

OPINION

Uses, Composition And Health Benefits Of Soybean Oil



Muqaddas Liaqat

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It is a complex mixture of triglycerides, where 100 g of soybean oil contains 16 g of saturated fat, 23 g of monounsaturated fat, and 58 g of polyunsaturated fat. Fat contains Omega-6 and Omega-3 fatty acids, which play a vital role in supporting health and preventing chronic diseases. It has a high smoke point (the smoke point of the oil is the temperature at which fats start to break down and oxidise).

Page No 03

Role Of Climate Change In The Emergence Of Parasitic Diseases



Kashif Hussain

Global climate specialists concur that anthropogenic activities have had a significant impact on the rise in atmospheric greenhouse gas concentrations and the extinction of ecosystems.

The introduction and reemergence of parasitic diseases are extremely alarming, yet they receive less attention than certain other effects of climate change.

Although climate change is a naturally occurring phenomenon, human activities have had a substantial impact on changes in atmospheric conditions, speeding up the process and contributing to the current precarious situation.

Page No 03

Exploring The Nutritional Value And Health Benefits Of Soybeans



Ans Hussain

Soybeans have long been used in traditional Chinese medicine for their many health benefits, and they are known to help improve sleep quality.

Soybeans are a well-known superfood that is rich in essential vitamins, minerals, and essential fatty acids. Soybeans have long been used in traditional Chinese medicine for their many health benefits, and they are known to help improve sleep quality. Recent studies have linked soybean consumption to improved sleep quality and a reduction in sleep disorders such as insomnia. The high levels of tryptophan in soybeans are believed to be the primary reason for this.

Page No 04



Internal Competition Of CMOs Preventing Them From APRPU

CMOs requested a 250 percent increase in ARPU, or from 80 cents to \$2, from the National Assembly Standing Committee on IT and Telecommunication in order to cover rising costs.

Internal competition among cellular mobile operators (CMOs) prevents them from raising average revenue per user (ARPU), which has a negative impact on their business plans, according to official sources in the telecom industry.

There are no restrictions from the regulator, the Pakistan Telecommunication Authority (PTA), on CMOs to increase ARPU, with the exception of Jazz, which is a significant market player (SMP) and requires prior approval for changes in tariff to avoid market disruption, according to the officials. The telecom sector was deregulated in 2003.

Internal competition among CMOs lead to a reduction in average revenue per user (ARPU) as each operator competes to attract and retain customers by offering lower prices and more attractive packages.

CMOs requested a 250 percent increase in ARPU, or from 80 cents to \$2, from the National Assembly Standing Committee on Information Technology and Telecommunication in order to cover rising costs.

They added that Pakistan is the 237th most affordable nation out of 239, and that with their current ARPU, they are unable to compete with the EU or the US, where prices are roughly \$40. A representative for CMOs added that they only require an increase in ARPU from the current 80 percent level.

It was discovered that there

are no restrictions on three operators, including Ufone, Zong, and Telenor, to raise prices at any time when this correspondent contacted senior officials in the Ministry of Information Technology and Telecommunication, PTA, and sector experts to analyse the barriers to increasing ARPU. Since the Pakistani telecom market is unregulated, only SMP, or Jazz, can request government intervention.

The regulations prohibit giving an SMP complete control because doing so could disrupt the market, even by lowering the tariff.

However, CMOs are hesitant to raise prices on their own out of concern for losing subscribers.

Official sources continued, "If one operator increases package prices, it may lead to a loss of subscribers. For this reason, all

are looking at each other and competing to attract more subscribers, even at lower rates.

According to PTA's annual report, the mobile sector modestly improved in terms of ARPU, as evidenced by a rise from Rs. 215 per month in the fiscal years 2020-21 to Rs. 220 per month in the fiscal years 2021-22.

The growth of mobile services, the addition of new subscribers, the increased use of data services, and an increase in tariffs can all be credited with this rise.

Mobile operators' revenue comes from the sale of data services, which increased from 38% of gross revenue in 2017-18 to 61% in the following year.

The average monthly revenue per user (ARPU) for data in the mobile sector was Rs. 237 in 2021-2022, reflecting a marginal increase of 0.37%...[Read More](#)

Edtech Startup Maqsad Raises \$2.8 Mln In Seed Round



The edtech startup claimed that the round was oversubscribed and raised a total of \$4.9 million to date. In late 2021, Maqsad had previously raised \$2.1 million in a pre-seed round.

A seed round of \$2.8 million has been raised by the edtech startup Maqsad, based in Karachi. It was announced today. In addition to returning investors Indus Valley

Capital, Stellar Capital, Alter Global, Johann Jenson (SVP Product at GoStudent), and other strategic angels, the round was led by Speedinvest, one of Europe's largest seed funds.

The edtech startup claimed that the round was oversubscribed and raised a total of \$4.9 million to date. In late 2021, Maqsad had previously raised \$2.1 million in a pre-seed round.

Maqsad, a company founded in 2021 by Rooshan Aziz and Taha Ahmed, aims to provide 100 million Pakistani students with access to education through an end-to-end mobile learning platform that provides instruction, assessment, and problem-solving for grades 9 through 12.

According to a statement from the startup, Maqsad's mobile app has been downloaded more than a million times, has responded to 4 million student inquiries, and has consistently ranked as Pakistan's top education app on the Google Play Store.

By providing students with a top-notch educational experience at a significantly reduced cost, the edtech platform hopes to upend the regional educational landscape.

To make sure that learning objectives are being met, the company has gathered feedback from over 20,000 students and teachers across Pakistan. For students without easy access to qualified instructors, a major issue is solved by edtech startup Maqsad's question-solving technology ("DoubtSolve") and interactive testing.

Pakistan has one of the highest student-teacher ratios in the world, with only one teacher for every 44 students, according to a statement from the Karachi-based startup.

The high student-teacher ratio issue is just one of many problems the nation's education sector is grappling with...[Read More](#)

Jazz Revenue Declines Despite 24.3% YoY Growth In Local Currency

Despite macroeconomic difficulties, Jazz maintained its market dominance by investing more than PKR 52 billion in FY 22 to further its "4G for all" ambition.

Revenue of Jazz decreased 2.6% in USD terms during the fourth quarter of 2022 despite a 24.3% YoY growth in total revenues in local currency.

This decline was primarily caused by the devaluation of the Pakistani rupee, while the margins were constrained by an exponential rise in operational costs, including fuel, electricity, interest rates, and foreign exchange. Fuel and electricity price increases of 71% and 53% YoY, respectively, were countered by a one-time impact from the provision's reversal.

Despite macroeconomic difficulties, Jazz maintained its market dominance by investing more than PKR 52 billion in FY 22 to further its "4G for all" ambition, bringing its total investment in Pakistan to US\$10.4 billion.

Jazz also continued to focus on advancing digital inclusion and improving the quality of services for its customers. Jazz had 73.7 million mobile subscribers overall during the reporting period, with 41.3 million of those using 4G and 10 million using Voice-over-LTE (VoLTE), which provides a more immersive communication experience.

Due to the success of its digital services during the quarter, Jazz has cemented its status as the preferred lifestyle choice for

Pakistan's 123 million mobile broadband users.

With 16.4 million monthly active users and 186,000 active

merchants, JazzCash is the most widely used mobile wallet in Pakistan. In FY22, it recorded 2.1 billion transactions with a gross

transaction value of PKR 4.2 trillion.

