

Space rice

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In news

Recently, China has harvested the first batch of Space rice.

More about space rice

- Space rice was harvested from seeds that went on a 23-day lunar voyage with China's **Chang'e-5** in November.
- After being **exposed to cosmic radiation and zero gravity, these seeds weighing around 40 gram** returned and **were harvested at the space breeding research centre** of the South China Agricultural University in Guangdong province.
- Their length is now about 1 centimeter
- **Its first crop has been brought to the earth in the form of seeds.**
- As per the space experts the best seeds will be bred in laboratories and then will be planted in fields.
- Rice seeds exposed to the environment in Space may mutate and produce higher yields once planted on Earth.
- This space rice is also hailed as "**rice from heaven**" and will take at least three to four years before entering the market.

History China's experiment

- China has been taking seeds of rice and other crops to Space **since 1987.**
- More than 200 Space plant varieties, including cotton and tomatoes, have been approved for planting.
- In 2018, the total plantation area for space crops approved in China reached more than 2.4 million hectares.

Significance of space breeding

- Space breeding is of great interest to the global scientific community for the impact of microgravity, cosmic rays on organisms from the Earth needs to be explored more.
- With long-term human stays at the space station, researchers are hoping to conduct experiments to test a self-recycling ecosystem in space, which will greatly cut costs and reduce the resources needed for future manned space flights.
- This will support more deep-space explorations, including the building of a lunar research base and manned missions to Mars.

Chang'e-5

- It is the fifth lunar exploration mission of the Chinese Lunar Exploration Program, and China's first lunar sample-return mission.
- It is named after the Chinese moon goddess Chang'e.
- Chang'e-5 mission is the first lunar sample-return mission conducted by humanity in over four decades since the Soviet Union's Luna 24 in 1976.