



ANS NEWS LETTER

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Feeding Dairy Cows on Sorghum Increases Milk Production



Dairy farmers can increase milk production in their cows by over 46 per cent by feeding them on fodder Sorghum as compared to Napier grass which is famous among many farmers growing it to feed their livestock. In cows which were giving eight liters of milk per day, the data showed that the milk yields in the cows increased to 15 liters as feeding the sorghum. The results are pegged on proper animal husbandry. Fodder from sorghum contains between 20 per cent and 24 per cent crude proteins doubling what Napier grass gives to livestock. “Napier grass contains between 10 per cent and 12 per cent raw proteins and farmers should know that higher the protein content in a fodder crop, the higher the milk yields,” .Drought tolerant, Unlike Napier grass, sorghum is a drought tolerant crop, a quality which can enable farmers feed their livestock year round. Sorghum can grow in areas with as little as 250mm of rainfall although it can do better in areas with an average of 600 mm. “Changes in weather patterns have led to the failure of both maize and Napier grass as the main sources of fodder for livestock. Therefore, in order to meet their annually fodder requirement, for farmers have to rely on drought resistant fodder crops such as sorghum”. Farmers



preserve future with fodder technology. Disease resistance, In addition to being drought resistance crop, sorghum is not easy to be attacked by diseases like

stunt, which leads to dwarfism, yellowing of the

leaves, thinning of the stems and death of the stool after harvest, Drought tolerant fodder maize gives average of twenty tons per acre.

Sorghum makes good silage, as fodder sorghum leaves and stalks can be used in place of maize for making silage while its grains can be used for human consumption & ethanol production too. When freshly chopped, the crop can be given to cows, goats, sheep, pigs, and even chickens as it contains almost the same energy levels as maize and other cereals.

“As opposed to old sorghum varieties, new varieties of the crop are not poisonous to the livestock though we advise farmers to let it dry for one day before serving it to livestock.” Additionally, sorghum can remain green in dry season when most of the other crops dry up as it can cope well when the moisture levels are very low for any plant to grow.

This makes it the best option for farmers as it can give adequate source of fodder when other fodder sources such as maize or even Napier grass.

Nilan Chanaka
(2017/2018 Batch)

Future of The Wild Meat Consumption with The Corona Pandemic



We do not know exactly where this novel coronavirus came from. There are lot of discussions about how the pangolians might have been the intermediate vector between bats and human in the Wuhan seafood market. But still it is

not proven. The sequencing of the original two covid strains, the longest common RNA subsequence in the pangolian analog is much weaker than that in the bat analog. So, it seems pretty clear that the initial reservoir was in bats, but what the pathway to human was is a bit unclear.

Covid-19 is truly novel, which means that it has never been found in any other organisms besides human beings. Its genetic similarity based on its genotype; it is more closely related to a coronavirus from bats.



Last month China took a more dramatic step placing a permanent ban on wildlife consumption. Wild animals have long been vectors for disease, and by limiting their trade, China hopes to circumvent future pandemics. Three out of four emerging diseases in humans come from animals. So, it is time to admit that we as a civilization, have outgrown the dated notion of using animals to produce meat.

When consuming meat products we have to think about more things than the taste. Especially when consuming meat of animals that are habitat from wild. It is too risky than we think and we have to consider more about condition of meat. People must select quality and properly processed meat products from a certified supplier. It could be a dramatic precaution to prevent this kind of pandemics.

Future of the wild meat production may decrease because of this covid-19 pandemic. It depends on the attitudes of human after this situation. But the impact which combined with this situation will carry over long periods of time.

Nayomi Tissera
(2016/2017 Batch)

Gardening – A True Act of Self-love

Gardening in the stereotypical sense might recall to someone as having a lush green garden with flowers blossoming in a multitude of colour. Apart from its long list of detrimental effects, the on-going global turmoil had also stirred up a few wholesome trends such as ‘Kitchen Gardening’.



