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Like most government-driven initiatives, the so-called campaign against plastic pollution went into veins

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Abdullah Arijo

OPINION

An Insight Into The Comorbidities Associated With Asthma

Muhammad Mustafa

The term "comorbidity" refers to the co-occurrence of some disorders and diseases more frequently than what it would be expected by chance. A more cohesive definition would be, "two or more medical conditions existing simultaneously irrespective of their causal relationship" (Jakovljevic et al.,, 2013).

Comorbid conditions can complicate the diagnosis and management of diseases as they may lead to patients experiencing increased healthcare costs, polypharmacy, under treatment, overtreatment and even misdiagnosis of the primary medical condition (Kaplan et al.,, 2020) . Although clinical research and data of comorbidities affecting primary health conditions is somewhat still not vastly explored and documented, their presence cannot be denied. One Such Example Is The Comorbidities Associated With Asthma.

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Benefits Of Camelina Production Under Climate Change Scenarios

Iqra Ghafoor

Camelina (Camelina Sativa Crop Is Known As False Flax And Belongs To Brassicaceae Family. It Is Oldest Oil Crop In The Temperate Regions.

Agriculture business play a key role to enhance economic status of a Pakistan. It depends on crops yield, product's quality, inputs, and export enterprise.

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Defatted BSFL Meal, The Best Protein-Rich Substitute For Soy

Dr. Baseer Ahmad Khan

Insects, in particular black soldier fly larvae (BSFL), may be the best protein-rich substitute for soy because of their excellent nutritional value and little breeding area requirements. Defatted BSFL meal are a great source of protein and energy (37% to 65% BSFL is protein), and it has been said that their amino acid composition is better suited for poultry.

However, defatted BSFL meal includes chitin, which might impair protein digestion and, thus, have a negative impact on animal performance.

Effect on growth performance To evaluate if BSFL is an acceptable component for chicken feed and a soy substitute, some research has been conducted.

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IT Minister Inaugurates Gokina Smart Village Project

This pilot project is a part of Smart Villages of Pakistan, a national program that the MoITT, USF, the International Telecommunication Union, and Huawei launched in 2021.

In the Asia Pacific region, Pakistan has established the first Smart Village, which gives me great pleasure to announce. In his remarks as the chief guest at the Gokina Smart Village Project's inauguration ceremony on Wednesday in a nearby hotel, Federal Minister for IT & Telecommunication (MoITT) made the statement.

The goal of Smart Village Pakistan is to connect remote and rural communities to the Internet and provide local residents with access to a variety of digital services in order to empower them and improve their quality of life and well-being, in keeping with the government's Digital Pakistan vision and the UN SDGs.

This pilot project is a part of Smart Villages of Pakistan, a national programme that the MoITT, the Universal Service Fund, the International Telecommunication Union, and Huawei launched in 2021.

The Federal Minister for MoITT is applauding the efforts of USF, ITU, and Huawei to help rural Pakistan overcome key challenges such as limited access to healthcare, education, financial, and digital services; a lack of employment and income-creation opportunities, digital literacy and gender gaps; and a rural-urban divide exacerbated by uneven technology proliferation. The Smart Village Pakistan Project will be initiated in all provinces soon.

According to the IT Minister, a needs assessment study was conducted in Gokina, a valley settlement 21 kilometres from Islamabad, and three priority areas were determined.

Education: Both a boys' and a girls' high school are located in Gokina village. It was discovered that there were no science teachers, especially in girls' schools, which puts students at a disadvantage in terms of learning and in their ability to compete for the future professional opportunities that science subjects provide at the national and international levels. To fill this gap, the project has found an e-education provider (Tele-Taleem).

Health: The project has identified an e-health provider (Sehat Kahani) to bridge the gap in access to health services in the village, which involves commuting to Islamabad, no emergency services, no doctors, and an absence of a pharmacy. Sehat Kahani will provide basic health advice and services to the community's members.

Digital Skills & Entrepreneurship: Community members need digital skills enhancement and entrepreneurship to become entrepreneurs in areas such as fashion, stitching, handicrafts, modern agricultural skills, chef skills, marketing of products, and access to finance and markets.

Tariq Malik, the chairman of NADRA, gave a speech at the event and said, "After the success of the mobile NADRA vehicle, we are excited to launch the NADRA Motorcycle Services, starting from Gokina Smart Village and soon to be initiated all over Pakistan – where people will be able to avail all NADRA facilities close to their homes, such as family...***Read More***

Grey Channels Cause 23% Decline In Pakistan's IT Industry Exports

Nasheed Malik stated that Pakistan's technology exports totaled $190 mln in January, a 23% MoM decrease driven by declines of 20% & 35%, respectively, in computer& telecom services.

A conflict between the official and grey remittance channels caused Information Technology (IT) industry of Pakistan exports to decline by 23% month over month in January 2023.

According to Topline Securities Research Analyst Nasheed Malik, Pakistan's technology exports totaled $190 million in January, a 23% MoM decrease driven by declines of

20% and 35%, respectively, in computer and telecom services.

Computer software exports and software consulting fell by 25% and 15% MoM, respectively, among computer services. Speaking to media, Alpha Beta Core CEO Khurram Schehzad said, "There are internal and external reasons for the downtrend in IT exports." In addition to the current global economic crisis, IT service exporters are sending money through unofficial channels called Hawala and Hundi....***Read More***

Agricultural Chemicals Imports Decrease By 35.45 %

Agricultural and other chemicals were imported for $5.826 billion between July and January 2022–2023 as opposed to $9.025 billion during the same time last year.

Compared to the imports during the same period last year, the imports of agricultural and other chemicals fell by 35.45% during the first seven months of the current fiscal year.

Agricultural and other chemicals were imported for $5.826 billion between July and January 2022–2023 as opposed to $9.025 billion during the same time last year.

As compared to the same period last year, when fertilizer imports totaled 996,528 metric tons valued at US$ 578.362 million, the number of metric tons imported for local consumption during the period under review was 772,167, costing US$ 507.870 million.

This represents a 12.19 percent decrease in fertilizer imports into the country according to the data released by the Pakistan Bureau of Statistics.In addition, the nation brought in about 21,286 metric tons of pharmaceuticals worth US$ 838.580 million in the first seven months ...***Read More***

China's Policy Can Facilitate Investment In Pakistan's Renewable Energy

Senator Rukhsana Zuberi stressed the importance of conducting energy audits to identify wasteful practices and increase energy efficiency.

Experts expressed the opinion at a conference on Wednesday that because China has become a global leader in renewable energy and environmentally friendly development, investors of Pakistan may find new opportunities in this area thanks to the China's model policy.

