

# Your VETERINARIAN

VOL. 01 NO. 01 | APRIL 2021

THE VOICE OF VETERINARIANS

PUBLISHED BY SRI LANKA VETERINARY ASSOCIATION | WWW.SLVA.ORG

## PET

07 Parvo Viral Diarrhoea

09 Can we turn a blind eye to indiscriminate breeding of dogs in Sri Lanka?

## INTERVIEW (Cover Story)

10 with actress Malini Fonseka

## FARM

11 Investing in Dairy Business in Sri Lanka

## PUBLIC HEALTH

23 Veterinary epidemiological perspective of SARS CoV-2 introduction to Sri Lanka.

## WILDLIFE

28 Living with Monkeys in Sri Lanka



# SLVA



RS. 250/-

# Your VETERINARIAN

VOL. 01 NO. 01 | APRIL 2021

THE VOICE OF VETERINARIANS

PUBLISHED BY SRI LANKA VETERINARY ASSOCIATION | WWW.SLVA.ORG

## CONTENTS

**01** Message from the President, Sri Lanka Veterinary Association

**01** Message from Secretary, Sri Lanka Veterinary Association

**02** Voice of the editorial team

**02** 73<sup>rd</sup> Executive Committee of SLVA

### HISTORY ▶▶▶

**03** The Beginnings of the  
Veterinary Profession in Sri Lanka

**05** සුරතල් සතුන්ගේ වෙද ගෙදර

### PET ▶▶▶

**07** Parvo Viral Diarrhoea

**08** Free roaming dogs;  
Vectors for Rabies or an Effective  
Rabies control method?

**09** Can we turn a blind eye to  
indiscriminate breeding of dogs in  
Sri Lanka?

### INTERVIEW ▶▶▶

**10** Interview with Malini Fonseka

### FARM ▶▶▶

**11** Investing in Dairy Business in Sri Lanka

**13** இலாபகரமான ஆட்டுப்பண்ணை வளர்ப்பு

**16** கிழக்கு மாகாணத்தின் பாரம்பரிய  
சொத்தான உள்;ர் வெள்ளை இன  
மாடுகளை பாதுகாத்தலும் மேம்படுத்தலும்

**17** தோல் கட்டி நோய் / பெரியம்மை நோய்



### FOCUS ▶▶▶

**19** A Selection of 'Small Feathered Friends'  
Captured by the Lens of a 'Large Animal Vet'

### PUBLIC HEALTH ▶▶▶

**21** One Health in Curbing Zoonoses:  
Moving from Concept to Reality

**23** Veterinary epidemiological perspective of  
SARS CoV-2 introduction to Sri Lanka.

**25** 'Quality' matters: Egg nutrition

**27** Food systems on the brim

### WILDLIFE ▶▶▶

**28** Living with Monkeys in Sri Lanka

**31** A Vet Profile

### PHARMACEUTICAL ▶▶▶

**33** Why veterinary drugs should be used with  
extra care?

### STORY ▶▶▶

**34** மலே லீகாஸை டிபீ கிசலா டிபீலிசை...

### COMPETITION ▶▶▶

**06** Pet Model

**18** Art Competition

# Biographies of Authors

## Dr. Niranjala de Silva (FSLCVS, PhD, BVSc)



Dr. Niranjala de Silva is a Senior Lecturer in the Department of Veterinary Clinical Sciences (DVCS), Faculty of Veterinary Medicine and Animal Science, University of Peradeniya. She was the Head of DVCS and a member of University Senate. She is specialized in Veterinary Anaesthesia, Surgery and Diagnostic Imaging. She obtained her PhD from University of Cambridge, UK and a winner of Cambridge Trust Scholarship. She was instrumental in establishing the new Veterinary Teaching Hospital since early 2020s and still striving to upgrade the services provided by it. She is a Fellow of Cambridge Commonwealth Trust and Founder Fellow and the present President of the Sri Lanka College of Veterinary Surgeons. She is also a member of the Veterinary Council of Sri Lanka and was the immediate

past President of Sri Lanka Veterinary Association (SLVA).

## Prof. Indira Silva



She is a Professor emeritus with over 40 years of service at University of Peradeniya (UoP), where she held many leading titles, including Head of Department of Veterinary Clinical Sciences (DVCS), first lady to hold that post in the history. (Pl. note not until she retired in 2019!) She was a member of University Senate and one of the key persons in setting up the new Veterinary Teaching Hospital. She is a Fulbright Scholar with a PhD from University of California at Davis and BVSc from UoP. She is a past President of the Sri Lanka Veterinary Association, a founder Fellow of the Sri Lanka College of Veterinary Surgeons, Member of the Sri Lanka College of Haematologists, and the author of four books and many award winning research publications.

## Prof. Ashoka Dangolla



He joined the Department of Veterinary Clinical Science in 1989, served as the first resident clinician at Veterinary Teaching Hospital and currently serving as a Professor, and as an Honorary Director for the Ministry of Wildlife and Forest Conservation. He has held positions of Head of the Department, Warden, Deputy Proctor, Proctor, Student counselor, Chairman of Sports Advisory Committee and President of the Sri Lanka Universities Sports Association. He has supervised MSc, MVSc., MPhil and PhD students, published on areas of dogs, cats, goats, pigs, monkeys and elephants with special interest on human animal conflict.

## Dr. Dilan Amila Satharasinghe (BVSc, MVM, PhD)



Dr Satharasinghe graduated from the Faculty of Veterinary Medicine and Animal Science in 2006 and later obtained a MVM in Biosecurity from Massey University in 2012, New Zealand and year 2016, a PhD in Immunology at the University Putra Malaysia. Presently he is a senior lecturer at the University of Peradeniya. His research interests include characterization and understanding of the immunopathogenesis of pathogens that directly impact food security and food safety. He collaboratively works with the animal production industry to strengthen sustainable production and distribution networks. He has been a resource person for national and international animal disease diagnostics and management

workshops. Besides, his research outcomes were published in high impact scientific journals and he obtained presidential awards for his scientific contributions from 2016 onwards. Since 2016, he has been able to secure international and national grants worth 86.4 million and establish a modern laboratory equipped for molecular diagnosis of animal diseases, including Covid-19 in humans. He has been funded by the University Grants Commission to implement one health approach for successful contain COVID-19 with the utilization of genetic tools to tracing SARS-CoV-2 transmission, especially when the positive cases could not be traced up to the exposure point, identify epidemiological dynamics and improve the control measures.

## Dr. Eeshan Weerasinghe (BVSc)



Dr.Eeshan Weerasinghe, is a life member of Sri Lanka Veterinary Association. He is currently working as the technical manager at Animal health division of Hayleys Agriculture Holdings limited. Dr.Eeahan graduated in 2008 from the Faculty of Veterinary Medicine and Animal Science of University of Peradeniya and worked as a clinician at the Veterinary Teaching Hospital before he joins Hayleys. He is now having 10 years of experience in Veterinary pharmaceutical industry in Sri Lanka with some foreign exposure in UK, The Netherlands, Singapore, Thailand, India and some Asian countries. Dr.Eeshan is a member of World Poultry Science

Association (WPSA) also. He is currently reading for his Masters of Business Administration.

## Dr. A. Thaiuba (BVSc, MBA)



Dr. A. Thaiuba graduated from the faculty of Veterinary Medicine and Animal Sciences, University of Peradeniya in 2005 and currently working as a veterinary surgeons in Kalumnai Veterinay Office, provincial Department of Animal Production and Health, Eastern Province. She had obtained Master of Business Administration also.

## Dr. T. Mayurathy (BVSc, MSc)



Dr. T. Mayanthy is a veterinary surgeon working in the Department of Animal Production and Health, Eastern Province.

## Dr. Pavithra Eshwara BVSc(hons)



Dr. Pavithra Eshwara BVSc(hons)Dr. Pavithra Eshwara is graduated from Faculty of Veterinary Medicine and Animal Science, University of Peradeniya in 2007. She is currently working as a director, Citypet Animal Hospital Athurugiriya

## Dr. Tharanga Thoradeniya



Dr. Tharanga Thoradeniya is a senior lecturer at Faculty of Medicine, University of Colombo. She possesses a bachelor's degree in Veterinary Medicine and Animal Science and a PhD in Nutritional Biochemistry with nearly 20 years of experience in nutrition and related fields. She works with multidisciplinary teams to take innovative research approaches in mitigating food and nutrition related issues. She serves in the subcommittee on nutrition communication, Ministry of Health and promotes healthy 'safe' diets and food environment - for sustainable healthy communities.

## Dr. Kumudunie Rajanayake



Dr. Kumudunie Rajanayake graduated from Faculty of Veterinary Medicine and Animal Science, University of Peradeniya in 1992. She is currently working as the Provincial director at the Department of Farm Animal Production and Health of the Central Province.

## Dr. M.A.M. Fasi (BVSc, MBA)



Dr. M.A.M. Fasi is the provincial Director of the Department of Animal Production and Health, Eastern Province.

## Dr. M.Ijas. B.VSc, MBA (PIM), PG-Dip, (Colombo) M.Sc (Melbourne)



Dr. M.Ijas is the Chief Municipal Veterinary Surgeon of Colombo Municipal Council, where he has worked well over 20 in the capacity of Public Health Veterinarian. He holds a multifaceted academic credentials and undergone many trainings in Rabies control, Food Safety and Animal Welfare. After completing the degree in Veterinary Science, he has obtained local and overseas postgraduate qualifications in the fields of Business Administration, Toxicology and Food Science.

Dr. Ijas is an 'Australian Leadership Scholar' and holds a M.Sc in Food Science awarded by University Melbourne, Australia and holds an MBA from Postgraduate Institute of Management of University of Sri Jayewardenepura. And he has undergone many animal welfare trainings programmes in the United Kingdom. Dr. Ijas is a versatile

Veterinarian who has contributed to the Veterinary profession through trade union and SLVA activities. His expertise in Veterinary public health and networking capacity was instrumental to take over the rabies control programme under the department of Animal Production.

Dr Ijas was a member of the inter-ministerial technical committees mandated to make new enactments, and amending existing enactments such as Animal Welfare Act, Animals Act, Rabies Eradication Act and Butchers Ordinance of Sri Lanka. And he is a visiting lecturer at different universities including the Faculty of Veterinary Medicine, and Animal Science of University of Peradeniya.

Dr. Ijas is a cat-lover and keen follower of sports & politics.

## Dr. J.M.K.J.K. Premarathne (BVSc, MPhil, PhD)



Dr. Premarathne is a senior Lecturer of the Department of Livestock and Avian Sciences, Faculty of Livestock, Fisheries and Nutrition, Wayamba University of Sri Lanka. She obtained her undergraduate degree in BVSc (2006) from University of Peradeniya, later she has completed her MPhil in 2013 at the University of Peradeniya. She successfully completed her PhD in 2017 at the University Putra Malaysia, Malaysia. She is working as an assessor in Sri Lanka Accreditation Board (SLAB) for conformity assessment. She is the current president of the Sri Lanka Association for Laboratory Animal Science (SLALAS). Dr Premarathne is a member of the Working Group on "Guidelines and Training Manuals for Risk Assessment, Risk Management and Risk Communication for Genetically Modified food and feed safety", National Science Foundation, Sri Lanka. She also serves as an associate editor for the Food Research Journal, Malaysia. Her research interest include Zoonoses and one health, food safety, food security and quality assurance, molecular and rapid detection methods and risk analysis and quantitative risk modeling in food systems. Her research outcomes were published in high impact scientific journals. For her research efforts she was awarded a Presidential Awards Scientific publications, Sri Lanka. Her research has been exclusively funded 44 million by World Bank Development Oriented Research Grants and National Research Council.

## Dr. Suneth Disnaka (BVSc, MBA, MSLCVS)



Dr. Suneth Disnaka graduated from the Faculty of Veterinary Medicine and Animal Sciences, University of Peradeniya in 2005 and specialized in dairy and livestock field. He worked as a temporary lecturer at Faculty of Veterinary Medicine and animal Science for little more than a one year and later joined to a private large scale dairy farm company as a veterinary surgeon. Then he joined with the National Livestock Development Board as a veterinary surgeon in upcountry dairy farms in 2007 and continued his carrier as a dairy veterinarian. Later he held positions as farm manager and Assistant General Manager in the same organization and continuing his carrier. He obtained master of Business Management (MBA) from Wayamba University of Sri

Lanka in 2018 and became a member of Sri Lanka College of Veterinary Surgeons (MSLCVS) in 2021. He has served as the secretary of Sri Lanka Veterinary Association in 2019/2020.

## Dr. Uditha Kossalawatte (BVSc)



උදීක් විජේසිංහ, 2003 වසරේ දී පශු වෛද්‍ය උපාධිය ලැබීමෙන් අනතුරුව කෙටි කාලයක් පශු වෛද්‍ය පීඨයේ නාවකාලික කටයුතු සඳහා වරදක් ලෙස සේවය කිරීමෙන් අනතුරුව 2006 වසරේ දී පශු වෛද්‍යවරයෙකු ලෙස රජයේ සේවයට එක් විය. එදා සිට මේ දක්වා විල්ගමුව, නුවරඑළිය, පුස්තැල්ලාව, ගලනා ආදී ප්‍රදේශවල රජයේ වෛද්‍ය නිලධාරී ලෙස සේවය කර ඇත.

## Dr. Sylvia Wijerathne (BVSc)



Sylvia Wijayarathna, graduated in 2015, and is currently practicing at an Animal rescue organisation. Her passions are Animal Rights and Welfare, Feline Medicine and Sri Lankan Dogs, and also has quite a soft spot for horses. She's the proud owner of nine rescue dogs and seven cats.

# Message from the President, Sri Lanka Veterinary Association

Dr. Erandika Gunawardena

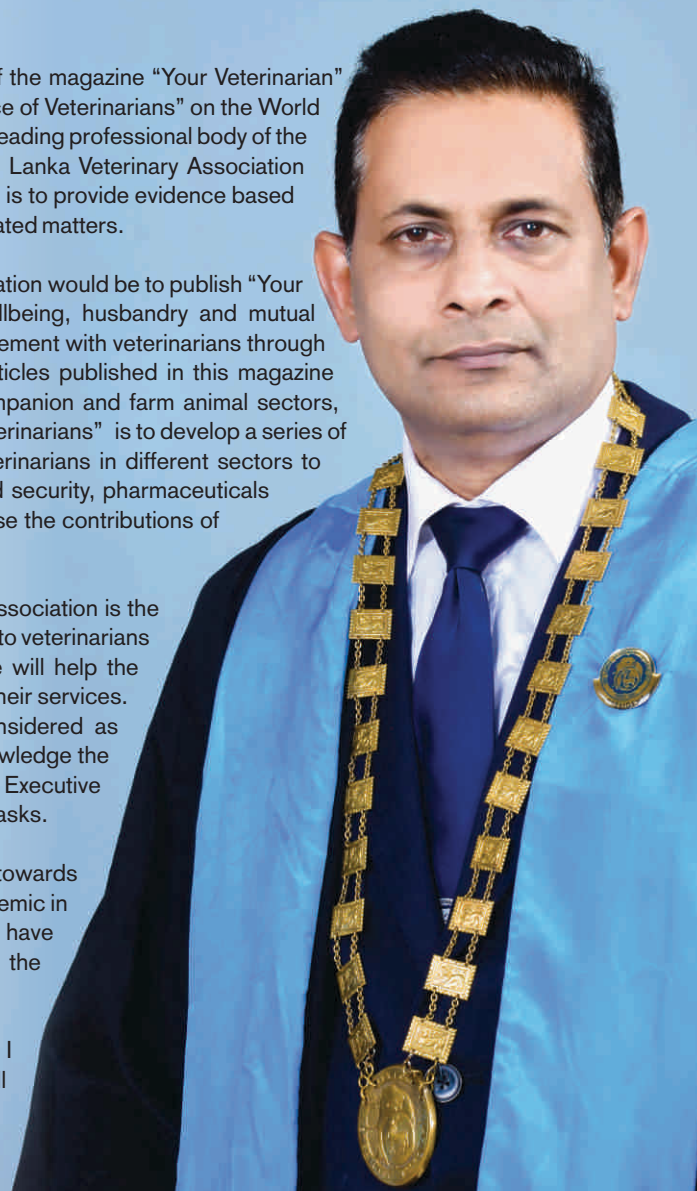
It is with great pleasure that I pen down this note for the very first volume of the magazine "Your Veterinarian" published by the Sri Lanka Veterinary Association under the theme of "The Voice of Veterinarians" on the World Veterinary Day 2021. As the President of Sri Lanka Veterinary Association, the leading professional body of the veterinarians in Sri Lanka, I am honored to establish a formal platform for Sri Lanka Veterinary Association during my tenure to promulgate the voice of veterinarians in Sri Lanka. Our aim is to provide evidence based information to the general public and to disseminate knowledge on veterinary related matters.

One signature activity of the annual calendar of the Sri Lanka Veterinary Association would be to publish "Your Veterinarian" magazine to promote public awareness on animal health, wellbeing, husbandry and mutual benefits of rearing animals. This initiative also will help enhancing public engagement with veterinarians through interactive activities such as photography and drawing competitions. The articles published in this magazine covers a wide range of topics including history of veterinary profession, companion and farm animal sectors, veterinary pharmaceuticals etc. Another task under the theme "The Voice of Veterinarians" is to develop a series of videos titled "Vets in Action". This video series will elaborate the role of veterinarians in different sectors to promote animal health and wellbeing, food production, public health and food security, pharmaceuticals industry, engagement in scientific research, etc. This video series will showcase the contributions of veterinarians towards the health and economic development of the country.

Another historical task of 73rd Executive Committee of Sri Lanka Veterinary Association is the launch of the "Vet 990" App for the general public enabling them a wider access to veterinarians and their services in collaboration with Dialog - Digital Health. This initiative will help the general public to overcome the physical barriers in reaching veterinarians and their services. We are very much honored to launch these activities which could be considered as milestones in uplifting the veterinary profession in recent times. I wish to acknowledge the noteworthy contribution and tremendous support of the members of 73rd Executive Committee of the Sri Lanka Veterinary Association in fulfilling these memorable tasks.

Further, we have to acknowledge the continuous engagement of veterinarians towards the prevention and conducting researches with regard to the COVID – 19 pandemic in Sri Lanka and specially in managing PCR testing laboratories. Therefore, we have made arrangements to recognize their service at this occasion of celebrating the World Veterinary Day.

I wish to express my well wishes to the editorial committee of the magazine. I expect that "Your Veterinarian" magazine will be a great accomplishment and will be the real "Voice of Veterinarians".



# Message from Secretary, Sri Lanka Veterinary Association

Dr. Sugath Pemachandra



I consider it a privilege and a great pleasure to issue a message to the first ever magazine 'Your Veterinarian' published by the Sri Lanka Veterinary Association targeting the general public, under the theme of 'Voice of Veterinarians in Sri Lanka', mainly to promote public awareness on veterinary related affairs and the role of the veterinarian.

From the inception, the Sri Lanka Veterinary Association (SLVA) had been conducting many awareness programs to veterinarians, school children, undergraduates and the general public. However, it appears that the public is still not fully aware of the services discharged by veterinarians. Having identified this deficiency, SLVA determined to educate the general public regarding veterinarians' activities in a more effective mode and decided to publish a magazine, which could serve as a guide to the reader for all veterinary requirements.

I am glad to announce that the 73rd Executive Committee of the SLVA is ready to launch an App, "VET 990" today for easy access to your preferred veterinarian for consultation. In addition, we will have a series of short videos illustrating "Voice of Veterinarian" in order to enhance the knowledge of school children and general public on the veterinary activities that would telecast through TV channels and social media. I must emphasize that information on a wide range of veterinary activities will be included in 'Your Veterinarian' magazine which would be published periodically.

I am confident that 'Your Veterinarian' magazine will be popular especially among the pet lovers, wild and zoo animal enthusiasts and the farmers in the country. I also believe that this magazine would be an eye opener to school children who are aspiring to pursue tertiary education to become a veterinarian.

# Voice of the editorial team

We are veterinarians. Veterinarians serving the animals, people and the planet in many different dimensions. Every year the world celebrates the "World Veterinary Day" on the last Saturday of April. This is a day to promote veterinary profession and to promote improving animal and human welfare and the planet as a whole. This year the Sri Lanka Veterinary Association (SLVA) spreads its wings to embrace people of Sri Lanka in many different ways; including launching the magazine 'Your Veterinarian'.

This magazine will be published quarterly and be delivered as a printed and a digital official publication of SLVA creating a new relationships with people in this country. Although the technology has generated different novel modes of communication, we believe that a magazine will still be embraced by you, creating an ideal platform for veterinarians to talk to you more effectively.

'Your veterinarian' is a collaborative effort of the 73<sup>rd</sup> Executive committee of SLVA. We expect to deliver timely messages and important official notices of the SLVA to our readers, discuss local and global trends related to various sectors in the veterinary field such as livestock, poultry, pet animal, feed and veterinary pharmaceuticals and public health. In addition, the magazine will feature veterinarians, farmers, entrepreneurs, veterinary advisers and popular personalities related to the field. Promoting animal welfare is another scope of the magazine.

Last year has been devastating for the entire world, and it was not different to veterinarians. The dreaded corona virus is not new to us, veterinarians, although a pandemic of this nature was something we all did not expect. While the medical professionals in Sri Lanka is doing an enormous service in looking after the welfare of the people; veterinarians were also facing new challenges in looking after the welfare of animals and thereby people. The challenges were not only limited to looking after the furry friends of the people, but also in dealing with various concerns of the general public, ensuring a safe supply of food of animal origin, researching to find solutions to this crisis and in doing many more. In this issue of the magazine you will get to know some of the work carried out by our own veterinarians in controlling the COVID-19 pandemic.

We will be delighted to receive feedback from you to improve further. We request the readers to contact us through the secretary of SLVA via the following contact details. Our interest is to keep you updated on veterinary related matters and to maintain a stronger relationship.

Enjoy reading and stay safe!

Email: [secretary@slva.org](mailto:secretary@slva.org)  
Address: 275/75, SLVA office,  
OPA Building,  
Prof. Stanley Wijesundara Mw,  
Colombo.7.

## Editorial committee for "Your Veterinarian" Magazine

### 73<sup>rd</sup> Executive Committee of SLVA



**President**  
Dr. P. Erandika  
Gunawardena



**President Elect**  
Dr. Susantha  
Mallawa Arachchi



**Vice President**  
Dr. Dilan Satharasinghe



**Vice President**  
Dr. Janaka  
Amarakoon



**Secretary**  
Dr. G. Sugath  
Premachandra



**Treasurer**  
Dr. Nuwan  
Wickramasinghe



**Asst. Secretary**  
Dr. Chandika  
Wickramasinghe



**Asst. Secretary**  
Dr. Sanjaya Wasala



**Asst. Treasurer**  
Dr. M.D. Najith  
Premalal



**Member**  
Dr. R.A.J.U. Marapana



**Member**  
Prof. C.N.R.A. Alles



**Member**  
Dr. Kaundika S.  
Wanigasundara



**Member**  
Dr. H.C. Kannagara



**Member**  
Dr. S. Tharanga  
Thoradeniya



**Member**  
Dr. Yushika  
Dharmasuriya



**Past President**  
Dr. D.D.N. de Silva



**Past Secretary**  
Dr. K.G.J.S. Disnaka



**Past Treasurer**  
Dr. A. W. Kalupahana

# The Beginnings of the Veterinary Profession in Sri Lanka

**Prof. Indira D. Silva**

Senior Professor Emeritus in Veterinary Clinical Sciences

The adjective “Veterinary” pertains to the art of healing or treating the diseases of animals. It is believed that the science of Veterinary Medicine was taught over 2000 years ago in Asia. Palm leaf manuscripts describing veterinary aspects of elephant management witness the high level of development of veterinary medicine in ancient Sri Lanka. More than one king in the history of this island had fostered and practiced Veterinary Science. All this while the West believed that animals cannot think or they are not conscious beings.

