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Botany Departmental Newsletter



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CONGRATULATIONS!!!!!!!!!!



Congratulations to Ms. Divyarani Revankar alias Divya Walke for successfully completing SWAYAM— NPTEL course "Organic farming for Sustainable Agricultural Production". (September—November 2020).

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SUPER INMUNITY BOOSTERS BOOSTERS GARLIC CTIRUS PRUITS TURMENCE CHRIAMON LOTS OF WATERIN CAYENNE PEPPER

https://www.pinterest.com/

pin/7529524350416761/

Some Tips to Improve Your Immunity

Here are some tips to improve your immunity.

- 1. You must exercise everyday, perform yog-asanas and improve your body health with Pranayam- Kapalbhati, Anulom vilom, deep breathing exercises, etc.
- 2. Drink ginger tea, warm water with lemon and honey early morning.
- 3. Soak methi seeds in water and leave in overnight. Early morning, chew those seeds a bit and keep it aside, drink the water on empty stomach.
- 4. Include garlic, ginger, spices, vegetables, green leafy veggies in your diet
- 5. Be happy and sleep well.

Go Corona Go!

- Ms. Asmeeta Chari, S.Y.B.Sc Botany

The coronavirus, COVID-19 pandemic is the defining global health crisis and greatest challenge of all time to the modern world. The virus first spread to Asia and later reached to every continent of the world leading to severe health issues and death in some cases. It has also led to major socio-economic crisis. People lost their jobs, businesses were shut down, prices hiked on general household items etc. This crisis has altogether misguided some people leading to many myths, superstitious beliefs and misconceptions about the corona virus.

COVID-19 is nothing but the name of the illness (a shortening of Corona virus disease-19) caused by the virus 'SARS-CoV-2' (Severe acute respiratory syndrome corona virus 2).

There have been several rumours such as drinking alcohol, using gaumutra (cow urine), eating of raw garlic, consumption of vitamin C, sprinkling of gangajal (holy water of river Ganga) cures coronavirus. Vitamin C is an immunity booster and only helps in improving the immune system. It does not cure the disease. Taking hot water bath has no effect on coronavirus but instead it will burn and irritate the skin. Drinking hot water makes one feel better at some extent if they are showing symptoms of COVID-19. Some believe that only old people are affected by virus, which is not true.



Source: https://indianexpress.com/article/opinion/columns/coronavirus-pandemic-india-cases-death-toll-lockdown-unlock-6526139/



Source: https://www.financialexpress.com/opinion/covid-19-pandemic-why-india-urgently-needs-a-uniformed-statute/1909601/

People showing pre-existing conditions such as kidney, diabetes, heart condition and younger people can also be affected. If proper safety measures are not taken, they even might infect other people with weak immune system. Wearing of mask and washing your hands with soap is mandatory. India has been fighting corona from day one. However, the number of COVID-19 positive active cases including deaths are increasing day by day. One of the reasons behind the rise is the wrong information circulated on social media platforms such as WhatsApp, Facebook etc. such as, chanting and shouting the mantra go corona go creates some kind of vibration to drive the coronavirus away. Such misinformation is put into practice due to blind belief of some people in the society. The best way to deal with fake news is to arm oneself with the facts and educate others. Self-checking the information before putting out on social media is a good habit to inculcate during these times .

The vaccine for Covid—19 is finally here!!!!!!!!

Finally the Ministry of Health, Government of India gives green signal to Covishield and Covaxin vaccines. They have stated that these vaccines are safe and the side effects are negligible. The Covaxin is India's first indigenous Covid-19 vaccine developed by Bharat Biotech in collaboration with the Indian Council of Medical Research (ICMR) and Covishield by Serum Institute of India is a name given to an Oxford- AstraZeneca Covid- 19 vaccine candidate which is technically referred to as AZD1222 or ChAdOx 1 nCoV-19.



https://www.firstpost.com/health/health-experts-voice-doubts-concerns-about-hurried-approval-process-for-bharat-biotechs-covaxin-9193121.html



https://www.businessinsider.in/india/news/serum-institute-rolls-out-first-covishield-vaccines-consignment-for-13-locations/articleshow/80225062.cms

To know more about the Vaccine basics: How we develop immunity from the vaccine, kindly click on the link below to read the entire article-

https://www.drishtiias.com/daily-updates/daily-news-editorials/covid-19-vaccine-distribution

Three new species found in Western Ghats !!!

A team of scientists of the Botanical Survey of India (BSI) have reported the discovery of three new plant species from the evergreen forest patches of the southern end of the Western Ghats in Kerala and Tamil Nadu.

- Eugenia sphaerocarpa of the Myrtaceae or Rose apple family;
- Goniothalamus sericeus of the Annonaceae family of custard apple
- Memecylon nervosum of the Melastomataceae (Kayamboo or Kaasavu in local parlance) family.



Eugenia sphaerocarpa.



Goniothalamus sericeus.



Memecylon nervosum.

https://vajiramias.com/current-affairs/new-plant-species-found-in-western ghats/5ec9f7151d5def08592bc013/

Noble prize awarded to scientists who developed CRISPR- Cas-9

Two Scientist, Emmanuelle Charpentier and Jennifer A. Doudna are awarded **The Noble Prize** in chemistry for the development of CRISPR- Cas9 method of genome editing. CRISPR is Clustered Regularly Interspaced Short Palindromic Repeats and Cas9 is an associated protein 9. CRISPR is family of DNA sequences found in the genomes of prokaryotic organism, eg, bacteria and archaea. These sequences are derived from DNA fragments of bacteriophages that had previously infected the prokaryote.

The discovery of CRISPR-Cas9 was made during Emmanuelle Charpentier's studies of *Streptococcus pyogenes*, one of the bacteria that cause the most harm to humanity. She discovered a previously unknown molecule, tracrRNA. Her work showed that tracrRNA is part of bacteria's ancient immune system, CRISPR-Cas, that disarms viruses by cleaving their DNA. Charpentier published her discovery in 2011. The same year, she initiated a collaboration with Jennifer Doudna, an experienced biochemist with vast knowledge of RNA. Together, they succeeded in recreating the bacteria's genetic scissors in a test tube and simplifying the scissors' molecular components so they were easier to use.

It is a unique technology that helps geneticists to edit parts of the genome by removing, adding or altering sections of the DNA. It is the simplest, most versatile and precise method of genetic manipulation. This tool has various applications such as,

- 1. Agriculture: To increase plant yield, quality, disease resistance, etc
- 2. Genetic Research: Models for fundamental disease research, drug screening, therapy development, It may also boost the function of body's T-cell to improve immunity and kill cancer.
- 3. Medical treatment: It can be a promising way to create genome editing treatments for diseases such as HIV, Cancer and correct genetic mutations.

As every coin has two sides, this tool can also have issues involving the following

- 1. Agriculture genetic manipulation cause allergic reactions, might trigger cancer from the produce.
- 2. Germline modification: deliberately changing genes passed on to children and future generation
- 3. Genetic inequality: through gene editing wealthy parents can buy latest offspring upgrades for children
- 4. Illegal experimentation.

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Student participation from

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The opinion and news appearing herein are those of the editors and not necessarily those of Principal or The Management. Contact us: dsr002@chowgules.ac.in