The Pakistan China Institute (PCI) and Sustainable Development Policy Institute (SDPI) jointly hosted the conference, which had the theme "The need to switch towards a greener future: Lessons from China."

Speaking at the conference, the head of the defence committee of the Pakistani Senate and the president of the PCI said that "green is a defining element of China's development agenda" and that President Xi Jinping had promised that China would become a global leader in green development while pledging carbon neutrality on the occasion of COP in 2015.

He also noted that the transition to green technology has so far resulted in the creation of an additional 54 million jobs, demonstrating the enormous and multifaceted potential of green development. He believed that China had officially caught up to or surpassed the United States in terms of green technologies, AI, STEM, etc.

Senator Rukhsana Zuberi stressed the importance of conducting energy audits to identify wasteful practices and increase energy efficiency. After the first energy audit of the Pakistan Energy Council, a 35% reduction in energy consumption was achieved....***Read More***

Qeemat Punjab App Resolves 87,477 Complaints Out Of 88,556

The citizens have greatly benefited from the Qeemat Punjab App because it makes it possible to compare prices for necessities like meat, vegetables, pulses, and other food items.

The Punjab Information Technology Board (PITB), which developed the Qeemat Punjab App at the direction of the Punjabi government, has received 88,556 complaints so far, of which 87,477 have been resolved.

The citizens have greatly benefited from the Qeemat Punjab App because it makes it possible to compare prices for necessities like meat, vegetables, pulses, and other food items.

The app was created to give users access to government-alerted prices for produce, household goods, and other items. Users can lodge a complaint against a shopkeeper if they are charging more than what is specified in the app or what is customary in the area.

The app also allows users to view significant news and notifications released by the Punjabi government.

The app is available in both English and Urdu, and the prices of commodities can be inquired through voice for the convenience of its users....***Read More***

SAU Prioritizes New Research On Expansion Of Certified Vegetable Seeds

Winter vegetables with short growing seasons and high yields, such as gram, onion, peas, carrot, turnip, radish, garlic, spinach, and coriander, are the subject of the research.

In order to replace hybrid crops with high-yielding local crops, agriculture scientists and researchers at Sindh Agriculture University (SAU) prioritized research on new varieties and the expansion of certified vegetable seeds varieties.

They have begun studying native and non-native vegetable species. The research has begun with the projects "Genetic characterization, evaluation, and selection of onion germplasm entries for resistance to onion thrips" and "Characterization and identification of early maturing and high yielding chickpea genotypes."

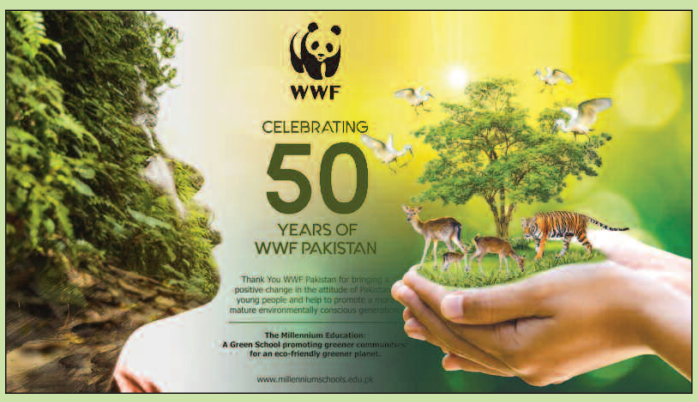
The study is being conducted with assistance from the National Research Programme for Universities (NRPU), Higher Education Commission Islamabad, and the Sindh Higher Education Commission (SHEC), Karachi, under the direction of specialists from the Faculty of Crop Production, Department of Plant Breeding and Genetics, Sindh Agriculture University.

Winter vegetables with short growing seasons and high yields,

such as gram, onion, peas, carrot, turnip, radish, garlic, spinach, fenugreek, and coriander, are the subject of the research.

In this regard, a study event was held on Wednesday at the experimental field which was attended by Dean of Crop Production Faculty Dr. Inayatullah Rajpar, Dean of Crop Protection Faculty Dr. Manzoor Ali Abro, Dean of Animal Husbandry and Veterinary Sciences Faculty Dr. Ghiyasuddin Shah Rashidi, Director of Institute of food Sciences and Technologies Dr. Aijaz Ali Soomro, Chairman of the Department of Agronomy Dr. Aijaz Soomro and a large number of teachers and students...***Read More***

WWF-PAK Celebrates 50 Years Of Conservation In Pakistan



WWF-Pakistan has a long history of working in partnership with the private sector to find innovative solutions to pressing environmental issues in Pakistan.

Industry leaders and conservationists gathered in Karachi on February 21, 2023 to commemorate "50 Years of Conservation in Pakistan" and WWF's long-standing conservation work in Pakistan. President Emeritus of WWF-Pakistan, Syed Babar Ali, served as the event's host.

More than 150 people from various backgrounds attended the event, including corporate representatives, Goodwill Ambassadors for WWF-Pakistan, members of the Board of Governors, representatives of the government, media partners, and WWF-Pakistan staff.

WWF-Pakistan is one of the world's largest conservation organizations, established in 1970 and working to conserve nature and ecological processes in Pakistan. WWF-Pakistan has a long history of working in partnership with the private sector to find innovative solutions to pressing environmental issues in Pakistan.

Over the past 50 years, the organisation has spearheaded multiple conservation and environmental successes, such as the reintroduction of the endangered Black Bucks at the Lal Suhanra National Park in 1973, a community-based trophy hunting program to support the communities of Gilgit Baltistan in 1995, the Pakistan Wetlands Programme in 2000, which culminated in Pakistan's first National Wetland Policy, and the production of organic cotton through sustainable practises in 2010...***Read More***

Speakers Underline Need Of Converting Thar Coal Into Natural Gas

The National Grid is currently receiving about 2,600 megawatts of electricity from the Thar coal reserves, which is a cheap source of energy according to him.

The Thar Coal Energy Board (TCEB) organized a stakeholder consultation session on using indigenous coal resources on Wednesday to discuss ways to use Thar coal reserves to both address Pakistan's energy needs and spur industrial development.

Speaking at a consultation session, participants emphasised the importance of turning Thar coal into petrochemicals and natural gas. Members of the textile, cement, power, and mining industries, including Shanghai Electric, Sindh Engro Coal Mining Company, and Sino Sindh Resources Ltd. attended the meeting.

