

Seedballs: an innovative way to restore drylands

Seedballs Kenya has pioneered a method for low-cost and efficient reintroduction of tree and grass species into degraded areas in East Africa. Seedballs are simply that: seeds inside a ball, which is made of recovered waste charcoal dust mixed with nutritious binders. The seedballs are inexpensive to produce and can be easily dispersed over large areas of land and land that is hard to reach. Using this method, some of our partners have been able to re-establish native trees in old illegal charcoal-making sites for as little as US\$0.05 per established seedling. The range of species used includes 11 native trees (mostly acacias) and three grass species. Tree seeds are supplied and certified by the Kenya Forestry Research Institute, and grass seeds are supplied by the Rea Trust in Baringo. The seeds are not treated in any way, and a batch tracing system is in place to record their provenance.

The biochar coating helps protect the seeds from predators such as birds, rodents and insects and from extremes of temperature until rain arrives. Once they are soaked, the seedballs prolong a moist environment around the seeds to encourage germination. They are spread by hand or slingshot on the ground, or sown by air using crop-spraying planes, helicopters or drones, with the pelleting helping immensely in calibrating correct aerial application rates. Compared to planting seedlings, this greatly reduces costs and offers land owners and managers the opportunity to sow year-round, while also avoiding transplanting shock and helping seedlings to produce stronger roots and grow into stronger plants. By April 2020, a total of 10,230,750 seedballs had been distributed in more than 30 countries; operations began in September 2016. Depending on species, technique and site conditions, success rates of 10–70% have been observed.

Seedballs Kenya is a partnership between Chardust Ltd., who manufacture the seedballs, and Cookswell Jikos, who are responsible for sales, distribution and marketing. The initiative is aimed at people working on the rehabilitation of degraded land where the natural seedbank is so depleted that natural regeneration will be extremely slow or not possible. It also has great potential for enriching seedbanks, or being used together with other restoration techniques such as soil and water conservation to encourage faster growth.



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Photo: Germination of a seed from a seedball / Examples of ways to restore with seedballs. Seedballs Kenya

See also www.facebook.com/BiocharSeedballs and www.youtube.com/watch?v=5Un9uj-WE_w.
For more information go to www.seedballskenya.com.

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