

Biomimicry Inspired Engineering Genius: Turning Air Into Water

Alexandra Bruce | [ForbiddenKnowledgeTV](#)

Motivated by epidemics of famine and farmer suicides from successive crop failures, 28-year old Australian inventor, Edward Linacre was inspired by biomimicry to design his solar-powered AirDrop device, which takes in air from above the soil and cools it below ground, causing the water in the air to condense, in a passive system of sub-surface drip irrigation.

This is the most efficient form of irrigation, in many ways because it does not rely on the water table or bodies of water for its sources, whose priorities in drought-prone regions are to create drinking water.

Moreover, in Australia, these sources are often plagued by salinity. Salty water is a surefire way to kill plants and its use for irrigation has caused wide-scale environmental degradation, particularly in the Western Part of the country.

Furthermore, with Linacre's AirDrop irrigation system, the water is delivered directly to the plants' roots, where it's most needed and the water has much less opportunity to be wasted, due to evaporation.

He took his biomimicry cues from Australia's hardy desert rhubarb and from the Namib beetle, which have evolved to collect water from the air.

Linacre's design has won him the A\$15,000 James Dyson Award for Engineering and it's the toast of the international engineering community, as an elegant solution for meeting the demands of feeding a world with a population which will soon reach the number of 10 billion people.

Sir James Dyson commented, "We've got to find ways of solving drought problems that we have in Africa; 30% of America is desert – so we need to find ways for growing crops, where we're not growing crops, at the moment." –

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