Sri Lanka being a tropical paradise has been blessed with favourable environmental requirements that support the growth of various crops throughout its landmass. Even urban residents having the constriction of land limitation are looking into vertical gardening, which aids the effective utilization of space while providing the intended benefits.

The product out of your own garden is nurtured in the absence of pesticides and the use of inorganic fertilizer will be null or at its minimum. This induces the plants to boost their production of phytochemicals; vitamins and antioxidants, that strengthen their resistance to both weeds and pests. Therefore, the garden harvest will possess a higher nutritional value compared to the conventional produce. Gardening take care of one’s physical well-being in more than just one way as it is intensive of a ton of man power.

It becomes a form of aerobic exercise due to engaging in routine practices such as ploughing, digging, twisting & bending, stretching, watering and weeding. This helps in increasing strength, stamina, endurance and flexibility. The exposure to mild sunlight also elevates the production on Vitamin D causing the increase of the Calcium

level which in turn benefits the skeletal and immune system.

The whole world had been in lock down for a while and its inimical quality on mental health is being highlighted continuously by psychologists with the motive of spreading awareness. Elevated levels of stress, anxiety and depression can be belittled by another who might not deem it relatable. A conscious effort should be taken by everyone in taking care of their mental health as well as the people around them.

Apart from the well-known physical health benefits and the financial relief, the positive impact of gardening on the mental well-being of an individual is gravely obscure. The garden in its tranquillity, is a haven of restorative qualities that heal your body and mind. Gardening helps to relax by reducing stress & tension, and also provides a sense of achievement and enhances one’s self-esteem and confidence. It also increases the focus and concentration ability. Research also provides evidence to show that gardening helps reduce the risk of dementia and tones down aggressive behaviour. The sense of satisfaction gained by reaping your own produce is irreplaceable.

Kitchen Gardening is therefore a healthy trend that had surfaced the internet in a while and it should definitely be promoted extensively for the long run.

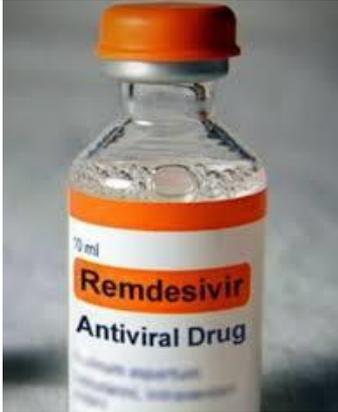
Sandithi Fernando
(2016/2017 Batch)

Susceptibility of some animals to SARS-CoV-2 by using that produce antiviral drug

The Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) pandemic may have originated in bats, but how it came to human is unknown. Coronavirus (SARS-CoV-2) cause the infectious disease COVID-19 (coronavirus disease 2019) which was first reported in Wuhan, China and a global pandemic.

Susceptibility of ferrets and animal close with human has been identified by some investigations. Can a vaccine or antiviral drug against this virus

be developed, which animal can be used to most accuracy and the efficacy of such control measures in human? To answer this question different model laboratory animals and domesticated animals have been used.



Ferrets are the most commonly used as an animal model for viral respiratory infection in human. After inoculated SARS-CoV-2 intranasally later virus were detected only in nasal turbinate, soft palate

and tonsil. These results indicated that the virus can replicate in the upper respiratory tract of ferrets. The last result is SARS-Cov-2 can replicate in upper respiratory tract of ferrets for up to 8 days without causing severe disease or death.

Cats and dogs are very close to human, because of that understanding their susceptibility against the virus is important. To cats, after inoculated SARS-CoV-2 virus intranasally, at the 3rd day after inoculated, virus was detected in nasal turbinate, soft palate, tonsil, trachea, lung and small intestine. But at the 6th day after inoculated virus was detected in nasal turbinate, soft palate, trachea and tonsil only.

However, juvenile cats have died or at the 3rd day have massive lesions in nasal and tracheal mucosa epithelium and lungs. The last result is SARS-CoV-2 can replicate in cats and that younger cats are more vulnerable than older cats and also the virus transmission between cats through nasal droplets.