The event was also attended by a number of well-known energy

and economic experts, including Akhtar Ali, Kaiser Bengali, and Pervez Tahir. Imtiaz Ahmed Sheikh, the energy minister, addressed the stakeholders and claimed that the province had a comprehensive, affordable, and long-lasting solution to the nation's energy issues. He declared that the provincial government would exert all of its efforts to improve the nation's energy security and that it was already engaged in numerous projects to help maintain the nation's macroeconomic stability. According to the energy minister, the province's natural resources and coal deposits in Thar are the best options for supplying the nation's energy needs while reducing the amount of foreign exchange needed to pay for fuel exports in order to escape the dire economic situation....***Read More***

NEPRA To Conduct Public Hearing On KE's Petition For January's FCA

K-Electric has submitted a petition for the positive FCA for the month of January at a cost of PKR 2.69/kWh.

The petition filed by K-Electric regarding Fuel Charges Adjustments (FCA) for January 2023 and Quarterly Adjustments for October to December 2022 will be the subject of a public hearing by NEPRA on February 28. K-Electric has submitted a petition for the positive FCA for the month of January at a cost of PKR 2.69/kWh. These are one-time fees that should only be applied to one monthly bill, in accordance with the applicable laws and regulations. However, KE has also asked for a reduction of PKR 7.366 per kWh due to quarterly adjustments. As a result of the uniform tariff policy that is in place throughout the nation, the effects of quarterly adjustments are typically not passed on to consumers.

The Federal Ministry of Energy, the Pakistani government, and the NEPRA Authority, however, have final say...***Read More***

UAF Confers Honorary PhD Degree To Former Korean Ambassador

Governor of Punjab congratulated the former Korean ambassador on receiving an honorary doctorate and thanked him for his work in Pakistani agriculture & rural development.

During a convocation on Wednesday at the Governor's House in this city, the former Korean ambassador to Pakistan, Song Jong-Hwan, received an honorary Ph.D. from the University of Agriculture Faisalabad (UAF). The special convocation was presided over by Governor of Punjab.

The Governor of Punjab congratulated the former Korean ambassador on receiving an honorary doctorate and thanked him for his work in Pakistani agriculture, rural development, and poverty eradication. He also recognised the pivotal role the Korean Ambassador played in advancing ties between Pakistan and Korea.

The governor of Punjab stated that the government places a high priority on quality education and that every effort is being made to bring it in line with international standards. According to him, agriculture is the foundation of the national economy. He claimed that today's knowledge is based on research and that a knowledge-based economy is the norm.

He emphasised the use of modern research and technology to boost agricultural output. The governor of Punjab advised teachers to give students' character development special attention in addition to academics.

Governor stated that climate change has had a serious impact on Pakistan. He claimed that climate change was to blame for the devastating loss of life and property caused by the floods in Pakistan. According to him, the

collaboration between the University of Agriculture Faisalabad and foreign universities and institutions is an improvement.

He claimed that not only would this create strong connections for knowledge and research, but it would also present a chance to pick up new agricultural technology.

Caretaker Provincial Education Minister, Chairman Higher Education Commission (HEC) Mukhtar Ahmed, Vice-Chancellor University of Agriculture, Prof. Dr. Iqar Ahmed were present on the occasion.

In the Pakistani province of Punjab, Faisalabad is home to the University of Agriculture, Faisalabad, formerly known as the Punjab Agricultural College and Research Institute.

It was founded in 1906 as the country's first significant institution of higher agricultural education

TikTok's Digital Event Held To Launch Safety Ambassadors Program

TikTok's #SaferTogether initiative also aims to raise awareness about user safety and how they can take advantage of the various in-app safety features that are available.

The widely used platform for sharing short videos, TikTok, held its first-ever digital safety event in Pakistan to introduce its "Safety Ambassadors Program," which aims to safeguard its users.

The well-known app stated in a statement, "The application has been praised for its creative and diverse community, and its strong emphasis on user protection and safety has contributed to its popularity. Another step in that direction is the platform's #SaferTogether campaign, which aims to increase national awareness of digital safety."

Leading Pakistani content producers like Taimur Salahuddin (aka Mooroo), Irfan Junejo, Faiza Saleem, Amtul Haseen Baweja, Hamza Bhatti, Areeka Haq, Anoushey Ashraf, and Kazi Muhammad Akber were present at the Digital Safety Event. The panelists discussed a variety of topics, including false information, harassment, cyberbullying, and online scams, while urging people to use the internet responsibly. They also provided advice and guidelines to help content producers create engaging content.

TikTok's #SaferTogether initiative also aims to raise awareness about user safety and how they can take advantage of the various in-app safety features that are available.

The Safety Center, a central location for safety updates, is a feature of the Chinese short-video application. According to the statement, this offers up-to-date details on all the measures TikTok takes to continuously improve safety and security on the platform, along with all the necessary tools and advice.

The short-form video hosting service TikTok, also known as in China, is run by the Chinese business ByteDance. Videos uploaded by users are hosted there, and they can be anywhere from three seconds to ten minutes long. The internationalized version of TikTok, was introduced to the Chinese market in September 2016. Most markets outside of mainland China saw its 2017 iOS and Android launch; however, it wasn't until 2 August 2018 that it merged with another Chinese social media service, Musical.ly, to become available globally.

Pakistan Needs To Learn From China's Green Development: Experts

In order to lessen its own climate change challenges, Pakistani experts and officials said on Wednesday that the nation should take lessons from China's green development initiative.

Muhammad Ayub, managing director of the National Transmission and Despatch Company, stated that Chinese power plants are not only supplying Pakistan with affordable electricity, but they are also contributing to the country's green development. He referred to their contribution as essential to help Pakistan reach its renewable energy target.

In order to lessen its own climate change challenges, Pakistani experts and officials said on Wednesday that the nation should take lessons from China's green development initiative.

Speaking at a conference titled "The Need to Switch Towards a Greener Future: Lessons from China...***Read More***

AIOU Hosts Fourth Int'l Conference On Early Childhood Development

A suitable plan should be created, according to Dr. Mukhtar Ahmed, for the upbringing and instruction of children.

The fourth International Conference on Early Childhood Development (ECD) got underway on Wednesday at Allama Iqbal Open University (AIOU), with a focus on creating an all-encompassing ECD plan.

The inaugural session was presided over by Prof. Dr. Nasir Mehmood, Vice Chancellor of AIOU, and Dr. Mukhtar Ahmed, Chairman of the Higher Education Commission (HEC), was the chief guest.

In cooperation with the Ministry of Planning, Development, and Special Initiatives, UNICEF, the World Health Organization, the Pakistan Alliance for Early Childhood, the Rupani Foundation, Save the Children, the Shifa Foundation, Sightsaver, the Aga Khan Foundation, and Aga Khan University, the Faculty of Education at AIOU is hosting this conference. According to Dr. Mukhtar Ahmed, Pakistan places a lot of emphasis on professional and higher education, but it neglects early childhood education.