The western system of Veterinary Science was introduced to Sri Lanka during the British rule to attend to the health of the horses in the cavalry units of the Army. The first veterinary surgeon to hold an official civil post was Charles Augustus Lye M.R.C.S., in 1891, and veterinary services originated with the appointment of G.W. Sturgess in 1894, who travelled the island and made innumerable observations on diseases of animals. A separate Government Veterinary Department formed in 1901 consisted of two veterinary surgeons and fifteen inspectors. The Colombo Municipal Council (CMC) was constituted by a proclamation on 22 November 1865, on the initiative by Governor Sir Hercules Robinson, and the slaughtering animals for human consumption was under the supervision of the CMC veterinary service which was a branch of the Department of the Medical Officer of Health. Wilmot Arthur de Silva was the first Municipal Veterinary Surgeon, Colombo in 1895, and he became the Head of the Department in 1909. He resigned in 1914 to enter in to politics and became Minister of Health which post he held for six years, until his demise. The Prevention of Cruelty to Animals Ordinance was implemented on 10 July 1907. Charles William Pate G.B.V.C. (Bombay), succeeded W.A. de Silva, in 1914. Later L.P.P. Gunatileke

served the CMC Veterinary Department for 35 years. Licensing of dogs and Anti-Rabies Vaccination started between 1919 and 1920, and in 1933 the Municipal Veterinary Surgeon R.J. Little M.R.C.V.S., D.V.H., M.V.S. established the Anti-rabies Clinic for vaccination of dogs, and compulsory inoculation of dogs against Rabies was added to the Rabies Ordinance. All Ceylon Anti-Rabies Conference was held in 1949 with his Excellency the Right Honourable D.S. Senanayake, the first Prime Minister of Ceylon, as the chief guest. R.J. Little, together with W.A. de Silva, Hector C Perera, T. Malkani, L.A.P. Britto Babapulle were instrumental in establishing the Ceylon Veterinary Association (CVA, renamed Sri Lanka Veterinary Association, SLVA). The inaugural meeting of the CVA was held in the office of the Municipal Veterinary Surgeon on 28 July 1940 with R.J. Little as the President and presided by Honourable W.A. de Silva (Minister of Health). The H.E. Governor-General of Ceylon, Sir Henry Monck Mason-Moore was the first Patron of the CVA. L.A.P. Britto Babapulle was the first Ceylonese to hold the position of the President of the CVA from 1945- 48.

The veterinary surgeon S. Saravanamuttu was appointed the first superintendent of the slaughter house in January 1940. The Food and Drug Act to safeguard the quality of food was formulated by a resolution moved by the CVA in December 1946. The CVA introduced legislation to create a Veterinary Council. The Veterinary Practitioners' Act prepared by the CVA was presented to the parliament by the Minister of Agriculture and Food.

The need for a Veterinary School affiliated to the University of Ceylon was stressed by the CVA considering the growing need of veterinarians in the country to progress in health and wealth. This suggestion had been commented in “The Ceylon Daily News”, “Times of Ceylon” and “Ceylon Observer” at various times. The adamant standing by the CVA for University status for veterinary education was fulfilled with the Prime Minister, Hon. D.S. Senanayake, requesting the Vice Chancellor, Sir Ivor Jennings, to inaugurate a new department of Veterinary Science in the University. Prof. C.A. McGaughey M.A. (Cantab.), M.Sc. (Manch.), M.R.C.V.S., D.V.S.M. (Victoria) assumed duties as Professor of Veterinary Science in 1948. The Veterinary Science course required the preliminary qualifications same as that for the Medical degree, and the course curriculum of the Royal College of Veterinary Surgeons, London was adopted with a few alterations. The Faculty of Medicine taught the first two year subjects to the veterinary students, while the fourth and fifth years studies were to continue at Peradeniya. George E. Kodituwakku and P.L.G. (Lionel) de Silva were awarded Government scholarships to study Veterinary Science, and were admitted the Medical Faculty at Kynsey Road in 1948. They were the pioneer students of the Faculty. K.A.D. Peter Seneviratne was the first Sri Lankan veterinarian to join the university in 1953, after obtaining his bachelor's degree from the University of Madras in 1951. Prienne Keerthisinghe (later Mrs. Ranatunge) was the first female veterinary student to enroll in 1950, and by 1972, female students exceeded the number of male students enrolled for the Degree course.

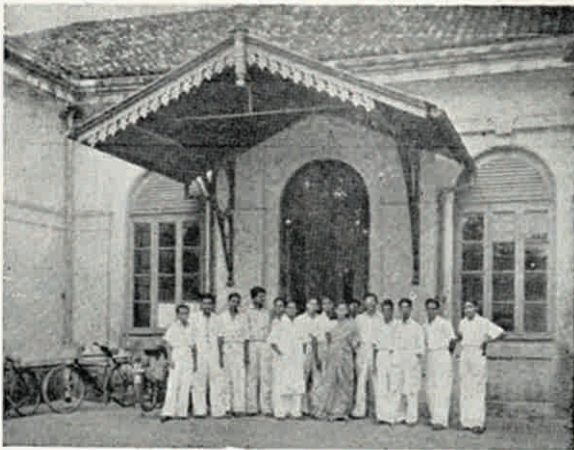




Prof. C. A. McGaughey conducts a tutorial class in Veterinary Anatomy in 1949.



The second batch of students in 1950 have a time in dissecting the elephant.



The 3rd and 4th batches (1951 and 1952) pose opposite the original Ceylon Medical College building that housed the Veterinary Faculty from 1949—1955.

Many progressive steps were taken in the early 1950s to expand the veterinary services and practices. The Veterinary Research Laboratory headed by P.G. Malkani B.Sc., B.Sc (Vet.) Lond., M.R.C.V.S., an Animal Husbandry specialist from India, was succeeded by C. Perumal Pillai D.V.M., M.R.C.V.S. in 1956. The publication of a quarterly scientific journal, the **Ceylon Veterinary Journal** in 1953 under the Editorship of C.A. McGaughey, which was also established overseas with a steady demand, was a landmark of the profession. Another important development of the veterinary profession was obtaining membership of the

Commonwealth Veterinary Association in 1969, upon a request from the British Veterinary Association. The inaugural dinner dance of **The Ceylon Veterinary Students' Association (CUVSA)** was held on 31 October 1953 at the Queen's Hotel, Kandy attended by the Vice Chancellor Sir Ivor Jennings, the Mayor of Kandy E.L. Senanayake as the Chief Guest, and numerous staff members from the University. This function continued for many more years to come as the popular 'Vet Nite' dance.

The Second phase of veterinary education in Ceylon began with the creation of the new Faculty of Agriculture and Veterinary Science in Peradeniya, with two of the three Deans in its 19 years of existence from 1953 to 1972 were from Veterinary Science, namely, Professors C.A. McGaughey and Peter Seneviratne. Since the second Medical Faculty was established in Peradeniya, the entire Veterinary Science degree program was moved to Peradeniya in October 1966. A single **Faculty of Medical, Dental and Veterinary Sciences** was created in 1972, with independent schools representing the three degree courses: School of Medicine, School of Dentistry, and School of Veterinary Science. Professor G.E. Kodituwakku was appointed the Chairman of the School of Veterinary Science and the Head of the Department of Veterinary Clinical Studies at the time. The **Faculty of Veterinary Medicine and Animal Science** was established on 18 March 1980. Prof. S.T. Fernando was unanimously elected to the post of Dean of the Faculty.

In the middle of the last century, there had been an unquestionable need for veterinary hospitals as untrained, unqualified persons had been operating animal hospitals in Colombo posing a menace to human and animal health by misdirecting and imparting wrong advice. 1945, Ceylon had only one private veterinary hospital at no. 5 Clifford Road, Colpetty managed by Dr. Chinniah, a qualified veterinarian, a skillful surgeon and a clever diagnostician, for over 50 years until his demise in 1945. The first Government Veterinary Hospital in Peradeniya was opened in 1943. The clinical training conducted in the University clinic on the ground floor of the three-storied building, with an out-patient unit and a small laboratory developed to a Veterinary Teaching Hospital under the leadership of Prof. Vijitha Y. Kuruwita who was a most sought after veterinarian on elephant medicine. The exposure to this expanded clinical training prompted many graduates to open veterinary clinics all over the island, and some of them opened up hospitals with residential facilities. On 3 August 2005, the Government approved the proposal submitted by the Minister of Education, to the Cabinet of Ministers, to construct a Veterinary Teaching Hospital (VTH), at University of Peradeniya, and on 21 May 2012 the New VTH was opened to the public with multi-religious blessings.

Details of this narrative can be read in the book **"Footsteps on the Vet Sands of Time - A Brief History of the Veterinary Practice in Sri Lanka"** by Indira Nanayakkara Silva (ISBN 95541143-0-9)

# සුරතල් සතුන්ගේ වෛද්‍ය ගෙදර

**Dr. Kumudinie Rajanayake**



වකවානුවක් ලෙස හැඳින්විය හැකිය. පශු රෝහල් ගොඩනැගිලි සංකීර්ණය අළුත්වැඩියා කිරීම, ජර්මන් ආධාර මත පශු රෝහල් රසායනාගාරය අළුත්වැඩියා කොට X කිරණ පරීක්ෂණ (X-RAY) යන්ත්‍ර ලබා ගැනීම වමඟින් ප්‍රතිකාර කිරීම ආරම්භ කරන ලදී.

රොබෝසියා කීව ගමන් අපට මතක් වෙන්නේ ජේරාදෙණිය උද්භිද උද්‍යානයයි. මැයි ගස් සෙවනේ විරාජමානව රවේ ආර්ථිකයට විශාල සේවයක් කරන තවත් එක් වෛතිහාසික ස්ථානයකට ජේරාදෙණිය නගරය උරුමකම් කියන බව ඔබ දන්නවාද. මහනුවර දෙසට ජේරාදෙණිය උද්භිද උද්‍යානය පසු කර ගැටඹේ බෝධියට නුදුරින් පැමිණෙන විට වම් පසින් රොබෝසියා ගස් සෙවනේ පිහිටා ඇත්තේ ශ්‍රී ලංකාවේ ඒ පළමු පශු රෝහලයි.



## ආරම්භක ගමන් මග

ඉංග්‍රීසි පාලන සමයේදී මෙම ස්ථානය නවාතැම්පලක්ව පැවති අතර එම නවාතැන්කරුවන්ගේ අශ්වයින් බැඳ තබන ස්ථානයක් පවත්වාගෙන ගොස් ඇත. එහිදී අශ්වයින් සඳහා ප්‍රතිකාර කිරීමේ මූලික අවශ්‍යතාවය මත ප්‍රතිකාර කිරීමේ මධ්‍යස්ථානයක් මෙම පරිශ්‍රය තුළ ආරම්භ ලදී. ඒ අනුව අශ්වයින් සඳහා ප්‍රතිකාර සිදු කරන රෝහලක් බවට පසු කාලීනව ප්‍රවර්ධිත විය. ඉන් අනතුරුව කෘෂිකර්ම විද්‍යාලයක් බවට පත් වූ නමුත් අශ්වයින් සඳහා ප්‍රතිකාර කිරීම නොකඩවා සිදුව ඇති බව නිරීක්ෂණය වේ. ඒ අනුව මෙම පශු රෝහල ඉංග්‍රීසි ජාතික නේවාසික පශු වෛද්‍යවරුන් අතින් පාලනය වී ඇත. ඖෂධ කළවම් කරුවන්, පශු සහයකයින්, දිස්පෙන්සරි කම්කරුවන්, මුරකරුවන් මෙහි සේවය කරන ලද අනෙක් තනතුරුය. එවකට වර්තමාන පළාත් අධ්‍යක්ෂ

කාර්යාලය හා පශු රෝහල එකම පරිශ්‍රයක්ව පැවතිණි. මධ්‍යම පළාත් අධ්‍යක්ෂ කාර්යාලීය ගබඩාව එන්නත් වර්ග හා බෙහෙත් වර්ග නිෂ්පාදනය කරමින් ගබඩා කර ඇති ස්ථානය ලෙස එකල සිට භාවිතයට ගැනුන බව කියවේ.

පසු කාලීනව එනම් වර්ෂ 1943 දී "පශු ආරෝග්‍යය ශාලාව" නමින් මෙම ස්ථානය නම් කර ඇත. මෙය කෘෂිකර්මක සතුන්ට ප්‍රතිකාර කිරීම සඳහා යොදා ගත් අතර සතුන් සඳහා නේවාසිකව ප්‍රතිකාර කිරීම සඳහා එළි නිවහන්, ගව නිවහන් පිහිටුවන ලදී. මීට අමතරව අශ්වයින් හා අලි ඇතුන් සඳහා ප්‍රතිකාර කිරීමද නොකඩවා සිදු විය. 1958 වර්ෂයේදී මෙම පශු ආරෝග්‍යය ශාලාව තුළ කෘතීම සිංචන සේවාව ආරම්භ විය. 1960 වර්ෂය වන විට ජලභීතිකා මර්ධන එන්නත ලබාදීම ආරම්භ විය. තවද කුකුල් වසංගත රෝග එන්නත, ජලභීතිකා රෝගය සඳහා එන්නත් කිරීම, කාල ගාත රෝගය සඳහා එන්නත් කිරීම, ගව ගාතාශ්‍රය සඳහා එන්නත් නිපදවීම හා බෙදාහැරීම ක්‍රියාත්මක විය. 1970 වර්ෂයේ පළාත් විමධ්‍යගත කිරීම සඳහා පශු පර්යේෂණාගාරය (VRI) පිහිටුවන ලද අතර කෘෂිකර්ම අමාත්‍යාංශයට අයත්ව තිබූ සත්ත්ව නිෂ්පාදන හා සෞඛ්‍යය දෙපාර්තමේන්තුව 1977 වර්ෂයේදී කෘෂිකර්ම දෙපාර්තමේන්තුවෙන් වෙන්වී වෙනම දෙපාර්තමේන්තුවක් වශයෙන් ගමන ආරම්භ විය. වර්තමාන මධ්‍යම පළාත් අධ්‍යක්ෂ කාර්යාලීය ගබඩාවන් 1987 වර්ෂය දක්වාම පශු ආරෝග්‍ය ශාලාවේ එන්නත් ගබඩාව ලෙස භාවිතයට ගන්නා ලදී. ගොවිපල අංශය, සහකාර අධ්‍යක්ෂ කාර්යාලය ලෙසත් භාවිතා කරන ලදී. පශු වෛද්‍යවරුන්ගේ නිවාස පිහිටා තිබුණේද මෙම ස්ථානයේය.

**වර්ෂ 1981-1993 දී පශු වෛද්‍ය නිලධාරී වස්.කේ. කරුණාරත්න මහතා** පශු රෝහල් ප්‍රධානියා ලෙස පත් වීම පශු රෝහල වැල ප්‍රබෝධයක් ඇති වූ කාල



එවකට රසායනාගාර සහයක ලෙස වස්. කුහසිලන් මහතා සේවය කර ඇත. පශු රෝහල සඳහා නව වායු සම්කරණ යන්ත්‍රද පීප් රට්ටයක්ද ලබා ගන්නා ලදී. වෛද්‍ය නිලධාරී කරුණාරත්න මහතාගේ කාලය තුළ ඇති වූ තවත් සේවාවක් ලෙස සතුන් සඳහා අවශ්‍යය බෙහෙත් වර්ග සෑදීමද නැවත ආරම්භ කිරීම සිදු විය. ගවයින්ගේ බඩේ අමාරුව, කෂම අරුවය හා උණ, බඩ යෑම, සඳහා Anti bloat, Anti febrile, Stimulant mixture, Anti diarrhoeal mixture, Haemotonic mixture, Iron Mixture, Iodine Solution යන බෙහෙත් වර්ගද සියළුම සතුන්ගේ හමේ රෝග, ඉදිමුම බැසීමට, විවිධ තුවාල වර්ග හා ඒවායේ ස්වභාවය අනුව Cream, Shampoo හා අනෙකුත් බෙහෙත් වර්ග සෑදීමද පශු රෝහල තුළ සිදු විය. ඒ අනුව බෙහෙත් වර්ග 60 කට අධික ප්‍රමාණයක් මෙහිදී නිෂ්පාදනය කර ඇත. ඖෂධ සංයෝජක ලිපිකරු ලෙස ආර් එම් ඒකනායක මහතා සේවය කරන ලදී. තවද චීන කටු විකිත්සාව හා සතුන් නිර්විධනය කිරීම නැවත ආරම්භ කිරීම, ප්‍රධාන ලෙස එවකට සිදු නොවුණු පෙරහැර සඳහා සහභාගි කරවන අලි ඇතුන් නිර්විධනය හා ප්‍රතිකාර කිරීම නැවත ආරම්භ කිරීමද, නුවරඑළිය අශ්ව රේස් සඳහා යොමු කරන අශ්වයින් හට ප්‍රතිකාර කිරීමද නැවත ආරම්භ විය.

**1993-2001 දක්වා පශු රෝහල හාර ප්‍රධාන නිලධාරී ලෙස සේවය කළ වෛද්‍යය වසන්ත කුමාර** මහතා ස්කෑනින් (ULTRA SOUND SCAN) යන්ත්‍ර හා පශු රෝහල සඳහා අවශ්‍යය ගෘහ භාණ්ඩ ආදිය හා නවීන තාක්ෂණික උපකරණ ලබා ගත් අතර ඖෂධ සංයෝජක ලිපිකරු ලෙස සේවය කළ පී.ඩබ්.පී නිනාල් ජයතිලක මහතා සමඟ බෙහෙත් වර්ග නිෂ්පාදනයද නොකඩවා සිදු කරන ලදී. ඊට අමතරව ජලභීතිකා මර්ධනය සඳහා පශු රෝහල් ක්‍රියාකාරීත්වය ලබා දීමට මැදිහත් විය.

මහජනතාවට යහපත් පශු වෛද්‍ය සේවාවක් ලබා දීමේ අභිලාශය තේතු කොට ගෙන ආරම්භ වූ ශ්‍රී ලංකාවේ ප්‍රථම පශු රෝහල



වර්තමානය වන විට දිවයිනේ සියළුම පළාත් සඳහා පශු වෛද්‍ය සේවාවක් සපයන මධ්‍යස්ථානය බවට පත්ව ඇත. දිනකට බාහිර රෝගී අංශයේ රෝගී සතුන් 150කට ආසන්න ප්‍රමාණයකට ප්‍රතිකාර ලබා දීම සිදුවේ. මෙහිදී එන්නත් කිරීම්, ශල්‍යකර්ම සිදුකිරීම් තුවාල සඳහා ප්‍රතිකාර කිරීම්ද නේවාසික ගත කොට ප්‍රතිකාර කිරීමද, කෘෂිකාර්මික සත්ව ප්‍රතිකාර සඳහා ජංගම සේවාවක් පවත්වාගෙන යාම, ජේරාදෙණිය පශු වෛද්‍ය උපාධිධාරීන් සඳහා සීමාවාසික පුහුණුව ලබා දීම හා පශ්චාත් පුහුණු කටයුතු සඳහා අවශ්‍ය පහසුකම් සැපයීම, ජලභීතිකා රෝග මර්ධන සායන පැවැත්වීම ආදී කාර්යයන් ඉතා සුවිශේෂී වේ.

ජේරාදෙණිය පශු රෝහල් පරිශ්‍රයට ඇතුල් වන කා හට වුවද වෛද්‍ය සේවාව ලබා දීමට පශු රෝහල් අධ්‍යක්ෂතුමිය ඇතුළු කාර්ය මණ්ඩලය කැප වන ආකාරය දැක ගත හැකිය. සමාජ සේවාවන් ලෙස ලෝක ජලභීතිකා දිනයට සමගාමීව ජලභීතිකා රෝගය මර්ධනය සඳහා සතුන් නොමිලේ එන්නත් කිරීම, ව්‍යන්ද්‍යාකරණය කිරීම ද මහජනතාව දැනුවත් කිරීමේ පා ගමන් හා වැඩසටහන් සංවිධානය කිරීමද ක්‍රියාත්මක වේ. ජලභීතිකා දිනයේදී පමණක් නොව නගරසභාව ආශ්‍රිත කොට ගෙන සුනඛයින් ව්‍යන්ද්‍යාකරීමේ වැඩසටහන් පශු රෝහල් කාර්ය මණ්ඩලයේ ශ්‍රමදායකත්වයෙන් සිදු කෙරේ.

ඊට අමතරව සත්ව සුඛධානය මඟින් ප්‍රජා ආරක්ෂාව සැලසීමේ සංගමය (KACPAW) වැනි රාජ්‍ය නොවන සංවිධාන සමඟ අත්වැල් බැඳ ගෙන මධ්‍යම පළාත තුළ අයාලේ යන සුනඛයින් හා බළුළුන් වැනි සතුන් අවුරුද්ද පුරාම වන්ද්‍යාකරණය හා එන්නත් කිරීම සිදු කරනු ලැබේ.

සටහන හා සැකසුම  
 ක්‍රිෂාන්ති කුමාර රත්නායක



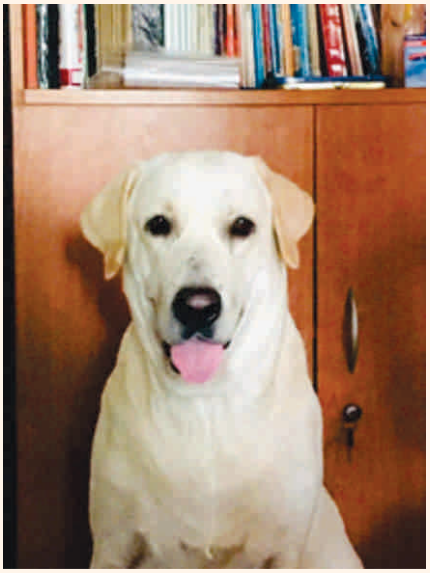
**COMPETITION** ►►► **PET MODEL 2021**  
 PET PHOTOGRAPHY COMPETITION ORGANIZED BY SRI LANKA VETERINARY ASSOCIATION  
**WINNERS**



**1<sup>st</sup> Place**



**2<sup>nd</sup> Place**



**3<sup>rd</sup> Place**

Place	Name of the Pet	Details	Description	Owner
1	Kitty	2 years, Male	පිස්සු කොලොල්පම	amarasekara.pradeep@gmail.com
2	Leo	10 months, Male	The best medicine that feel me relaxed	ashini1995@icloud.com
3	Tashi	3 years, Male	Love that never ends	salwathurajayani@gmail.com

# Parvo Viral Diarrhoea

Dr. Pavithra Eshwara

We all have friends in our lives. Do you know that there is a friend that will never turn his/her back on you? That is your pet dog. So dog is man's best friend. Let's talk about something that can kill your best friend.

PARVO- you all may have heard about it, but do you really know all the facts about Parvo? OK, let's see. Canine parvovirus is a highly contagious virus that commonly causes gastrointestinal disease in young, unvaccinated dogs. You may want to know how your dog can get infected by Parvo virus. It spreads by direct dog to dog contact and contact with contaminated faeces, environment and people. The virus can also

contaminate kennel surfaces, food and water bowls, collars and leashes and the hand and clothing of people who handle infected dogs. It is resistant to heat, cold, humidity and drying and can survive in the environment for long period of time. The virus is readily transmitted from place to place on the hair or feet of dogs or via contaminated cages, shoes or other objects.

Then let's see if your dog got infected by Parvo virus, what will be the signs.

