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Milk for Life as a Source of Nutrition

Milk is an excellent source of nutrition including vitamins, minerals, protein, fats as well as antioxidants.

It is like a powerhouse of energy. As a result, there is much widespread use throughout the world. As it can supply that nutrition milk play a major role in our body that is very helpful to maintain our health and wellness. Drinking milk daily is very important for any age groups that helps to provide healthy teeth and bones, and to reduce muscles and joint pains since it contains high amount of Calcium and Protein. As well it is very rich in antioxidant properties which prevent many diseases, specially heart diseases and also stroke, diabetes, cancer and osteoporosis.

Cow's milk is best wholesome supplement for children as well as for adults. The milk of other animals of qualities is different. When considering goat milk is richer in Calcium than Cow's milk. Also, it has high levels medium chain fatty acid that helps to maintain lower cholesterol. Camel's milk has most nutrition because it is very rich with protein, vitamin B, minerals and better anti-microbial property. According to health specialist its milk is lactose free.

But it is said that drinking too much of milk could be bad for our health. However, researchers still tempt to find out more about this. Drinking large quantities of milk (500ml or more) simultaneously can cause diarrhea, stomach cramps and allergic reactions. This is known as lactose allergy. The 2015 Dietary Guidelines for Americans recommend two or three cups of milk to children per day. This level is depending on their age. All of that milk has been enjoyed from drinking or by consuming dairy products such as curd, butter, cheese, ghee, ice-cream etc. that are necessary for growth and to achieve a well-balanced diet in childhood as well as adulthood.

Jesmi Silva (2017/2018 Batch)

Organic poultry farming

Organic agriculture has increased greatly over past several years as consumer demand for these products has risen. With this organic farming of poultry,

- No use of synthetic amino acid
- Limited quantity of synthetic Methionine (especially for growth & productive performance, and size of egg & laying of eggs) and anti-oxidant are used.
- Output mainly organic meat contain around 50% more beneficial omega-3-fatty acid and also slightly lower concentration of 2 saturated fats.
- Rich of iron, vitamin E & some other vitamins.



Here animals have an extremely high standards of living. This farming system improve the ecology of the area where farming set up due to method involved in the farming. Extremely less or no use of chemical, which is the most important factor influencing the health of the consumer and the taste of the bird or quality of the product is better than the other conventionally farmed birds.

Low investment with this farming system crop is supplied with the manure left by bird & crop cultivation serves as poultry ration & provide straw for bedding. The flock size in a farm is much smaller when compared to other.

Conventional & free-range farm should be reduce all kind of stress on birds.

When compared with other normal poultry management, organic farming has low investment because there is interdependence of cropping and poultry within the same farm. The land should be properly managed & suitable vegetation in the farm area while there may be proper shelter for bird & there should be natural water. Under soil, they have more space in their houses and have better access to larger outdoor ranges.

Feeding for these animals especially natural acid can be used as preservatives in feed substances. Substance like colouring agents, flavours, and odour making agent and appetite stimulants must should be produced naturally. Antibiotics, medicine and growth promoters are not allowed to be fed to them. Additives for crop residues should be obtained only from sea salt, yeast, enzymes, sugar, honey, acetic, formic and propionic bacteria, whey etc.

Before starting an organic poultry farming there are many issues to need to be successful that. Some Of them are,

The area should be free draining and wet land can be difficult to the birds.

Need much labors than other systems, that can be converted to automatic system.

There should be good capital investment and suitable land with a suitable size.

Great emphasis on feed of the poultry and it mainly concentration on the home-grown food.

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



Animal Husbandry



Animal husbandry is the branch of science deals with the practice of breeding, farming and care of farm animals such as cattle, sheep and horses by humans for advantages. Animal husbandry refers to livestock raising and selective breeding. It is a branch of agriculture.

Nowadays a large number of farmers are depending on Animal Husbandry for their livelihood. In addition to supplying milk, meat, eggs, wool and hides, animals, mainly bullocks, are the major source of power for both farmers and dryers.

Animal husbandry is the management and care of farm animals by humans for profit, in which genetic qualities and behavior, considered to be advantageous to humans, are further developed.

Examples of Animal Husbandry

- Beekeeping
- Pig Farming
- Horse Breeding
- Raising Cattle

Advantages

- Animal husbandry helps us in providing proper feed, proper shelter and protection against diseases to the domestic animals. Thus, animal husbandry helps in proper management of the domestic animals.
- Animal husbandry helps us in developing high yielding breeds of various domestic animals through cross breeding. Thus, animal husbandry increases the availability of various food products such as milk, eggs and meat, which are obtained from domestic animals
- Animal husbandry helps in raising the living standard of farmers. As a result of higher production of animal products, the income of farmers increases.
- Animal husbandry helps in systematic disposal of animal wastes. Thus, it helps in maintaining healthy environment.

