

## WATCH

Relevant for: Indian Economy | Topic: Major Crops, Cropping Patterns and various Agricultural Revolutions

In vertical farming, crops are grown indoors, under artificial conditions of light and temperature.

Crops are grown indoors, under artificial conditions of light and temperature. It aims at higher productivity in smaller spaces. It uses soil-less methods such as hydroponics, aquaponics and aeroponics.

Vertical farming uses significantly less water and pesticides than traditional agricultural methods. Being indoors, the crops aren't subject to seasons and hence give high productivity year-round. Lettuces, tomatoes and green crops can be produced through this practice.

Japan has been one of the early pioneers in vertical farming. It holds the largest share in the global vertical farming market. In Japan, vertical farming is born out of necessity where traditional farming is losing its face due to ageing population and rural migration.

Spread is one of the companies that makes a huge profit out of vertical farming. It annually produces almost 11 million heads of lettuce from its factory in Kyoto. Around 30,000 heads of lettuce are produced daily in the factory, under artificial conditions and with less human intervention. Machines run the lettuces to areas with ideal light, temperature and humidity for every stage of growth.

These lettuces that grow without soil or pesticides will be collected at the end by employees.

Now, countries like Denmark and USA are also taking up vertical farming.

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A video on vertical farming, a practice of growing food crops on vertically stacked layers.

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