The self-care app Jazz World, on the other hand, continued to experience strong levels of consumer adoption, with 12.7 million monthly active users. Tamasha, Pakistan's biggest in-house OTT platform, has 4.3 million active monthly users right now. Jazz's CEO, Amir Ibrahim, said, "We are working tirelessly to improve and enhance the customer experience through consistent network investments and our strong portfolio of digital services, despite an unprecedented rise in operating costs and limitations on the import of necessary telecom equipment. Increased user engagement with digital services...[Read More](#)



150 PhD Students Of IRIP Awaiting Funds To Continue Study Abroad

The initiative aims to expose PhD scholars to various fields in order to improve the calibre of the research they will conduct in Pakistan.

The Higher Education Commission's (HEC) International Research Support Initiative Program (IRIP) has up to 150 PhD students waiting for funding to continue their studies abroad. The HEC is providing Pakistani students enrolled in full-time PhD programmes with a six-month research fellowship abroad.

The program's goals include enhancing the standard of doctoral research in Pakistan to contribute to the development of a critical mass of highly qualified human resources and to make it easier to assimilate, absorb, and transfer scientific and technological knowledge and information for quick economic growth.

To bring doctoral research up to par with international standards, it also includes giving doctoral students the chance to complete training and research projects at cutting-edge research labs at reputable universities abroad. It also includes giving them the chance to interact with foreign scientists and explore opportunities for future international collaboration.

During a competitive process at the HEC for this fellowship, an IRIP student told media that she received acceptance from the University of California, Los

Angeles (UCLA) and received her award letters by January 11, 2023. By March 2, 2023, she claimed to have begun working for UCLA and received her visa stamp.



"We were informed by IRIP representatives that we could apply for funding as soon as we received our visas, on a first-come, first-served basis. She claimed that she had finished all the necessary paperwork within a month, but IRIP officials made her wait longer than a month by making excuses about a lack of funding."

She claimed that because the dates listed on the DS-2019 form and visa were rigid, she needed to secure the funding to arrive at the host university in time. The process to release the funds had begun, according to HEC spokesperson Ayesha Ikram, and the students of IRIP would receive the money close to their departure date.



Conference On Health Security Urges Intl' Collab For Health Security Risks

Promoting community involvement in health emergency preparedness and response through education, training, and participation in decision-making processes has been strongly advised by a two-day International Conference on Health Security (ICHS).

The conference's closing ceremony was presided over by Pakistan's Federal Minister for Education and Professional Training, Lt. Gen. (R) Muhammad Asghar, UVAS Vice Chancellor Prof. Dr. Nasim Ahmad (SI), Director General of CPEC (HEC), Dr. Safdar Ali Shah, and Principal KBCMA-CVAS Narowal.

Famous veterinary medical practitioners, academicians, researchers, and academicians from various nations, including Korea, China, Saudi Arabia, the United Arab Emirates, the USA, and all of Pakistan, participated physically and virtually in ICHS. The conference's organising secretary was Prof. Dr. Younus Rana.

During the closing ceremony of International Conference on Health Security, the Minister addressed the audience and urged improving the dairy sector by utilising contemporary technologies to increase milk and meat production. Strong connections, according to him, are necessary to bridge the gap between consumer demand and research on product quality.

Such conferences, according to him, are essential for the growth of the livestock industry. In order to address the climate issue in Pakistan, he suggested that climate change be covered in the curriculum. For organising the conference, he praised UVAS.



Speaking at the event, Prof. Dr. Nasim Ahmad said that the Health Security (ICHS) programme under CPEC gave us the opportunity to collaborate with renowned universities in China to build our capacity in the areas of processing dairy and meat products and value addition.

He also discussed UVAS's position and historical significance in Pakistan for the development of the livestock industry. Before that, Prof. Dr. Aneela Zameer Durrani gave the vote of thanks, and Prof. Dr. Joon-Seok Chae from the College of Veterinary Medicine at Seoul National University, Republic of Korea, gave the conference's recommendation.

The conference, which was sponsored by the Department of Veterinary Medicine at the University of Veterinary Animal Sciences (UVAS) Lahore in conjunction with the Higher Education Commission (HEC) and the China Pakistan Economic Corridor (CPEC), also advocated for the promotion of cooperation and information-sharing among nations, governments, international organisations, civil society, and the private sector to foster a comprehensive and coordinated response to global health issues.

The experts emphasised the urgent need for international cooperation among nations to address challenges in health security through the sharing of knowledge, resources, and adaptation of best practises and to ensure equitable access to essential technologies, such as vaccines, diagnostics, and treatments, especially in low- and middle-income nations like Pakistan.

They also demanded that veterinary and healthcare systems be given the tools they need to provide top-notch medical care during outbreaks, floods, and other natural disasters. Because of the stress brought on by climate change, livestock production is declining, which is extremely concerning for the availability of food.....[Read More](#)

Youth International Conclave Organises KP's Latest Career Fair

Young job seekers had the chance to network with top employers at the event, which also helped to build a thriving startup and innovative venture ecosystem.

Over 5000 people from all over the region attended the "Khyber Pakhtunkhwa's (KP) Latest Career Fair," which was organised at KUST University by Youth International Conclave in partnership with the District Youth Officer and NEP NICs Kohat.

Young job seekers had the chance to network with top employers at the event, which also helped to build a thriving startup and innovative venture ecosystem.

The fair provided businesses with a venue to showcase their goods and services to potential clients and business partners, with over 100 business stalls. Young businesspeople from all over the area were drawn to it because it also included a "Business Plan Competition,"

where they could present their creative ideas to a panel of judges and compete for prizes.

Youth International Conclave Engr. Umar Farooq Gul, the president of the Youth International Conclave and a well-known businessperson, author, and ecosystem builder, organised the fair. Under his direction, the fair effectively established connections

between job seekers and leading employers, produced chances for entrepreneurship and innovation, and facilitated meaningful interaction between established businesspeople and aspiring entrepreneurs.

The Vice Chancellor of Kohat University of Science and Technology, the Assistant Commissioner of Kohat, and

the Management of the National Expansion Plan of NICs were among the notable and reputable individuals who attended the Career Fair of the Youth International Conclave in 2023.

The speakers include Qurat UL Ain Zaman, CEO of Ain Consulting and a Chartered Accountant, as well as Engr. Shahab Hadi Khan, the founder of BeOner, Somiya Zaman, Coordinator of the Khyber Pakhtunkhwa Information Technology Board, and Qurat Shahab Hadi Khan. The occasion served as proof of the Youth International Conclave's dedication to empowering the following generation of businesspeople and leaders.

The organisation has a proven track record of putting on related events, such as conferences, workshops, and training courses, with the goal of fostering innovation, creating networks, and advancing regional economic development.....[Read More](#)



Go Punjab App Now Offers 11 Services Of Travel And Transportation

All citizen-focused mobile applications are collected into one overarching app by the Go Punjab (Government of Punjab) application.

The "Go Punjab" App, created by the Punjab Information Technology Board (PITB) in response to instructions from the Punjab government to provide online delivery of more than 33 services from various departments to the people, has 11 travel and transportation services as well. Additionally, in just a few months, the App has been downloaded by more than three lakh people.

