

Anti-Hail Gun

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- An anti-hail gun is a machine that generates shock waves to disrupt the growth of hailstones in clouds. It comprises a tall, fixed structure somewhat resembling an inverted tower, several metres high, with a long and narrow cone opening towards the sky.
- The gun is 'fired' by feeding an explosive mixture of acetylene gas and air
 into its lower chamber which releases a shock wave. These shock waves
 supposedly stop water droplets in clouds from turning into hailstones, so that
 they fall simply as raindrops. The waves that travel faster than the speed of
 sound, such as those produced by supersonic aircraft.
- To help out horticulturists who face crop damage due to hailstorms, the Himachal Pradesh government will be testing the use of indigenously developed 'Anti-Hail Guns'. Every summer from March to May, frequent hailstorms in the fruit-growing areas of Himachal destroy apples, pears and other crops, causing massive losses to farmers.
- Hail is produced by 'cumulonimbus clouds' which are generally large and dark and may cause thunder and lightning. In such clouds, winds can blow up the water droplets to heights where they freeze into ice, till the hailstones become too heavy and fall down.



