

Carbon Footprint for Extra Pure Curcumin

Roopesh Jain

Laurus Labs Pvt Ltd, 2nd Floor, Serene Chamber, Road No. 7, Banjara Hills, Hyderabad- 34, INDIA.

Correspondence:

Roopesh Jain Laurus Labs Pvt Ltd, 2nd Floor, Serene Chamber, Road No. 7, Banjara Hills, Hyderabad- 34, INDIA.

E-mail: info@lauruslabs.com

DOI : 10.5530/jcrsci.2.1

Dear Sir,

Observations throughout the world clearly indicate global warming and climate change are major challenges¹ where greenhouse gases (GHG) emitted by human activities are the primary driver. Moreover, there is no doubt that on-going climate changes will have deep impacts on society, global economy and environment. This is the time when governments, businesses, communities and individuals should take responsibility for, and attempt to minimize, their greenhouse gas emissions.

FDA and MHRA accredited Laurus Labs Pvt Ltd; a segment-leading manufacturer of high quality APIs, a preferred partner for NCE development and manufacture and a trusted source of specialty ingredients for the nutraceutical industry understands the challenges and impacts of climate change to our society.

Recognizing the potentially important impact of climate change on its business, as well as its wider social responsibility to effectively manage its GHG emissions, Laurus Labs has carried out a product carbon footprint analysis of one of its major product- Curcumin (>99%); produced through its innovative and patented technology. Curcumin is bright yellow to orange colour compound has been known for its medicinal, coloring and cosmetic properties since ancient time. This molecule has been the object of several pharmacological investigations over the last decades and identified as a single agent which can down regulate multiple targets, making it effective against the many targeted illness.² It has strong anti-oxidant activity, anti-inflammatory, HIV antiproteases, cancer preventive, wound healing property and used in cosmetics.

Mankind has always believed on products that are naturally processed and there is a cynicism for the other route of manufacturing. Without being assessed, we conclude naturally processed products to be always environmental friendly. To assess the belief Laurus labs has undertaken a comparative analysis for both nature identical Curcumin and naturally processed Curcumin to understand the intensity of GHG emissions in manufacturing Curcumin from both the processes for the financial year 2011-12. In March 2012, Ernst & Young was assigned to provide the independent assurance based on PAS 2050 and in line with 'limited assurance' criteria as per international standard ISAE 3000. The study

involved review of selected claims and data streams to determine the level of accuracy in collection, transcription and aggregation. The study also includes review of calculations done and consistency of the methodology as per PAS 2050. An Independent assurance was provided by Ernst & Young, which clearly demonstrates that Carbon Footprint of 'naturally processed Curcumin is much higher than synthetically processed Curcumin'. If we are to avoid the most severe impacts of climate change, emissions of greenhouse gases must be dramatically reduced; thus first of its kind study carried out by Laurus Labs is important proving least GHG emission of nature identical Curcumin over naturally processed Curcumin.

Laurus Labs is the first company among those producing Curcumin to carry out a carbon footprint study for its product. It demonstrates our leadership towards showcasing our responsibility to environment well-being of the society. Laurus Labs has used this information to better understand the GHG emission "hot spots" in its operations and supply chain, and identified where the greatest capacity exists for reductions in GHG emissions in manufacturing Curcumin. Major adaptation efforts include improved infrastructure design, more sustainable management of water and other natural resources. This study enabled us to benchmark our activities and to develop an effective product carbon mitigation strategy and incorporate this in its existing "Closer to Nature" sustainability strategy. Such studies demonstrate our long term vision for saving energy and water and towards a growth which is more inclined towards sustainability.

Support: Laurus Labs Pvt Ltd.

CONFLICTS OF INTEREST

None.

REFERENCES

1. Peters GP, Andrew RM, Boden T, Canadell JG, Ciais P, et al. The challenge to keep global warming below 2° C. *Nature Climate Change*. 2013;3(1):4-6.
2. Hatcher H, Planalp R, Chob J, Tortia FM, Tortia SV. Curcumin: From ancient medicine to current clinical trials. *Cell Mol Life Sci*. 2008;65(11):1631-52.