Disadvantages

- Animals feed on large covers of grass, thereby depleting greenery.
- Excessive feeding on forest covers led to soil erosion.
- Disrupts local ecosystem. Prevents the usual trophic level functioning due to domestication of certain animals.
- Source of large amounts of methane, one of the main reasons for global warming.
- Spread of diseases.
- High cost of maintenance.

T. Auwart (2017/2018 Batch)



Cattle feeding

Cattle feeding system of cattle with protein, fiber, carbohydrate, minerals and vitamins they require is cattle feeding. It consists of grazing, integrated livestock farming. Types of cattle feed are pelletized feed, sweet feed & block feed, in general cattle are fed by grass & corn fed. Most dairy farmers work with nutritionists to create a feed ration that is a best suited for their cows. This ration is dependent on where the farm is located & what feed types are most commonly available. Dairy farmers & nutritionists aim for 50-60% of the diet as forage. Forage is simply plants that are consumed mainly by grazing livestock, like grass or hay. There are two groups of forages: wet & dry. An example of wet forage is silage (fermented forage). Commonly, silage on a dairy farm consist of barley, corn or alfalfa. Dry forages are pasture (fresh forage) or high-quality alfalfa hay, grass hay or straw. Some dairy farmers feed a mixture of both silage & hay, while others only feed silage or only feed hay, depending on the farm.

The other half of the diet called the concentrate. It comprised of carbohydrates, proteins, fats, minerals and vitamins. Carbohydrates, Primary sources: barley, corn, oats, wheat, molasses, beet pulp etc. Most dairy farmers grow their own barley, corn, oats, and wheat and will often process these grains to be fed to the cows. Molasses, beet pulp is purchased from a feed mill. Protein, Primary sources: canola meal, distiller's grains, soya bean meal and corn gluten meal. Fat, Primary sources:

vegetable oil, tallow & protected fatty acids. Minerals & Vitamins, Primary sources: Calcium, Phosphorus, Magnesium, Sodium, Chloride, Sulphur, Iron, Zinc, Manganese, Copper, Cobalt, Iodine, Selenium, Vitamin A, D, E and some B-Vitamins too. Farmers & nutritionists make sure all these nutrients are balanced. Prebiotics & Probiotics are also often used to help with digestion and way to ensure cows are healthy. The protein, fat, minerals, vitamins and feed additives are mixed together at feed mill and brought to the dairy farm to fed to the dairy cows, there for cattle feeding with rich of nutritious content makes the cattle healthy and more productive.

Nilan Chanaka (2017/2018 Batch)

The rise of oat milk

Oat milk is just another non-dairy alternative like soy milk, coconut milk and almond milk. Its natural sweet and nutty flavor, creamy texture and laundry list of purported healthy benefits, it is not hard to figure out why everyone lactose intolerant or not is opting to order oat milk over the regular stuff. Oat milk is more sustainable to make than some other non-dairy milk alternative.

Oat milk is made from harvesting steel cut oats which then get soaked in water for a minimum of 20 minutes. Once the oats have absorbed all the liquid, they are blended and strained through a cheese cloth. Oat milk has specially been admired for being environmentally sustainable. It uses the least amount of water during its production compared to

other plant-based milks and oat milk has a small carbon footprint.

Oat milk has a healthier fat profile than whole milk. It has less or zero grams of saturated fat and the same or more unsaturated fat. Compared to whole milk, oat milk typically contains a similar number of vitamins and minerals as cow's milk. Oat milk also has more fiber and less protein than cow's milk. It contains vitamin D and vitamin A, minerals like zinc and magnesium. Therefore, the demand for oat milk is on the rise and has become a new trend in the world market.

K.M.D.A. Senavirathna (2015/2016 Batch)

Meat products and carcinogenicity



Abnormal growth and proliferation of cells is known as cancer. Cancer and carcinogenicity are two words which bring intense feeling of fear in anyone. During the survival of food industry producers have taken steps to ensure the quality of foods. A relation of red meat and processed meat has started to mend with the time. According to various institutions there are some relationships or some kind of tangled association of eating red meat and processed meat with that of increasing risk of cancers. But there is no solid proof regarding the way of linking. Meat can be classified into red or white according to the distribution of myoglobin. Myoglobin composes of protein, globin and haem group. Red meat such as pork or beef has a higher distribution of myoglobin

compared to white meat: poultry. White meat has not come across this problem up to now. Cancer and red meat concept bind through the bridge of additives, preservatives and method of processing.

Addition of nitrites is mainly accused in this. During the curing of meat, addition of nitrites occurs. Curing of meat means packing of meat in a dry mixture of sodium chloride and curing agents. The role of nitrites is numerous. Those are inhibiting growth of harmful microorganisms like *Clostridium botulinum*, enhancing flavor and color and reducing lipid oxidation. Nitrite is a very active curing agent. Nitrates are also added these products by means of potassium and sodium salts. Nitrates also provide nitrite. Nitrites convert to nitrosamines at high heat with presence of amino acid. These compounds are said to be carcinogenic. So, during food processing these compounds can form as there are plenty of amino acids. This concept is given for describing the results that have obtained from researches. But still there is no solid answer of linking these sectors.

