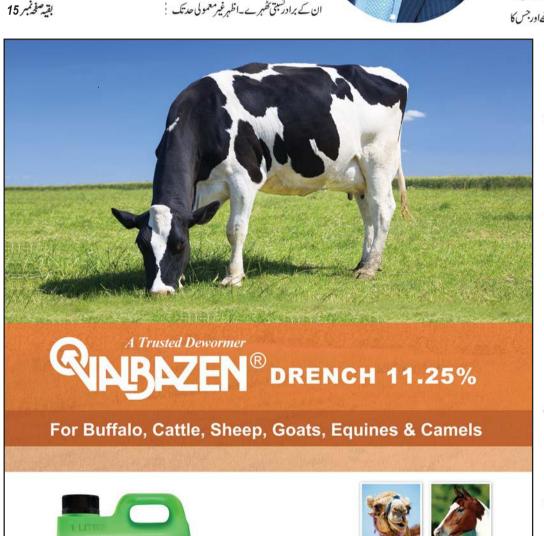
میں وہ ہاشل کے ایک کیوبکل میں

ڈاکٹر واجد حسین پیرزادہ

الدُّعليم القدير نے موت اور قيامت کی گھڑی کو نامعلوم چھوڑ اہے تاہم ہمارےسب کے خالق و ما لک نے قرآن یاک میں فرماتے ہیں کہاس زمین پر چلنے والے ہر جاندار کے رحم ما در (BEDUTERINE)اورتنام دنیاکے ٹھکانوںاور جائے مرگ ویڈ فین (FINAL ABODE) كا كتاب خاص مين لكهدويا كيا ہے۔غرض میر کداور میر کداس کی جملتخلیق کے رزق اورضروريات بصورت مقدار معلوم (QUANTITYMEASURED) ساعت معلوم (TIMEKNOWN) تک کا تعین بھی کردیا گیاہے۔ ہرذی نفس پراجل (موت) كا آنااورايك لمح كے لئے موخرنه ہونے کااٹل فیصلہ بھی سنادیااور پھرانسان کوشرف انسانیت کا تاجدار بنا کراشارہ بھی کر دیابہ بتاتے ہوئے کہاس کاخمیرمٹی سے اٹھاہے اوراس نے ایک بےؤقت یانی کے قطرے سے نمویائی ہے۔ بیسباس متی کا کہناہے جس کے ہم سب کی جان ہے اوراس پر ہماراروز کامشاہدہ، کہ

ہوتا ہے بیتماشاشب وروزمیرے آگے مگرانسان ہے کہبیں سمجھ یا تا، کہ یدونیا جگہنیں دل لگانے کی عبرت کی جائے تماشانہیں ہے

چنددن پہلے سورہ یشن کی تلاوت کرتے ہوئے ایک آیت کریمه پرنظر گفه جس کامفهوم کچھ یوں تھا کہ جا ندانی منازل طے کرتے ہوئے تھجور کی خشک شہنی کی صورت اختیار کر لیتاہے، یہ یڑھتے ہوئے میرادھیان کالمنولیں جاوید چودھری کی میرے کلاس فیلواور پیارے دوست، ڈاکٹراسلم کے کھی گئی تحریری طرف اٹھ گیا۔جس میں انہوں نے مرض کے آخری ایام میں ڈاکٹر محمد اسلم کی حالت کے بارے میں کھا، کتنا تکلیف دہ تھار سب کچھ جاننااور پڑھنامیرے لئے اس کا بیان ممکن نہیں ۔ کیونکہ یانچ د ہائیوں پرمحیط ڈاکٹر محداسلم کی زندگی کے وہ اوراق میرے سامنے









Powered by:



Ghazi House, D-35, KDA Scheme No. 1, Miran Muhammad Shah Road, Karachi-75350, Pakistan. Tel: +92 21 111 250 365 | Fax: +92 21 3454 3763 | E-mail: mail@ghazibrothers.com.pk

Printed at Clifton Printers, BC-11, Block-9, Clifton, Karachi - 75600, and published by S. Hashim Hasan, 1485 C/5-4, Allauddin Road, Lahore Cantonment, Lahore.