The App now offers additional travel and transportation services, such as the delivery and tracking of driving licences, a list of noteworthy locations and accidents, and stations along the Orange Line. For the benefit of the populace, the app is also offered in Urdu.

The newly introduced My Activity feature allows citizens to view a record of the services they have received. According to PITB Chairman Faisal Yousaf, additional departments' new services will soon be added to the app.

All citizen-focused mobile applications are collected into one overarching app by the Go Punjab (Government of Punjab) application. Citizens may register using their CNIC and a valid mobile number. There is only "one username and password



to remember" for citizens.

For both Android and iPhone mobile devices, app is a downloadable mobile application. On October 14, 2022, the government of Punjab, Pakistan, officially launched it.

For the benefit of the people of Punjab, PITB created this mobile application. It is a comprehensive solution that gives users simple access to various government agencies on a single platform.

The Punjab government's initiative to help citizens save time is very laudable. There is no requirement to physically visit government offices. The elimination of bribery is a revolutionary move, which is very important. Because they can use it from the comfort of their homes, women can benefit the most from this app. The app offers a variety of services, such as obtaining birth certificates, obtaining addresses, and making payments.

British Council Doubles Scholarships For Students Of Pakistan



The programme provides funding for Pakistani women to pursue graduate degrees at any Pakistani institution that has been approved by the HEC.

The Scottish Government's Minister for International Development, Neil Gray, has announced doubling the number of scholarships available through the British Council's Scotland Pakistan Scholarship Scheme for Young Women and Girls.

According to a news release from the embassy released here on Thursday, the additional \$500,000 will double the number of school and university scholarships available to women and girls in the worst

flood-affected areas, ensuring they can continue their education with the least amount of disruption.

The Scotland Pakistan Scholarship Scheme for Young Women and Girls, which was started in late 2013, aims to increase access for underprivileged girls across Pakistan to secondary and higher education by providing them with scholarships.

The programme provides funding for Pakistani women to pursue graduate degrees at any Pakistani institution that has been approved by the HEC.

This scholarship is also available to young girls in secondary school to ensure that their

education will not be hindered by financial constraints, a problem that affects the majority of girls in Pakistan (grades 8-12).

The programme offers scholarships for higher education in the areas of STEM education, sustainable energy, agriculture and food security, and health sciences (only applicable at the master's level).

Neil Gray, the minister of international development, said: "We know that during a crisis, like we have seen in Pakistan, the impacts can too frequently affect women and girls. This funding for the British Council Pakistan is intended to ensure that more

women and girls can study and to support the long-term economic recovery of the nation by doubling the number of school and university scholarships that are available."

Since their introduction in 2013, these scholarships have allowed gifted women and girls from underprivileged backgrounds to finish their secondary education and pursue bachelor's and master's degrees in fields that are crucial to the overall development of the nation, according to British Council Pakistan Country Director Amir Ramzan.

The British Council will be able to continue empowering flood-affected women and girls and helping them realise their potential thanks to the increase in scholarship funding. Over 1400 young women in Pakistan have benefited from the Scotland Pakistan Scholarship Scheme since it was first introduced in 2013 in the university stream.

Over 15,000 schoolchildren have received support in the schools' stream.

Through the British Council Pakistan, the Scottish Government provides an annual \$400,000 scholarship programme for Pakistani women and girls. The remaining 500,000 will be distributed equally between university scholarships (200,000) and school scholarships (300,000).

ORIC Of IIU Organises Workshop On Writing Winning Proposal

ORIC of the International Islamic University (IIU) hosted a workshop with the theme "Funding Your Research: A Workshop on Writing a Winning Proposal".

Research, Innovation, and Commercialization (ORIC) of the International Islamic University (IIU) hosted a workshop with the theme "Funding Your Research: A Workshop on Writing a Winning Proposal".

Speaking to the attendees, IIUI President Dr. Hathal Homoud Alotaibi praised the work of the Vice President for Research and Enterprise (R&E) and ORIC offices and emphasised that research was the most important task and that these activities were required.

We're working to make academic and research excellence

the standard at this university, he declared. Finding opportunities for research and ultimately succeeding in that hunt required training and direction, and he thought the workshop was a positive step in that direction. He emphasised that university researchers should keep up with the standards of current research funding as it would not only help the institution attract more research funding but would also be a major factor in raising university rankings. Speaking on the possibilities for funding with the HEC and other national and international organisations were Dr. Hammad Omer, a Commonwealth scholar, and Dr. Farida Anjum, director of the Higher Education Commission's Research and Innovation Division.....[Read More](#)



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Due to its high smoke point, it can be used in place of other cooking oils such as olive oil, canola oil, or vegetable oil. It can also be used for various purposes, such as roasting, baking, frying, and mosquito repellent



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It is a complex mixture of triglycerides, where 100 g of soybean oil contains 16 g of saturated fat, 23 g of monounsaturated fat, and 58 g of polyunsaturated fat. Fat contains Omega-6 and Omega-3 fatty acids, which play a vital role in supporting health and preventing chronic diseases. It has a high smoke point (the smoke point of the oil is the temperature at which fats start to break down and oxidise).

The term "soybean oil" was first used by Jordan in 1918, but it was not until the 1940s that it became widely used. Of the early 1920s to the present, the term "soybean oil" (first introduced by Piper and Morse in 1923)

A type of legume native to East Asia that is grown as a multi-purpose bean. It is a self-fertilising crop. The optimum temperature for its cultivation is 20° to 30°C. The main producing countries are the USA, Brazil, and Argentina. Soybeans oil cultivation is limited in Europe. It is rich in polyunsaturated fatty acids and an excellent source of protein for the feed industry.

Use:

Due to its high smoke point, it can be used in place of other cooking oils such as olive oil, canola oil, or vegetable oil. It can also be used for various purposes, such as roasting, baking, frying, and mosquito repellent.

Ingredients:

Soybean oils contain palmitic acid (15%), oleic acid (56%), linoleic acid (19%), and linoleic acid (4.8%).

The iodine value of soybean oil is about 130.

Health Benefits of Soybean Oil:

Soybeans oil contains omega-3 fatty acids and omega-6 fatty acids, which reduce harmful cholesterol levels, restore collagen, and reduce the appearance of fine

lines and wrinkles.

It is rich in vitamins E and K. The presence of vitamin K in soybeans oil is vital for the

regulation of bone metabolism. One of the best-known benefits of soybean oil is its role in maintaining a healthy

immune system, which allows our body to fight disease and immunologically related disorders.



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"As technology accumulates and people in more parts of the planet become interdependent, the hatred between them tends to decrease, for the simple reason that you can't kill someone and trade with him too."

—Steven Pinker



Kashif Hussain

The introduction and reemergence of parasitic diseases are extremely alarming, yet they receive less attention than certain other effects of climate change. By encouraging a positive feedback loop of poverty and economic stagnation in the places they are most likely to touch, these diseases frequently do more than just directly worsen human health by lowering the general quality of life



Role Of Climate Change In The Emergence Of Parasitic Diseases

Global climate specialists concur that anthropogenic activities have had a significant impact on the rise in atmospheric greenhouse gas concentrations and the extinction of ecosystems.

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Although climate change is a naturally occurring phenomenon, human activities have had a substantial impact on changes in atmospheric conditions, speeding up the process and contributing to the current precarious situation.