In most cases what we initially see is lethargy, loss of appetite and fever or hypothermia and then we see hemorrhagic gastro enteritis (bloody diarrhoea), vomiting, collapse, depression and sudden death.

The next important question is, can Parvo viral infection kill my dog? Yes, it can kill your dog especially puppies younger than four months old. Parvo virus causes severe life-threatening diarrhoea, often diarrhoea has blood on it. Once a puppy has symptoms of parvo viral infection, if left untreated they can die within 48-72 hours. Persistent vomiting and diarrhoea can cause rapid dehydration; and damage to the intestines and immune system can cause septic shock.

OK, now you know that parvo viral infection is really dangerous. So can't we save our dogs at all from Parvo? Best thing to do is to immediately seek professional veterinary assistance. Your veterinary surgeon will offer your puppy

supportive care over the course of the illness, treating symptoms such as vomiting, diarrhoea and dehydration and making sure that your puppy gets adequate nutrients. The earlier you start treatment, higher will be the survival rate.

Many people complain that as soon as they gave the Parvo vaccine, that their dog got the infection. This happens especially in a time of Parvo outbreak. What happens is, dogs that are infected with parvo will show symptoms 3- 10 days after being exposed to the virus. During that period your dog may seem to be normal, but reality is that it was already infected by the virus. Body also need some time to develop immunity after vaccination, and during that time period also your dog can get exposed to the virus.

So is there anything we can do to save our best friend? It is very difficult to watch your best friend dying on a table collapsed after severe diarrhoea, vomiting and abdominal pain. The simple answer is PROPER vaccination. Why I'm saying PROPER vaccination? We have to give the 1<sup>st</sup> Parvo vaccine at the age of 6 weeks and continue to booster the vaccine according to vaccination guideline issued by vaccination guideline. Giving one Parvo vaccine will not make life long immunity and proper booster vaccination is very important.



# Free roaming dogs; Vectors for Rabies or an Effective Rabies control method?

Dr. Sylvia Wijayarathna



The domestication of the dog commenced with its genetic divergence from the wolf, which occurred between 20,000 to 40,000 years ago. Ever since, they've sworn allegiance to human kind and considered it their sole duty to protect their human pack from peril. Nevertheless it isn't a rare sight to see us humans betray the trust of these innocent souls time and time again.

Of the estimated 900million of the dog population of the world, 83% are unrestrained. They are not confined to a yard or house. These free ranging dogs could be categorized into four groups, namely, **Community dogs, Stray dogs, Feral dogs, and Wild dogs.** A 'community dog' is a free ranging dog who is socialized and enjoy human company. Even though these dogs have no "Owners" per se, they do have one or many 'guardians' and have been fed and cared for. They are more often than not, vaccinated and sterilized by free government or non-government organisations or have been seen to by those who care for them. 'Stray dogs', are free-ranging dogs, who get their food and shelter from human environments, but have not been socialized and therefore avoid humans as much as possible. The vast majority of Sri Lankan free roaming dogs, are 'community dogs', whereas the rest are 'stray dogs'. Whilst wild dogs are not found in our country, Feral dogs too seem to be unheard of.

Unfortunately, In Sri Lanka, where no laws to protect animal welfare prevail, it isn't quite infrequently that we hear news of the most barbaric and appalling acts committed against community dogs. Among them, the most often heard of is the rounding up of a happy group of free

roaming dogs, to be dumped elsewhere, mostly due to the unfounded assumption that they carry rabies. **What the general public seem to be unaware of is, the fact that a properly vaccinated pack of free roaming dogs act as an excellent and effective method of rabies control.** Dogs, who are quite territorial by nature, prevent the entrance of any new and unvaccinated dogs as well as other potentially rabid wild carnivores, into their territory, thus directly protecting the humans of the area from Rabies.

As veterinarians, it is our duty to educate the general public on the importance of maintaining such a group of properly vaccinated and sterilized free-roaming dogs, in villages, as a measure of rabies control. Also, as quite often the owners/guardians of free roaming dogs, often care for more than quite a few such dogs, it would be invaluable if Veterinarians, being privileged with knowledge and skills no others possess, could provide free sterilization/vaccination/medical care to

these dogs, thus sharing responsibility in the control of rabies as well as in alleviating their suffering.

Moreover, According to a study in The Journal of Veterinary Behaviour, sterilizing community/ stray dogs encourages kindness toward street dogs. This resulted in "affection toward dogs" and people "tolerated and perhaps enjoyed the presence of these community dogs", as the major concern of most non-animal-loving-personnel, is the increase in their population. Thus sterilization is also a promising step toward improving the welfare of street dogs.

By actively contributing to the welfare of Community/ Stray animals, Veterinarians would also be providing positive role models for others to emulate.



# Can we turn a blind eye to indiscriminate breeding of dogs in Sri Lanka?

**Dr. Niranjala de Silva**

**B**reeding of dogs is a lucrative business for some individuals for a long time. Currently this trend is on the rise and for many of the breeders it has become their sole livelihood. As long as the breeding is practiced in a “dog friendly” manner adhering to their welfare needs especially allowing the breeding dogs to have five freedoms, as a veterinarian I do not see any problem. However, in reality does dog breeding happen as expected by us? Except for a minority of dog breeders all the other breeders consider their dogs as breeding machines which is unacceptable by any standards. It is true that the breeders earn their living by selling the pups and/or hiring their studs for serving females but as veterinarians we see many problems associated with this practice. This may be due to the fact that the breeders are not aware of the rules stipulated for dog breeding or are simply disregarding the rules!

There are two organisations in Sri Lanka, namely the Ceylon Kennel Club (CKC) which is supposed to adopt the Rules and Regulations of The Kennel Club of England; and the Kennel Association of Sri Lanka (KASL) which is expected to abide

by the rules of Fédération Cynologique Internationale (FCI). Unfortunately, in spite of the existence of these rules, the unacceptable dog breeding practices continue in our country.

As professionals responsible for welfare and wellbeing of animals we need to take a serious look at these dog breeding practices. We need to realise that these unacceptable breeding practices have a definite negative impact on the welfare of dogs, find out why this kind of uncontrolled breeding is happening, what measures could be taken to curtail these practices in order to ensure acceptable dog breeding. We could achieve this mainly through a dialog with relevant organizations and educating dog breeders. We must ensure that breeding is allowed in dogs that are healthy in functional and hereditary terms and are registered with relevant genuine organizations. We must consider that the dogs capable of transferring standard features and temperament typical for a given breed and devoid of any hereditary defects are used for breeding. We must also ensure that dogs with hereditary defects such as deafness, blindness, hare-lip, cleft palate, prominent dental defects or jaw anomalies, Persistent Right Aortic arch, epilepsy, cryptorchidism, severe hip or elbow dysplasia etc. are not used for

breeding. We could advise the owners to get the dogs with such defects sterilised. We need to develop a mechanism of streamlining and monitoring the breeding practices of dogs as it is evident that the welfare of majority of dogs is severely compromised. We witness some extreme cases of breeding of young bitches at their first “heat” and thereafter continuously without any break. Similarly we witness using of studs without any understanding of their optimum fertile periods. Some bitches are forcefully mated in a horrific manner causing severe trauma that ultimately end up ewith permanent disability or even death. The large breed dogs are confined to small cages or enclosures without provision of adequate space to exercise or express their natural behaviour. The most gruesome gesture is at the end of their productive life some of these dogs are cruelly neglected or even abandoned heartlessly. We come across pups with hereditary defects are being sold to naive animal lovers and ultimately both the new owner and the pup have to suffer at an enormous cost.

Changing the mind set of majority of the breeders would be difficult but as responsible professionals, the veterinarians who are concerned with this unacceptable breeding practices must get together and try to help these poor dogs in the name of animal welfare. We could achieve this by setting standards for dog breeding in par with international standards and making sure those standards are adhered to.



සුරතල් සතුන් සමඟ කාලය ගත කරන්න තරම් අපි කාර්යය බහුලයි කියලා හිතෙනවා හේද? එක් තමුන්ගේ කාර්යය බහුල පීචින කාලය පුරාවටම සැමදාම තමුන් සමඟ සුරතල් සතුන් හිටිය අපුරු වර්තයන් අපිට හමුවනා. ඒ වෙත කවුරුත් හෙමේ, හෙළ හිඳි රැජිණ යයි විරුදාවලිය ලද මාලනී ෆොන්සේකා කලාකාරණිය.

➤ ඉතිං මාලනී මහත්මිය, කොහොමද තොරතුරු,

හොඳින් ඉන්නවා, හරිම සතුටයි. ටිකක් කාර්යය බහුල උනත් වෛද්‍ය ශාඛා පෙරමුණේ මහත්මිය කටා කරලා කරපු ආරාධනාව කිසි ලෙසකටත් අමතක කරන්න, අතහරින්න බැරි නිසා මං අද ඕගොල්ලො තමුටෙන්න තීරණය කලා. ඒ විතරක් හෙමේ, සුරතල් සතුන් වෙනුවෙන් යමක් කරන්න ලැබෙනවා කියන්නෙම මට ලැබෙන ලොකු අවස්ථාවක්. ඒකත් එක හේතුවක් මම අද ඕගොල්ලො එක්ක එකතු වෙන්න.



➤ ඔබතුමිය කොහොමද සුරතලුන් හදන්න යොමු වුනේ?

පුංචි කාලේ ඉඳන්ම අපේ ගෙදර සත්තු හිටියා. අම්මා තාත්තා මල්ලිලා නංගිලා හැමෝම සත්තුවන්ට හරි ආදරෙයි. මං තව දෙයක් කියන්න ඕනේ, මම ඉගෙන ගත්තේ කැලණිය ගුරුකුල විද්‍යාලයේ. S.S.C. වලට (උසස් පෙළ) මම කලේ Bio Science. ඇත්තටම මම ඒක කරන්න හේතුව මගේ පුංචි කාලේ බලාපොරොත්තුව වුනේ පශු වෛද්‍යවරයෙක් වෙන්න. ඉස්සර ගෙදරදීත් අපි කුකුල්ලු ඇති කලා. එහෙම ඇති කරපු කුකුලන්ගේ කකුල් කැඩුනාම එහෙම මම තමයි පත්තු කියලා බැඳලා සාත්තු කලේ. හරිම සුන්දරයි ඒ කාලේ.



➤ දැන් කවුද ඉන්නේ මේ වෙනකොට සුරතලුන් විදිහට.

ඕඕඕ... මම ගාව දැනට පුසෝ 5 දෙනයි, බව්වො දෙන්නෙකුයි ඉන්නවා. ඇත්තටම බව්වො දෙන්නා මට හම්බවුණේ පාරෙන්. මං හොඳ වර්ගයේ බව්වන්ට ආස නෑ කියලා දෙයක් නෑ. නමුත් පාරේ අසරණ අයට සහනයක් නෑනේ. ඒ නිසා මං ආසයි අසරණ වුන බව්වන්ට උදව් කරන්න.

➤ මොනවද මේ පස් දෙනාගේ නම්,

බව්වො දෙන්නගෙන් එක්කෙනක් Scoby අනිත් කෙනා Bashi. පුසෝ පස් දෙන්නගෙන් එක්කෙනෙක් අවුරුදු 14යි, එයාගේ නම Naughty බිංගි. පුස්, ටිකිර, වුට් මැණික් හා වුට් මල්ලි තමයි අනිත් අයගේ නම්.

➤ ඉතිං මාලනී මහත්මිය ඔබතුමියගේ කාර්යබහුල පීචිනේ කොහොමද මේ අය එක්ක ඉන්න වෙලාව සොයා ගන්නේ?

ඇත්තටම මම කාර්ය බහුලයි තමයි. ඒත් මට ඒගොල්ලො එක්ක දවස පටන් ගන්න ඒකයි, දවස ඉවර කරන එකයි කියන්නේ මගේ කාර්ය බහුල කමට හොඳින් මුහුණ දෙන්නත්, දවසේ මහන්සිය හැකි කරගන්නත් හොඳ ක්‍රමයක්. මේ ගොල්ලො එක්ක ටික වෙලාවක් ඉන්න කොට මේ අයගේ දේවල් දකින කොට මට පුදුම සැනසීමක් දැනෙන්නේ. ඇත්තටම සුරතල් සතුන් එක්ක ඉන්න කොට ඒ අයගේ ගතිගුණ නිසා අපි උනත් පීචිනේ වෙනස් කරගන්නවා.



විශේෂයෙන්ම පුංචි ළමයි සුරතලුන් එක්ක හදද්දී ඒගොල්ලෝ sharing, caring වගේ හොඳ ගතිගුණ හොඳින් ඉගෙන ගන්නවා.

➤ සුරතල් සතුන් එක්ක තියෙන රසවත් මතක එහෙම මතක් කලොත්,

ඇත්තටම මට ඒගොල්ලන්ගේ හැම movement ඒකක්ම තේරෙනවා. මං හිතන්නේ මං කටා කරන කොට ඒගොල්ලො ඉන්නෙ සතුටින්ද දුකින්ද තරහින්ද කියන දේ මට ඇත්තටම තේරෙනවා.

➤ සුරතල් සතුන්ට පුංචි කාලේ ඉඳන්ම ඇල්මක් දක්වන සමාජයේ පිලිගත් කෙනෙක් විදිහට මාලනී මහත්මියට සමාජයට දෙන්න තියෙන පණිවිඩය මොකක් ද?

“ මගේ පුංචි කාලේ බලාපොරොත්තුව වුනේ පශු වෛද්‍යවරයන් වෙන්න. ”



ඇත්තටම මට කියන්න තියෙන්නේ මම සුරතලුන් හදද්දී කවදාවත් ඒගොල්ලන්ට තරවටු කරලා, බැනලා, ගහලා නෑ. අඩුගානේ cage කරලා chain කරලාවත් නෑ. හැබැයි හැමදේම ඒගොල්ලන්ට මම කියලා තේරුම් කරලා තියෙනවා. එතකොට ඒගොල්ලො හොඳට කියන දේ අහනවා. ඒවගේම මං ඒගොල්ලන්ට priority එකක් දිලා තියනවා. ඇත්තම කිව්වොත් අපේ ගෙදර කෑම උයන්නේ ඒගොල්ලො නිසා. මං marketing යනකොට ඒගොල්ලන්ට ඕන කරන බඩු list එක තමයි මුලින් හදා ගන්නේ. ඒ අය වෙනුවෙන් කරන දේවල් ඒ අයට තේරෙනවා. එතකොට ඒගොල්ලො අපිට ගොඩක් attach වෙලා අපිවත් තේරුම් අරං අපි එක්ක සතුටින් ඉන්නවා.

➤ අවසන් වශයෙන් මාලනී මහත්මිය පශු වෛද්‍යවරු හා පශු වෛද්‍ය සේවය ගැන මොකද හිතන්නේ?

මං මුලිනුත් කිව්වනේ මං පුංචි කාලේ හිතං හිටියේ vet කෙනෙක් වෙන්න. දැං මං ගාව ඉන්න අය නිසා vetලා හම්බවෙන්න යනවා. මං හරිම සතුටින් යන්නේ. එතනදී ඒගොල්ලො කොච්චර කැපවීමකින් ද ඒ වෙනුවෙන් වැඩකරන්නේ, කටා කරන්න බැරි සතුන් වෙනුවෙන් කැපවෙලා ලෙඩරෝග සොයා ගෙන බෙහෙත් කරන්නේ කොහොමද කියන දේ හරිම ප්‍රශංසනීයයි.

ඉතිං මාලනී මහත්මියනි අපි ශ්‍රී ලංකා පශු වෛද්‍ය සංවිධානය (SLVA) එක විදිහට ස්තූතිවන්ත වෙනවා අද දවසේ අපි වෙනුවෙන් වෙලාවක් වෙත් කිරීම ගැන. ඉතිං තවදුරටත් සුරතල් සතුන් එක්ක පීචිමත් පීචිතයක් ගත කරන්නට පුලුවන් වෙන්න කියලා. අපි සුභ පතනවා. ගිහිං එන්නම්.

- වෛද්‍ය ශාඛා පෙරමුණේ වෛද්‍ය නුවන් වික්‍රමසිංහ



# Investing in Dairy Business in Sri Lanka

*How I see dairy business as an experienced farm manager and a veterinarian in dairy industry.*

*Important aspects to consider when investing.*

Dr. K.G.J.S. Disnaka

**Why does Sri Lanka fail while India, our neighbor is the world largest milk producer?**

The world largest milk producing country is India. India's contribution is 22% of the total global milk production. Pakistan is the fourth largest milk producer. However, other south Asian countries including Sri Lanka are lagging behind producing their domestic milk requirement due to a variety of reasons. One common feature in the latter is that the large scale, dominating dairy processing companies mostly utilize imported milk products such as powdered milk, milk fat and cheese. (pg. 7, IOP Conf. series: Earth and Environmental Science 372, 2019).

In contrary, India has a very strong government policy on self-sufficiency in milk production by encouraging domestic production. Sri Lankan governments in the past two decades also have introduced different plans from time to time aimed at achieving self-sufficiency within a short period, but none of them have been successful. The national milk production still remains at 42% of the demand according to the Central Bank report 2019. One reason for this low production is that there is no solid national policy and the other is the lack of national interest. Therefore, while the neighboring country is self-sufficient in milk and is the world largest producer, Sri Lanka is importing major portion of its requirement mainly from New Zealand.

**Why investors are not interested?**

Sri Lanka maintains an open economy since late 1970's, and producers in any industry have to compete with their counterparts in the world market for their products. At the end, the producer who is able to sell the product at lowest price and make a brand loyalty in peoples' mind wins. Any local dairy producer has to compete with world class companies in the long run.

The capital investment for dairy farm or dairy production entity is extremely high in comparison with other livestock production entities. The investment should be always long term when compared to other livestock industries such as chicken or pork. The risk of investment is very high due to volatile market environment for inputs (raw materials) as well as for outputs (products). For example, sometime back taxes for imported dairy products were introduced to motivate local dairy producers but they were removed overnight. One government provides subsidiaries asking potential investors to invest while the next government which comes to power in five years would grant all the concessions for importers. Hence, any interested investor would be reluctant to invest in a long term risk business endeavor such as dairy which has a narrow profit margin.

**Areas considered by investors**

## 1. Long Term policy

Until a clear long term government policy which would not change with the changing ruling parties is introduced and established, investors are unlikely to invest in dairy business. Since there is no such policy, many large scale multinational companies influence the government for the benefit of their business. New Zealand is the world largest dairy exporter and dairy export is one of the dominant goods export sector earning more than 10 billion NZ dollars to the country.

(<https://www.statista.com/topics/6069/dairy-industry-in-new-zealand/>). It is about Sri Lankan Rs. 1400 billion and Sri Lanka is the fourth largest importer of their products by spending approximately Rs. 50 billion a year. In this scenario, the influence and interest for maintaining and growing the export market by the New Zealand government and the exporter companies are well understood.

## 2. Investment for dairy farms

The investors always consider their capital investment and return on investment (ROI) when making a decision.

· Large scale dairy farm

**Land** – The land requirement for dairy farms is always huge. To make a 1000 cow farm it is essential to have

a large land extent of about 500 acres for growing forage as feed. The land is very limited in Sri Lanka and the value of land is extremely high due to high population and commercial value of land properties in the market.

An individual has no right of having more than fifty acres of land according to the law of the country. Except for the government owned lands, there is a very limited large extent of lands available in private companies. Everywhere in the world, the dairy farms are established not in highly valued commercial lands but in rural lands with low commercial values where land value is not increasing at high rates in the long run. It is because the capital investment for dairy farms is always long term.

Investment – The financial investment is very high for large scale dairy farms in Sri Lanka. For example, to start a dairy farm of 100 cows, the investment should be around Rs. 50 million excluding the land cost. Investors always consider of the return on investment (ROI) before investing a large capital and when the low profitability is anticipated they become reluctant to invest on dairy business.

### Medium and small scale farms

More than 90 % of the national production comes from conventional type, poorly organized small scale farms in the country. They are not operated according to a sustainable business plan and most of the farmers are unaware about financial calculations to analyze and see the real situation of their operation.

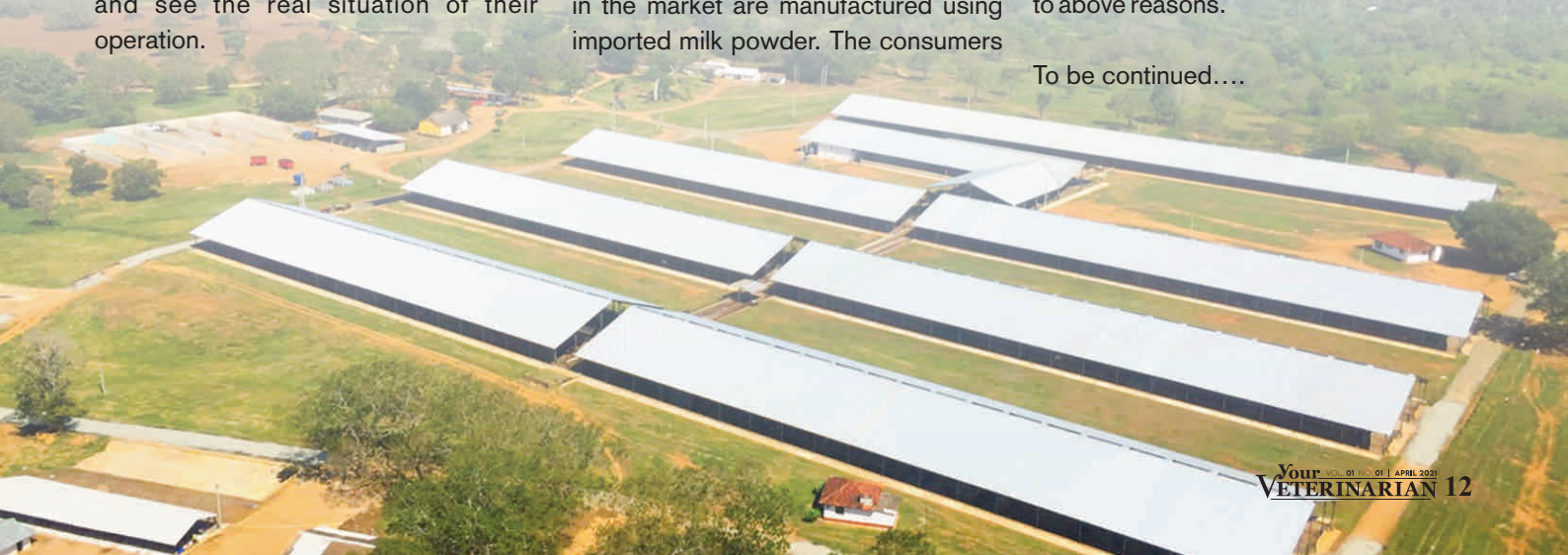
Milk price – Milk collecting companies are collecting around 650,000 liters a day via 315 milk collecting centers, produced by about 300,000 registered farms all over the country. (Statistical bulletin, 2019, DAPH). This figure demonstrates the productivity of the dairy farming system in this country. The milk price is set at Rs. 70.00 a liter for total solid of 12.5% according to the control price introduced by the government few years ago. Most of the companies are paying the farmers more or less the above price depending on the solid content. The milk quality is generally very poor due to various reasons such as lack of chilling facilities and adulteration by farmers. The cost of production is not calculated by most of the farmers and they just try to cover the cost of feeding additional feed ingredients such as coconut poonac, rice polish or commercial cattle feed at times.