He claimed that in order to promote ECD throughout the

nation, the Ministry of Planning and Development took action in this direction in 2007. He claimed that Allama Iqbal Open University, along with other groups like the Rupani Foundation and the Pakistan Alliance for Early Childhood, played a crucial role in this national cause.

A suitable plan should be created, according to Dr. Mukhtar Ahmed, for the upbringing and instruction of children. He recognised the merits of the ECD conference and the organisers' and participants' hard work.

The conference's recommendations, according to VC, AIOU, Prof. Dr. Nasir Mehmood, would aid the government in developing an effective strategy. According to him, AIOU would keep up its initiatives and programs to further the goal of early child development.

In order to lay a solid foundation for children's education, he stated that the ECD centre building would have its foundation stone laid tomorrow at AIOU. The goals and history of the international conference on ECD were described by Khadija Khan, CEO of the Pakistan Alliance for Early Childhood.

Nasruddin Rupani, chairman of the Rupani Foundation, stated that thousands of students have graduated from ECD centres that our foundation established all over the nation. He claimed that the Ministry of Education and AIOU would assist in completing the Early Childhood Development Network. The services provided by the Ministry of Planning and Development for ECD were thoroughly...***Read More***

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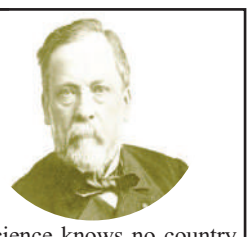


"Science knows no country, because knowledge belongs to humanity, and is the torch which illuminates the world. Science is the highest personification of the nation because that nation will remain the first which carries the furthest the works of thought and intelligence"

--Louis Pasteur

Muhammad Mustafa

Gastro oesophageal reflux or GERD is defined by a sensation of heartburn or acidic regurgitation. Comorbid GERD is often experienced after the consumption of certain foods like chocolate, alcohol, acidic drinks, coffee or a heavy meal

An Insight Into The Comorbidities Associated With Asthma

The term "comorbidity" refers to the co-occurrence of some disorders and diseases more frequently than what it would be expected by chance. A more cohesive definition would be, "two or more medical conditions existing simultaneously irrespective of their causal relationship" (Jakovljevic et al.,, 2013). Comorbid conditions can complicate the diagnosis and management of diseases as they may lead to patients experiencing increased healthcare costs, polypharmacy, under treatment, overtreatment and even misdiagnosis of the primary medical condition (Kaplan et al.,, 2020) . Although clinical research and data of comorbidities affecting primary health conditions is somewhat still not vastly explored and documented, their presence cannot be denied. One Such Example Is The Comorbidities Associated With Asthma. These Comorbid Conditions Pose Problems In Diagnostic Processes. They may mimic asthma symptoms leading to an increase in the severity of the illness and even interfere during the process of clinical treatment as asthma therapies may aggravate the comorbid conditions or vice versa. This makes looking into this avenue very important. Especially when in this age, asthmatic conditions are much prevalent in the general public.

The main comorbid conditions of asthma include rhinitis, vocal cord dysfunction (VCD), gastro-oesophageal reflux disease (GERD), psychiatric disorders, obesity and obstructive sleep apnoea (OSA). These conditions are common and often overlooked while treating asthma patients. If we take a look at some statistics, 54% asthmatics in the US (Patel et al.,, 2013) and 63% in the UK (Weatherburn et al.,, 2017) were reported to be suffering from more than one comorbid conditions associated with asthma. The severity and occurrence of comorbid conditions in asthmatics also varies with age and this poses an even greater concern for clinicians dealing with asthma patients. This article will mainly deal with a brief insight into what these comorbid conditions are and how can they affect the diagnosis, severity and treatment of asthma.

RHINITIS

Rhinitis often regarded as allergic rhinitis is a common comorbid condition found in 6 to 95% of asthma patients (Togias, 2003). The common symptoms of rhinitis include nasal itching, sneezing, increased nasal secretions, nasal obstruction and cough. The diagnosis of this comorbid condition may be missed if the patient is not questioned thoroughly about daily experiences and any changes in health conditions. In the process of treating rhinitis by using nasal corticosteroids, no evidence was found for the treatment to have a direct impact on lung function and asthma severity. Rhinitis induced sleep disturbances can lead to tiredness and fatigue, memory loss and depression, reducing the quality of life. Nasal congestion, rhinorrhea (the free discharge of a thin nasal mucus fluid) and smell restrictions are common symptoms which may help in identifying this comorbid disorder.

VOCAL CORD DYSFUNCTION

Vocal cord dysfunction (VCD) is a dynamic, episodic condition characterized by chest tightness, wheezing, hoarseness, cough and globus pharyngeus (sensation of a lump in the throat). These symptoms cause difficulties in diagnosis and assessing the severity of asthma and can be triggered by respiratory irritants, physical exertion, anxiety and even by the frequent use of inhalers. A study involving proper treatment of VCD using a multidisciplinary approach showed a decline in symptoms in 82% of the asthma patients (Kramer et al.,, 2017). Improper diagnosis of VCD can lead to inappropriate and excessive intake of bronchodilators. Although it can be difficult to diagnose, but consistent wheezing even at rest is one of the major pointers of VCD.

GASTRO-OESOPHAGEAL REFLUX (GERD)

Gastro oesophageal reflux or GERD is defined by a sensation of heartburn or acidic regurgitation. Comorbid GERD is often experienced after the consumption of certain foods like chocolate, alcohol, acidic drinks, coffee or a heavy meal. Other symptoms associated with GERD are hoarseness, development of nocturnal routine and dental erosion. According to one study, 58% of asthma patients were found to have developed GERD as a comorbid condition (Havemann et al.,, 2007). Improvement in lung function and decrease in asthmatic symptoms have been observed as a result of treating GERD through the use of Proton Pump Inhibitors (PPIs). PPIs work by blocking and reducing the production of stomach acid. Although this treatment has been proved to be beneficial for asthmatics, further evidence still needs to be thoroughly examined to establish a significant link.

One concerning point is the fact that some asthma therapies may in turn increase the severity of GERD. An example of this is the use of corticosteroids as inhalers which may cause increased acid production, aggravating GERD symptoms.

PSYCHIATRIC DISEASES

Comorbid psychiatric diseases mainly include depression, panic attacks and anxiety. A survey conducted by World Health Organization reported the prevalence of depressive symptoms in 2-26% of the patients observed (Scott et al.,, 2007). Anxiety and panic attacks often lead to excessive breathing which in turn may worsen asthmatic control. The trends of comorbid mental disorders associated with asthmatics also increase with age, owing to changes in behavior and higher rates of depression. Treating the psychiatric comorbidities with antidepressants does result...***Read More***

Dr. Baseer Ahmad Khan

The findings of this study indicate that male broiler chickens' daily feed intake and live weight may rise when dietary BSFL meal up to 10% is added, but only during the starting stage (day 1 until day 10)

Defatted BSFL Meal, The Best Protein-Rich Substitute For Soy

Insects, in particular black soldier fly larvae (BSFL), may be the best protein-rich substitute for soy because of their excellent nutritional value and little breeding area requirements. Defatted BSFL meal are a great source of protein and energy (37% to 65% BSFL is protein), and it has been said that their amino acid composition is better suited for poultry.