Global climate specialists concur that anthropogenic activities have had a significant impact on the rise in atmospheric greenhouse gas concentrations and the extinction of ecosystems.

Extreme weather events like variations in temperature and precipitation make it easy to identify the direct effects of climate change, but indirect effects are more difficult to see. Climate change will have severe negative effects if the endemic range of parasitic illnesses expands or changes.

Given that habitat destruction and ecological disruption are contributing factors in the spread of disease, it may also be our carbon footprints.

Temperature increases and weather patterns are directly impacted by climate change, which indirectly may influence the geographic distribution of disease vectors and human populations.

Temperature rises encourage the growth of the parasites themselves as well as the arthropod vectors that convey many different parasitic organisms. The range of reservoir hosts, vector abundance, bite rates, overall survival, and rates of parasitic transmission of vectors, including mosquitoes, ticks, and tsetse flies, all rise in a warm climate.

Because tropical and subtropical climates encourage species diversity and can thus sustain a wide range of possible hosts for parasitic diseases, parasitic diseases are frequently a burden on these societies. The ability of parasites to survive and thrive depends on complex host relationships, which can be changed by a changing climate, increasing the risk of infectious diseases.

The natural ranges of these creatures may change or expand because of climate change, potentially bringing parasites to parts of the world that were previously uninhabitable. Changes in temperature alter the life cycles of parasites, which can directly affect how prevalent the organism is within the area, given that many parasitic organisms have a temperature-

dependent developmental baseline, either within their host or in the environment.

The introduction and reemergence of parasitic diseases are extremely alarming, yet they receive less attention than certain other effects of climate change. By encouraging a positive feedback loop of poverty and economic stagnation in the places they are most likely to touch, these diseases frequently do more than just directly worsen human health by lowering the general quality of life.

Mosquito prevalence is heavily dependent on precipitation levels that promote mosquito breeding places and adequate temperatures for surviving. Due to the high rates of morbidity and mortality from these infections, sub-Saharan Africa and other endemic regions of the world have developed conditions that mosquitoes can use to transmit infections like malaria.

In locations bordering regions where parasitic diseases are endemic and put the inhabitants there in danger, these characteristics can vary as the climate changes. Due to the lack of acquired immunity and the severity of the clinical illness, certain diseases pose even higher hazards when they spread to other locations.

The possibility of the spread of other parasitic diseases carried by mosquitoes increases with climate change. Moisture levels in the soil and plant canopy can

be used to map the location of lymphatic filariasis since they can serve as indicators of mosquito larvae breeding grounds. Soil moisture levels and accompanying mosquito populations will alter because of changes in temperature and precipitation patterns.

According to an ecological niche model developed to examine the potential distribution of lymphatic filariasis in Africa, the number of people at risk of infection could rise from 543 to 804 million—an astounding 1.65 to 1.86 billion as early as 2050, depending on how severe future climate change is.

Chagas disease is a widespread ailment in rural areas of Latin America and is spread by triatomine bugs. In the southern United States, triatomine insects are also highly prevalent.

In areas of the southern United States where the illness first appeared locally more recently, Chagas is now spreading further north. This is most likely because of rising temperatures, immigration, and international travel.

The United States is home to at least 11 different species of triatomine insects, as well as various reservoir host species like woodrats, raccoons, skunks, and coyotes. Due to "colonias," low-income communities in Texas that are known for their shoddy construction of dwellings and sanitation systems that would give habitat for the insects and

easier access into people's homes, certain counties in Texas are particularly at risk.

The behavior of triatomine insects might potentially alter as a result of shifting climatic conditions. When temperatures rise over 30°C and humidity levels are low, triatomine insects often feed more frequently to prevent dehydration.

It has also been shown that triatomine insects may adopt shorter life cycles as interior temperatures rise, enabling them to enhance their population density and boost the likelihood of disease transmission. Several studies have shown that rising temperatures cause some vector hosts to grow *Trypanosoma cruzi*, the disease-causing parasite, more quickly.

The ranges of tsetse flies were also predicted under several climate change scenarios, and while their ranges aren't anticipated to grow considerably due to climate change, they are anticipated to alter significantly. A wider population may be at risk of developing *Trypanosoma brucei* or human African trypanosomiasis because of these range alterations.

Tsetse fly populations, for instance, are declining in Zimbabwe because of vector control measures combined with high temperatures that could be harmful to the flies' ability to survive. However, habitat fragmentation still raises infection and disease risks,

even though it may result in higher populations of older flies.

Adding to this is the preponderance of sand flies, an insect vector for leishmaniasis, encompassing a spectrum of clinical manifestations of variable prognosis that range from skin ulcerative lesions around the infection site, called localized cutaneous leishmaniasis, multiple nonulcerative lesions, called diffuse or disseminated cutaneous leishmaniasis, and severe disfiguring mucosal metastatic disease. There are numerous accounts of native leishmaniasis in people who have never left the country.

With the effect of climate change contributing to an increased range for sand flies and flies being found in new locales, in addition to servicemen and women who served in the Middle East and may have been exposed to infection returning home, the opportunity for leishmaniasis in North America to expand both substantially and dramatically is now becoming a reality.

It is well known that seasonal variations in Leishmania infection rates exist in some parts of the world.

Ecological niche models additionally suggested that suitable habitat for sand fly vectors would spread, raising the risk of leishmaniasis in regions where it is not endemic now....[Read More](#)



Ans Hussain

Soybeans are a good source of both soluble and insoluble fiber. Soluble fiber dissolves in water and forms a gel-like substance in the gut, which can slow down digestion and help to regulate blood sugar levels. Insoluble fiber, on the other hand, does not dissolve in water and provides bulk to the stool, promoting regular bowel movements and helping to prevent constipation



Exploring The Nutritional Value And Health Benefits Of Soybeans

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Soybeans are a well-known superfood that is rich in essential vitamins, minerals, and essential fatty acids. Soybeans have long been used in traditional Chinese medicine for their many health benefits, and they are known to help improve sleep quality.

Recent studies have linked soybean consumption to improved sleep quality and a reduction in sleep disorders such as insomnia. The high levels of tryptophan in soybeans are believed to be the primary reason for this. Tryptophan is an essential amino acid that helps promote the production of serotonin, which is the neurotransmitter that regulates sleep.

Recent studies have shown that adding soybeans to your diet may help manage diabetes. Soybeans are rich in dietary fibre, which can help support healthy blood sugar levels and reduce cholesterol levels, leading to better control of diabetes.

Soybeans are also rich in important nutrients like protein, iron, and omega-3 fatty acids. Protein helps to slow the digestion of carbohydrates, which prevents blood sugar spikes after meals.

The iron and omega-3 fatty

acids found in soybeans can help to improve insulin sensitivity, enabling the body to use its own insulin more efficiently.

Soybeans, a common legume, have been found to have multiple health benefits. Studies have shown that it can help maintain healthy blood circulation and flow. This is due to its high content of bioflavonoids and antioxidants, which help reduce inflammation and increase blood flow.

Additionally, its high protein content provides the body with essential amino acids that are necessary for healthy cell growth and repair. Additionally, soybeans help maintain healthy cholesterol levels and reduce the risk of heart disease. For all of these reasons, incorporating soybeans into your diet is a beneficial way to promote overall health and wellbeing.

