

Oldest viable seed

There are several candidates for the **oldest viable seed**:

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The Judean Date Palm at [Ketura, Israel](#)

Carbon-dated

- The oldest carbon-14-dated seed that has grown into a viable plant was *Silene stenophylla* (narrow-leaved campion), an Arctic flower native to [Siberia](#). Radiocarbon dating has confirmed an age of $31,800 \pm 300$ years for the seeds. In 2007, more than 600,000 frozen mature and immature seeds were found buried in 70 squirrel hibernation burrows 38 metres (125 ft) below the permafrost near the banks of the Kolyma River. Believed to have been buried by [Arctic ground squirrels](#), the mature seeds had been damaged to prevent germination in the burrow; however, three of the immature seeds contained viable embryos. Scientists extracted the embryos and successfully germinated plants *in vitro* which grew, flowered and created viable seeds of their own. The shape of the flowers differed from that of modern *S. stenophylla* with the petals being longer and more widely spaced than modern versions of the plant. Seeds produced by the regenerated plants germinated at a 100% success rate, compared with 90% for modern plants. Calculations of the γ radiation dose accumulated by the seeds since burial gave a reading of 0.07 kGy, the highest maximal dose recorded for seeds that have remained viable.^{[1][2][3]}
- The oldest mature seed that has grown into a viable plant was a Judean date palm seed about 2,000 years old, recovered from excavations at [Herod the Great's palace on Masada](#) in Israel. It had been preserved in a cool, dry place, not by freezing. It was germinated in 2005.^{[4][5][6][7]} (*For more details refer to [Judean date palm: Germination of 2000-year-old seed](#)*).
- The third oldest viable seed recorded is the carbon-14-dated 1,300-year-old sacred lotus (*Nelumbo nucifera*), recovered from a dry lake bed in northeastern China in 1995.^{[8][9]}

Anecdotal

- In December, 2009, a Turkish newspaper reported a claim that a 4,000-year-old [lentil](#) had been successfully germinated.^[10]
- In 1954 Arctic lupine seeds (*Lupinus arcticus*) were found in the [Yukon Territory](#) in glacial sediments believed to be at least 10,000 years old. Seeds were germinated in 1966. Later, new dating techniques revealed that they were likely modern seeds (less than 10 years old) contaminating ancient rodent burrows.^{[11][12]}

See also

- [Longevity](#)

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