However, defatted BSFL meal includes chitin, which might impair protein digestion and, thus, have a negative impact on animal performance.

Effect on growth performance

To evaluate if BSFL is an acceptable component for chicken feed and a soy substitute, some research has been conducted.

A longitudinal investigation on the effects of broiler chicken development performance, blood parameters, and intestinal morphology was carried out.

There were 256 male broiler chickens used in the study, and they were fed four different inclusions of partly defatted BSFL meal from day 1 to day 35: a test diet with no BSFL meal, one with 5%, one with 10%, and one with 15% as a soy alternative (and corn gluten meal). The test diet with:

0% BSFL meal inclusion,

5%,

10%, and

15% as substitute for soy (and corn gluten meal).

Result of Defatted BSFL Meal Research

Diets were iso-energetic and iso-nitrogenous (same nitrogen and caloric content across diets). The findings of this study indicate that male broiler chickens' daily feed intake and live weight may rise when dietary BSFL meal up to 10% is added, but only during the starting stage (day 1 until day 10). This time period saw substantially faster growth and development of chicken than the eras that followed (growing period from day 10 until day 24, and finisher period from day 24 until day 35).

The greater diet palatability was credited with the increased feed consumption and live weight growth. Chickens tend to prefer feed that contains BSFL meal, as has already been documented.

In comparison to the 5% and 10% inclusion groups, the 15% BSFL group's feed conversion ratio and live weight suffered during the growth and finishing phases. The 15% BSFL meal diet's chitin concentration was thought to have a detrimental impact on the digestion of the protein.

Another research, however, discovered that after 34 days, the live weight and carcass weight of broiler chicken fed with 16% defatted BSFL meal inclusion were greater than the weights of the control bird (BSFL substituted for soy).

Here, it was hypothesized that the larger amount of crude protein and the chitin content, which didn't appear to affect protein digestion, were most likely the causes.

The quality of broiler meat Altmann and colleagues examined how the meat quality and sensory characteristics of breast fillets of broiler chicken that were packaged using highly oxygenated modified atmosphere packaging (HiOx MAP) over time changed in accordance with the current industrial packaging procedures.

When compared to breast fillets from the control group, breast fillets from broiler chicken that received defatted BSFL meal as substitute for 50% of the soy (total inclusion during starter period was 19.5% and during grower period 16%) appeared to have a more potent flavor when it was fresh (no dietary BSFL meal inclusion).

Three days and then seven days after packing, the flavor strength started to fade. The control group's breast fillet's flavor intensity similarly reduced 3 days after packing but, surprisingly, was discovered to increase once again after 7 days. No justifications were offered for the BSFL group's breast fillet's steadily declining flavor intensity.

However, it was noted that some consumers prefer less intense flavors, which might be a selling factor.

When compared to breast fillet from the control group, breast fillet from the BSFL meal group had more consistent pH values from fresh until 7 days after packing.

The introduction of BSFL was thought to contribute to a longer shelf-life. Researchers found that they can use up to 50% of the entire insect meal in another study. Researchers' team is working on this since the poultry industry now needs it. This is the only method to lessen or resolve the poultry industry's dilemma.

Defatted BSFL meal Effect on egg production

The Defatted BSFL meal consumption has an effect on egg production as well. These meals were used as a soybean replacement at 5% and 7.5% in an 8-week study in 108 individual 19-week-old pullets (Shaver White), that were given a regular corn-soybean meal diet.

In this case, corn was gradually added while soy and BSFL amounts were decreased. The authors did not, however, explain the rationale for these modifications. According to Shaver White's commercial management recommendations, this might have been done to provide isocaloric and isonitrogenous meals and satisfy the nutritional needs of 19-week-old pullets.

However, the findings demonstrated that inclusion of 7.5% of defatted BSFL meal resulted in comparable egg production, average egg weight, and egg quality parameters in comparison to the control diet (analyzed at day 5 of weeks 22, 24, and 26).

On the other hand, 5% inclusion led to noticeably less daily egg output. Additionally, the egg weight and mass were much less than those produced by control chickens.

The identical findings between the control and 7.5% BSFL inclusion groups were explained by earlier researchers the hens in the 7.5% BSFL inclusion group consuming considerably more feed than the control and 5% BSFL inclusion groups.

According to previous research, feeding BSFL considerably improved the yolk color, shell breaking strength, and shell thickness. These values may have increased due to increased calcium absorption and/or calcium metabolism in the chickens' intestines.

Conclusion

As we know that Pakistan is facing a soybean shortage nowadays, so we need some alternative to replace soy. So this thing can be done. We can add 10% whole insect meal to the feed of broiler either layer, which can help us to minimize the feed cost as we know that feed prices are directly proportionate to soy bean price.

Iqra Ghafoor

Camelina (Camelina Sativa) Crop Is Known As False Flax And Belongs To Brassicaceae Family. It Is Oldest Oil Crop In The Temperate Regions And Produced In Europe Since 19th Century

Benefits Of Camelina Production Under Climate Change Scenarios

Camelina (Camelina Sativa Crop Is Known As False Flax And Belongs To Brassicaceae Family. It Is Oldest Oil Crop In The Temperate Regions.

Agriculture business play a key role to enhance economic status of a Pakistan. It depends on crops yield, product's quality, inputs, and export enterprise. As we know that, climate change is a current and main issue that has adverse effects on crops production. Farmers can't produce maximum yield without solving yield reducing problems either related to inputs (water & fertilizer etc.) and soil productivity. Basically, climate variability resulted in temperature fluctuation that directly effects on crop phenology. Crops need more water under higher temperature due to more evapotranspiration. The other inputs like fertilizers especially ammonia volatilization due to maximum temperature also caused environmental pollution.

Researchers are working to addresses these issues and introducing new techniques to reduce environmental pollution, and innovative crops like quinoa, chia, foxtail millet and camelina etc. to enhance farmers profit with low inputs application. New emerging crops have high nutritional profiles, profit and export chances as compared to major crops like maize, wheat, rice, sugarcane and cotton etc. Among new innovative crops, Camelina sativa has a great potential to produce sustainable yield under climate variability conditions.