Soybeans have been known to have many health benefits, especially during pregnancy. They are a great source of protein, omega-3 fatty acids, B-vitamins, zinc, and iron. Eating soybeans during pregnancy can help to support a healthy foetal development and reduce the risk of many pregnancy-related problems.

Soybeans are also a good source of folate, which is known to reduce the risk of neural tube defects. In addition, soybeans contain isoflavones, which are plant-based compounds that can help reduce inflammation and

improve heart health. Soybeans can be eaten in many forms, including roasted, boiled,

as an ingredient in soups, salads, and other dishes. Eating soybeans during pregnancy can help ensure a healthy and happy pregnancy.

Soybeans have a high level of mineral and vitamin content. The impressive levels of copper, selenium, zinc, magnesium, and



calcium in soybeans help keep the bones stronger and healthier.

Eating soybeans is a great way to promote strong bones and healthy joints. Soybeans contain isoflavones, which are compounds that can help reduce inflammation as well as support bone mineralization and collagen production.

In addition, soybeans are a great source of protein, magnesium, and calcium, which are essential for keeping bones and joints healthy. Eating soybeans in place of processed and unhealthy foods can also help with weight management, which can help reduce the risk of developing bones and joint problems.

Soybeans are a good source of both soluble and insoluble fiber. Soluble fiber dissolves in water and forms a gel-like substance in the gut, which can slow down digestion and help to regulate blood sugar levels. Insoluble fiber, on the other hand, does not dissolve in water and provides bulk to the stool, promoting regular bowel movements and helping to prevent constipation.

Soybeans also contain prebiotics, which are non-digestible carbohydrates that serve as food for the beneficial bacteria in the gut. This can help promote the growth of these beneficial bacteria and maintain a healthy gut microbiome. A healthy gut microbiome is important for overall digestive health, as it helps break down food, absorb nutrients, and protect against harmful pathogens.

Soybeans and soy-based products have been the subject of research for their potential anticancer properties. Several studies have found that compounds in soybeans, such as isoflavones and genistein, have anti-inflam-

matory and antioxidant effects that may help to prevent the development and progression of certain types of cancer.

Protease inhibitors, which are found in soybeans, have been shown to inhibit the growth of cancer cells and prevent the formation of tumours in the human body. They may help reduce the risk of colon cancer by blocking the absorption of cholesterol and promoting the excretion of bile acids.

One area of research has focused on the relationship between soy consumption and breast cancer. Some studies have found that regular soy consumption may reduce the risk of breast cancer, potentially due to the presence of compounds in soy that have anti-estrogenic effects.

Prostate cancer is another type of cancer that has been studied in relation to soy consumption. Some studies have found that soy intake may reduce the risk of prostate cancer, though more research is needed to fully understand the potential benefits.

Soybeans have been shown to have potential benefits for weight management. This is due in part to their nutrient composition and their effects on hunger and fullness hormones. Soybeans are a good source of protein,

which is a satiating macronutrient that can help to control hunger and reduce overall calo-

rie intake. Additionally, soybeans are low in calories and high in fiber, which can also help to promote feelings of fullness and prevent overeating.

It is important to note that while soybeans can have potential health benefits for weight management, they should not be considered a magic solution for weight loss. A healthy diet and regular physical activity are still key components of a successful weight management plan.

Soybeans and soy-based foods have been studied for their potential effects on weight management and obesity. Some studies have suggested that consuming soy foods may help to regulate appetite and reduce calorie intake, leading to weight loss. Additionally, soybeans are a good source of protein, which can help to increase satiety and reduce overall calorie intake.

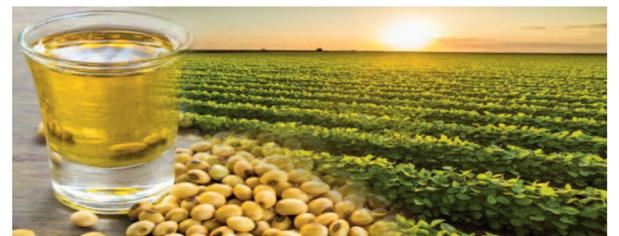
Consuming soybeans may have antioxidant effects that help promote overall health and reduce the risk of chronic diseases. Studies have found that people who regularly eat soybeans have lower levels of oxidative stress, which is known to contribute to various diseases and health problems.

The isoflavones present in soybeans may also provide protection against cardiovascular disease and certain cancers. Additionally, these isoflavones may help reduce bad cholesterol levels, lower blood pressure, and improve blood sugar levels.



Mariam Siddique

Soybean oil seals moisture into your hair and leaves it shiny and glossy. The vitamin E properties of soybean oil make it essential for maintaining a healthy scalp. Soybeans contain antioxidants and phytonutrients that are linked to various health benefits. These antioxidant properties help reduce inflammation, remove dandruff, and soothe an itchy scalp



Nutritional Quality And Health Benefits Of Soybeans

Soybean (Glycine max L.) is a species of legume native to East Asia that is widely grown for its edible purpose, which has several uses.

Soybean (Glycine max L.) is a species of legume native to East Asia that is widely grown for its edible purpose, which has several uses. Soybeans are an oil seed crop and have several useful nutrients, including protein, carbohydrates, vitamins, and minerals.

Soybeans are very rich in nutritive components. Besides the very high protein content, soybeans contain a lot of fiber and are rich in calcium and magnesium.

The soybean protein has a high biological value and contains all essential amino acids. Various soy products are available, including soy flour, soy milk, soy sauce, soy protein, tofu, and soybean oil.

Soybean, species of legume, is a source of both carbs and fat. They are a rich source of various vitamins, minerals, and beneficial plant compounds, such as isoflavones. For this reason, regular soy-

bean, a specie of legume, intake may alleviate the symptoms of menopause and reduce the risk of prostate and breast cancer in females.

Soybeans and soy foods may reduce the risk of a range of health problems, including cardiovascular disease, stroke, coronary heart disease, and cancer, as well as improving bone health. Soybean is a high-quality protein; one or two daily servings of soy products can be beneficial to our health.

Soybean oil is a rich source of linoleic acid, a polyunsaturated fatty acid, and offers antioxidant nutrients that are helpful in maintaining healthy skin. Soybean has positive research support for its antioxidant properties as well as its potential to reduce photoaging of the skin from chronic sun exposure.

Soybean oil seals moisture into your hair and leaves it shiny and glossy. The vitamin E properties of soybean oil make it essential for maintaining a healthy scalp. Soybeans contain antioxidants and phytonutrients that are linked to various health benefits. These

antioxidant properties help reduce inflammation, remove dandruff, and soothe an itchy scalp.

Soybean oil is a common type of cooking oil that has been associated with several health benefits. In particular,



Soyabean oil contains about 15.65% saturated fatty acids, 22.78% mono-saturated fatty acids, and 57.74% poly-unsaturated fatty acids. Soybeans are rich in unsaturated fatty acids and low in saturated fatty acids

it may help promote skin health, reduce cholesterol levels, prevent bone loss, and provide important omega-3 fatty acids.

Soybean, a species of legume, is a nutrient-dense source of protein that can

safely be consumed several times a week and probably more often and is likely to provide health benefits, especially when eaten as an alternative to red and processed meat.

On the other hand, soybean oil is another product of the processing of the soybean crop and is used in many industrial products. Dry soybean contains 37% protein, 20% oil, 35% carbohydrates, 5% sugar, 11% NDF, 12% soluble fiber, 9% humidity, 5% minerals, and 1% vitamins.