### 3. Investment for processing

The investors have to compete with the multinational brands in the market and the competition is enormous. When the powdered milk business is considered it is almost accomplished by imported milk powder while only a small share is fulfilled by the two local milk powder producers. Most of the yogurt products in the market are manufactured using imported milk powder. The consumers

are used to the taste of these popular brands and they show a high brand loyalty due to very high marketing propaganda of those companies. It is very difficult to compete with the cost of production of these popular brands due to their low cost of production mainly due to low price of imported milk powder which is used as the raw material. Local producers find it extremely difficult to fetch good quality fresh milk in the market and the milk price is not favorable for producers to manufacture value added products. The cost of production of all dairy products are very high when they are locally produced using good quality fresh milk. It is extremely difficult to find machine milked, chilled, quality milk in the local market and their price is extremely high to add value. UHT products are becoming popular especially through super market networks but there are only limited number of manufacturers exist having the technology. It is unlikely that to a producer who does not have his own milk production avenue to supply a quality product at affordable price to the market while retaining a considerable profit margin. As such the present atmosphere is not conducive for investors for milk processing mainly due to above reasons.

To be continued....



# இலாபகரமான ஆட்டுப்பண்ணை வளர்ப்பு

Dr. Assanar Thaiuba

நம் நாட்டில் உள்ள சிறு மற்றும் குறு விவசாயிகள், நிலமற்றவர்களின் பொருளாதாரம் மற்றும் ஊட்டச்சத்து மேம்படுத்துவதில் ஆடு ஒரு முக்கியமான அங்கமாக விளங்குகிறது. கிராமப்புறத்தில் உள்ள பெரிய அளவிலான மக்களுக்கு ஆடு வளர்ப்பு என்பது ஒரு இலாபகரமான தொழிலாக உள்ளது. மிகவும் வளம் குன்றிய பகுதிகளில் உள்ள மோசமான சூழ்நிலையில் வளரும் செடிகள் மற்றும் மரங்களின் கொண்டு ஆடுகளை வளர்க்கலாம். இலங்கையில் உள்ள ஆடு கூடுதல் வருமானம் தரக்கூடிய ஆதாரமாகவும், பேரழிவுகளுக்கு எதிராக காப்பீடு செய்யவும் முடியும் ஒரு ஆதாரமாக இருக்கிறது.

## 1. ஆடு வளர்ப்பின் நன்மைகள்

- மனிதன் முதன் முதலில் வீடுகளில் வளர்க்கத் துவங்கிய பிராணி ஆடு ஆகும். இது ஏழைகளின் பசு என்று அழைக்கப்படுகிறது.
- ஆட்டின் இறைச்சி மிருதுவானதாகவும், குறைவான கொழுப்புச் சத்தையும் கொண்டுள்ளது. ஆட்டிறைச்சியின் விலை உயர்வாக இருந்தாலும் அதன் தேவை அதிகரித்துக் கொண்டே இருக்கிறது.
- ஆடுகள் விரைவில் இனப் பெருக்கம் செய்யக் கூடியவை. இரண்டிரண்டாகவோ, மூன்று முன்றாகவோ குட்டிகளை ஈனும் தன்மை படைத்தவை.
- பண்ணைகளை அமைப்பதற்கு குறைவான முதலீடு போதுமானதாகும்.
- ஆடுகளையும், அதன் குட்டிகளையும் எந்த நேரத்திலும் விற்று பணமாக மாற்றிவிட முடியும்.
- ஆடுகள் குறுகிய கர்ப்ப காலம் கொண்டவை.
- நோய்வாய்ப்படும் வாய்ப்புகள் குறைவு. பண்ணை உணவு முறையைக் கொண்டுள்ளதால் மருத்துவத்திற்கும், மருந்திற்கும் மிகக் குறைவாகவே செலவாகும்.
- 60 சதவீத ஆடுகள் ஆண்டு தோறும் அறுக்கப்படுகிறது. இருந்தாலும் அதன் இனப்பெருக்கம் உயர்ந்து கொண்டே இருக்கிறது.
- இறைச்சி, பால், உரம், தோல் & பளபளக்கும் மிருதுவான முடி போன்றவைகளுக்காக ஆடுகள் வளர்க்கப்படுகின்றன.
- உயிருள்ள ஆடுகள், அறுக்கப்பட்ட ஆடுகள், ஆட்டிறைச்சி, தோல் போன்றவைகளை ஏற்றுமதி செய்வதன் மூலம் அந்நியச் செலாவணியை ஈட்டமுடியும்.
- ஆடுகள் உயிர் வாழும் காலம் = 15 ஆண்டுகள். வாழ்வில் இனப்பெருக்கம் செய்வதில் கழியும் மொத்த காலம் = 7 ஆண்டுகள்.
- முதிர்ச்சியடைந்த ஒரு ஆடு ஒரு நாளில் வெளியேற்றும் உரம் = 1 KG. பயிர்களின் எச்சங்களை உண்டு தரமான இயற்கை உரங்களை வெளியேற்றுகின்றன.
- பண்ணையில் தீவனம் உண்ணும் ஆடுகள் "செறிவுள்ள ஒருங்கிணைந்த விவசாய முறை (Intensive Integrated Farming System - IIFS)"யின் கீழ் வருகின்றன.
- ஆடுகள் சத்தான தானியங்களின் எச்சங்களையும், தாவரங்களின் தண்டுகளையும் விரும்பி உண்கின்றன. தீவனத்திற்கு ஆகும் செலவு மற்றும் ஆட்டையன் (பணியான்) மேய்ப்பு, தீவனமிடுதல், அது சார்ந்த பிற வேலைகளையும் கவனித்துக் கொள்வதால் ஆடு வளர்ப்பின் அசல் தொகை மிகக் குறைவாகும். ஆட்டின் வளமான உரம் (கழிவு) மீன் பண்ணைகளுக்கும், மற்ற விவசாயப் பயிர்களுக்கும் மிகச் சிறந்ததாகும். மண்பு உரம் தயாரிக்க மூலப் பொருளாகவும் பயன்படுத்தப்படுகிறது.
- ஒரு முதிர்ந்த ஆட்டுக்கு ஒரு சதுர மீட்டர் இடம் போதுமானதாகும். விவசாய நிலம் இல்லாதவர்களும், சிறு மற்றும் குறுத்தொழில் மட்டுமே செய்ய முடியும் என்று நினைப்பவர்களும் இதனை தாராளமாக தொடங்கலாம். முறையான தீனியும், பராமரிப்பும் உள்ள பால் கறக்கும் ஆட்டிலிருந்து தினமும் 2 லிட்டர் வரை பால் தரும். பெண் ஆடு ஒவ்வொரு முறை குட்டிகளை ஈனும் பொழுதும் 2-3 குட்டிகளை ஈனும்.
- சாணென், டோக்கன்பர்க், ஆங்கிலோ-நுபியன், பிரிட்டிஷ்-அல்பைன், பிரென்ச் -அல்பைன் போன்ற வெளிநாட்டு ரகங்கள் இலங்கை சீதோஷ்ன நிலைக்கு உகந்தவை. இவைகளுடன் உயர் ரக ஆடுகளின் மூலம் கலப்பினப் பெருக்க முறையில் புதிய ரகங்களை உருவாக்க முடியும். ஜம்னாபாரி, கர்டி, தலச்சேரி, பீட்டல், மலபாரி, பார்பாரி, போன்றவைகள் புகழ் பெற்ற ரகங்களாகும். கறவை ரகங்கள் பண்ணை முறைக்கு சிறந்தவையாகும்.

ஒரு சிறிய பண்ணை அமைப்பதற்கு நல்ல காற்றோட்டமுள்ள ஒரு சிறிய கொட்டகை (Shed) போதுமானதாகும்.



## 2. ஆடுகளின் பராமரிப்பு முறைகள்

### I. வயதைக் கண்டறிதல்

- பொதுவாகப் பல் வரிசையைக் கொண்டு ஆடுகளின் வயதை நிர்ணயம் செய்யலாம். பற்களில் தற்காலிகப்பற்கள், நிரந்தரப் பற்கள், பால் பற்கள் எனப் பலவகை உண்டு. ஆடுகளில் மேல் தாடையில் பற்கள் காணப்படுவதில்லை. எனவே கீழ்த்தாடைக் பற்களின் எண்ணிக்கையை வைத்து வயதைக் கணிக்கலாம். கீழ்க் கண்ட அட்டவணை ஆடுகளின் வயதை பற்களின் எண்ணிக்கையை வைத்து அறிய உதவும்.
- வயது பற்களின் அமைப்பும், எண்ணிக்கையும்
- பிறந்தவுடன் 0-2 ஜோடி பால் பற்கள்
- 6-10 மாதம் கீழ்த்தாடையின் முன்புறம் 8 முன்பற்கள் இவை அனைத்தும் பால் பற்கள்
- ஒன்றரை வயது நடுவில் உள்ள இரண்டு முன்பற்கள் விழுந்து நிரந்தரப் பற்கள் முளைக்கும்.
- இரண்டரை வயது நான்கு நிரந்தரப் பற்கள் காணப்படும்.
- மூன்றரை வயது ஆறு நிரந்தரப் பற்கள் காணப்படும்.
- 4 வயது எட்டு நிரந்தரப் பற்கள் காணப்படும்.
- 6-7 வயது பற்கள் விழுந்துவிடும்.

### II. அடையாளம் இடுதல்

- ஆடுகளை அதிக எண்ணிக்கையில் வளர்க்கும் போது சரியான பராமரிப்பு முறைகளைக் கையாளுவதற்கு அடையாளம் இடுவது அவசியம் ஆகும். இவற்றை 3 முறைகளில் செய்யலாம்.
- காதுகளில் பச்சைக் குத்தி எழுத்துக்களைப் பொறித்தல்
- 1. வாலில் பச்சை குத்துதல்
- 2. காதுகளில் உலோகம் அல்லது பிளாஸ்டிக்குளால் ஆன அடையாள அட்டைகளை மாட்டுதல்

போன்ற முறைகளைக் கையாளலாம். இவை ஒவ்வொரு ஆடு பற்றி விபரப் பதிவேடுகளை பராமரிக்க மிகவும் உதவியாக இருக்கும்.



### III. கொம்பு நீக்கம் செய்தல்

- கொம்பு நீக்கம் செய்வதால் ஆடுகள் ஒன்றை ஒன்று முட்டிக் காயப்படுத்திக் கொள்வதைத் தடுக்க இயலும். கொம்பு உடைதல், கொம்புகளினால் ஏற்படும் புற்றுநோய் போன்ற நோய்களைத் தடுக்க இயலும்.
- கிடாக்குட்டிகள் பிறந்து 2-5 நாட்களுக்குள்ளும், பெட்டைக்குட்டிகளுக்கு 12 நாட்களுக்குள்ளும் கொம்பு நீக்கம் செய்தல் வேண்டும்.

### IV. நலமடித்தல்

- இனப்பெருக்கத்திற்குத் தேவையில்லாத கிடாக்களை நலமடித்து விடலாம். கிடாக்களை நலமடிக்கும் சரியான வயது 4-6 மாதங்கள் ஆகும். பர்டிலோ கருவி மூலம் நலமடித்தால் நோய்த் தொற்று அபாயங்கள் குறையும். இதனால்,
- 1. இறைச்சியின் சுவை அதிகமாக இருக்கும்.
- 2. உடல் எடை விரைவாக அதிகரிக்கும்.
- 3. ஆட்டுத் தோலின் தரம் உயர் மதிப்புக் கொண்டதாக இருக்கும்.

### V. பயிற்சி

- ஆடுகள் ஆரோக்கியமாக வளர அவைகளுக்குப் பயிற்சி அவசியம். கொட்டிலில் அடைத்து அல்லது கட்டி வளர்க்கப்படும் ஆடுகள் ஒரு நாளைக்கு 3-4 மணி நேரமாவது திறந்த வெளியில் திரிய அனுமதிக்க வேண்டும்.

### IV. நகங்களை வெட்டுதல்

- ஆடுகளின் சிறந்த பராமரிப்பிற்கு நகங்களை நன்கு வெட்டுதல் வேண்டும். இல்லையெனில் நகம் பெரிதாக வளர்ந்து, காலை பலகீனப்படுத்தும். 30 நாட்கள் இடைவெளியில் கூரிய கத்தி, அல்லது கத்தரிக்கோல் வைத்து நறுக்கி விடுதல் வேண்டும்.



### 3. ஆடுகள் தேர்வு செய்தல்

#### I. பெட்டை ஆடுகளை தெரிவு செய்தல்

- நல்ல இலாபம் தரக்கூடிய மந்தையில் இனப்பெருக்கத்திற்கு பெட்டையத் தேர்வு செய்தல் அவசியம். பெட்டை ஆடுகளின் நல்ல பால் மற்றும் இறைச்சி உற்பத்திக்கு அவை நல்ல உடல் அமைப்பு பெற்றிருக்க வேண்டும். ஆரோக்கியமானதாகவும் நான்கு கால்களையும் நன்கு ஊனி நிற்கக்கூடியதாகவும் இருத்தல் வேண்டும். பக்கவாட்டில் உடல் நீள முக்கோண வடிவமாகவும் கால்கள் வளையாமல் நேராகவும் தோள் கூர்மையாகவும் இருத்தல் வேண்டும். உடல் எடைக்குத் தகுந்தவாறு, மடி அதிகம் தொங்காமல் அடிவயிற்றின் பின்பகுதியில் நன்கு இணைந்திருக்க வேண்டும்.

#### II. கிடா ஆடுகளைத் தேர்வு செய்தல்

- கிடாக்கள் நல்ல உடல் அமைப்பும் வலுவும் பெற்றிருக்கும். நாம் தெரிவு செய்யும் கிடா நல்ல இனப்பெருக்கத் திறனுடையதாக இருக்கவேண்டும். விலா எலும்புகள் நல்ல ஆழத்துடனும் கால்கள் நேராக உடலை நன்கு தாங்கக்கூடியதாக இருத்தல்வேண்டும். பொதுவாக கிடா ஆடுகள் கொம்பு நீக்கப்பட்டவையாக இருத்தல் நலம். மேலும் நல்ல ஆரோக்கியத்துடனும் எந்த ஓட்டுண்ணிகள் பாதிப்புமின்றி இருத்தல்வேண்டும். கிடாவானது நல்ல பால்தரக்கூடிய இனத்திலிருந்து தேர்வு செய்தல் அவசியம்.



#### 4. கொட்டில் முறைகள்

- கொட்டகையை சுற்றி நிழல் தரும் தீவன மரங்களான அகத்தி, வேம்பு, கிளரிசிடியா, கல்யாண முருங்கை, பூவரசு மற்றும் இச்சி போன்ற மரங்களை நட வேண்டும். இம்மரங்களானது ஆடுகளுக்கு நிழலாக அமைவதோடு மட்டுமல்லாமல் கோடைக்காலத்தில் மரத் தழை தீவனங்களாகவும் பயன்படும்.
- ஆஸ்பெஸ்டாஸ் அட்டை கொட்டகையாக இருந்தால், அட்டையின் மீது தென்னங்கீற்றுக்களைப் போடுதல் நல்லது. தகரக் கூரையாக இருந்தால் உட்புறத்தில் கருப்பு வர்ணப் பூச்சும், வெளிப்புறத்தில் வெள்ளை வர்ணப் பூச்சும் அடிப்பதன் மூலம் ஆட்டுக் கொட்டகையைக் குளுமையாக வைக்க முடியும். கொட்டகையில் தானியங்கி தண்ணீர் தொட்டிகளை அமைப்பதன் மூலம் எந்நேரமும் தூய்மையான, குளிர்ந்த குடிநீர் கிடைக்குமாறு செய்யலாம்.

#### I. ஆழ்க்குள முறை

- தரையில் 6 செ.மீ. உயரத்திற்கு கடலைப்பொட்டு, மரத்தூள் மற்றும் நெல் உமி ஆகியவற்றை இட்டு வளர்க்கலாம்.
- இரண்டு வாரத்திற்கு ஒரு முறை புது கூளம் போட வேண்டும்.
- இம்முறையில் உண்ணி மற்றும் பேன் தாக்கம் இல்லாமல் கவனித்துக் கொள்ள வேண்டும்.
- ஆடு ஒன்றுக்கு 15 சதுர அடி இடம் தேவைப்படும்.

#### II. உயர் மட்ட தரை முறை

- தரையிலிருந்து 3-4 அடி உயரத்தில் மர பலகை அல்லது கம்பி வலைகளை கொண்டு அமைக்கலாம்.
- ஓட்டுண்ணி தொல்லைகள் மிகவும் குறைவாக இருக்கும்.
- தரையிலிருந்து சற்றே உயரமான, உலர்வான இடத்தில், கொட்டில் அமைக்கப்படும்.
- குளிர்வான பகுதிகளில் கொட்டிலின் தரைப்பகுதி மரத்தினால் அமைப்பது நல்லது.
- கொட்டிலானது 10 அடி உயரத்தில் மற்றும் நல்ல காற்றோட்ட வசதி கொண்டதாக இருக்க வேண்டும்.
- ஆண் ஆடுகளை தனியாகக் கொட்டிலில் வைக்க வேண்டும்.
- பெண் ஆடுகளை குழுவாக, ஒரு கொட்டிலில் 60 என்ற அளவில் வைக்கலாம்.
- ஆட்டுப் புழுக்கை மற்றும் சிறு நீரை சரியானபடி அகற்ற வேண்டும்.
- எல்லா ஆடுகளுக்கும் போதுமான அளவு இடம் ஒதுக்கித் தர வேண்டும்.



#### 5. ஆட்டுப்பண்ணையில் அதிக லாபம் பெற பசுந்தீவனங்கள்

##### பசுந்தீவனம்

- உடல் எடையில் 4 முதல் 5% காய்வு நிலையில் தீவனம் ஏற்கும். ஆகவே, 25 கிலோ ஆட்டிற்கு 1 முதல் 1.25 கிலோ தீவனம் காய்வு நிலையில் தேவைப்படும்.

- ஆடுகளுக்கு பசுந்தீவனம் மற்றும் கலப்பு தீவனம் கொடுப்பதை விட பசுந்தீவனம் அளிப்பதால் தீவனச் செலவை குறைக்கலாம். பசுந்தீவனங்களில் புரதம், தாது உப்புக்கள், உயிர்ச்சத்துக்கள் குறிப்பாக உயிர்ச்சத்து ஏ மற்றும் இ ஆகியவை உலர்ந்தீவனத்தை விட அதிகமாக உள்ளது.
- பசுந்தீவன புரதத்தில் ஆர்ஜினின், லைசின் மற்றும் குளுடாமிக் அமிலம் போன்ற சத்துக்கள் அதிகம். இது ஆடுகளின் வளர்ச்சிக்கு உதவியாக உள்ளது. உயிர்ச்சத்துக்களில் முக்கியமான பீட்டா கரோட்டின் பசுந்தீவனங்களில் அதிகம் இருப்பதால் இது விட்டமின் ஏ தேவையை பூர்த்தி செய்வதுடன் ஆடுகளின் கருமுட்டை உற்பத்தி மற்றும் இனப்பெருக்கத்திற்கு அதிக அளவில் பயன்படுகிறது.

#### முக்கிய பசுந்தீவனங்கள்

- கோ-3, கோ-4 புல், அகத்தி, வேலிமசால், குதிரை மசால், தீவனச்சோளம்,, கிளைசிரிட்யா போன்றவை இருக்கின்றன. இந்த வகையில் நேப்பியர் ஓட்டுப்புல்(கோ-1, கோ-2, கோ-3) நீர்ப்புல், கொளுக்கட்டை புல், ஈட்டிப்புல், கிணியாப்புல் மற்றும் மயில் கொண்டைப்புல் ஆகியவை முக்கியமானது ஆகும்.
- இவ்வகையில் புரதச்சத்து 5 லிருந்து 10 சதம் வரை உள்ளது. இதில் கம்பு நேப்பியர் ஓட்டுப்புல் கோ-3 ரகமானது அதிக விளைச்சல் தரக்கூடியது. அதாவது ஓராண்டுக்கு ஒரு ஏக்கரில் 150 டன்கள் வரையில் விளைச்சலை எதிர்க்கலாம். இது ஒரு முறை பயிர் செய்தால் 5 ஆண்டுகளுக்கு தொடர்ந்து விளைச்சல் தரக்கூடியது.
- இந்த கோ-3 ரகத்தை சிறு துண்டுகளாக நறுக்கி கொட்டில் முறையில் வளர்க்கப்படும் ஆடுகளுக்கு பசுந்தீவனமாக அளிப்பதன் மூலம் ஆடுகளின் உடல் வளர்ச்சியை அதிகரிக்க செய்யலாம்.
- பயறுவகை பசுந்தீவனங்களை புல் வகை தீவனங்களுடன் கலந்து கொடுப்பது அடர் தீவனத்தை தீவனமாக கொடுப்பதற்கு சமமானது. இவற்றில் வேலிமசால் அதிக விளைச்சல் தரக்கூடியது. அதாவது ஓராண்டுக்கு ஒரு ஏக்கரில் 40 டன் வரை விளைச்சலை தரும்.



#### 6. இனப்பெருக்கம்

- வேகமாக வளரும் தன்மை மற்றும் அதிக எடை கொண்ட ஆடுகளை இனப்பெருக்கத்திற்கு பயன்படுத்த வேண்டும்.
- பெட்டை ஆடுகளை 1 வருட வயதில் இனப்பெருக்கத்திற்கு பயன்படுத்த வேண்டும்.
- குட்டி போட்ட 3 மாதத்திற்கு பிறகு இனச்சேர்க்கை செய்ய வேண்டும். அப்போது தான் 2 வருடத்தில் 3 முறை குட்டிகள் ஈனும்.
- சினை பருவ காலம் 18-21 நாட்கள் இடைவெளியில் வரும். அது 24-72 மணி காலம் நீடிக்கும்.
- சினை பருவ காலத்தில் பெட்டை ஆடுகள் வலி இருக்க மாதிரி ஓங்கி கத்தும். மேலும் வாலை ஆட்டி கொண்டிருக்கும். இனப்பெருக்க உறுப்புகள் சிறிது வீங்கியும் சிவந்தும் காணப்படும். இனப்பெருக்க உறுப்பிலிருந்து திரவம் ஒழுகுவதால் வாலை சுற்றி ஈரமாகவும் அழுக்காகவும் காணப்படும். சில ஆடுகள் தீனி திங்காமலும் சிறுநீர் அடிக்கடி கழித்து கொண்டு இருக்கும். சில சமயங்களில் மற்ற ஆடுகள் மீது ஏறும் அல்லது ஏற அனுமதிக்கும்.
- சினை பருவ அறிகுறிகள் தென்பட்ட 12-18 மணி நேரத்தில் கிடாவுடன் சேர்க்க வேண்டும்.
- சில ஆடுகளில் சினைபருவ காலம் 2-3 நாட்கள் இருக்கும் எனவே அவற்றை இரண்டாவது தடவையாக 1 நாட்கள் கழித்து மீண்டும் கிடாவுடன் சேர்க்க வேண்டும்.
- சினை காலம் 145-150 நாட்கள்.
- 25 பெண் ஆடுகளுக்கு ஒரு ஆண் ஆடு இருக்குமாறு பார்த்துக் கொள்ள வேண்டும்.
- இனவிருத்தி செய்ய முடியாத ஆடுகளைக் கண்டறிந்து, மருத்துவரின் ஆலோசனைப்படி அகற்றிவிட வேண்டும்.