Introduction

Camelina (Camelina Sativa) Crop Is Known As False Flax And Belongs To Brassicaceae Family. It Is Oldest Oil Crop In The Temperate Regions And Produced In Europe Since 19th Century. It can be grown under difference environmental and edaphic conditions. Camelina is a drought tolerant crop and needs less inputs than other oilseed crops. It has unique characteristics like low temperature adaptability, short growing duration (85 to 105 days) and sustainable input for biofuels production as well. Camelina oil used in paints, coatings of different material, dermatological and cosmetics products. It is more resistant to insect pests and diseases as compared to other Brassicaceae family crops. The camelina seed is used in porridge and bread. It has great potential for minimum cost feed stock for biofuel production industries. The oil is used in salad dressing, baking, cooking, mixed fats, mayonnaise and ice creams. Camelina oil is a great source of omega-3 fatty acid due to its minimum cholesterol properties makes it suitable for human diet. The oil also rich in linoleic acid, alpha-linoleic acid, fatty acids, carbohydrates, proteins, vitamins and minerals. The vitamins included thiamin (B1), niacin (B3) and pantothenic acid (B5). The seeds contained minimum level of macro nutrients, but maximum level of iron, manganese, and zinc. All nutrients, vitamins and minerals contents are affected by environmental and edaphic conditions.

Byproducts of camelina crop

Camelina crop byproducts have wide range of uses due to its unique nutrients composition. Biodiesel is a renewable fuel made from animal fat, vegetable oils and has great attraction in petro-diesel fuel business. The advantages of biofuel included higher cetane number, lower sulfur contents and minimum carbon monoxide emissions. Recent studies showed that methyl ester produced from camelina oil contained maximum iodine content which is useful against lubricating oil deterioration. Camelina biofuel production is a safe option under climate change scenarios due to its low carbon monoxide emissions compared to other oil crops. The other main byproduct of camelina is oil cake used in animal feed production. Camelina cakes contained residual oil, crude protein, amino acids, fibers, minerals, cysteine, glycine, lysine contents. It is also suitable for poultry feed. According to research camelina oil used for chicken feed enhanced omega-3 contents in the eggs.

Camelina seeds and oil also proved to reduced cholesterol level in humans. Regular use of camelina seeds and oil reduced LDL (low density lipoprotein) levels effectively in humans. It has antioxidants and tocopherols and helpful in the cells regeneration, slenderness recovery and skin elasticity.

Camelina production requirements

Camelina sativa is a crop of temperate regions and grown in winter and zaid-rabi season (February) in Pakistan. It is self-pollinating crop by means of insects. The seed rate is 6 to 7 kg ha-1. Researchers reported that camelina seeds contained approximately 44% edible oil with quality nutritional contents as compared to other crops. Pre emergence herbicide is recommended at time of soil preparation.

The plant growth and development is affected by nutrients application. It required minimum rate of N, P and K based fertilizers. It can be harvested by combine harvester. The water contents of seed less than 11% at time of harvesting. For long time storage purpose seed moisture contents should not exceed 8%. Humidity deteriorate the seed quality and price as well.

Future research

Climate variability is a major issue across the globe. It caused major loss in crop production due to high temperature, erratic rainfall, wind storm etc. So, farmers must know about new crops which can easily adjustable in current cropping scheme and required minimum inputs for higher yield production. The price of camelina crop is higher in market than other crops. So, farmers can get higher profit rate and improve their life style...***Read More***

Abdullah Arijo

Besides the multiple campaign against plastic pollution, it is usually seen that the cattle roaming on roads spend hours in the garbage and eating plastic. There are reports of marine animals trapped in plastic waste containing toxic chemicals which can harm the animal's vital organs, ultimately taking them to the point of no return

Campaign Against Plastic Pollution, Nothing But A Cosmetic Arrangement

Like most government-driven initiatives, the so-called campaign against plastic pollution went into veins. The cosmetic arrangement has brought nothing but worst. It was like a test case both for federal and provincial administrations to perform what they talk about a lot in the name of the catchy commodity the "Plastic Pollution".

Although the campaign against plastic pollution was very slow, but the initiative had seen the light of day in Islamabad's capital, while Sindh has not gone beyond slimy slogans to let this dream come true. Steel nerves and long-term planning are the only tools that may hit where it hurts more, this time the masses.

Plastic today has virtually taken over and become popular. However, Polyethylene, which today is one of the world's most ubiquitous plastics, had been created in 1898, and then again in 1933.

Plastic, a petroleum bi-product, now is a widely used item around the sphere. Plastic is one out of 12 products produced while crude petroleum is subjected to purification. So, drop or rise in the price of oil directly affects the cost of making new plastic products, including bags and bottles.

Our ancestors passed on to us a worth living biosphere, but so-called industrialization has ruined every blessing, may it be water, air or land to name few.

Plastics are a non-renewable form of energy, and they are disposed of is to burn the product, which leads to air pollution because poisonous chemicals are released into the atmosphere during combustion. Besides, when such smoke is inspired by animals or humans it can affect their general well-being and cause respiratory disorders including lung cancer.

Moreover, plastic posed pollution has caused greater impacts on the environment by adding share into CFC gases, that in turn are a leading cause of depletion in the Ozone layer that is a major cause of Global Warming.

Global industry analysts conclude that global plastic consumption throughout the globe was approximated at 260 million tons in 2008, and it was predicted to be more than 300 tons in 2015, actual figure was 322 million tonnes. In 2021, global plastics production was estimated to be 390.7 million metric tons, with an annual increase of four percent.

These plastics harm in diversified ways. Wildlife and marine creatures at times confuse plastics wastes for food, affecting them when ingested or may be exposed to the toxic chemicals present in the plastics that can cause biological upsets. Instead of green pastures, urban cattle are subjected to eat from garbage.

It is unequivocal truth that large quantities of plastics have been found in the stomachs of many dead animals. When the plastics are ingested, they upset or fill up the digestive systems of the animals, thus contributing to their death due to blockage or starvation.

Besides the multiple campaign against plastic pollution, it is usually seen that the cattle roaming on roads spend hours in the garbage and eating plastic. There are reports of marine animals trapped in plastic waste containing toxic chemicals which can harm the animal's vital organs, ultimately taking them to the point of no return.

Plastic, a petroleum bi-product, now is a widely used item around the sphere. Plastic is one out of 12 products produced while crude petroleum is subjected to purification. So, drop or rise in the price of oil directly affects the cost of making new plastic products, including bags and bottles

Also, toxic chemicals such as polybrominated diphenyl ether (PBDE), bisphenol A (BPA), and phthalates leaching from the plastics have been associated with medical problems in the endocrine system in general and thyroxin and calcitonin hormones. Disruption in these secretions is known to affect the reproductive performance of women and the metabolism of juveniles.