Soybean oil contains about 15.65% saturated fatty acids, 22.78% mono-saturated fatty acids, and 57.74% poly-unsaturated fatty acids. Soybeans are rich in unsaturated fatty acids and low in saturated fatty acids.

The use of soy milk as a substitute for people with lactose intolerance and the use of soybeans in weight management and cosmetics are described. The efforts are made through conventional breeding, mutation, and biological approaches to develop specialty soybeans with improved nutritive value to address the

needs of the soy food and feed industries.

There were two experiments conducted to determine the energy values of soybean oil, beef tallow, and their blends and to evaluate the effect of including 6.0% of these blends on performance parameters and carcass characteristics of broilers.

In a digestibility experiment, the mean values of nitrogen-corrected apparent metabolizable energy were 8402, 8542, 8659, 9109, and 9505 kcal/kg for 0:100, 25:75, 50:50, 75:25, and 100:0 ratios, respectively. The data obtained indicate that these values increased as the level of soybean oil increased, and the highest obtained value was when soybean oil was used in a 100:0 ratio.

During the performance experiment, fat sources didn't influence the performance or carcass characteristics. It is concluded that there is a nutritional equivalency between fat sources and that the utilisation of beef tallow can be improved by the addition of soybean oil.



Muhammad Baqir

Being low in carbs, whole soybeans are very low on the glycemic index (GI), which is a measure of how foods affect the rise in blood sugar after a meal. This low GI makes soybeans suitable for people with diabetes



Nutrition Facts, Health Benefits & Effects Of Soybeans

Soybean is a nutritional and economically important crop that originated in Asia. Soybeans are a nutrient-rich source of proteins and healthy fats that are very high in fiber.

Soybean is a nutritional and economically important crop that originated in Asia. Soybeans are a nutrient-rich source of proteins and healthy fats that are very high in fiber. You will get a good dose of potassium, folate, magnesium, iron, and some B vitamins from adding soybeans to your diet. In this article, we will discuss nutrition facts, health benefits, and the effects of soybean.

Soybean is utilised globally for a healthy diet due to its high contents of isoflavonoids and folic acid. Dietary soy products are the subject of increasing scientific interest due to their potential beneficial impact on human health.

The soybean (*Glycine max*) crop is considered to be the main source of oil globally, and is important due to its nutritional value and commercial importance. The cultivation of soybeans originated in Asia about 5000 years ago, first in China and then in Japan.

It was brought to Europe in the 18th century and then to the United States in the 19th century. Since it is an excellent source of vegetable oil and proteins, it has become an economically impor-

tant crop worldwide.

Eastern Asia Soybeans are a type of legume native to eastern Asia. They are an important component of Asian diets and have been consumed for thousands of years. Today, they are mainly grown in Asia and in South and North America.

In Asia, soybeans are often eaten whole, but heavily processed soy products are much more common in Western countries. Various soy products are available, including soy flour, soy protein, tofu, soy milk, soy sauce, and soybean oil.

Soybean contains antioxidants and phytonutrients that are linked to various health benefits. However, concerns have been raised about the potential adverse effects of soybean.

Nutrition facts :

Soybeans are mainly composed of protein but also contain good amounts of carbs and fat.

The nutrition facts for 3.5 ounces (100 grams) of boiled soybeans are as follows:

- Calories: 172
- Water: 63%
- Protein: 18.2 grams
- Carbs: 8.4 grams
- Sugar: 3 grams
- Fiber: 6 grams
- Fat: 9 grams

- Saturated: 1.3 grams
- Monounsaturated: 1.98 grams
- Polyunsaturated: 5.06 grams

Carbs

About 30% of soybeans' calories come from carbohydrates, and over two-thirds of these carbs are from fiber. The remaining carbs in soybeans come from naturally occurring sugars, such as sucrose and raffinose.

Being low in carbs, whole soybeans are very low on the glycemic index (GI), which is a measure of how foods affect the rise in blood sugar after a meal. This low GI makes soybeans suitable for people with diabetes.

Fats

Soybeans are classified as oilseeds and are used to make soybean oil. The fat content is approximately 18% of the dry weight — mainly polyunsaturated and monounsaturated fatty acids with small amounts of saturated fat. The predominant type of fat in soybeans is linoleic acid, which accounts for approximately 50% of the total fat content.

Protein

Soybeans are among the best sources of plant-based protein. The protein content of soybeans is 36–56% of the dry weight. The protein content of soybeans is 36–56% of the dry weight. One cup (172 grams) of boiled soy-

beans boasts around 31 grams of protein.

The nutritional value of soy protein is very good, although the quality is not quite as high as some animal proteins. The main types of protein in soybeans are glycinin and conglycinin, which make up approximately 80% of the total protein content. These proteins may trigger allergic reactions in some people.

Consumption of soy protein has been linked with a modest decrease in cholesterol levels.

Vitamins and Minerals

Soybean can add a number of micronutrients to your daily intake. The beans are rich in potassium, Molybdenum, Vitamin K1, folate, magnesium, calcium, iron, and thiamin.

Molybdenum: Soybeans are rich in molybdenum, an essential trace element primarily found in seeds, grains, and legumes.

Vitamin K1: The form of vitamin K found in legumes is known as phylloquinone. It plays an important role in blood clotting.

Folate: Also known as vitamin B9, folate has various functions in your body and is considered particularly important during pregnancy.

Manganese: A trace element found in most foods and drinking water. Manganese is poorly absorbed from soybeans due to their high phytic acid content.

Phosphorus: Soybeans are a good source of phosphorus, an essential mineral abundant in

the Western diet.

Calories

A 3.5 ounce (100 grams) serving of soybeans contains 172 calories, 42% of which come from protein, 47% from fat, and 19% from carbs (with rounding).

Health benefits & Effects of Soybean

1-May Lower Cholesterol :

Some research suggests that soy products can lower LDL cholesterol (aka the "bad" kind) by a small percentage. However, it's important to note that you'd probably need to eat quite a large amount of soy to make an impact.

2- Digestive Health :

So much of gut health comes down to the amount of fiber we consume. Soybeans' 6 grams of fiber per serving adds bulk to stool and creates a healthy environment for good bacteria to flourish in the digestive tract.

3-Compatible With Many Special Diets : Soybean find their way comfortably into many specialized eating plans. People on low-sodium, Mediterranean, gluten-free, dairy-free, vegetarian, or vegan diets can all dish up these beans.

4- Source for Vegans and Vegetarians :

Vegans and vegetarians—especially those new to these diets—may find getting enough protein a challenge. Soybeans can add to your daily dose with their high plant-based protein content.

Finding high-quality plant-based protein sources can be

more difficult as plant sources are not nearly as absorbable as meat sources and often do not contain all of the essential amino acids needed.

Soybeans are a source of quality protein suitable for plant-based diets. Unlike other plant proteins, soybeans are higher in protein than carbs, making them an ideal way to get a balanced source of protein.

5- May Reduce the Risk of Breast and Prostate Cancer :

Though soy has had a controversial history when it comes to its connection with cancer, a body of research indicates the beneficial effects of soy in cancer prevention. A review of available research found that consuming soy-based foods was associated with a reduced risk of prostate cancer. The review also concluded that eating more soy products might be associated with a small reduction in breast cancer risk. However, more research is needed to determine the exact relationship between soy and cancer.