## ஆடுகளில் இனப்பெருக்கப் பருவ காலங்கள்

- 1) மார்ச் - ஏப்ரல் (பங்குனி - சித்திரை)
- 2) சூலை - ஆகஸ்டு (ஆடி - ஆவணி)
- 3) செப்டம்பர் - அக்டோபர் (புரட்டாசி - ஜப்பசி)

மார்ச், ஏப்ரல் மாதங்களில் வெப்பம் மிகுந்திருக்கும் சூழலில் சினைப் பருவத்திற்கு வரும் ஆடுகள் ஜூலை, ஆகஸ்டு மாதங்களில் குட்டி ஈனும். பொதுவாக ஜூன் மாதத்தில் இருந்தே தென்மேற்குப் பருவ மழை தொடங்கி விடுவதால் இக்காலத்தில் ஆடுகள் மற்றும் பிறக்கும் குட்டிகளுக்கு நல்ல பசுந்தீவனம் கிடைக்கும். ஆகையால், ஆடுகளில் பால் உற்பத்தியும் நன்கு இருக்கும். இதன் மூலம் குட்டிகளின் வளர்ச்சியும் நன்கு இருக்கும். ஆகவே இந்தக் கோடைக்காலத்தில் சினைப்படும் ஆடுகளை நன்கு பராமரிப்பது அவசியம்.

## பெட்டை ஆடுகள் கருவூட்டம்

- பெட்டை ஆடுகள் 1 வயதிலிருந்தே கருவூட்டலுக்குத் தயாராகிவிடும். பொதுவாக 10-15 மாதத்தில் கருவூட்டல் செய்தால் 15-20 வது மாதத்தில் முதல் குட்டி ஈனும் சினைக்காலம் 150 நாட்கள் வருடத்திற்கு ஒரு முறை கருவூட்டல் செய்தல் நல்ல. சில இனங்கள் 2 வருடத்திற்கு 3 முறை அதாவது 18 மாதங்களுக்கொரு முறை குட்டி ஈனும் 5-7 வருடங்களில் அதிகக் குட்டிகள் ஈனும்.

## கர்ப்பக்கால கவனிப்பு

கர்ப்பக்காலத்தின் முன்னேற்றக் காலத்தில், பெண் ஆடுகளை பிரசவிக்கும் கொட்டில் அல்லது கொட்டிலிலேயே அதற்கென ஒரு இடம் ஒதுக்கி வைக்க வேண்டும். குட்டி பிறந்தவுடன் 2 நாட்களுக்கு, பெண் ஆடுகளுக்கு இளம் சூடான உமித்தாள் பரப்பி வைத்திருக்க வேண்டும்.

## குட்டிகளை கவனித்தல்

- நஞ்சுக் கொடியை அகற்றிய இடத்தில் அயோடின் கொண்டு தடவ வேண்டும்.
- முதல் 2 வாரங்களுக்கு குட்டிகளுக்கு கொம்பை அகற்ற வேண்டும்.
- நல்ல மட்டன் உற்பத்திக்காக ஆண் குட்டிகளுக்கு விறைநீக்கம் செய்ய வேண்டும்.
- பரிந்துரைக்கப்பட்ட தடுப்பூசி அட்டவணைப்படி குட்டிகளுக்கு தடுப்பூசி போட வேண்டும்.
- 8 வாரம் இருக்கும் போது குட்டிகளை பால்குடி மறக்க செய்ய வேண்டும்.

## 7. மேய்ச்சலுக்கு விடுதல்

கோடைக்காலங்களில் எப்பொழுதும் காலை 10 மணி வரையிலும் மாலை 4 மணி முதல் 6.30 மணி வரையிலும் மேய்ச்சலுக்கு அனுப்ப வேண்டும். மேய்ச்சல் நிலங்களில் ஆங்காங்கே நிழல் உள்ள

இடங்களில் தண்ணீர்த் தொட்டிகளை அமைக்க வேண்டும். ஒவ்வொரு 7-10 நாட்களுக்கு ஒரு முறை சுழற்சி முறையில் மேய்ச்சல் நிலங்களை மாற்றுவதன் மூலம், ஆடுகள் உயரமான பற்களை மட்டும் மேய்வதால், 10 நாட்களுக்கு பிறகு பற்கள் மீண்டும் தழைய வாய்ப்புண்டு.

## 8. நோய்களுக்கு எதிராக பாதுகாப்பு தருதல்

- குறைந்த அளவு உணவு எடுத்துக் கொள்ளுதல், அசாதாரணமாக நடந்து கொள்ளுதல் போன்றவை எல்லாம் ஆடுகள் உடல்நிலை சரியில்லாமல் இருப்பதற்கான அறிகுறிகளாகும். அதைக் கவனித்துக் கொண்டே இருக்க வேண்டும்.
- ஏதாவது உடல்நிலை சாயில்லாதவாறு தெரிந்தால், உடனடியாக கால்நடை மருத்துவரின் உதவியை நாடவேண்டும்.
- நோய்கள் எதுவும் தாக்காதவாறு பாதுகாப்பாக வைத்திருக்க வேண்டும்.
- ஏதும் பெரிய அளவில் நோய் தென்பட்டால், மற்ற ஆடுகளிடமிருந்து தனித்து வைத்திருக்க வேண்டும்.
- ஆடுகளுக்கு முன்று மாதங்களுக்கு ஒரு முறை குடற்புழு நீக்கம் செய்ய வேண்டும். ஒவ்வொரு பருவத்துக்கும் போட வேண்டிய தடுப்பூசிகளைக் கட்டாயம் போட்டு வர வேண்டும்.
- சுத்தமான, மாசுபடாத உணவு மற்றும் நீரை தர வேண்டும்.
- ஏற்புசி, கால்வாய் நோய் மற்றும் தொண்டை அடைப்பான் தடுப்பு மருந்துகளை கால்நடை வைத்தியர் ஆலோசனைக்கு இணங்க உரிய நேரத்தில் வழங்க வேண்டும்.



## 9. சந்தைப்படுத்துதல்

சதைப்புள்ள, குண்டான குட்டி ஆடுகள், அதனுடைய புழுக்கை, வளர்ந்த ஆடுகளை விற்பனை செய்யலாம். ஆடு வெட்டுமிடம், தனிப்பட்ட இறைச்சி உண்ணும் நபர்கள் இருக்கும் இடங்கள், விவசாயிகள் இவற்றை விற்கலாம். அதனால் ஆடு வெட்டுமிடம் வசதி, அல்லது உயிருடன் உள்ள ஆடுகளை வாங்கும் வியாபாரிகள் உள்ள இடத்தில் விற்கலாம். வேளாண் பண்ணைகளுக்கு ஆட்டின் புழுக்கையும் அதிகளவில் தேவைப்படுகிறது.



# கிழக்கு மாகாணத்தின் பாரம்பரிய சொத்தான உள்ளூர் வெள்ளை இன மாடுகளை பாதுகாத்தலும் மேம்படுத்தலும்

Dr. M.A.M. Fasi

**உ**லகளாவிய ரீதியில் கடந்த காலங்களில் உணவு உற்பத்தியை அதிகரிக்கும் நோக்குடன் மரபு ரீதியாக மாற்றியமைக்கப்பட்ட கலப்பின உயர்வக தாவரங்கள் மற்றும் விலங்குகள் உற்பத்தி செய்யப்பட்டதனால் பூர்வீக இனங்கள் புறக்கணிக்கப்பட்டமை கண்கூடு. இதனால் சில உள்ளூர் இனங்கள் அழிந்து போயுள்ளமை அல்லது மரபுரீதியான மாற்றம் பெற்றுள்ளமையினை அவதானிக்கக்கூடியதாகவுள்ளது.

தற்போது, சுற்றுச்சூழலின் நிலையான அபிவிருத்தி என்ற எண்ணக்கருவின் கீழ் வேளாண்மை மற்றும் பூர்வீக கால்நடை வளங்களின் பாதுகாப்பும் மேம்பாடும் முக்கிய இடம் பெறுகின்றது. இதன் அடிப்படையில் எதிர்காலத்தில் பூர்வீக வளங்களைக் கொண்டு தரமான உணவினை உற்பத்தி செய்யும் நோக்கில் பல நிகழ்ச்சித் திட்டங்கள் முன்னெடுக்கப்பட்டு வருகின்றன.

இந்த சிறந்த எண்ணக்கருவினை மையமாகக் கொண்டு எமது கிழக்கு



மாகாணத்திற்கு தனித்துவம் மிக்கதும் பூர்வீகமானதுமான கலப்பின உள்ளூர் வெள்ளையின மாடுகளை பாதுகாத்து மேம்படுத்தும் நிகழ்ச்சித் திட்டம் கால்நடை உற்பத்தி சுகாதார திணைக்களத்தினால் 2017

ஆம் ஆண்டு முதல் முன்னெடுக்கப்பட்டு வருகின்றது. தேசிய பாலுற்பத்தியில் 17% பங்களிப்பினை வழங்கும் கிழக்கு மாகாணம் சராசரியாக நாளொன்றிற்கு 1.25 லீற்றர் பாலினை தரக்கூடிய உள்ளூர் வெள்ளையின மாடுகளைத் தற்போது கொண்டிருப்பது கவனத்தில் கொள்ளப்படவேண்டிய விடயமாகும்.

அபிவிருத்திக் காக நிலம் துண்டிக்கப்படுதல், பாரம்பரிய மேய்ச்சல் தரை குரையாடப்படுதல், குறுநிலங்களிலும் பன்முகப்படுத்தப்பட்ட பயிர்களை பயிரிடுதல், கைவிடப்பட்ட நெல் நிலங்களை மீள்பயன்படுத்துதல் அத்துடன் வனப்பாதுகாப்பு மற்றும் மக்கள் தொகை வளர்ச்சி தொடர்பான சட்டங்களை அமுல்படுத்துதல் போன்ற செயற்பாடுகளினால் கிழக்கிலுள்ள உயர்வக கலப்பின கால்நடைகளின் எதிர்காலம் நிச்சமற்றதாகக் காணப்படுகின்றது.

அதேவேளை வறட்சியான காலநிலை, திடீர் காலநிலை மாற்றங்கள் காணப்படுகின்ற போதிலும் பாரம்பரிய சமூகமயப்படுத்தப்பட்ட விதிமுறைகளையும் விழுமியங்களையும் மீறாமல்; பயிர் வேளாண்மை, நிலப்பயன்பாட்டு முறை, பாதுகாக்கப்படாத வன நிலங்கள் மற்றும் வைக்கோல் போன்றவற்றின் இருப்பினால் உள்ளூர் வெள்ளையின மாடுகளை தக்க வைத்துக்கொள்வது கிழக்கு மாகாண கால்நடை விவசாயிகளுக்கு பொருளாதார ரீதியாக சாத்தியமான விடயமாகும். அத்துடன் இவ்வளமானது விவசாயிகளின் வாழ்க்கைக்காக அர்த்தமுள்ள வருமானத்தினை தரக்கூடிய நம்பிக்கை வங்கியாகவும் காணப்படுகின்றது.

பொதுவாக வெள்ளையின மாடுகள் தர்ப்பக்கார், ஹரியானா, தாரி, கிலாரி போன்ற மரபுரிமை கலப்பினமாகக் காணப்படுகின்றன. இவ்வினங்களில் தர்ப்பக்கார், ஹரியானா மரபுரிமை கொண்ட மாடுகளை முறையான

இனக்கலப்பு, உணவூட்டல் முறை மற்றும் பாராமரிப்பு என்பவற்றின் மூலமாக நாளொன்றிற்கான சராசரி பாலுற்பத்தியினை 1.25 லீற்றரில் இருந்து 5.0 லீற்றர் ஆக அதிகரிக்கக்கூடிய வாய்ப்புக்கள் இருப்பது வெளிப்படை உண்மையாகும். இந்த பின்னணியில் உள்ளூர் வெள்ளையின மாடுகளைக் கொண்ட பட்டிகளை அடையாளம்



காணுதல், அவற்றிலிருந்து மரபுரீதியாக உயர்ந்த காளைக்கன்றுகளை தேர்ந்தெடுத்தல், பாலுற்பத்தி குறைந்த உள்ளூர் இன பட்டிகளுக்கு அக்காளைக்கன்றுகளை வழங்குதல் போன்ற செயற்பாடுகளின் மூலம் கிழக்கு மாகாணத்திற்கே உரிய வேறெங்கும் பெறப்பட முடியாத தரமான உள்ளூர் வெள்ளையின கலப்பின மாடுகளின் மரபுரிமையை பாதுகாப்பதற்கு கிழக்கு மாகாண கால்நடை உற்பத்தி சுகாதார திணைக்களம் பல அபிவிருத்தி வேலைத்திட்டங்களை முன்னெடுத்து வருகின்றது.

இறுதியாக, கால்நடை உற்பத்தி சுகாதார திணைக்களத்துடன் பண்ணையாளர்கள் கைகோர்த்து முனைப்பாக செயற்படும் பட்சத்திலேயே இத்திட்டங்கள் வெற்றிகரமாக முன்னெடுக்கப்பட்டு கணிக்கப்பட்ட முன்னேற்ற மட்டத்தினை அடைவதுடன் பூர்வீக வெள்ளையின மாடுகளின் மரபுரிமையை பாதுகாத்து சுற்றுச்சூழலின் நிலையான அபிவிருத்தியினூடாக கிழக்கு மாகாண பாரம்பரியத்தினை மேம்படுத்துவோம்.



# தோல் கட்டி நோய் / பெரியம்மை நோய் (Lumpy Skin Disease)

**Dr. T. Mayurathy**

விலங்குகளில் தோல் கட்டி நோய் அல்லது பெரியம்மை எனப்படுவது வைரசால் (Capripox virus) உருவாகக் கப்படும் நோயாகும். பொதுவாக இது அனைத்து வயது மாடுகளையும் எருமைகளையும் தாக்கக்கூடியது. இவ்வைரசு மாட்டின் தோல் காயங்களில் 18—35 நாட்கள் வரை வாழக்கூடியது.



ஆபிரிக்க நாடுகளில் அதிகமாகக் காணப்படுகின்ற இந்த நோய் தற்காலத்தில் இலங்கையிலும் குறிப்பாக வடக்கு, கிழக்கு மாகாணங்களில் வேகமாக பரவி வருகின்றமை அவதானிக்கப்பட்டுள்ளது. இந்நோய் தாக்கத்தின் போது இறப்பு வீதம் குறைவாக இருந்தாலும் பெரிதும் சிறிதுமான பல கட்டிகள் உடலில் தோன்றுவது வெளித்தோற்றத்திற்கு அருவருப்பாக இருப்பதுடன் பாலுற்பத்தி, உணவு உட்கொள்ளும் அளவு மற்றும் கன்றுகளின் வளர்ச்சி என்பவற்றில் தாக்கத்தை ஏற்படுத்தி பண்ணையாளருக்கு பொருளாதார ரீதியாகவும் பாதிப்பை ஏற்படுத்துகின்றது.

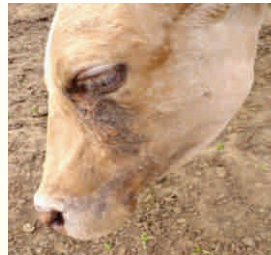
**நோய் பரவும் முறைகள்**

இந்நோய் பிரதானமாக காவிகள் (நுளம்பு, ஈ, உண்ணி) மூலமாகவும் மற்றும் நேரடித் தொடுகை மூலமாகவும் (உ+ம : பாதிக்கப்பட்ட மாடுகள், கறவையாளர், கன்றுகள் பாதிக்கப்பட்ட மாட்டில் பாலை அருந்துதல், நோய்த்தாக்கம் ஏற்பட்ட பகுதிகளிலிருந்து மாடுகளை கொண்டு வருதல்), இனக்கலப்பின் போது விந்துகள்

மூலமாகவும், சினைப்பட்ட மாடுகளில் கருப்பை பரிமாற்றத்தின் மூலமாகவும் பரவுகின்றது. இந்நோயின் தாக்கத்தை கோடை கால தொடக்கத்தில் அதிகமாகக் காணலாம்.

**அறிகுறிகள் (Symptoms)**

நோய்த்தொற்றுக்குள்ளான மாடுகளில் ஆரம்பத்தில் கண்களிலிருந்து நீர் வடிதல், மூக்கில் சளி ஒழுக்குதல் போன்ற அறிகுறிகள் காணப்படும். அதைத் தொடர்ந்து கடுமையான காய்ச்சல் 104°, நிணநீர் கலன்களில் வீக்கம் ஏற்படும். இதனால் மாடுகள் சோர்வாகக் காணப்படும். இந்நிலையில் உடல் முழுவதும் வீக்கம் / கட்டிகள் உருவாகி உருண்டையாகவுள்ள கட்டிகள் உடைந்து அதிலிருந்து சீழ் வெளியேறும். நோய்த் தொற்றின் பாதிப்பைப் பொறுத்து உடல் முழுவதும் குறிப்பாக தலை, கழுத்து, பசு மாடுகளின் யோனிப்பகுதிகளில் 0.5 - 5 cm அளவுடைய இரண்டு முதல் நூறு கட்டிகள் காணப்படும்.



**நோய்த் தொற்றின் பாதிப்புக்கள் (Vulnerabilities of Infection)**

இந்நோய்த்தொற்று 60% ஆன மாடுகளை பாதிக்கின்ற போதிலும் இறப்பு வீதம் மிகவும் குறைவாகவே காணப்படுகின்றது. உருவாகும் கட்டிகள் சீழ் பிடித்து உடைந்து மாட்டின் தோலினை முற்றிலுமாக பாதிப்படையச் செய்கின்றது. நோய்த்தாக்கத்தின் போது தீவனம் சரியாக உட்கொள்ளாமையால் உடல் நிறை குறைதல், பாலுற்பத்தி குறைதல், சினை பிடிப்பதில் பாதிப்புக்கள் ஏற்படுதல்



போன்றனவும் இளம் சினை மாடுகளில் கருச்சிதைவு ஏற்பட வாய்ப்பும் கூடுதலான பாலைத் தரும் மாடுகளில் மடி அழற்சி நோய் ஏற்படவும் வாய்ப்பாகின்றது.

கடுமையான நோயினால் பாதிக்கப்பட்ட மாடுகளின் வெளித்தோற்றம் அருவருப்பானதாக மாறுவதால் மாட்டின் பால் மற்றும் இறைச்சிக்கான கேள்வி குறைகின்றது.

**சிகிச்சை (Treatment)**

இந்த நோய்க்கு சிகிச்சை கிடையாது. எனவே, வரும் முன் காப்பது நல்லது. உடலில் ஏற்படும் வீக்கங்களுக்கும் காயங்களிற்கும் உரிய நேரத்தில் தகுந்த சிகிச்சை அளித்து வந்தால் மாட்டின் உற்பத்தித் திறனை தக்க வைத்துக்கொள்ளலாம். நோய் அறிகுறி தென்பட்டவுடன் அருகிலுள்ள கால்நடை மருத்துவரை அணுகுவது சிறந்தது. இதற்கான தடுப்பு, சி தற்சமயம் இலங்கையில் இல்லை என்பது வருத்தத்திற்குரிய விடயமாகும்.

**தடுப்பு முறைகள் (Control)**

பாதிக்கப்பட்ட மாடுகளைப் பண்ணையில் இருந்து தனிமைப்படுத்தி பராமரித்தல், சுற்றுப்புற சூழலை காவிகள் இல்லா வண்ணம் சுத்தமாக வைத்திருத்தல், பாதிப்புக்குள்ளான மாடுகளை பராமரிக்கும் கறவையாளர் / பண்ணையாளர் உரிய தற்காப்பு நடவடிக்கைகளை எடுத்தல் போன்ற செயற்பாடுகளின் மூலம் நோய் பரவலை முற்றிலுமாக தடுக்க முடியும். அத்துடன் இறந்த மாடுகளை சரியான முறையில் எரித்தோ அல்லது சுண்ணாம்பு சேர்த்து ஆழமாக புதைப்பதோ நல்லது.

# KIDS DRAWING COMPETITION 2021

PET PHOTOGRAPHY COMPETITION ORGANIZED BY SRI LANKA VETERINARY ASSOCIATION

## WINNERS



Place	Name	School	Address
1 <sup>st</sup>	Salpadoru Thuppahi Thenumi Ayansa	G/Prajapathi Balika Maha Vidyalaya, Ambalangoda	12/5, Duwawaththa, Keraminiya, Ambalangoda
1 <sup>st</sup>	Isali Sathnulle Yehansa Rathnaweera	H/Nakulugamuwa Primary School	Arunodaya, Kudawella South, Nakulugamuwa
2 <sup>nd</sup>	Mapalagamage Hiruni Pabasara	G/ P.de.S. Kularathna Vidyalaya	"Wimalpaya", Keraminiya, Ambalangoda
3 <sup>rd</sup>	Koruwage Inula Eeran Fernando	G/P. de S. Kularathne College, Ambalangoda	"Ransalu", Adadola, Wathugedera
3 <sup>rd</sup>	Koruwage Inuki Eeshara Fernando	G/P. de S. Kularathne College, Ambalangoda	"Ransalu", Adadola, Wathugedera

# A Selection of 'Small Feathered Friends' Captured by the Lens of a 'Large Animal Vet'



**Dr. Oswin Perera** (BVSc Ceylon, PhD Glasgow, FSLCVS) was Professor of Farm Animal Production and Health at the Faculty of Veterinary Medicine and Animal Science, University of Peradeniya, is now retired, but continues to assist with teaching and research. Previously, he worked for the United Nations at the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture in Vienna, Austria. His teaching and research have focused on reproduction of cattle, buffaloes and elephants, human – wildlife conflicts, and risks from zoonotic diseases. His hobbies include travel, hiking and wildlife photography.



**Black-necked Stork @ Yala**  
*(Ephippiorhynchus asiaticus)*, Ali Manawa  
 The largest bird in Sri Lanka, which is a rare breeding resident. This one is a female (yellow iris). There are not more than 5-6 breeding pairs present in the country.



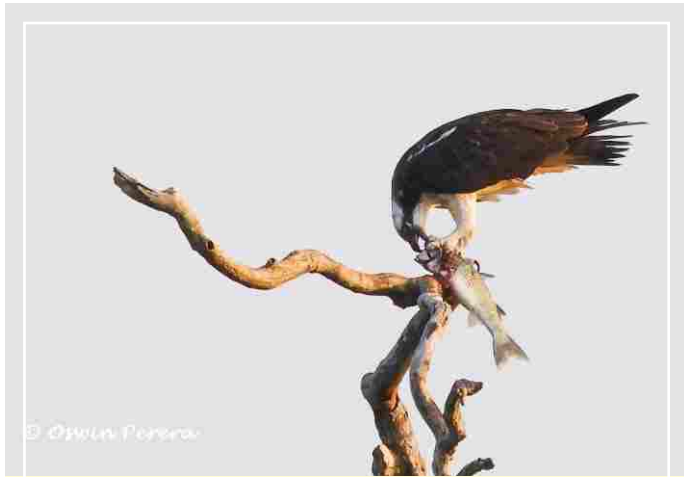
**Grey-headed Fish Eagle @ Yala**  
*(Haliaeetus ichthyaetus)*, Aluhis Masukussa  
 Large bird of prey, common in lowland forests, around lakes and rivers.



**Crested Serpent Eagle @ Wagomuwa**  
*(Spilornis cheela)*, Silu Sarapakussa  
 Medium sized bird of prey, present in many parts of Sri Lanka



**Crested Hawk Eagle @ Wasgamuwa**  
*(Nisaetus cirrhatus)* Perali Kondakussa  
 Also called Changeable Hawk Eagle, medium sized bird of prey, present in many parts of Sri Lanka



© Oswin Perera

**Osprey @ Bundala**

*(Pandion haliaetus) Muhudu Rajaliya*

Medium sized bird of prey, regular winter visitor to Sri Lanka, preferring mostly fish in the diet.



© Oswin Perera

**Green Imperial Pigeon @ Sinharaja**

*(Ducula aenea) Neela Maha Goya*

Largest pigeon in Sri Lanka, resident of forests from lowland to lower hills.



