

# Moringa oleifera and Climate Change Mitigation

## A Bio One Fact Sheet



Climate change mitigation consists of actions to limit the magnitude or rate of long-term climate change. Climate change mitigation generally involves reductions in human (anthropogenic) emissions of greenhouse gases (GHGs). Mitigation may also be achieved by increasing the capacity of carbon sinks, e.g., through reforestation. Mitigation policies can substantially reduce the risks associated with human-induced global warming.

## Moringa as a Climate Change Mitigation Strategy?

### *Moringa's Potentials and Climate Change*

In an independent laboratory test, Moringa Oleifera scored the highest in antioxidant content. Moringa beat the record-holding acai berry by over a 50% margin, measured over 157,000 umoles using the Oxygen Radical Absorption Capacity (ORAC) system of measurement developed by the National Institute of Health's National Institute for Aging (Prnewswire.com, 2012).

Climate Change (2018). Moringa as a Climate Change Mitigation Strategy? | Aotearoa Indymedia. [online] Indymedia.org.nz. Available at: <http://www.indymedia.org.nz/articles/777> [Accessed 11 Aug. 2018].

### **Miracle Tree: A Review on Multi-purposes of Moringa oleifera and Its Implication for Climate Change Mitigation**

According to the study the rate of Moringa tree to absorb carbon dioxide (CO<sub>2</sub>) is fifty times (50x) higher when compared to the Japanese cedar tree and also twenty times (20x) higher than that of general vegetation. Study on Moringa and global warming revealed that, 1 person emits 320kg of CO<sub>2</sub>/year; it takes 23 Japanese Cedar trees takes 50 years to absorb this amount of CO<sub>2</sub>; it takes 2 Moringa trees 2 years to absorb this amount and 1 family car emits 2300kg of CO<sub>2</sub>/year; it takes 160 Japanese Cedar trees 50 years to absorb this amount of CO<sub>2</sub>; it takes 10 Moringa trees 2 years.

Therefore, Moringa tree is useful tool in the prevention of global warming; because it sequesters more carbon with its all parts. Therefore, planting such important tree in different parts of the country will mitigate the impacts of climate change.

Climate Change (2018). *Miracle Tree: A Review on Multi-purposes of Moringa oleifera and Its Implication for Climate Change Mitigation*. [online] Journal of Earth Science & Climatic Change. Available at: <https://www.omicsonline.org/open-access/miracle-tree-a-review-on-multipurposes-of-moringa-oleifera-and-itsimplication-for-climate-change-mitigation-2157-7617-1000366.php?aid=77982> [Accessed 11 Aug. 2018].

### **Carbon Sequestration Potential of Selected Tree Species in the Campus of Shuats**

It was observed that Moringa oleifera had aboveground biomass, belowground biomass and total standing biomass of 2.258 t ha<sup>-1</sup>. Moringa oleifera had fixed carbon of 31.56%.

Climate Change (2018). *Carbon Sequestration Potential of Selected Tree Species in the Campus of Shuats*. [ebook] 1,2College of Forestry Sam Higginbottom University of Agricultural Technology & Sciences, Allahabad-211007 (U.P), India. Available at: <http://www.ijsrd.com/articles/IJSRDV5I60049.pdf> [Accessed 11 Aug. 2018].

### **Contact**

Abel van der Merwe | +27 61 493 2256 |

[abel.vandermerwe@bio1investments.com](mailto:abel.vandermerwe@bio1investments.com)

Rian Malan | +27 83 885 1660 | [rian.malan@bio1investments.com](mailto:rian.malan@bio1investments.com)

Website: [www.bio1investments.com](http://www.bio1investments.com)

Facebook: <https://www.facebook.com/bio1investments/>