Meat have relatively low number of nitrites. So, does it cause a considerable impact on human health? Is there a relationship between myoglobin distribution and this idea? These are the questions that need to be answered. Until then to avoid the falling of demand for the red meat and processed meat an alternative can be used. But alternatives that have found up to now are not able to satisfy all the duties perform by nitrites. Reduction of number of nitrites can increase the threat of harmful microorganisms. It can affects shelf life and color. Therefore, exploring the reality between these and cancers while finding an alternative for nitrites is very important.

M.H.U. Maggonage (2017/2018 Batch)



Is “going vegan” a healthy option?

Violation of animal rights and poor animal welfare and the common thought of Agribusiness related to Animal Husbandry being insanely profit oriented, considering farm animals as products and tools of production rather than “living, feeling animals” have created a considerable level of commotion at all corners around the world. This has influenced the birth of a number of movements which fight for the rights of animals. It is common knowledge that most industries, especially the cosmetics and tobacco industry harbor inhumane mechanisms and operations to test their products on innocent animals, which without an argument should definitely come to an end. But, the fight for the protection of animal rights both directly and indirectly lands a punch on the face of the Animal Husbandry Industry as well. The bare focus on animal welfare has resulted consumers to move towards substitutes for even dairy products. This is the major framework that supports veganism. As these less common opinions can effortlessly be thrown into a global platform with the progress of technology and the drastic increase of social media usage, more and more consumers are being influenced to go towards the direction they are being pushed.

A vegan diet not only excludes meat, fish and poultry but vegans also choose not to use other animal products and by-products such as eggs, dairy products, honey, leather, fur, silk, wool, cosmetics and soaps derived from animal products as part of veganism. So this means that by consuming a vegan

diet, there is a possibility that the body’s requirement for some of the Essential Amino Acids may not be answered as plant proteins are incomplete, meaning that they lack one or more Essential Amino Acids that the body needs. Animal proteins on the other hand, are considered to be complete sources of protein as they contain all of the essential amino acids that the body needs to function effectively.

Proteins are rarely found in its true form. In other words, they are not found in isolation but found, bound to several other nutrients. Food that contain animal proteins are higher in certain nutrients such as Vitamin B12, Vitamin D, Docosahexaenoic Acid (DHA), Heme-iron and Zinc which serves a major contribution in various functions of the body. Heme-iron and Zinc are not only made available but are also easily absorbed by the body when ingested as animal proteins. But diets which are high in plant proteins have a long list of health benefits entitled to itself such as lower body weight, lower cholesterol and lower blood pressure levels. People following such diets also have a lower risk of stroke, cancer and death from heart disease than non-vegetarians.

Weighing the options to a global problem that can have contrasting individual opinions is not an easy task to uptake. The best option that can be considered is leaning onto a healthy well balanced diet and the Animal Husbandry Industry exerting more effort and putting more focus towards promoting animal welfare for the common good of the society as well as for the animals. But an unbiased answer to the question “Is going vegan a healthy option?” barely lies in the hands of the consumer base themselves.

Sandithi Fernando (2016/2017 Batch)

General Convocation – 2018



The 9th general convocation of Uva Wellassa University was held ceremonially on 31st August 2019 at Magam Ruhunupura International Convention Centre (MRICC), Hambantota. There, Degrees were conferred to 490 graduates comprising of 194 graduates with Bachelor's degree from the Faculty of Animal Science and Export Agriculture. Under Animal Science degree program 46 graduates were qualified for the convocation and out of them there were two first class honours.

In the convocation, nine gold medals and cash prizes were awarded to the highest achievers of the faculties for their outstanding overall Academic performance. Among them H.D.P. Ranasinghe representing Animal Science degree program was awarded with three gold medals; Asha Weerasooriya memorial Gold Medal for Department of Animal Science, Mahinda Katugaha Gold Medal for highest achiever from the Faculty of Animal Science and Export Agriculture and the Vice Chancellor's award for the best performing student from Animal Science degree program. Moreover, Mahinda Katugaha Gold Medal for highest achiever from the student's population from the Uva Province was awarded to H. A. D. C. L. Sandipani from Animal Science degree program. In this year Uva Wellassa University stands as the proud creator of 490 graduates while moving toward its theme, "Value addition to the Natural Resource Base"



Nimruk Ganepola and Asela Piyathissa are 4th year Animal Science students, who engage in weight lifting at UWU.



Nimruk Ganepola is an old boy of Harischandra National College Negombo. Some of his achievements are winning University colours in Inter University Games 2018 and University colours in SLUG 2019. He was the Vice President of UWU weightlifting team in 2018 as well.

In addition, he is an experienced senior member of UWU Rugby squad.

Asela Piyathissa is also a talented youth who brings pride to UWU, who is an old boy of Rivisanda Central College, Mawanalla. He participated in SLUG 2019 and achieved University merit award for weight class 109+ kg.

We are proud of these energetic youths and wish them all the very best in their academic and sports activities.