© Oswin Perera

**Malabar Pied Hornbills @ Yala**

*(Anthracoceros coronatus), Porow Kendetha*

Common breeding resident in South India and Sri Lanka. The female is above, and has white orbital skin around the eyes, which is absent in the male.

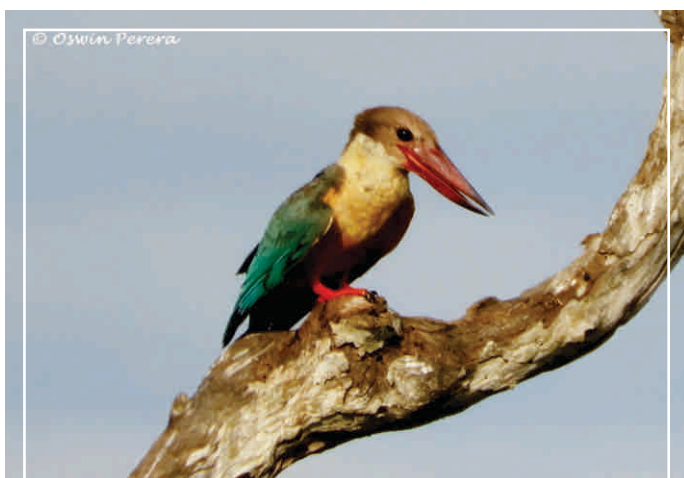


© Oswin Perera

**Bay-backed Shrike @ Bundala**

*(Lanius vittatus), Pita Alu Sabariththa*

Very rare visitor to Sri Lanka. This individual has been coming for the past three years to the same area in Bundala.

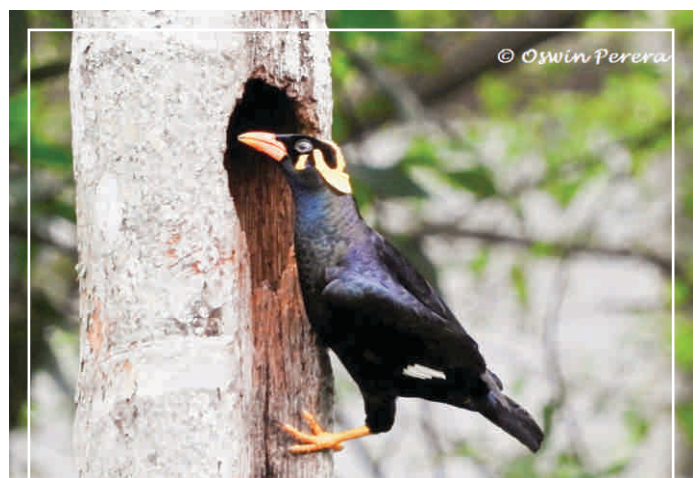


© Oswin Perera

**Stork-billed Kingfisher @ Eluwankulama**

*(Pelargopsis capensis), Manathudu Maha Pilihuduwa*

Largest kingfisher in Sri Lanka, found in forest habitats near lakes, rivers and coasts. It hunts fish, frogs, crabs, rodents and young birds.



© Oswin Perera

**Southern Hill Myna @ Kandy home garden**

*(Gracula indica), Selalihiniya*

Member of the Starling family, resident in South India and Sri Lanka. The Sri Lanka Hill Myna, which is endemic, has different pattern of yellow wattles.

# One Health in Curbing Zoonoses: Moving from Concept to Reality

Dr. M.Ijas

In the recent past we have seen an increasing trend of outbreaks of infectious diseases emerging from animal reservoirs. The magnitude of the issue is significant, as epidemiological data show that at least 75% of emerging infectious diseases are zoonotic and originate from wildlife. Prevention of such emerging diseases is difficult due to complexity of events and many factors, such as genetic evolution, demographic changes, environmental conditions or climate changes affecting the ecosystem.

The unpredictable onset and rapid dissemination of zoonotic outbreaks demand the public health systems to act quickly to identify early signs of such threats and respond swiftly. The fact remains that the beginning of the CoV-2019 outbreak was observed by a physician, but the decision makers did not heed it as an urgent public health threat. This demonstrates the essential need to identify what could be done better before new diseases emerge, and preventing future outbreaks or, at least, reducing their impact. To reach this aim, the concept of One health needs to put in reality. One health recognizes that human health links to the health of animals, environment, and ecosystems. It is an interesting concept, practically Zen-like in its emphasis of the whole.

**One Health** is the idea that the health of people is connected to the health of animals and our shared environment.

When we protect **one**, we help protect **all**.

[www.cdc.gov/onehealth](http://www.cdc.gov/onehealth)

But beyond philosophy, One Health uses data and science to understand some human diseases as deviations in a larger system of connections. One Health has become a practical and necessary approach to public health, especially in the face of emerging, and re-emerging, infectious diseases. One Health covers a wide range of diseases. But its role may be most relevant to prevent and manage two groups of infectious diseases. One is diseases that move from animals to humans. The second is diseases of livestock, which have a direct bearing on the livelihoods of many farmers.

The following phases are crucial in curbing emerging and re-emerging zoonotic diseases: first, the understanding of the causes of disease emergence, the ecology of the agents involved, and their animal hosts; second, the creation of a network that will merge the contributions of diverse expertise and work together holistically. At present, the main players of the network are in place such as medical doctors, veterinarians, public health experts, and food quality inspectors, nevertheless they work in isolation; for an example, veterinarians are not linked

with occupational physicians, and in turn they are not in contact with general practitioners who are at the frontline of the disease. At present, an interconnected system that can obtain data and act on early warnings at different levels is missing. As such we need to put the One Health concept into reality to work together effectively.

**One Health** involves everyone.

Collaborating, Communicating, & Coordinating

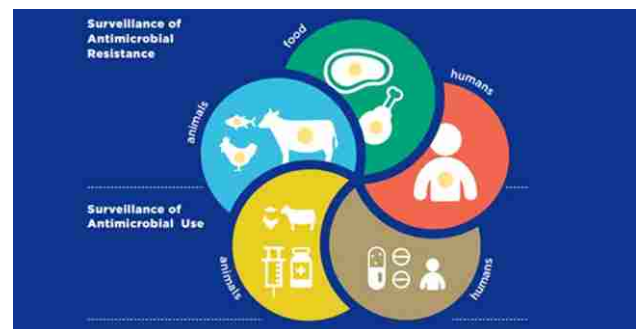
Professionals involved: Veterinarians, Agricultural workers, Per owners, Healthcare workers, Epidemiologists, Policy makers, Ecologists, Scientists, Laboratory workers.

Working together is key to One Health.

[www.cdc.gov/onehealth](http://www.cdc.gov/onehealth)

One of the key areas that demands the application of One Health approach is zoonotic infectious disease control programs. Avian influenza control strategies shared data from human and animal surveillance programs to identify the incidence of viral strains and to forecast the possibility of a pandemic. Further, the experts working on many other zoonoses and vector-borne diseases with animals in their transmission cycle are also adopting a One Health approach. Recently, the use of One Health approach applied to limit the threat of antimicrobial resistance (AMR) has gained much prominence. AMR is a pressing animal health and public health issue that should be addressed effectively only through collaboration and inter-sectoral cooperation, involving the human health, public health, and veterinary health sectors.

Notably One Health systems have demonstrated to contribute to robust health systems in the non-existence of a pandemic, for an example Rabies control programs have always been intertwined services of medical and veterinary sectors, which are immensely supported by varied communication tools. To understand effectiveness of One Health approaches following two case studies are highlighted in this write-up.

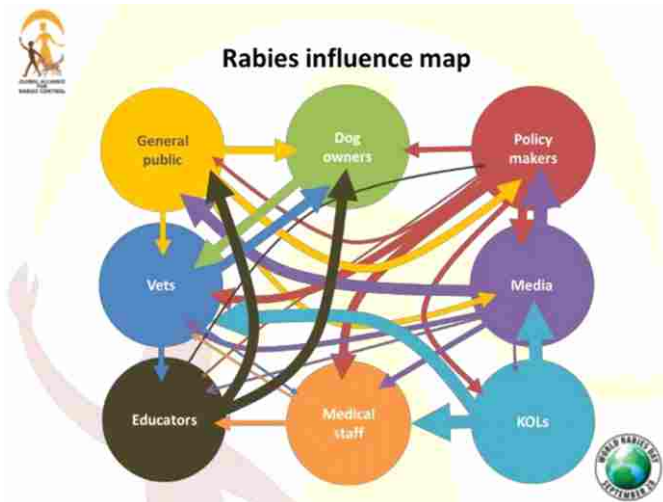


**One Health in Rabies Control:** The necessity of collaboration between animal and human health sectors obviously seen for many years in Rabies control. Rabies experts have been advocating for integrating a One Health approach in

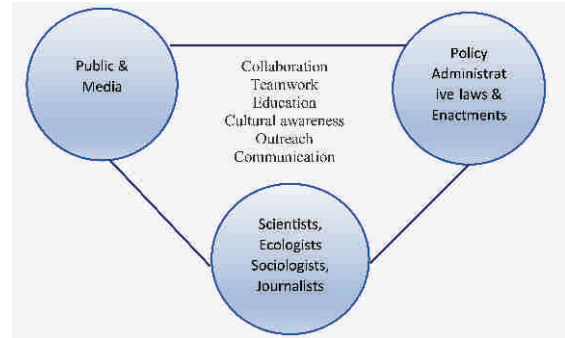


surveillance, control, and elimination efforts even before this concept was accepted by international organizations. Canine rabies impacts the ecosystem, largely through leak over to susceptible wildlife populations. Thus, rabies control programs require various agencies that are responsible for human and animal health to act in coordinated manner across these sectors. Accordingly, inter-sectoral collaboration is a pivotal part of the global strategic plan (GSP) towards elimination of dog-mediated human rabies. Such integration is vital for rabies elimination strategies, and also has proven its cost effectiveness.

agencies, scientists from many research institutes, and a wildlife (bat) ecologist. This group was charged with identifying appropriate risk management strategies in the affected states and ensuring a coordinated and effective response. They also conducted studies of how to manage the disease risk to humans involving medical clinicians, immunologists, general hospital staff, sociologists, and communication experts. Much effort has focused on how best to convey key messages about appropriate biosecurity precautions to horse owners and to veterinary clinicians treating sick horses.



Interconnection of Rabies control



Conceptual framework of key elements and actors to make One Health concept into reality

**Hendra virus control in Australia**

In response to 2011 clusters of Hendra virus cases in Australia, an intergovernmental Hendra task force was established involving senior managers of the Queensland and New South Wales primary industry departments, other government

Intricate health issues that are instilled in several fields cannot be comprehensively investigated using compartmentalized investigations. Experts believe that One Health research needs to fully integrate other players that are not commonly involved in health and veterinary interventions, such as ecologists, social scientists, mathematical modelers, and economists. The author also deems that journalists too have a key role to play in communicating this concept to citizens. Hence, education, correct policies, effective communication are needed to make One Health concept into reality.



# Veterinary epidemiological perspective of SARS CoV-2 introduction to Sri Lanka.

**Dr. Dilan Amila Satharasinghe**

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) emerged in late 2019 has led to a global pandemic situation with the new coronavirus disease (COVID-19). The SARS-CoV-2 virus spread rapidly throughout the world disturbing human livelihood and economy. The COVID-19 was declared a global health emergency by the WHO at the end of January 2020. As of 8th April 2020, more than 131 639 000 confirmed cases, including 2 857 566 deaths, have been reported worldwide.

Sri Lanka is using several methods to control COVID-19 in the country and to save lives. At present, case identification is conducted with daily reporting of infected, recovered and deceased individuals. The aforesaid approach neither allows warning or forecasting of cases early nor gives an overview of the situation on risk factors for decision-making regarding the allocation of medical resources or the best timing for implementing community-based control measures.

Coronaviruses are commonly found in a wide range of hosts including avian, camels, bats, masked palm civets, mice, dogs, and cats. Recently an amino acid sequence alignment from different animal species including humans, pets and the major domestic animals revealed high protein sequence similarity indicating a potential interaction with various hosts. Also, scientists worldwide claim that the novel coronavirus that causes COVID-19 has originated from wild animals, specifically bats. Several research teams have confirmed that SARS-CoV-2 is genetically similar to bat betacoronavirus of the sub-genus Sarbecovirus.

Since a significant proportion of SARS-CoV-2 infected individuals are asymptomatic much attention should be given to the asymptomatic proportion. Also, COVID-19 has more patients with mild symptoms that lead to the spread of the disease as they cannot be identified and isolated. Virus shedding, asymptomatic carriers, clinical and epidemiological characteristics of COVID-19 should be continually investigated since the virus can be kept on transmission in the community.

Epidemics in animals due to various diseases, including Avian Influenza, Foot and Mouth Disease, Bluetongue in Europe and Porcine Endemic Diarrhoea, are widespread. Therefore, very efficient and effective veterinary tools are used to control these animal diseases. A variety of surveillance methods have been used to understand, control, and eliminate the disease condition in animals. Therefore, veterinary experience obtained from epidemics in animal populations can provide additional expertise to the current vigorous public health response to COVID-19 pandemic.

The COVID-19 pandemic has highlighted the importance of One Health principles in the planetary governance of infectious diseases, especially zoonotic diseases. One Health approach recognizes that the human health is closely related to animal health and environmental health. Therefore, one health approach uses a transdisciplinary and cross-sectorial collaboration to recognize and mitigate risks related to animal and human health.

A study published in the *Epidemiology and Infection* journal published by Cambridge University Press by the same author and his research team used evolutionary analysis of the circulating SARS CoV-2 viruses and One Health approach to investigate the evolution and genetic relatedness of SARS-CoV-2 strains in Sri Lanka, with worldwide reported strains of SARS-CoV-2. The whole-genome sequence of four SARS-CoV-2 virus strains obtained from COVID-19 positive local patients has been deposited in the Global Initiative on Sharing All Influenza Data (GISAID) EpiCoV™ database. Results of our study indicated that the SARS-CoV-2 sequences from Sri Lanka have the highest genomic similarity to isolates from Europe, India, South Africa and China. The current study was conducted as a preliminary study in Sri Lanka and further studies are necessary to increase our knowledge regarding SARS-CoV-2 isolates. Since the genomic level changes of virus can alter the presentation of COVID-19 infection, the robustness of molecular epidemiological tools indicated in this study can be used to trace possible exposures when the contact tracing is impossible. Furthermore, proposed epidemiological and evolutionary analysis tools assist in selecting best vaccine strain/s to effectively control the further transmission of the disease.

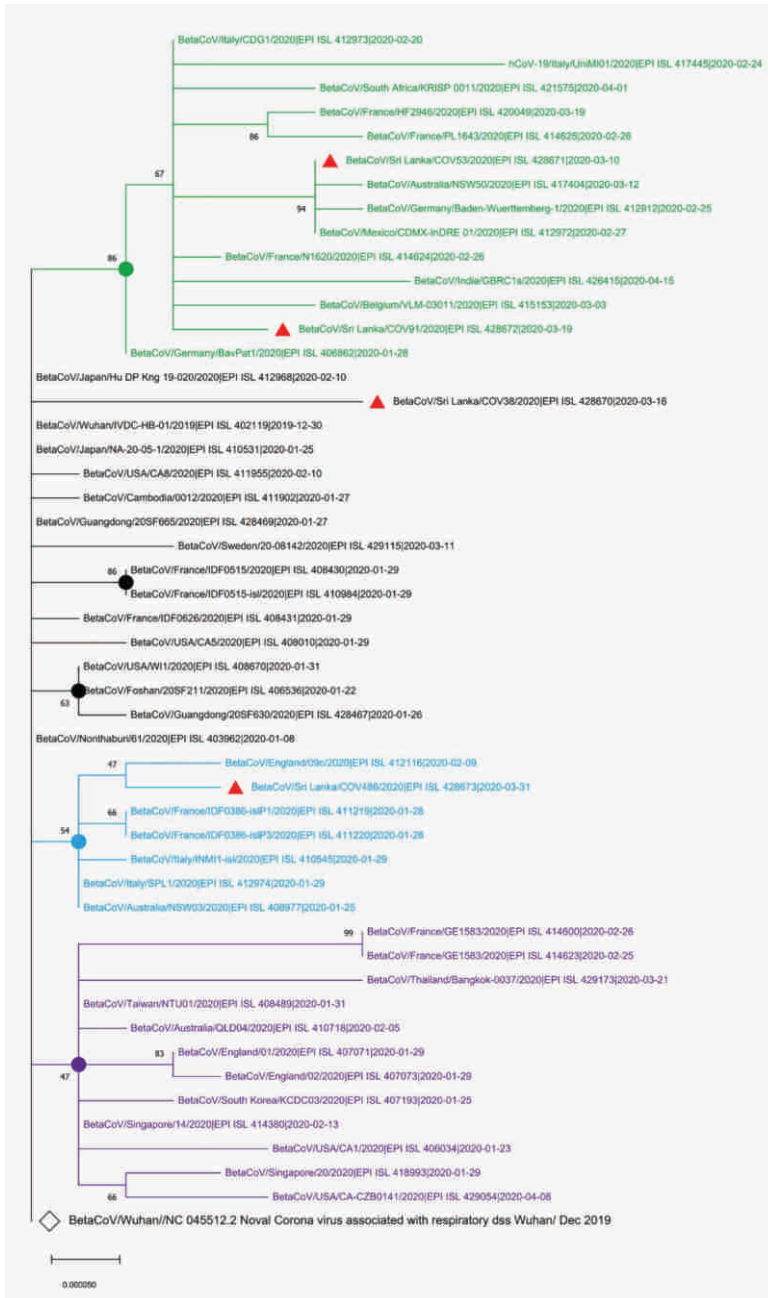


Figure: Molecular evolutionary analysis of SARS CoV-2 introduced to Sri Lanka on March 2020. The red triangle ▲ indicates the Sri Lankan isolates. The genetically similar strains are clustered together in different colours.

One health approach has been proposed as a successful method for containing COVID-19. Usage of more combined surveillance and monitoring methods for the existence of communicable diseases in humans and animals can help detect new infectious agents, monitor the spatio-temporal spread, and control such infections.



Source: Satharasinghe et al., 2021, Epidemiology and infection, volume 141, 2021



# 'Quality' matters: Egg nutrition

Dr. Tharanga Thoradeniya

Importance of food and nutrients for a healthy life cannot be stressed enough. Apart from malnutrition - that is either under-nutrition (lack of energy and nutrients) or over-nutrition (too much of them) both making people vulnerable for various diseases - there are many other nutrition related health issues. The key to overcome these issues is 'the right choice of right food in the right amount, at the right time'.

**For a healthy life the key is  
'moderation and wise choices'!**

Today, let's focus on a wholesome nutritious food of all times – egg.

Eggs are so nutritious that they are often referred to as 'nutritional powerhouses'. It is a very good source of protein. As for many things in life, even for protein 'quality' is more important than 'quantity'.

Protein in egg is of very high quality, which is known as complete protein, and is superior to protein in meat, fish or milk. Complete protein refers to a food source of protein that contains correct amounts of all essential amino acids. Amino acids are the building blocks of proteins. There are nine essential amino acids which can only be obtained from our diet and cannot be produced in our body. The quality of a protein depends on the presence of the relative amounts of these essential amino acids. So, egg is known as the best food source providing 'high-quality protein'.

**Egg is an excellent source of high-quality protein with all essential amino acids in right amounts and right balance.**

Other than supplying all the essential amino acids, eggs also have many other essential nutrients. Egg white mostly contains protein and the yolk contains choline, several vitamins and minerals and cholesterol. It is rich in many vitamins and minerals except vitamin C. The bioavailability of iron in egg is poor, that means although iron is present in eggs the amount that will enter our body, to do its function, is very little. But eating eggs with fruit and vegetables rich in vitamin C will enhance iron absorption. What more, making an omelette with vegetables will also reduce absorption of cholesterol as fibre in vegetables reduce cholesterol absorption. So, to add to the health benefits of eggs you can include them in a variety of dishes together with other ingredients such as vegetables, high fibre grains, onions and spices. Eggs should be served completely cooked; fully boiled, fried or as an omelette, to reduce the risk of carrying any potential bacteria. Eggs when cooked are also easier to digest.

Despite all these benefits, the main concern about eggs are its high cholesterol content. Again, as for many other things in life, moderation is the key here.

We know that cholesterol is closely linked to cardiovascular disease risk. One average egg contains about 212mg of cholesterol, that is roughly accounting for 2/3<sup>rd</sup> of the recommended daily limit of cholesterol. Our body produces cholesterol daily. How much we produce also depends on how much we eat. If we eat a lot of

cholesterol from 'good' sources like eggs the body may produce less cholesterol. Why I say 'good' depends on other nutrients in that food. For example, if you take one whole egg cooked without additional oil the amount of cholesterol you get will only be the amount present in that egg. But if you get the same amount of cholesterol together with high saturated fat and refined carbs then the amount of cholesterol your body will produce will be more. Saturated fats in your food and carbohydrates (that will end up as sugars) will increase the production of cholesterol in your body. The cholesterol in blood is mainly carried by a vehicle called LDL (low density lipoprotein). You may have seen the word LDL in your lipid profile! YES, it is the so called 'bad' cholesterol! If you have a lot of cholesterol in your body at one time, the amount of LDL in blood will be more and the cells in your body may not be able to take cholesterol carried in LDL into them efficiently. The cholesterol up-take by the cells depends on the need. So, if a cell has enough cholesterol they cannot take more - even if your blood is full of LDL. So, what happens is, these LDL particles remain in blood for a longer time. This makes them susceptible to various chemical changes and finally these changed particles will be scavenged by a scavenger in the body called 'macrophages'. This will eventually lead to fatty deposits in your arteries known as 'atherosclerotic plaques' -which is the start of cardiovascular disease!

Moderate intake of egg, that is up to one egg per day, was not associated with the risk of cardiovascular disease as

revealed by a large study recently published in 'The British Medical Journal' (BMJ, 2020). The same study suggests that if you replace red meat (e.g. beef) with eggs then you may have a lower risk of cardiovascular disease. Finally, it is not really the number that matters but the 'quality' of each food and the healthiness of the diet pattern. A diet rich in fruit, vegetables, pulses, whole grains and low /non-fat dairy and lean protein is considered as a healthy diet pattern. It is safe for a healthy person (adult or a child) who is having a healthy eating pattern and an active lifestyle to eat one whole egg per day. Those who are having cardiovascular diseases or who are at risk of developing cardiovascular disease may limit eating 2-3 whole eggs per week based on individualized advice from your nutritionist/medical practitioner. Considering all the nutritional benefits of eggs, it makes so much sense to reduce your daily cholesterol intake from other food sources - such as deep-fried food, fast food, processed food like pastries and biscuits, and meat with skin and fat – so that you have space to include whole eggs in your meal.

**Current recommendations focus on 'overall healthy eating patterns'.  
Include eggs in moderation as a part of a healthy eating pattern.**

#### The many positives of eggs

- Contain high quality complete protein. An average egg of 50g has about 7g of protein.
- Contain the right kind of fats. The total fat content of an egg is about 5g out of which saturated fat is only 1.6g. Carbohydrates are in trace amounts.
- Have choline, which is especially good for brain, nerves and heart particularly in your growing fetus and baby. So, it's important for pregnant women. Choline is crucial for memory development too.
- Contains heart healthy nutrients - antioxidants and anti-inflammatory nutrients such as lutein, zeaxanthin & selenium. It also has vitamin E & zinc. These are important to fight against the toxins that enter our body.
- Rich in Vitamins & minerals, including iron and calcium.
- Have high amounts of vitamin A that is good for your eyes and skin. Vitamin A will improve your immunity to protect you from diseases.