6- May Help Prevent Bone Loss

Soy isoflavones may help prevent menopause-related bone loss that occurs due to a reduction of estrogen that occurs naturally after menopause. Soy isoflavones may help prevent bone loss and encourages bone density.

7- Help Prevent Diabetes :

Epidemiological studies show that a higher intake of dietary soy isoflavones positively correlates with a lower[Read More](#)



Hajan Ambreen

*Soybean (*Glycine max*) is also called Soja bean or Soya bean and is the world's most important annual legume, accounting for 80% of the area and 68% of the legumes produced. It is the most nutritious source of protein (40%) for human food as well as animal feed. The seeds also contain 18–22% edible oil and fulfil the rising demands of the food and feed industries*



Soybean Possess Potential To Fill Demand Gap Of Oil Seeds In Pakistan

Pakistan is ranked third for the largest import of edible oil and oil seeds-based food or feedstocks for fulfilling domestic needs after petroleum products and machinery.

Soybean (*Glycine max* (L.) Merr.) is an annual oilseed crop mainly grown for edible seeds that has the potential to fill the gap between production and demand of edible oil and oil seeds in Pakistan.

Pakistan is ranked third for the largest import of edible oil and oil seeds-based food or feedstocks for fulfilling domestic needs after petroleum products and machinery.

The lapse between production and consumption of edible oil and oil seeds in Pakistan is increasing day by day due to a growing population and an increase in per capita consumption of edible oil in our daily diet. Soybean is a versatile crop known as a "wonder crop" due to the multiplicity of its uses as food and industrial products.

It has been fast growing and dynamic and has held the crown place among economically significant oil seeds crop for the past couple of decades, not only

in Pakistan but all over the world.

Although soybean was first introduced in Pakistan during the early 1960s, its cultivation remained halted until the 1970s due to various concerns, which were later resolved, and vast areas of the Sindh, Khyber Pakhtunkhwa, and Punjab provinces of Pakistan were found ideal for the commercial cultivation of soybean.

However, in the current review, soybean cultivation has been limited, and it has started disappearing gradually from Pakistan's cropping schemes.

In the previous few years, we have analysed the available facts and figures and observed that, despite suitable agro-ecological conditions, soybean is facing several challenges, such as small acreage, a lack of extension services, deficiency of climate resilient varieties, and a lack of coherent policy to promote local oilseed production.

After considering and analysing the circumstances behind the low cultivation of soybean in Pakistan, we have proposed potential solutions for enhancing the cultivation of oil seeds.

Soybean (*Glycine max*) is also

called Soja bean or Soya bean and is the world's most important annual legume, accounting for 80% of the area and 68% of the legumes produced. It is the most nutritious source of protein (40%) for human food as well as animal feed. The seeds also contain 18–22% edible oil and fulfil the rising demands of the food and feed industries.

In recent scenarios, most of the world's soybeans have been crushed or processed into soybean meal and oil. It has been estimated that almost 2% of soybean production is consumed directly by humans as food, which amounts to approximately 3 MMT.

It is extensively grown on a large scale in both temperate and tropical regions, including China, Thailand, Indonesia, Brazil, the United States, and Japan, where it has become a major agricultural crop and a notable export commodity. Even the soybean industry is rising very sharply in Pakistan. It is making itself a potential key player in global food security insurance.

It is an important and rich source of vitamins E, K, riboflavin, thiamine, niacin, choline, and several antioxi-

dants like isoflavones, chlorogenic acid, isomers, caffeine, and ferulic acid, making it the most valuable crop from every perspective. The nutritional composition of soybean seed is presented in the table below.

- Nutrients Quantity
- Proteins(%) 37-42
- Carbohydrates (%) 30
- Oil contents (%) 17-24
- Lipids (%) 20
- Fats (per 172 g of edible part) 15
- Water(%) 63
- Ash (%) 6
- Fibers (%) 10
- Polyunsaturated fatty acids (%) 85
- Energy (kcal) 298
- Vitamins(%) 10

Soybean is mainly considered native to Eastern Asia (China, Korea, and Japan), from where it spread to all parts of the world, like Europe and the U.S.A., during the 18th century. Evidence from Chinese history also confirmed its existence as early as 5,000 years ago as food and a component of drugs.

Although researchers believe that Australia and Eastern Africa are other possible centres of origin for the genus Soybean, as described above. In Pakistan, after preliminary trials in Sindh

Province, its seed was released commercially in the 1970s along with sunflower and safflower.

Although the soil and climatic conditions of Pakistan are suitable for soybean cultivation, due to various reasons, it has not gained popularity among farmers. Contradicting with these findings, recent reports show that from the late 1990s through 2002, soybeans had been grown extensively and successfully all over the country.

Commercialization of Soya beans in Pakistan

At the time of soybean introduction in Pakistan, three varieties—S.B.L. (yellow seed), "K-16", and "K-30" (black seed)—were selected for commercial cultivation in Sindh, and later on, various trials were performed at multiple locations. With the passage of time, these trials continued and are still ongoing. The productivity of imported lines declined over time because they were less adapted to the local conditions, despite providing a good yield in the early years. A gradual decline in production is attributed to the lack of a sound and logical basis for identifying the soybean cultivars suitable for different zones with differing

agro-ecological scenarios.

As of recent, nine varieties of soybean have been released and are commercially available for distribution to farmers now.

Commercial varieties of soybean available in Pakistan are at least 20 years old, and no significant developments have been made yet for breeding and developing new cultivars over this time span, but many efforts are underway.

Current scenario of soybean cultivation in Pakistan

Dates received from the economic years 2001–2002 witnessed the maximum area under soybean cultivation and corresponding yield, which declined fastly thereafter, reaching its lowest in 2017 both in terms of acreage and yield. According to the agricultural statistics of Pakistan, Punjab and Sindh didn't contribute much to soybean cultivation and had no area under cultivation. Imports from the soybean industry have been rising from previous years, and imports of various products like soy meal and soybean oils during the last 55 years (1964–2019) are still continuing. Soybean production for 2022 totaled 4.28 billion bushels, which was down 4% from 2021 production...[Read More](#)



Biden's 2024 Budget Plan Supports Science, But Prospects Still Unclear

Science Coalition is headed by Laura Kolton, who says, "We are pleased that President Biden budget plan request prioritises robust, sustained investment for key research programs."

Large increases at significant U.S. research agencies are sought in budget plan 2024 of President Joe Biden, but this is just the beginning of discussions with Congress about taxes and defence.

The prospects for any significant increases for science and other domestic programmes remain uncertain given that Republicans have pledged to cut federal spending and that increased defence spending has bipartisan support.

Despite this uncertainty, pro-science organisations applauded the White House's initial vote of confidence. The Science Coalition is headed by Laura Kolton, who says, "We are pleased that President Biden budget plan request prioritises robust, sustained investment for key research programmes."

The president's choices were criticized at the same time by a prominent Republican scientist in Congress. "This budget proposal brags about spending taxpayer money on international climate slush funds and ill-defined environmental justice programmes, while shortchanging the basic research that has been proven to advance our economy, lower energy prices,

and reduce greenhouse gas emissions," claimed Representative Frank Lucas (R-OK), chair of the science committee in the U.S. House of Representatives.