The dogs have low susceptibility to SARS-CoV-2. After inoculated the virus, infectious virus was not detected in any collection of dogs. As well as dogs, pig, chicken and ducks are susceptibility for SARS-CoV-2. Virus were not detected any sample that has collected. According to the studies, Ferrets are cats are highly susceptible,

dogs low susceptible and pigs, chickens, ducks are low susceptible for SARS-CoV-2.

Some studies have reported that SARS-CoV-2 uses angiotensin converting enzyme 2(ACE2) as its receptor to enter cells. Ferrets and cats differ only by two amino acid in the SARS-CoV-2 spike contacting region of ACE2. Therefore, the mechanisms that prevent the replication of the virus in the lower respiratory tract of ferrets remain to be investigated. The fact that SARS-CoV-2 replicates efficiency in the upper respiratory tract or ferrets, make them a candidate animal model for evaluation the efficacy of antiviral drugs or vaccine against COVID-19.

H.G.S.C.Disanayaka
(2016/2017 Batch)

Poultry against locusts

Locusts are invertebrates are classified as herbivores. Their attacks on crop cultivation are considerable with increasing number of individuals. Those attacks have created a threat for the feed industry and for the livestock also. It is very important to know who these locusts are and how to control them.



Locust starts the life as an egg. Egg will turn into a nymph. It

grows with the weather changes. Initially it lives as an individual. Solitary locusts are not considered as a threat. The changes of weather have an impact on them. During dry period due to the low food availability they tend to gather. Their gatherings will cause for releasing serotonin from their body. This changes their behavior and the appearance. They increase their mobility. This collective behavior is called as swarming. Therefore, damages cause from them also increase. In this way the plagues of locusts have created.

Locust is an unfamiliar threat to Sri Lankan farmers. But many countries are experiencing these locusts' attacks from a long time. Histories of locusts' runs to the Egyptian era. Lot of countries are facing this threat at present. India and Pakistan have affected from locusts recently. China had experiences in 2000.



It is said that livestock has affected from locusts.

Fortunately, poultry has become a solution for this. Poultry species such as ducks and chickens had used by the China as a biological controlling method. In year 2000, they had successfully involved in it. Having a good appetite on locusts and flocking behavior of ducks and chickens were used by Chinese farmers to get rid of this threat. They had reared and trained the chickens and ducks. They had brought the animals to the field. A single Duck and a chicken can consume hundreds of locusts per day. This had become effective when locusts are of smaller number. However considerable areas of lands were recovered by this method. Farmers also experienced some other benefits such as gaining manure for their lands and their animals were supplied with protein. In this way locusts can use as a feed. Having this environment friendly method can reduce the damage that can cause through chemicals. India and Pakistan are now paying their attention on this strategy to avoid damage that can cause to eco system from chemicals.

Application of this strategy on Sri Lankan context may suitable because locusts have not developed to enormous swarms up to now. This strategy requires more investigations. In this way the agriculture can be turned into a weapon which can use against its own threat.

M.H.U.Maggonage
(2016/2017 Batch)

Meat, Fish, Egg Consumption and Covid 19



During this COVID 19 pandemic most people have stopped consuming meat, fish and eggs. Due to negative rumours about meat, egg and fish consumption. So, people were afraid to buy those things. However, scientists have proven, that those animals will not get affected by COVID 19 and also has found that there is no possible way to spread virus by consuming meat and fish.

Meat, fish and eggs have high nutrient value. So those nutrients will help to improve immunity. Immunity is the vital aspect thing in this case. If we have good immunity, COVID 19 will not be a big issue. Zn can improve our immunity. So, eggs contain lot of Zn. So consuming eggs will give extra benefits.