- Contains most of the B vitamins (B<sub>12</sub>, B<sub>2</sub>, B<sub>5</sub> and folate) important to maintain your energy levels and support nerve functions.
- Egg is one of few foods that contains vitamin D, which is important for your bone health and immunity.
- There are still many unexplored bioactive compounds in eggs which may be highly beneficial for health.
- Eating eggs make you full, reducing the crave for food and help to manage our healthy weight – starting the day with an egg is a good idea.
- Affordable and available.
- Easy to prepare and has a lot of properties important for cooking delicious foods.
- Provides good nutrition to all stages of life - starting as a complementary food in infants over 6 months up to elderly who need more protein to keep their muscles healthy.
- A good choice of food when your child is sick - as it is easy digest and have high quality nutrients. It is also easy to eat due to its smooth consistency.

#### A quick delicious egg recipe that your kid (and the puppy and the kitten and you) will love !

One egg  
1/3 cup milk  
1 tbsp sugar  
Vanilla essence and grated nutmeg

Whisk the egg, milk and sugar till creamy and add a few drops of vanilla and sprinkle some nutmeg powder. Add a little lime juice. You know why its good to add lime. Yes, since the iron in egg is a little hard to absorb, adding lime -that is vitamin C -will improve the iron absorption. Pour into a bowl and steam for 10 minutes. You can replace sugar with a natural sweetener or raisings.

Do not add sugar if you are giving this to your pet. Your furry friends will still love it and so will you!

**This will give you all the goodness that we discussed above just in one egg!**



# Food systems on the brim

Dr. Krishanthi Premarathne



Food production systems are a fundamental aspect of people's health, wellbeing and global sustainability. The Sustainable Development Goals (SDGs) can be achieved through the development of comprehensive, sustainable, efficient, nutritious, and healthy food systems. At present, about half of the population in the world does not eat a properly nutritious diet.

The COVID-19 as drawn a huge attention with spreading through out the world and declaration of a pandemic situation by the World Health Organization (WHO) on March 11, 2020. The International Committee on Taxonomy of Viruses (ICTV) named the novel coronavirus that is the causative agent of COVID-19 was as SARS-CoV-2. The SARS-CoV-2 virus is similar to the other coronaviruses: SARS-CoV that causes Severe Acute Respiratory Syndrome (SARS) and MERS-CoV that causes Middle East Respiratory Syndrome (MERS); that have emerged during past two decades. Though several vaccines have been introduced still COVID-19 persists with reporting thousands of new cases every day around the world. Furthermore, every country is encountering adverse impacts on their economies due to the COVID-19 infection, marketing problems throughout food supply chains is one of the most critically affected areas.

Though the virus is easily transmitted from human to human through respiratory droplets and contaminated fomites. Therefore, food surfaces can also be a carrier for the virus. But there is no evidence that the food or water have been associated with direct transmission

of the virus. Therefore, the WHO and United States Centers for Disease Control and Prevention (CDC) have declared that there is no evidence of transmission and direct contamination of SARS-CoV-2 via food and water. However, there is a potential for transmitting the virus through various food contact surfaces throughout the production process. Hence the food can be a possible medium for transmission of the COVID -19 infection and new approaches are necessary to control the spread of the infection.

With the COVID-19 outbreak the following major issues have arisen in the food production systems.

1. People tend to follow a healthy diet to protect themselves and improve their immune systems – therefore increased demand for functional foods with bio-active ingredients.
2. Food safety has got more consideration to prevent the transmission of coronavirus among producers, retailers, and consumers.
3. With lockdown restrictions, food security issues have arisen
4. Food sustainability problems have become apparent in the era of pandemic.

The below picture summarizes the safety measures that have to be implemented in the food production systems during the COVID-19 outbreak to prevent contamination (Figure 1) (Rizou et al., 2020).

**Figure 1: Safety measures that can be applied for the food sector during the pandemic.**

Safety Measures during the COVID-19 Pandemic						
Be Healthy	Wash Hands	Disinfect Surfaces	Working Environment	Preparation	Delivery	Social Distance
<ul style="list-style-type: none"> <li>• Stay home if sick</li> <li>• Check for symptoms like fever, cough, difficulty breathing</li> <li>• Cover your mouth with a tissue or sleeve when coughing or sneezing</li> </ul>	<ul style="list-style-type: none"> <li>• Wash hands often with soap and water for at least 20s</li> <li>• Avoid touching your eyes, nose and mouth with unwashed hands</li> <li>• Use a 60% alcohol-based sanitizer</li> </ul>	<ul style="list-style-type: none"> <li>• Disinfect high touch surfaces with proper products (e.g. 62-71% ethanol)</li> <li>• Use sanitizers according to label instructions</li> <li>• Follow protective measures</li> </ul>	<ul style="list-style-type: none"> <li>• Apply proper disinfection of toilet areas</li> <li>• Develop open plan work spaces</li> <li>• Use window ventilation</li> </ul>	<ul style="list-style-type: none"> <li>• Separate raw from cooked products</li> <li>• Wash fruits and vegetables thoroughly before eating</li> <li>• Cook food in appropriate temperatures (&gt;70°C)</li> </ul>	<ul style="list-style-type: none"> <li>• Try to use "no touch" deliveries</li> <li>• Maintain time and temperature controls</li> <li>• Ensure that transport containers are cleaned and sanitized</li> </ul>	<ul style="list-style-type: none"> <li>• Stay at least 2 m from other people</li> <li>• Do not gather in groups</li> <li>• Stay out of crowded places and avoid mass gatherings</li> </ul>
(FDA, 2020a)	(FDA, 2020a)	(FDA, 2020a)	(Dietz, 2020; Liu, 2020)	(Chin et al. 2020; FDA, 2020a)	(FDA, 2020a)	(Kissler, 2020)

The researchers in the food system need to develop strategies to ensure food safety, detections methods for SARS-CoV-2 in food producing environments and sanitizing methods. Along the farm to fork chain, more control strategies are necessary to implement at consumer stage. Also, being responsible citizens and minimizing food waste can withstand a severe shock in the production sector.

# Living with Monkeys in Sri Lanka

Professor Charmalie Nahallage<sup>1</sup>, Dr. Nimal Kumarasinghe<sup>2</sup>  
and Professor Ashoka Dangolla<sup>3</sup>

<sup>1</sup> University of Sri Jaywardenapura, <sup>2</sup> Sugarcane Research Institute  
and <sup>3</sup> University of Peradeniya

## Primates in Sri Lanka

**T**here are 5 species of non human primates living in Sri Lanka namely Toque macaque – *Macaca sinica* (3 sub species), purple faced leaf langur (*Semnopithecus vetulus* – 4 sub species), grey langur (*Semnopithecus prium*) and two species of Loris namely wet zone loris (*Loris tardigradus* – two sub species) and dry zone Loris (*Loris nycticeboidus* – two sub species). These primates are found only in Sri Lanka and therefore, if they become extinct they will disappear from the entire world. There are three sub species of macaques inhabiting different climatic zones namely; Dry zone macaque (*Macaca sinica sinica*), wet zone macaque (*Macaca sinica aurifrons*) and hill country macaques (*Macaca sinica ophisthomelus*). Though these three sub species appear to be same to an untrained eye, they can be separately identified using their external characteristics. Macaques eat both plant and animal material and therefore basically they can eat all what humans eat. For example they can consume fruits, vegetables, cereals, insects and other small animals. Macaques prefer to live close to humans because all these food items are available closer to such places. Therefore, they can also adapt themselves rapidly to novel surroundings. There are several adult males and females within their troupe at times exceeding over 100 individuals. There are two species of langurs which carry larger and heavier body compared to macaques. One such species is black langur also known as purple – faced leaf langur which can be categories into 4 four sub species according to their geographical distribution. Langurs largely eat plant material and prefer to live in smaller groups. It is extremely rare that they get down to ground from trees that they live and they prefer to live within jungles. However, due to rapid disappearance of their habitat, they have adapted to live closer to human dwellings. Grey langurs are plant eaters while they live in relatively larger groups compared to black langurs. These grey langurs, similar to macaques, live closer to human dwellings and are seen on the ground more frequently compared to black langurs.

Humans and 13 different species of wild animals are in conflict in various parts of Sri Lanka, for basic needs such as food, water and shelter. Monkeys that live close to human habitat while disturbing humans to various degrees, has been identified as pests. The red faced monkeys, an indigenous species and a prominent trouble maker, have three sub species living in the hills of Sri Lanka, dry zone and low country. They are adapted to eat almost all types of food used by the humans. The Veterinary Teaching Hospital (VTH) with Postgraduate Institute of Science (PGIS) in the year 2000



studied this human – monkey conflict (HMC) within Kandy Municipal limits which showed there were individual monkey mothers with their young suckling kids and the troupes. The individual monkeys had possibly been tamed and later released or had been used in circuses to perform various acrobatic actions by people to make a living (Wijesinghe et al., 2005). The troupes (20-60 individuals) can be devastating in a home garden. Monkeys explore areas, learn fast and find their daily food while following their regular trails (routes). It is obvious that HMC has got worsen during the past 15 years (Jayalath, 2011). Monkeys eat not only plant material, but also insects that are found in and around human dwellings such as those under the roofs. This is probably why monkeys live in the periphery of the jungles close to humans. However, the behavior of different species of monkeys could be substantially different to each other (Binduhewa et al., 2005).

Strategies and methods of monkey repelling may not work throughout the country and for a long time in one location because primates are intelligent, able to learn and adapt fast. Methods based on the behavior, biology and habitats and their interactions with humans can be used in an integrated management of HMC. Among the traditional monkey repelling methods, catapult, use of chilli, fire, scaring them using other animals, animal skins, scare crows, shouting, lighting fire crackers and even killing one of them have been in practice. Some believe that capture of some monkeys, shaving their faces and/or tails and/or painting them with various colors help to keep them away from human habitat which is not true. Research must be directed towards producing commercial monkey deterrents.

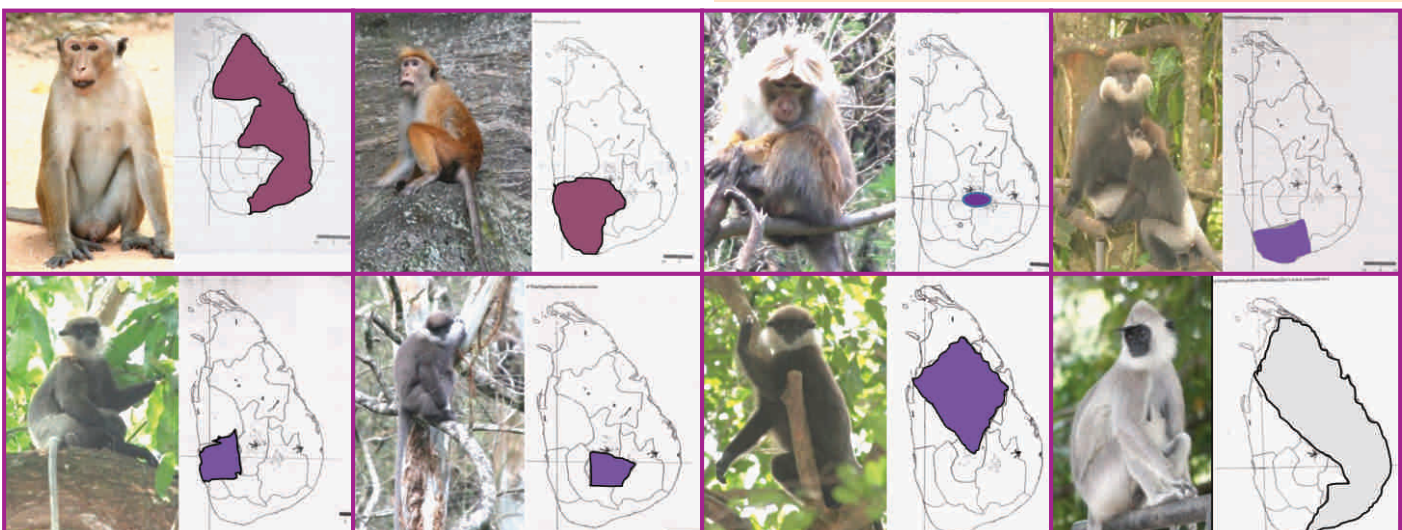
Proper and responsible waste and garbage disposal is of immense importance in this context. Monkeys in search of food immediately identify places where such garbage has been collected. Clearing buffer areas around the agricultural land can keep monkeys away to some extent. Since the monkeys use the same route to access villages and crops, disturbing such routes by cutting trees or branches and by adopting various other methods to keep them away has helped to certain extent. Electric fences have been helpful though they can be expensive and difficult to install and maintain. Some have tried thorny bushes and chilies around the cultivations with varying success. We must also keep in mind that people should never offer food to monkeys which make them expect, request and even demand food from other people. Currently, use of dogs, watchers, bells, noise producing devices, use of catapults, fire crackers, trapping,

hanging a dead monkey, painting one monkey and use of air rifles have been in use with different rates of success. It must be mentioned that none of these are long term solutions because monkeys have the ability to adapt to any such situations rapidly. Therefore, use of a combination of few methods at a time would help while planning a long term solution.

In year 2012 within Kandy city limits, several monkeys were found dead due to poisoning and some of them were found ill. Though this purposeful poisoning was reported in daily newspapers, nobody bothered to examine as to why it happened and who did it. In 2014, the monkeys at Udawattakele, a wildlife protected area in Kandy, were feeling ill possibly due to a viral condition and a few of them even died. This appears to be an annual occurrence which settles on its own though no properly conducted scientific work has been performed on this matter. It is not incorrect to state that only a very little attention towards protecting such monkeys their habitat and health has been paid.

However in 2005, all trouble making individual monkeys within Kandy municipal limits were caught using different methods; trapped and/or sedated (Wijesinghe et al., 2005). These monkeys, after capturing, were surgically castrated or spayed, vaccinated (against rabies and tetanus) and introduced into a special cage complex to create an artificial troupe to established their hierarchy. At the end of the period, hierarchy among themselves were established and hence were released to the wild (Rupasinghe, 2006) but never monitored thereafter. The medical castration of male monkeys and using human intra uterine loops on female monkeys, have been attempted though the work was inconclusive (Samal et al., 2015). However, the impact of performing such techniques only on a proportion of males or/and females in a troop, on the entire population is questionable.

A village in Hali-ela launched a program in which several meetings were held in their temple with the villagers. Later as a temporary solution, some of such monkeys were captured, surgically sterilized, vaccinated against rabies and translocated (Wijesinghe et al., 2009). The people in the area were also made to understand that the welfare and the genetic make-up of these monkeys must be looked into. This program with the assistance of the Department of Wildlife Conservation subsequently became popular in other areas of the country. The bleeding during the surgery and some post surgical complications in the eyes of the public did not create





a good image. In a capture programme conducted in Mahakanda village in Kandy, a substantial proportions of animals from several troupes were caught, surgically operated and were translocated (Jayalath, 2011). Currently, translocation is not regarded as a solution since it is harmful to the animal population and their ecosystems. However, the monkeys from the surrounding areas infiltrated the Mahakanda village in about 6-7 months later. These new monkeys though initially not destructive, became gradually so (Jayalath and Dangolla, 2011).

In 2014, the University of Peradeniya, imported 5 monkey repelling electrically operated electronic devices which were fitted on pre-determined strategic points within the university premises after a detailed study of troops and their trails in the area. The monkeys anyway did not change their trails, did not get disturbed and the instruments were producing noises that were disturbingly audible for undergraduates. However, it must be kept in mind that the monkeys would adapt to novel situations within a short period. Applying luminous paint on monkeys to make other monkeys scared, making the monkeys eat hot chillies and clipping their hair were studied as remedial measures all of which the responses were temporary and transient. In 2015, a fecal sampling survey (Mendis, 2016) on enteric parasites, selected bacteria and viruses with zoonotic potential in red faced monkeys from Kandy area was performed. Four types of protozoan cysts: *Entamoeba coli*,

*Entamoeba histolytica/ dispar*, *Giardia* spp. and *Balantidium coli*, 4 types of helminth eggs: strongyle type/ *Strongyloides* spp., *Trichuris* spp., *Enterobius* spp., *Bertiella* spp. and one bacterial species: *Shigella* sp. were found (Dangolla and Mendis, 2016) in them. These potential human disease causing agents can be spread to humans from monkeys and some have indicated that monkeys can even carry Dengue causing virus.

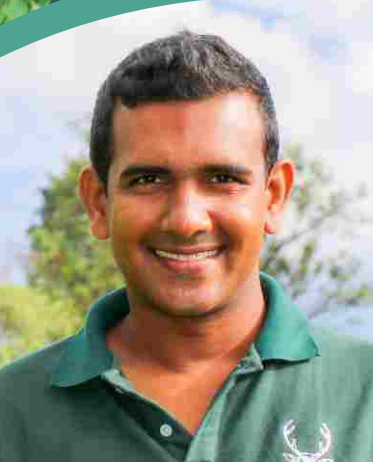
It is clear that human behavior, attitudes and methods of garbage disposal must be looked into in this regard. A special monkey proof waste bin has been introduced in Polonnaruwa area as a solution to the conflict. However, to use a monkey proof waste bin, people must take an effort to dispose their own waste. In year 2005 several schools sent their children to study on human-monkey conflict resolution to VTH. They were used to make observations in experiments with multi-disciplinary approach to solve this problem. The students were learning "hypothesis testing" lesson in the GCE A/L Science curriculum at that time (Rupasinghe and Dangolla, 2005). In 2006, an initial island-wide survey on several educational programs conducted by VTH (Rupasinghe, 2006), included teachings on potential zoonotic infections that could be transmitted to humans from monkeys. The school children learnt these principals quicker than expected (Wijesinghe et al., 2003).



# A Vet Profile

Dr. Malaka Abeywardhana

කුඩාකල අපි රූපවාහිනියේ නැරඹූ Marty Stouffer ඉදිරිපත් කල වයිල්ඩ් ඇමරිකා වැනි වැඩසටහන් නිසා වනජීවී ක්ෂේත්‍රය පිලිබඳ උද්යෝගය තවත් වැඩිවුනා.



## මම

මාලක අබේවර්ධන, වනජීවී පශු වෛද්‍යවරයෙක් වශයෙන් වනජීවී සංරක්ෂණ දෙපාර්තමේන්තුවේ උඩවලව ඇත් අතුරු සෙවනට අනුයුක්තව සේවය කරනවා.

පාසැල් අවදියේ ඉඳලම වනජීවීන් ගැන ඇල්මක් තිබුනා. ඒ වගේම වනාන්තර තියෙන ප්‍රදේශවල සංචාරය කරන්න ලොකු ආසාවක් තිබුනා. කුඩාකල අපි රූපවාහිනියේ නැරඹූ Marty Stouffer ඉදිරිපත් කල වයිල්ඩ් ඇමරිකා වැනි වැඩසටහන් නිසා වනජීවී ක්ෂේත්‍රය පිලිබඳ උද්යෝගය තවත් වැඩිවුනා.

නමුත් ඒ කාලයේ මෙම ක්ෂේත්‍රයට එකතුවෙන්නේ කොහොමද කියල හරි වැටහීමක් තිබුනේ නැහැ. ඒ කාලයේ හිතනෙ රේන්ජර් කෙනෙක් වෙන්න. ඒ රස්සාව තමයි වන සතුන් එක්ක වැඩ කරන්න පුළුවන් එකම රැකියාව කියල දන්න.

නමුත් විශ්වවිද්‍යාලයේ දෙවන වසරේදී වනජීවී කළමනාකරනය හා සංරක්ෂණය පිලිබඳ විෂය නිර්දේශයේ තියෙනව. ඉතින් මෙම විෂය ඉගැන්වීමට එන්නේ වනජීවී සංරක්ෂණ දෙපාර්තමේන්තුවේ පශු වෛද්‍යවරුන් වන වෛද්‍ය තාරක ප්‍රසාද් හා විජිත පෙරේරා ඒ වගේම සත්වෝද්‍යාන දෙපාර්තමේන්තුවේ වෛද්‍ය ගංගා විජේසිංහ වැනි ක්ෂේත්‍රයේ ප්‍රවීණයන්. ඉතින් ඔවුන්ගේ ආශ්‍රයෙන් වනජීවී සංරක්ෂණ දෙපාර්තමේන්තුව සමග කටයුතු කිරීම ඇරඹෙනවා. විශ්වවිද්‍යාලයේ වැකේශන් ලීනින් වලට ඇත් අතුරු සෙවන තෝරාගන්නවා. අවසන් වසර පරීක්ෂණයේදී වනජීවීන් සම්බන්ධ පරීක්ෂණයක් කරනවා. එයත් උඩවලව ඇත් අතුරු සෙවන මූලික කරගෙන. පසුව සීමාමාසික පුහුණුවත් උඩවලව ඇත් අතුරු සෙවනේ අවසන් කරනවා. පසුව

වනජීවී සංරක්ෂණ දෙපාර්තමේන්තුවට සම්බන්ධව පරීක්ෂණයක රැකියාව කිරීමට ලැබෙනව. මෙහෙම ඉන්නකොට තමයි රජයේ රැකියාවට සම්බන්ධ වෙන්න ලැබෙන්නෙ. ඒ දවස්වල කෙලින්ම සංරක්ෂණ දෙපාර්තමේන්තුවට පශු වෛද්‍යවරුන් බඳවාගැනීම සිදුවුනේ නෑ. ඒක නිසා රජයේ පශු වෛද්‍ය වරයෙක් ලෙස අවුරුද්දකට වැඩි කාලයක් එරාවුර් ප්‍රදේශයේ රජයේ පශු වෛද්‍යවරයා ලෙස සත්ත්ව නිශ්පාදන හා සෞඛ්‍ය දෙපාර්තමේන්තුව යටතේ සේවය කරන්න සිදුවෙනව. නමුත් ලද පළමු අවස්ථාවේම වනජීවී සංරක්ෂණ දෙපාර්තමේන්තුවට ස්ථාන මාරුවක් ලබාගන්නව. මගේ ආදරණීය බිරිඳ වෛද්‍ය කලහින් මං වගේම වනජීවී ක්ෂේත්‍රයට කැමති නිසා අප දෙදෙනාම වනජීවී සංරක්ෂණ දෙපාර්තමේන්තුව එක්ක එකතු වෙනවා. ඒ මට පුරුදු ස්ථානය වන ඇත් අතුරු සෙවණට. ඒ දිනවල වනජීවී සංරක්ෂණ දෙපාර්තමේන්තුවේ පශු වෛද්‍යවරුන් සිටියේ හත් දෙනකු විතරයි.

වනජීවී ජීවිතය කියන්නේ ඇත්තටම ලෙහෙසි රාජකාරියක් නෙමෙයි. මොකද බොහෝවිට සාමාන්‍ය රාජකාරි වේලාවන්වල නෙමෙයි අපිට රාජකාරි කරන්න වෙන්නෙ. ඒවගේම තමයි සමහර වෙලාවට ක්ලෝමීටර සිය ගණනක් දුර අපිට ගමන් කරන්න වෙනව සමහර ප්‍රතිකාර කටයුතු වලට. සමහර අවස්ථාවල රාත්‍රී කාලයේ කැලෑවල කාලය ගතකරන්න සිදු වෙනවා. බොහෝ විට අපිට ප්‍රතිකාර කරන්න වෙන්නෙ අලුත් වගේ ඉතා භයානක සතුන්ට, ඒවගේම තමයි අනෙක් වෛද්‍යවරුන් වගේ නෙමෙයි අපි ප්‍රතිකාර කරන්නේ ඔවුන්ගේ පරිසරයේ. ඒනිසා මේ කටයුතු ඉතා අපහසුයි. ප්‍රතිකාර කරන සතා විතරක් නෙමෙයි අවට පරිසරය ගැනත් ඒ නිසා හොඳ අවධානයකින් ඉන්න ඕනෙ. ක්ෂේත්‍ර රාජකාරි වලදී රෝහලක් තුල ප්‍රතිකාර කරනව වගේ නෙමෙයි. සියලුම දේ ඒ තැනට රැගෙන යන්න සිදුවෙනව. ඉතින් අපිට වගේම අපේ සහය කෙනෙක්ටත් ක්ලෝ ගණන් බර කරේ නියාගෙන කැලෑ ඇතුලෙ බොහෝ දුර යන්න වෙන අවස්ථා බොහොමයි. මේ නිසා බොහෝ පුද්ගලික කටයුතු මගහැරෙනව. මම

මගේ බිරිඳ මෙම දෙපාර්තමේන්තුවේම සේවය කිරීම නිසා හා අවබෝධය නිසා මගේ රාජකාරී නිදහසේ සිදුකරන්න අවස්ථාව ලැබෙනවා.

