

An aerial photograph of a winding asphalt road that curves through a dense, lush green forest. Several cars are visible on the road, including a white car, a blue car, and a white van. The road has white dashed lines for lane markings. The overall scene is captured from a high angle, looking down on the road and the surrounding trees.

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What are the new auto-debit payment rules set to be applicable from tomorrow?



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- New rules for auto-debit payments via credit and debit cards are set to come into force from October 1, where recurring auto-debit payments above ₹5,000 will require Additional Factor of Authentication (AFA).
- An OTP will have to be validated by a customer each time a payment is due.
- Customers will receive a pre-debit (SMS/e-mail) notification 24 hours before the payment.

France's highest mountain has shrunk a metre since 2017: Experts



- France's highest mountain, Mont Blanc, has reportedly shrunk by nearly a metre since the last official measurement taken in 2017.
- Geographical experts measured the mountain at 4,807.81 metres during an expedition in mid-September, lower than their last published estimate of 4,808.72 metres in 2017.
- It has been losing an average of 13 centimetres in height annually since 2001, experts said.

India gets first herbicide-tolerant & non-GM rice varieties



- The Indian Agricultural Research Institute (IARI) has developed the country's first-ever non-GM (genetically modified) herbicide-tolerant rice varieties.
- The varieties – Pusa Basmati 1979 and Pusa Basmati 1985, contain a mutated acetolactate synthase (ALS) gene.
- Water is a natural herbicide that takes care of weeds in the paddy crop's early-growth period.
- The new varieties simply replace water with Imazethapyr, a broad-spectrum herbicide, to control weeds.
- Hence there's no need for nursery, puddling, transplanting and flooding of fields.

- They can be directly seeded and significantly save water input and labour compared to conventional transplanting.
- Imazethapyr, effective against a range of broadleaf, grassy and sedge weeds, can't be used on normal paddy, as the chemical does not distinguish between the crop and the invasive plants.
- The ALS gene in rice codes for an enzyme (protein) that synthesises amino acids for crop growth and development.
- The herbicide sprayed on normal rice plants binds itself to the ALS enzymes, inhibiting their production of amino acids.
- The new basmati varieties contain an ALS gene whose DNA sequence has been altered using ethyl methanesulfonate, a chemical mutant.
- As a result, the ALS enzymes no longer have binding sites for Imazethapyr and amino acid synthesis isn't inhibited.
- The plants can also now "tolerate" application of the herbicide, and hence it kills only the weeds.
- This is herbicide-tolerance through mutation breeding, not by Genetic modification (GM) to ensure no foreign gene in the new varieties.

Taiwan strait



- A British warship HMS Richmond recently sailed through the Taiwan Strait. The development is a rare voyage by a non-US military vessel as the US has been regularly performing “freedom of navigation” voyages in the strait.
- The Taiwan Strait is a 180-kilometer wide strait separating Fujian Province of China from the island of Taiwan.
- It is part of the South China Sea and connects to the East China Sea to the north.
- Former names of the Taiwan Strait include the Formosa Strait, the Strait of Fukien or Fujian, and the Black Ditch.
- International agreement does not define the Taiwan Strait but places its waters within the South China Sea.
- The entire strait is on Asia’s continental shelf.

- **Historically both the People's Republic of China (PRC) and the Republic of China (ROC) on Taiwan espoused a One-China Policy that considered the strait part of the exclusive economic zone of a single "China".**
- **In practice, a maritime border of control exists along the median line down the strait as defined in 1955 by US Air Force General Benjamin O. Davis Jr.**
- **The median line is also known as the Davis line.**
- **The US then pressured both sides into entering into a tacit agreement not to cross the median line.**
- **The PRC did the first encroachment in 1999 and since then Chinese aircraft have encroached over the median line with increasing regularity.**
- **A growing number of U.S. allies like Canada, Australia have transited the route as China has intensified its military threats towards Taiwan.**