



Bee distributing pollen.

Seeding occurs on very small scales. Flitting from flower to flower as they gather nectar to feed the hive, bees move pollen grains from a flower's male parts to the female parts of the same species, fertilizing the flower and enabling it to reproduce. Pollination by bees and other animals is crucial to the production of most fruits, nuts, and berries on which people and wildlife depend.

(Credits: Wikimedia Commons)



Farmer.

On a larger scale, deliberate seeding of fertile soil by farmers has produced agriculture as we know it. The total combined amount of corn, rice, and wheat produced worldwide is more than two billion metric tons, or more than 600 pounds per person.

(Credits: Wikimedia Commons)



G292.0+1.8.

On a cosmic scale, supernovas distribute a different type of seed—heavy elements such as carbon, nitrogen, oxygen, silicon, and iron that form the basis for much of the world we live in. These and all elements heavier than helium are built up in the interiors of stars and ejected into space by stellar explosions. Some of this enriched interstellar gas may accumulate in a disk around another star, and form into dust grains. These dust grains can then act as seeds for the growth of planets.

(Credits: X-ray: NASA/CXC/Penn State/S.Park et al.; Optical: Pal.Obs. DSS)

SEEDING THE ENVIRONMENT The growth of new structures depends on the introduction of novel material into an environment. Bees distribute pollen from one plant to another, promoting reproduction in plants. Farmers seed and fertilize soil to enable the growth of selected crops. Oxygen, iron and other heavy elements necessary for the formation of planets are distributed into interstellar space by supernova explosions.

www.nasa.gov

<http://hte.si.edu/seedingmore>

**BECAUSE WHAT HAPPENS HERE,
HAPPENS THERE,
HAPPENS EVERYWHERE.**