But when we buy meat products, we do not know from where the seller buys those products. So before consuming it's better to remove its polythene cover. Not only meat, when you buy any food item remove its polythene. Because corona virus can live for 19 days on polyethene covers. So, after removing its polythene cover wash it well. When you buy eggs wash those eggs using soap. After that wipe it and place it in a refrigerator. When you keep your meat products inside the refrigerator you must use tightly closed containers. Finally, when you are consuming

those products you must cook it well. Because, covid virus can sustain on the surface of those food items and it will kill under 45⁰ C temperature. So never use raw meat products. Prevention is better than cure. So always maintain your self-hygiene. Then we can be safe from this covid 19 pandemic. Always listen to respective authorities. Don't believe rumours. Stay safe and maintain proper hygiene.

We have to live with this virus until we get a vaccine. So, we have to make new food culture. We have to give more concern for hygiene. Wash your hands before cooking. Don't touch surfaces unnecessarily. If you are making food for business purpose use face mask and do not take many people to your cooking area. Always obey the rules and regulations which has been provided by the health ministry.

Harini Gallage
(2017/2018 Batch)

Good Eggs for Good Health



Eggs contain high nutrient density. It is like a nutrient goldmine. Because eggs have 6 grams of high-quality protein, eggs are the best nutrient food for people of any age. It is like a protein packed breakfast that helps sustain mental and physical energy throughout the day. If you like to start the day with energy, eat good eggs for good health.

Besides protein, an egg has 70 calories, 250 milligrams choline, 4.75 grams of total fat, varying amounts of 13 essential vitamins and

minerals, zero carbs and no sugars. Egg whites contain some of the high-quality protein, riboflavin and selenium. The egg yolk has a

nutrient package such as vitamin D, choline, lutein and zeaxanthin. As well as the egg is a source of phospholipids.



Would you like to know about nutrients in eggs how to effect for our health???

- ✓ *Choline* – It promotes normal cell activity, liver functions and the transportation of nutrients throughout the body. During pregnancy, choline support healthy brain development of the fetus.
- ✓ *No Gluten* – Eggs are naturally gluten-free. There is not exactly a glut of gluten-free breakfast options.
- ✓ *Lutein and Zeaxanthin* – They are believed to reduce the risk of developing cataracts as well as slow the progression of age-related macular degeneration, a disease that develops with age. So, the egg is a powerhouse of disease-fighting nutrients.
- ✓ *Cholesterol* – Eggs are high in cholesterol, but don't adversely affect blood cholesterol. Eggs leads to elevated level of HDL cholesterol. It is linked to lower risk of many diseases.

And also, eggs contain higher amounts of omega-3 fat and are much higher in vitamin A and E. If you can get your hands on pastured or omega-3 enriched eggs, these are even better. Eggs are pretty much the perfect food. If you can eat this protein packed breakfast it gives a well-rounded breakfast. So, let us eat eggs to obtain a nutrient goldmine for good health.

Jesmi Silva
(2017/2018 Batch)

ANS Blood Drive 2020 – “DONATE BLOOD DONATE LIFE”

Blood donation is one of the noblest and greatest donations a man can make. Many Sri Lankans lose their lives due to lack of blood. After identifying the service requirement of a donation of blood, 3rd year students of Animal Science Degree Programme annually organized “ANS blood drive” which was started in 2009 as a charitable activity. All the academic, non-academic staff members in Uva Wellassa University actively participated in this event in every year. Badulla General Hospital, Monaragala hospital and the National Blood Transfusion Service extend great cooperation to make this event a success.

“ANS Blood Drive 2020” was successfully organized and completed by the 3rd year Animal Science students (2015/2016 batch), on 21st of January, 2020 in the premises of Uva Wellassa University. This event was organized for the 11th consecutive year by the students of Animal Science Degree Programme with the aid of Blood Banks of Badulla and Monaragala hospitals. Prof E.D.N.S.Abeyrathne, Department of Animal Science was the academic coordinator who greatly contributed to make this event a reality. More than 200 donors including the students and staff members from all Degree Programmes of the Uva Wellassa University Contributed generously to this endeavour. We are really grateful for everyone who helped to show the real values of mother UWU.

Nimantha Rupasinghe
(2015/2016 Batch)