The most unbearable aspect of plastic is land pollution. Plastic wastes have resulted in the destruction and decline in the quality of the earth's land surfaces in terms of use, landscape, and ability to support life forms. Mainly, it's because plastics leach hazardous chemicals on landforms breeding grounds for diseases, and litter available space thereby reducing productive land areas. The bulk of plastics also end up in landfills and since they take years to break down, they heap up causing significant health implications to plants, people, and animals within the surrounding.

Groundwater pollution is still a hidden harm, the least known to the common man. Our municipalities do not have any proper solid waste management plan, hence tons of garbage including plastic is dumped in landfills. Decomposing bacteria and scores of fungus species do their job in decomposition, and the hazardous chemicals present in them seep underground when it rains. During the rainy season, chemicals leached from plastic are mixed with underground water tables, thereby creating underground pollution of very dirty levels.

Visit any water body Kenjhar and Manchhar for instance. Edges of the entire lake are polluted with plastic, affecting a great number of aquatic creatures, including migratory birds that travel miles from the Tundra ecosystem to the warm water lakes of Sindh.

Estimations reveal the existence of billions of tons of plastics in swirling convergences constituting about 40% of the globe's oceanic surfaces and to sheer surprise, the concentration of the issue increases every day.

Plastic has also found an indirect route to get into the human body. Reports from India of toxins in cow's milk led to a Supreme Court ruling in January 2014 attempting to make safe the milk supply.

The toxins, including dioxins, pass into the milk from plastic ingested by the cows, which in India are often left to fend for themselves and can be found foraging in the rubbish bins.

There are also reports that we are breathing in tiny particles of plastic, and we have no idea what they are doing to us.

These days, everyone is aware of the devastating extent of plastic pollution in landfill and in the seas and oceans; and the damage such plastic is doing to animals that live in and alongside rivers and seas. We have all seen distressing photos of turtles tied up with plastic cane holders, or seabirds who died with stomachs full of plastic, however, I, for one, was not aware of the extent of plastic pollution in the air. Deposits of these tiny microplastic particles are beginning to coat the whole Planet. We are literally creating a Plastic Planet.

Be aware. The speed with which, tiny micro plastic particles are beginning to coat the whole Planet. We are literally creating a Plastic Planet.

Our governments are best at lip services. A small-scale effort will not even be a pebble in the pond.

There is a dire need to develop robust and long-term policies to handle this issue. I would suggest developing a Ministry of Plastic Pollution with the responsibility of running a mass awareness campaign against plastic pollution and the use of re-cycle paper packing to reduce if not eliminate it forever. Or otherwise, the mass of plastic detritus present in the oceans is so huge that it is called the "7th continent".

If this continues, by 2050, there will be more plastic than fish in the oceans.

Extreme Weather Events Increase Risk Of Internet Outages: Research

Governments, private sector & nonprofit organisations whose operations depend on safe & secure flow of digital information could sustain damage from such internet outages.

Researchers discovered that the risk of internet outages has increased due to "hot spots" along the trans global cable network being exposed by ocean and nearshore disturbances brought on by extreme weather events.

Climate change may compromise the flow of digital data through fiber-optic cables lining the ocean floor. This is supported by recent research from researchers at the University of Central Florida and the National Oceanography Centre of the United Kingdom that was published in the journal Earth-Science Reviews.

Governments, the private sector, and nonprofit organisations whose operations depend on the safe and secure flow of digital information could sustain enormous damage from such internet outages. For instance, the researchers noted that as tropical cyclones in the northern Pacific Ocean intensify, submarine cables off Taiwan's coast are being put under stress.

Taiwan's sovereignty is in jeopardy because China asserts its sovereignty over the island. Additionally, melting glacial and sea ice in strategically significant polar regions "are profoundly changing ocean conditions more rapidly than many other places on Earth," the researchers discovered.

Thomas Wahl, a co-author and associate professor in the UCF Department of Civil, Environmental, and Construction Engineering, said in a release that "our analysis clearly stresses the need to carefully plan cable routes and landing station locations, factoring in a range of local hazards and how those are affected by climate change."

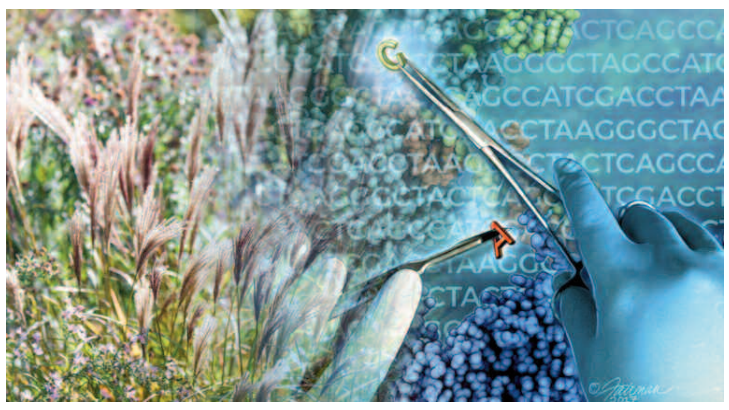
The conclusions are based on an examination of peer-reviewed data sets on the vulnerability of seafloor cable infrastructure to climate change.

The U.S. Geological Survey, the University of Southampton, the Victoria University of Wellington in New Zealand, and the International Cable Protection Committee are additional study collaborators.

"We find that ocean conditions are highly likely to change globally as a result of climate change, but the feedbacks and connections between climate change, natural processes, and human activities are frequently complicated, leading to a high degree of geographic variability," the researchers wrote.

Sea-level rise, according to the authors, will exacerbate these risks of internet outages because it will increase hazard severity...***Read More***

US Researchers Demonstrate Precision Gene Editing In Miscanthus



Using CRISPR/Cas9 gene editing technology, which is far more precise and effective than earlier techniques, they edited the genomes of three miscanthus species.

Nancy Reichert is a member of the research team that, in miscanthus, a plant with great potential as a long-term bioenergy source, successfully demonstrated precision gene editing for the first time. The study has recently been released in Biotechnology for Biofuels and Bioproducts.

Interdisciplinary team of scientists from across the United States is advancing efforts to produce alternative types of "greener" bioenergy by altering plant gene function, including a professor of biological sciences from Mississippi State.In order to transition to a more environmentally friendly future, "non-green" sources like petroleum-based energy and bio-based energy could be replaced with plants like miscanthus....***Read More***

US Energy Firms Use Ukraine Conflict To Secure Gas Contracts

The 2022 LNG contracts total 58.1 million metric tons of LNG, which is more than half the gas burned for cooking and heating in US homes in 2021.