රාජකාරී ජීවිතයේදී මුහුණදුන් සියලුම අවස්ථා ජීවිතයට අලුත්ම අත්දැකීම්. ඇත්තෙන්ම කිසිම දිනයක රාජකාරී කිරීම කරදරයක් කියල හිතිය නැ. ඒ නිසා වනගත ජීවිතය ඉතා කටුක වුනත් අසාවෙන් රාජකාරී සිදුකරන්න පුළුවන් වෙලා තියනවා.

ඇත්තෙන්ම අපේ රටේ වනජීවී සංරක්ෂණ අංශය ඉතාම පසුගාමී මට්ටමක තියෙන්නේ. බටහිර රටවල් එක්ක සන්නිවේදනය කරනකොට චිතරක් නෙමෙයි කලාපයේ අනෙක් රටවල් එක්ක බලනකොට වුනත් අපේ රටේ පරිසර සංරක්ෂණය වගේම වනජීවී පශු වෛද්‍ය අංශයත් දියුණු වීම ඉතා හෙමින් වෙන්නේ. ඒකට ප්‍රධාන හේතුව විදිහට මම දකින්නේ තවම අපේ පරිපාලනය මේ අංශයේ වැදගත්කම අවබෝධ කරගෙන නැති වීම.



නමුත් තිබෙන අවම පහසුකම් යටතේ වුනත් දෙපාර්තමේන්තුවේ සියලුම වනජීවී පශු වෛද්‍ය වරුන් ඉතා අතර්ඝ සේවයක් සිදුකරනවා.

සමාජයට දෙන්න තියන පණිවිඩය තමා අපිට තියෙන ස්වභාවික සම්පත් ඉතාම සීමිතයි. විශේෂයෙන් වනාන්තර හා ඒවායේ සිටින වනසතුන්. ඒ නිසා අපි මේ පිලිබඳ ඉතා සංවේදී වෙන්න ඕනේ. නැත්නම් අපේ වනාන්තරවල සිටින බොහෝ සත්ව විශේෂ ඉදිරි දශක කිහිපය තුළ අපේ රටෙන් නැතිවෙලා යන්න පුළුවන්. මේ නිසා හැම විටම අපේ වන සම්පත ආරක්ෂා කරන්න සහය දෙන්න කියල තමා කියන්න තියෙන්නේ.

ඉදිරි බලාපොරොත්තු නම් ගොඩක් තියනවා. වනජීවී සංරක්ෂණයට උපරිම දායකත්වයක් දෙන්නත් අලි ඇතුන් වැනි සතුන් සඳහා ප්‍රතිකාර කිරීමට අවශ්‍ය නවීන පහසුකම් ඇති ජාත්‍යන්තර මට්ටමේ රෝහලක් හා සංරක්ෂණ මධ්‍යස්ථානයක් ලෙස ඇත් අතුරුසෙවන රෝහල වැඩිදියුණු කිරීමට දැඩි බලාපොරොත්තුවක් තියෙනවා.



# Why veterinary drugs should be used with extra care?

**Dr. Eeshan Weerasinghe**

## Do veterinary pharmaceuticals/ Drugs differ from human Pharmaceuticals?

Animals are different to human. There are many architectural and micro-architectural differences can be found in animal tissues. Therefore, the cell biology, biochemistry and organ physiology are unique to each animal species. Because of that the pathophysiological basis of drug therapy, action of a pharmaceuticals on different animals as well as animals' response to pharmaceuticals are different.

## What are the main forms of drugs used in the veterinary field?

Tablet, capsule, liquid either as suspension, syrup or drop, topical applications either as cream or lotion, chewable tablet, bolus and injectable are common forms of veterinary drugs. Injectable is widely used in veterinary field as oral delivery of medicines is quite difficult.

Veterinary drugs can be categorized based on their biochemical basis and mode of actions. Antimicrobials, ectoparasiticides, steroids & Non Steroid Anti Inflammatory Drugs (pain killers), antihistamines, sedatives and antacids are some of such common group of drugs.

The drugs can be categorized into prescription only drugs and over-the-counter drugs. However, only very few number of drugs can be recognized as over-the-counter drugs in veterinary field.

## Why do over-the-counter veterinary drugs are very limited?

There are obvious reasons behind this. Most importantly animals do not talk. They do not express how they feel in case of an ailment. Veterinarians are learnt and trained to diagnose diseases based on history, symptoms, observations, basic clinical examinations and laboratory investigations. Inexperienced people can rarely diagnose what is wrong with your animal.

Further, pharmaceuticals are exogenous preparations. They exert both wanted and unwanted effects. The veterinarian does the judgment on benefits of prescribing medicine over its/their side effects/unwanted effects on each animal in each situation. Haphazard use of medicine can end up with more unwanted

side effects. This is why one should consult veterinarian all the time before giving any medicine to your animals. Further, repeated use of previously prescribed medicines or using previously prescribed medicines when animal shows similar symptoms can be very dangerous as animals may show similar symptoms but due to totally different ailments. Fever, lethargy, loss of appetite, loose stools are some of such very common symptoms in many diseases which require totally different medications. Due to those reasons owners are strictly advised to:

- Avoid giving any medicine on their own
- Avoid purchasing medicine from pharmacies by telling symptoms
- Avoid use old previous prescriptions for another new ailments
- Avoid substituting medicines with non-prescribed medicines
- Avoid repeated use of same medicine over a period of time

## How do we identify veterinary medicine with good quality?

All veterinary medicines/drugs must be registered at Veterinary Drugs Control Authority (VDCA) before importation or manufacturing. However, sometime we see illegal products also available in the market. Those products are coming into the country through illegal routes. Most of such products are brought to the island via baggage. In a flight, passenger baggage is stored in the compartment below passenger compartment. This compartment is exposed to high temperature leading the product quality drops drastically. In some cases exposure to high temperature can end up with harmful changes to the product. Therefore efficacy of such medicine is questionable and there is no one to take the responsibility of such products. Medicines imported through proper channels are transported in temperature controlled compartments and therefore quality is not affected.

It is animal owner's right to give quality medicines to their animals. So there should be ways of recognizing quality veterinary drugs. All registered veterinary pharmaceuticals have a



VDCA registration number and it is mentioned in the package. In case of doubt anyone can check with VDCA. Further, details of manufacturer/exporter, importer/distributor are mentioned in product labels. Products from reputed manufacturers and importers are generally good in quality as such companies respect quality standards.

However, the quality of a pharmaceutical can be changed at any given time if it is not properly stored, transported, displayed and/or exposed to direct sunlight. Storing temperature of pharmaceuticals is mentioned in the product packages. One should read that information and should avoid any product which is not kept within the limits. Similarly exposure to direct sunlight can harm quality of pharmaceuticals. Discoloration of outer carton or label suggests direct exposure to sunlight or improper storage. Further, quality of any medicine can rapidly drop once it is opened for the first time. So, one should not buy any medicine with broken seal or leaking packages. The expiry date of any medicine is valid only when it is in the original package. Once open we need to finish it as soon as possible.

Quality of a pharmaceutical is not referring only to the packaging. Efficacy of a medicine is paramount. Following proper instructions such as "shake well before use", correct volume/quantity, correct interval and duration are key areas where efficacy of a medicine can be affected. One should think twice on those factors as what our animals receive is what we give.

Finally, all those who use veterinary pharmaceuticals should understand that all medicines have wanted and unwanted effects. Therefore, they should be used only when it is critically required at correct dose for correct period only. Further, symptoms can be similar in different diseases and the same diseases can have different symptoms in two occasions. So veterinary medicines should be used strictly on veterinary advice only.

# මගේ එකාගෙන් බටේ නියලා බැලුවහම...

Dr. Uditha Kossalawatte

“ඩොක්ටර්, සේලයින් ටිකක් දෙමුදු?” ප්‍රතිකාර ලබා ගැනීමට සතෙකු ගෙන ආ විට අයිතිකරුවන් විසින් එවන් ඉල්ලීම් කරන අවස්ථා අපි නිතර අත් දකිනු ලබයි. සෑම රෝගයකටම සේලයින් දීමේ අවශ්‍යතාවයක් නැතත් මොන යම් හෝ රෝගයකින් පෙළෙන තම සුරතලාට සේලයින් ටිකක් දීමෙන් ගුණයක් ලැබෙනු ඇතැයි බොහෝ දෙනෙකුගේ විශ්වාසයක් ඇත. ඒ නිසාම කොතරම් නිවැරදි ප්‍රතිකාර ලබා දුන්නත් සේලයින් ටිකක් ලබා නොදුන් විටක සමහරු කණස්සල්ලට පත් වේ.

“නොර්මල් සේලයින් ටිකක් දෙමු” එවන් අවස්ථාවක පමණක් නොව ඇත්තටම සේලයින් දීමට අවශ්‍ය වූ විටකත් පශු වෛද්‍යවරයා එසේ යෝජනා කරනු ලබයි. බොහෝ දෙනෙකුට එය පහසුවෙන් තේරුම් ගත හැකිය.

“අපි ඉතිං දුප්පත් හින්දනේ නොර්මල් එවා දෙන්නේ. කවුරුහරි ලොක්කක් ආවනං හොඳ ඒවා දෙයි” නොර්මල් සේලයින් යන්න නිසි ලෙස තේරුම් නොගෙන එවන් ප්‍රතිචාර දැක්වූ අවස්ථාවන් ගැන රස කතා අපි අතර ඇත. මෙවන් කතා පශු වෛද්‍යවරුන් වන අප අතර පමණක් නොව වෛද්‍යවරුන් අතර ද සුලබ බව සමාජ මාධ්‍යය තුල වරින්වර දකින සටහන් වලින් පෙනී යයි.

මෙවන් සිද්ධි සත්‍ය ලෙසම සිදු වුණු බවට කිසි දිනක අසා හැකි වුවද මෙහිදී අපි ඇත්තටම නිතා වෙන්හේ අපේ විෂය ක්ෂේත්‍රයෙන් බාහිර කෙනෙකු අපිට හුරු පුරුදු වචන වල තේරුම් නොදැනීම සම්බන්ධයෙනි. එවන් දෙයකට සිතාසීම සදාචාරාත්මක නොවන බව හැඟුණ ද මමත් ඔය වගේ විහිළු වලින් කොතෙකුත් විනෝද වී ඇත. එවන් විහිළු අනෙකුත් ක්ෂේත්‍ර වලද ඇති අතර පශු වෛද්‍යවරුන් වූ අපිව විහිළුවකට ගන්නා රස කතාද කොතෙකුත් ඇත. අපහාසයට නොව උපහාසයට කෙරෙන එවන් කතා වලින් කිසිවකු සිත් රිදවා නොගන්නා බවට සැකයක් නැත.

නමුත් තමන්ට බාහිර ක්ෂේත්‍රයක සිටින අයගේ හැසිරීම් සම්බන්ධයෙන් විහිළුවකින් එතා ගිය සැබෑම මනුෂ්‍ය ප්‍රශ්නයක් ඇති බව වඩා හොඳින් තේරුම් ගියේ මීට අවුරුදු දහ තුනකට (2007 වර්ෂයේදී) පෙර ලන්දල ඇටන්වල ගමේ සතුන් කීප දෙනෙකුට ප්‍රතිකාර කරන්නට ගිය අවස්ථාවකදීය.

මගේ රාජකාරී ජීවිතය තුල වැඩිම ආසාවකින් ගැවසුන ප්‍රදේශයන් වී නම් ඒ පැරණි ගම්මාන වලින් පිරුණු ලන්දල පල්ලේගම ප්‍රදේශයයි. අති දුෂ්කර ප්‍රදේශයක් උවද ඒ ගම්මාන මැදින්

ගලා යන දිය පහරවල්, අතරින් පතර ගලා හැලෙන දිය ඇලි, හෙල්මළු ක්රමයට ඇති කුඹුරු යායවල්, කුඹුරු මැදින් ඇල ඉවුරු දිගට නිමවුනු ගල් ඇතුරු අඩි අඩි පාරවල් අතරින් පිය මහින විට මට හැම හැමදාමත් දැනුනේ කඩදොරපිටිය, මඩකුඹුර, උඩගම, කොටගේපිටිය ආදී කුඹුරු යායවල් වලින් පිරුණු කොත්මලේ සුන්දර ගම්මාන අතරින් ගමන් කරනවා වැනි හැඟීමකි.

ලන්දල බොහෝ ගම්මාන වල සිටින බහුතරයක් දෙනා බාහිර ලෝකය සමඟ ඉතාමත් අඩු සබදතා ඇත්තවුන් ය. ගමකට ගිය වෙලාවක හමුවෙන කා සමඟ හෝ ඔවුන්ගේ අව්‍යාජ ගැමි ජීවිතයේ විස්තර කතා කරමින් සිටින විට කාලය ගෙවෙන්නේ නොදැනුවත්වමය.

රාජකාරී කටයුතු සදහා ඇටන්වල ගිය දිනයක මී ගවයකු හා එළ ගවයන් දෙදෙනෙකුගේ රොගී තත්වයන් වලට ප්‍රතිකාර කරවා ගැනීමට මා වෙත ඉදිරිපත් කෙරුණි. අපේ ගමකට පිටින් කවුරුහරි ගියපු වෙලාවක අවට ගෙවල් වල කිහිප දෙනෙකුත් එකතු වීම සාමාන්‍ය සිරිත බැවින් ඒ මොහොතේ සතුන්ගේ අයිතිකරුවන්ට අමතරව තවත් පස් හය දෙනෙකු වටවී මා කරනා කාර්යයන් දෙස අවධානයෙන් බලා සිටී. සතුන් පරීක්ෂාව කරන අතර දෙදෙනෙකුගේ තිබූ රෝග ලක්ෂණ අනුව එම සතුන් වෙද නලාව තබා පරීක්ෂා කර අවශ්‍ය ප්‍රතිකාර ලබා දුනිමි.

අවසානයට සිටී ගවයාගේ ඉදිරිපස දකුණු කකුල මඳක් ඉදිමී තිබූ තිබූ අතර හොඳින් බලන විට පුංචි තුවාලයක් දැක ගත හැකි විය. වෙන කිසිදු අපහසුවක් නොතිබුණු එම සතාගේ වෙනත් පරීක්ෂාවක් නොකළ මම ප්‍රතිකාර ලබා දීමට සූදානම් වීම සදහා ඖෂධ පෙට්ටිය තබා තිබුන කුඹුර මායිමේ වූ ගල්වැටිය වෙත ගියෙමි.

“මහත්තයෝ, මගේ වැස්සින් බලමු හේදු?” මා වෙත පැමිණි එම ගවයා අයිති විපේරත්න බණ්ඩා මහතා මද හඬින් පැවසීය.

“ඇයි මම බැලුවනේ? පොඩි තුවාලයක් තියෙන්නේ මේ බෙහෙන දාපුවම හරියයි.” එසේ කී මම තුවාලයට අවශ්‍ය ප්‍රතිකාර කරන්නට සූදානම් වුණෙමි.

මා කියූ දෙයින් ඔහු සැහිමකට පත්වන බවක් පෙනෙන්නේට නැත. දුකක් කලකිරීමක් ව තිබුණු ඒ මුහුණ මට අදටත් හොඳින් මතකය. අවුරුදු 70 ක් පමණ වයස් වූ

ඔහුගේ කොණ්ඩය මෙන්ම රැවුල් ද හොඳින්ම ඉදි ඇත. ඉතා සහකම් සුදුපාට උඩු රැවුලක් සහිත ඔහුගේ මුහුණේ දින කිහිපයකින් රැවුල බා තිබුණේ ද නැත. සුදු පාට සහකම් ඇති බැමි වලට යටින් ඇති හෙතු සගලේ ඔහුට යම් අසාධාරණයක් කළා වැනි හැඟීමක් තෙරෙපී ඇත..

“මගේ එකාටත් බටේ තියල බැලුවා නම්?” අපේ සමාජයේ ගොඩක් දෙනෙක් මෙන් නොව අව්‍යාජ ගැමියෙකු වූ ඔහු තමන් පෙලු ගැටලුව කෙලින්ම කියන්නට ශක්තියකින් යුක්ත විය. අනිත් සතුන් දෙදෙනාම පරීක්ෂා කරන විට වෙද නලාව තබා බැලූ මා ඔහුගේ සතා බලන විට එසේ නොකිරීම ගැන ඔහු තුළ තිබුණේ තරහකට වඩා ඔහුව නොසලකා හැරියා වැනි හැඟීමකි. කකුලේ තුවාලයක් ඇති සතකු පරීක්ෂාවට වෙද නලාව තැබීමේ අවශ්‍යතාවයක් නොමැති බව මම දැන සිටියද විපේරත්න බණ්ඩා මහතාට ඒ ගැන අවබෝධයක් නැත.

එකම ගමේ එකම මට්ටමේ ගොවීන් තිදෙනෙකුගේ ගවයන් වූ බැවින් මිල මුදල් හෝ බලය හෙතුවෙන් මම එලෙස වෙනස් කොට සැලකුවායයි සිතන්නට ඒ මොහොතේ ඔහුට ඉඩක් තිබුණේ නැත. නමුත් සායනයකදී මිල මුදල් ඇති බවට පෙනෙන අයකුට අයත් බල්ලෙකු පරීක්ෂා කරන්නට වෙද නලාව භාවිතා කර, දුප්පත් කෙනෙකුගේ බල්ලාට එවන් ‘සැලකිල්ලක්’ නොකරනු දකින අයකුගේ සිත තුල ඇති වන හැඟීම් කවරාකාර විය හැකිද?

රාජකාරී දිවිය ඇරඹූ ඔය කාලයේ ඔය කියන දිනයේ දී මගේ ප්‍රතිචාරය හරියටම මතක නැත. බටය තබා පරීක්ෂා කරනවා වෙනුවට එවන් පරීක්ෂාවක් අවශ්‍ය නොවන බවට ගොවි මහතා දැනුවත් කිරීමට තිබූ ඉඩ කඩ වැඩිය. වයසත් සමඟ රාජකාරී ජීවිතය මුහුකුරා ගිය පසු නම් එවන් කෙනෙකු සතුටු කිරීම වෙනුවෙන් වෙද නලාව තියන්නට මා පැකිලෙන්නේ නැති බව සහතිකය. එසේ නොකළහොත් රෝගය සනීප වූණුද තමන්ටත්, තම සතාටත් අසාධාරණයක් කල බවට සිතේ ඇතිවන තුවාලය හැමදාමත් ඉතිරි වන්නට ඉඩ ඇත.



# Omega 3 pets DOGS & CATS



## BENEFITS OF OMEGA 3 SUPPLIMENTS FOR CATS AND DOGS

Omega 3 long-chain polyunsaturated fatty acids such as eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) are found in significant amounts in fatty fish (tuna, horse mackerel and salmon) and especially in the oil obtained from these species. It is proved that Omega 3 has beneficial effects on the following systems and whose deficiency in the diet can cause visible symptoms that directly affect the health of the animal.

### •ON THE SKIN

It has been shown that the daily supplement of commercial preparations of fish oil, in an average dose of 20.4 mg / kg of EPA / DHA significantly improves coat and skin quality in dogs and cats.

### •IN THE CIRCULATORY SYSTEM

There are reports that supplementation with Omega 3 in a dose between 18-25 mg/kg EPA-DHA in dogs with dilated cardiomyopathy shows a significant improvement, prevents weight loss in advanced stages and increase the survival time of these patients.

### •ON THE INMUNE SYSTEM

DHA contributes to the function and development of the retina and brain, together with EPA, they constitute lipid mediators with anti-inflammatory and immunomodulatory effects under different conditions that involve the release of various pro-inflammatory mediators which enhances immune system. Feeding Omega 3 also beneficial in treating dogs with enteropathies.

### •IN THE MUSCLESKELETAL SYSTEM

It has been shown that the consumption of Omega 3 suppresses the degradation of the extracellular matrix of the articular cartilage of dogs. The effect of Omega 3 consumption has also been evaluated in patients with osteoarthritis, a very common pathology in domestic cats.

### •IN THE VISION

In humans and animals, the functions of the brain and retina depend on DHA during intrauterine developmental and postnatal life. In dogs it was shown that the consumption of Omega 3 in pregnant females increases the concentration of maternal plasma DHA and results better visual performance in their puppies after birth.

### •IN KIDNEY AND URINARY TRACK HEALTH

In felines, kidney disease and obstructive pathologies of the urinary tract are one of the factors that considerably reduce the life expectancy of cats. In cats, there is evidence that the consumption of Omega 3 for 2 months increases the serum levels of EPA (173%) and DHA (61%), in addition to decreasing the concentration of calcium in the urine, decreasing the formation of struvite crystals and increase the resistance to the formation of Calcium oxalate crystals.

# Vetzyme



Quality Vetzyme Products  
from England

# Bob Martin®



# HEXAS

Marketed & Distributed by  
**Hemas Pharmaceuticals ( Pvt ) Ltd.**

No.12, Glen Aber Place , Colombo 03, Sri Lanka.

TP : +94 11 4766666 / 0771 983634 / 0772 207325 Fax : +94 11 2552743

# Be Lankan... Buy Lankan... Sri Lankan



**VETGROW**  
Truly Sri Lankan



Stories From **VETGROW** Land

Once upon a time, in a land without taste, two Labradors were starting a very serious conversation ...

What's for lunch ?

Wah ! The same stuff we ate yesterday..and the day before..it never changes..NEVER !

What ? I can't stand this. Who do they think we are ? Dogs ?

Well, technically yes .

Maybe. But it's just a small difference in the genetic code. They don't have to rub our noses in it. We are people too. Sigh! If only they understood us. There's not one intelligent human born after Dr. Doolittle.

Dr. Doolittle ! Max, you are a genius ! That's what we want, another Dr. Doolittle!

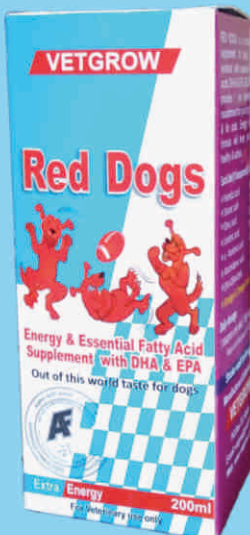
No, no. you forgot VETGROW You can find many Dr Doolittles at VETGROW

Uh huh ! And from where are we going to find another Dr. Doolittle ? I suppose they grow on coconut trees? \*Snickers\*

Huh ?

**VETGROW**  
Innovation Continues

P.O.Box 237, Kandy, Sri Lanka.  
Web: [www.vetgrow.com](http://www.vetgrow.com)  
E-mail: [vetgrow@gmail.com](mailto:vetgrow@gmail.com)  
077 698 0888, 077 393 3982



Researched by **Veterinarians**  
Developed by **Veterinarians**  
Manufactured by **Veterinarians**  
Marketed by **Veterinarians**