The request, which presidential science adviser Arati Prabhakar called a "smart, targeted blueprint for investing in America," highlights several new science initiatives that rank highly among administration priorities. Budget for the nascent Advanced Research Projects Agency-Health, which seeks to hasten the translation of discoveries from basic research into treatments for deadly diseases, would increase from \$1.5 billion to \$2.5 billion. The National Science

Foundation (NSF) would increase funding for a new directorate with similar objectives by 50%, to \$1.2 billion. The majority of the 2% increase requested for the \$47 billion National Institutes of Health (NIH), the parent organisation of the National Cancer Institute (NCI), would go to the Cancer Moonshot. The budget for NCI would increase by 7% to \$7.8 billion. Additionally, the DOE's (Department of Energy) fusion energy development efforts would see a 31% increase, to \$1 billion. At an event on Monday with Prabhakar and several agency heads, the White House will elaborate on its demand to invest a record \$210 billion in R&D...[Read More](#)

US Space Programs Spending Exceeds Rest Of World Combined



The total cost of US space spending in 2022 was \$61.97 billion. The combined expenditures for the space programmes of all other nations came to just about \$41 billion.

The total budget for the US space programs in 2022 was \$61.97 billion. The combined expenditures for the space programmes of all other nations came to just about \$41 billion.

FairBettingSites report using data from Euroconsult, the US is vastly outpacing all other competitors in the space race, spending 51% more on its space programs than every other nation combined. The total cost of US space spending in 2022 was \$61.97 billion.

The combined expenditures for the space programmes of all other nations came to just about \$41 billion...[Read More](#)

OpenAI Launches GPT 4, The Updated Version Of GPT-3.5



GPT-4 can work with image inputs but can only output text. Multimodal models are those that combine text, images, and video.

A new Artificial Intelligence (AI) language model, GPT-4, has been released by OpenAI. It replaces the previous technology, GPT-3.5, and "exhibits human-level performance on various professional and academic benchmarks," according to the creators. An artificial intelligence algorithm called GPT, also known as the Generative Pre-trained Transformer, is trained to write like a human.

Microsoft today confirmed that Bing Chat, a chatbot it created with OpenAI, is already using GPT-4. Earlier Microsoft Germany executives had stated that they would introduce GPT-4 within a week and that it will offer many new possibilities, such as the use of videos. It turns out that the new version cannot generate images in addition to text from the same interface, contrary to what had been predicted.

GPT-4 can work with image inputs but can only output text. Multimodal models are those that combine text, images, and video.

Sending an image of the interior of your refrigerator to the AI, which would then review the ingredients on hand before developing recipe ideas, is one example of how that might operate. This capability is currently only accessible through Be My Eyes, one of OpenAI's partners. Questions about images sent to it can be answered by its virtual volunteer. OpenAI claims that the upgrade to GPT has significantly improved its performance on exams, as evidenced by the fact that it passed a mock bar exam with a score in the top 10%. Within the bottom 10% was GPT-3.5.

OpenAI claims that while it may be difficult to tell the difference between the models in casual conversation...[Read More](#)

Bloated Crude Oil Inventories Indicate Faltering US Economy

Commercial crude oil inventories rose by roughly 1.6 million barrels during the week ending March 10, according to data from the Energy Information Administration.

The U.S. economy may be in trouble because of bloated crude oil inventories and a decrease in the supply of petroleum products being released onto the market according to Wednesday's Energy Department data.

Commercial crude oil inventories rose by roughly 1.6 million barrels during the week ending March 10, according to data from the Energy Information Administration, the department's statistical division.



Domestic storage is currently 7% higher than the five-year average for this time of year, totaling 480.1 million barrels. Oil inventories for the 38 members of the Organization for Economic Cooperation and Development were at an 18-month high globally, according to the Paris-based International Energy Agency.

The total amount of refined petroleum products supplied in the U.S. economy during the four weeks ending March 10 decreased 6.4% from the same time last year. That metric is used by economists as a stand-in for demand.

The chief oil analyst at the Oil Price Information Service, Denton Cinquegrana, told UPI that the figures for product supplied are alarming. These numbers resemble a recession, he said. Given growing worries about a banking crisis brought on by the failure of Silicon Valley Bank in California, the forecast for the coming week should point to even more turbulence...[Read More](#)

Physics Prof. Tatiana Erukhimova Encouraging Women To Study Science



Tens of millions of people have watched videos of Dr. Tatiana Erukhimova experiments on TikTok over the past two years after they piqued their interest.

Only 25 percent of Americans with bachelor's degrees in physics are women, according to the American Physical Society, a nonprofit organisation based in

Maryland. But Texas A&M University professor of physics Dr. Tatiana Erukhimova hopes to change that with the aid of social media. Tens of millions of people have watched videos of her experiments on TikTok over the past two years after they piqued their interest.

In these brief clips, you can't really explain much, but you can inspire, she said. After viewing Erukhimova's physics experiments online, Afya Dhanani enrolled at Texas A&M University. Dhanani said, "Watching Dr. Tatiana Erukhimova do the experiments online was more inspiring for me to even go into physics...[Read More](#)

SVB's Collapse Causing Latin American Tech Startups To Struggle



Latin American tech startups are struggling to find banking alternatives after the abrupt failure of Silicon Valley Bank (SVB).

One of the few banks that provided desperately needed dollar accounts and catered to the particular needs of the sector, Latin American tech startups are struggling to find banking alternatives after the abrupt failure of Silicon Valley Bank (SVB).

Latitud co-founder Brian Requarth, who is based in Mexico City, said that this affected "almost all" venture-backed

businesses in the region. After SVB's demise, local startups now have few options for a banking partner, according to Requarth. U.S. regulators disclosed an emergency plan over the weekend that enables depositors of Santa Clara, California-based SVB to access their money.

The Association for Private Capital Investment in Latin America estimates that more than 1,300 startups in the region raised \$28.17 billion in funding in 2022...[Read More](#)

No Conclusive Way To Predict Future Biodiversity Loss Using AI: Scientists

Using AI, researchers have found that it is impossible to accurately predict future biodiversity loss from data on past extinctions.

Using AI, researchers have found that it is impossible to accurately predict future biodiversity loss from data on past extinctions. Dr. William Foster of Hamburg University, Dr. James Witts of the School of Earth Sciences at the University of Bristol, and other researchers tested the predictive power of AI-generated models using fossils from previous mass extinctions.

Contrary to expectations, this research discovered that there was no shared cause among the mass extinctions that could be used to predict other future biodiversity loss.

This is because different marine ecosystems are affected by different mass extinctions, and marine communities are constantly changing. Dr. Witts, a co-author, stated that it is crucial

to know whether we can predict the susceptibility of various organisms to extinction in an era of rising extinction risk.

The best source of evidence we have for comparable environmental change is in the distant past, which can be accessed through an analysis of the fossil record, said Dr. Foster.

The scale of environmental change currently affecting our planet is unprecedented in human history. Evaluation of the

susceptibility of various species to extinction is complicated due to the sheer volume of data, but AI models offer a potential solution to such challenging data science problems and can be used to identify extinction vulnerability. To investigate the vulnerability of marine life to extinction during the three most devastating mass extinctions, the end-Cretaceous (the event that wiped out the dinosaurs 66 million years ago)...[Read More](#)

