

What have plants ever done for us?

November 25 2015, by Stuart Gillespie, Oxford Science Blog



Credit: Pixabay from Pexels

They provide the food we eat, the medicines we take, the fuel we use – and, of course, the oxygen we breathe. Plants have been indispensable to human beings for millennia, having a profound and often unexpected impact on our everyday lives.

In his new book, Dr Stephen Harris from the Department of Plant Sciences takes us on a journey through western civilisation, presenting the stories of 50 key plants – from cannabis, carrot and cotton to rice, rubber and rose.

Dr Harris, University Research Lecturer and Druce Curator of the Oxford University Herbaria, picked out three important species for Science Blog. His book, *What Have Plants Ever Done for Us? Western Civilization in Fifty Plants*, is out now.

Barley: A cereal first domesticated from a common grass in the Fertile Crescent. Barley was the staff of life, whether as bread or beer, for western civilisations for thousands of years. During this period, barley helped people understand chemistry and domesticate yeasts, enabling the transformation of low-value raw materials into high-value products. Furthermore, barley grains became important in the development of currency systems and the standardisation of units of measurement. Today, barley is important in quenching our thirst for alcohol (beer and spirits) and as an international commodity and animal feed.

Coffee: Originally from the mountains of southwest Ethiopia, coffee has become a global source of caffeine, the world's most widely used legal stimulant. Annually, we consume the equivalent of 100,000 tonnes of pure caffeine from botanical sources such as coffee, tea and chocolate. The first English coffee houses were established in the mid-1600s and became associated with the socio-political and intellectual revolutions of the 17th and 18th centuries. Today, most of the world's coffee beans are produced in the South America. One of the periods of Brazilian economic expansion in the 19th century became known as the coffee cycle, which generated vast economic wealth but contributed to the destruction of one of the world's biodiversity hotspots, the Atlantic forest.

Thale cress: A weed of disturbed habitats which is useless as food or medicine but has become a model for all aspects of experimental [plant sciences](#) research, ranging from population and evolutionary biology through physiology and biochemistry to cell and developmental biology. Thale cress is an excellent model since it has a tiny, completely sequenced genome. The plant's small physical size makes it convenient for growing in vast numbers, while the short life cycle means many generations can be produced in a single year. It sets large quantities of seed and can be routinely transformed to create genetically modified, experimental plants. Importantly, data and genetic information are shared among research groups, while seed and DNA stocks are readily available through international resource centres.

More information: The book is published by Bodleian Library Publishing

Provided by Oxford University

Citation: What have plants ever done for us? (2015, November 25) retrieved 17 July 2024 from <https://phys.org/news/2015-11-what-have-plants-ever-done.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.