

# Coffee – *Coffea arabica*

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Drinking a cup of coffee is one of the most common ‘herbal remedies’ we use in daily life. The caffeine in coffee makes us more alert; we know what it does for us. Have you ever wondered what it does for the coffee plant?

Most plants have evolved with a survival plan. In the case of coffee, it puts a seed, usually two seeds (the coffee ‘beans’) inside a juicy covering that turns bright red when it is ripe. Animals eat the coffee berries and a few seeds will end up some distance away surrounded by fertiliser.



Ripe Coffee Berries In Bloedel Conservatory

Plants grow best if they do not share space with other plants. The caffeine in coffee cuts competition from nearby seeds by making it hard for them to grow. This behaviour of caffeine is ‘allelopathy’ or ‘mother nature’s own weed killer’.<sup>1</sup>

Many plants produce these ‘natural herbicides’ which have little effect on them but may inhibit other plants. Unless you know that the plants you want to grow are immune to the effects of caffeine, it is **not** a good idea to put coffee grounds, or tea leaves, around them.<sup>2</sup>

Wild Arabica coffee is from Ethiopia, not Arabia as implied by the name *Coffea arabica*. This is important because the homeland is usually where there is most genetic diversity. Cultivated Arabica has only 10% of the genetic diversity of wild Arabica; it is an in-bred crop.<sup>3</sup> When a new disease strikes a plant in a region, if it affects one coffee tree, it will likely affect them all. The wild stock is where plants may exist that have the genes to resist the disease. In 2012, research by Kew Gardens showed that the wild Arabica coffee population in Ethiopia is threatened by climate change. The models show it could be extinct there well before the end of this century.<sup>4</sup> The need for a wild gene reserve for coffee is more critical than for many other plants because coffee seeds cannot be stored in seed banks.<sup>5</sup>

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<sup>1</sup> <https://www.gardeningknowhow.com/garden-how-to/info/allelopathic-plants.htm>

<sup>2</sup> <https://www.theguardian.com/lifeandstyle/2016/oct/23/coffee-grounds-are-not-good-for-plants-its-a-myth>

<sup>3</sup> <http://www.bbc.com/news/magazine-32736366>

<sup>4</sup> [https://www.eurekalert.org/pub\\_releases/2012-11/rbgk-nss110512.php](https://www.eurekalert.org/pub_releases/2012-11/rbgk-nss110512.php)

<sup>5</sup> <http://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:747038-1>