US oil and gas companies are attempting to use long-term liquefied natural gas (LNG) contracts to address the short-term issue of a limited European gas supply caused by Russia's invasion of Ukraine according to a new report.

Research by Friends of the Earth, Public Citizen, and BailoutWatch shows that since the start of the war, the US fossil fuel industry has committed to 45 long-term contracts and contract expansions. From the 14 such contracts signed in 2021, this represents a significant increase.

Even though gas price volatility in Europe is already decreasing, the majority of the new contracts won't start delivering gas until 2026 or later, after which they will lock in prices for 20 years or longer.

LNG terminals are expensive, multi-decade investments that require market certainty to be delivered through long-term contracts. The 2022 LNG contracts total 58.1 million metric tons of LNG, which is more than half the gas burned for cooking and heating in US homes in 2021.

These contracts represent 351 million metric tons of carbon dioxide emissions a year, equivalent to the yearly emissions of 94 coal plants or one-third of all US households. The most urgent climate policy question facing the US at the moment, according to Ross, is how many of these projects are built and how many years of extraction and emissions are locked in...***Read More***

Enthusiast Gaming Ranks Number 1 Gaming Property In US

In the past three years, Enthusiast Gaming's digital media property has grown by 349%, putting it on the fast track to becoming the top gaming destination.

Enthusiast Gaming Holdings Inc. "Enthusiast Gaming", an integrated gaming entertainment company, is happy to announce that, according to the most recent digital media ratings from Comscore, a reputable independent media measurement company (Comscore

Media Metrix®, Games, January 2023, U.S.), it has been ranked as the top gaming property for unique visitor traffic in the United States.

All websites that are involved in online gaming and gaming information, such as Roblox, Twitch, Activision Blizzard, and IGN, are included in this reliable ranking of multi-platform digital traffic.

Top Gaming Properties in the United States:

Unique Visitors (000)

1 Enthusiast Gaming 49,120
2 ROBLOX.COM 44,882
3 TWITCH.TV 44,088
4 Activision Blizzard 32,0515
Interactive Take 2 29,756
6 FANDOM Games 27,485
7 GAMURS Group 23,302
8 IGN Entertainment 21,478
9 EA Games – Media Network 17,274
10 Future Games 15,853

In the past three years, Enthusiast Gaming's digital media property has grown by 349%, putting it on the fast track to becoming the top gaming destination. According to Comscore Media Metrix, Top 100 Properties, Unique Visitors, January 2020 vs. January 2023, U.S., Enthusiast Gaming is one of the three fastest growing properties...***Read More***

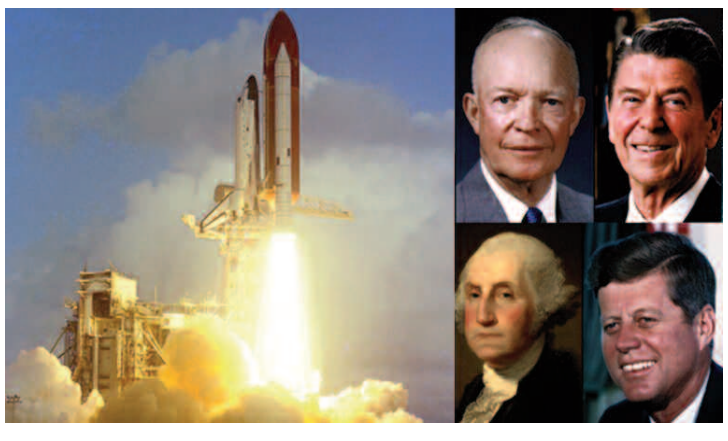
Tech Companies' Layoff Lead People To Launch New Startups

Even some people who weren't fired have changed course and launched their own ventures in response to the situation.

Henry Kirk had always considered leaving his job as the engineering manager at Google to launch his own company. However, when he was one of employees laid off by the tech companies in January, he realized his time had come—albeit sooner than he had anticipated.

Kirk and five others laid off from Google are launching their own software design and development studio. Kirk announced the venture in a LinkedIn post, which has received over 15,000 reactions. He has received 1,000 messages from people looking to work with the new agency or wishing him well. A tight deadline based on severance payouts and how Kirk and his teammates intend to split their time and money between the company and their personal lives has been set for the team to complete the vision by the end of March....***Read More***

Celestis Announces Plan To Send Former US Presidents' Hair Into Space



George Washington, John F. Kennedy, Dwight D. Eisenhower, and Ronald Reagan are among the luminaries in the ensemble.

The former presidents of the United States are getting ready for their last trip to the final frontier after a company revealed plans to send samples of their hair into space on a hair raising journey instead of their actual, long-dead bodies.

George Washington, John F. Kennedy, Dwight D. Eisenhower, and Ronald Reagan are among the luminaries in the ensemble.

The plan of hair raising journey was revealed on Monday, which is Presidents' Day in the United States. Celestis, a Texas-based business that specializes in space burials, made the announcement. Later this year, a United Launch Alliance (ULA) rocket will, according to Celestis, launch "what we believe to be authenticated DNA" of the former presidents into space. Some of the cremated remains of Star Trek creator Gene Roddenberry and other cast members...***Read More***

The Last Of Us Series Gets Some Science Accurate

From 2012 to 2015, a strain of the fungus that could infect humans independently appeared on three continents.

I've been watching the HBO series "The Last of Us," just like a lot of other people. The story follows Joel (played by Pedro Pascal) and Ellie (Bella Ramsey) as they travel across the former United States during the zombie apocalypse (now run by a fascist government called Fedra). I love reading post-apocalyptic and zombie fiction.

I was also expecting engaging storytelling because my husband had told me how well-written the plot is in the video game that served as the Last of Us series inspiration. I didn't anticipate being so fascinated by the science that underlies science fiction.

Two scientists on a fictitious 1968 talk show discuss the microbes that give them pandemic nightmares in the first minutes of the television show of The Last of Us series. One person claims that fungi, not bacteria or viruses, are the cause of his insomnia.

He claims that the fungi that control their hosts rather than consuming them are especially dangerous. He uses the example of fungi that manipulate insects by flooding their brains with hallucinogens, turning them into living zombie ants.

In The Last of Us series, he continues by stating that even though our body heat keeps us fungus-free, if the world got a little bit warmer, that might not be the case. He believes that as the temperature rises, an insect-stealing fungus could mutate a gene that would enable it to enter human brains and seize control.

He claims that such a fungus could persuade its human puppets to spread it "by any means necessary." And to make matters worse, there are no available treatments, cures, or preventative measures.

Despite it being only a short while, I became engrossed. Everything sounded so terrifying and believable.

After all, people are already susceptible to fungi such as those that cause ringworm, yeast infections, and nail infections....***Read More***