

LCA Webinar Q&A

Housekeeping:

1. **How can we get a copy of the full LCA report?**

The report will be available to all who inquire, but CPA members can access a copy of the full LCA report from the CPA (www.corrugated.org) or from their sponsoring associations' websites (AF&PA, AICC, FBA) after June 1st.

2. **Will this presentation be provided to all participants?**

The Webinar presentation and accompanying informational materials are available for download at <http://corrugated.theresponsiblepackage.org/>. In addition, the Summary Report will be mailed to all Webinar participants.

3. **Will the LCA data and tools be available to other industry associations, such as the Mexican corrugated industry or FEFCO for example? Will the data be available to the industry press and if so, in what time frame?**

The Summary Report and accompanying, informational materials are publicly available now at <http://corrugated.theresponsiblepackage.org/>.

4. **Is there any data regarding the frequency of requests that box plant manufacturers get on their LCA performance? As a linerboard manufacturer, we have not gotten any questions/requests on this yet.**

No firm statistics have been generated, but CPA has received many member inquiries that originated with customers.

LCA Study:

5. **Why was 2006 data chosen? That seems like old data as we are in 2010.**

When we began work on the LCA, 2006 was the most recent data available. Statistics are collected after year-end, analyzed and compiled in the ensuing year, and then made available for study. Future LCA studies will be more current than the first since the data

gathering and study parameters have now been established.

- 6. Emissions only from mills and box plants. Do we know the emissions from other parts of the cycle are much smaller?**

The LCA study included emissions from the entire corrugated life cycle, not just mills and box plants.

Carbon Calculator:

- 7. Did you say the carbon calculator is available right now? So would it be accurate for me, if I had a corrugated display, to calculate the weight of the entire display and enter that weight into the calculator?**

Yes. The carbon calculator is available online to member companies. To access the carbon calculator, you must log in to your sponsoring association's website and follow the members-only link.

- 8. Once you populate the calculator with the weight of a box and get the results, how do you value or interpret the data? Is the data compared to other packaging and who determines if it's a "good" footprint or score for a box?**

Without a frame of reference those numbers don't mean much, but we provide the ability to calculate carbon footprint because we know that some customers are requesting this data.

Carbon footprint numbers are often used to compare between packages or materials, but are just as often misused. It is not easy to properly compare values, since you must be sure you have comparable scope / boundaries and functional use. For example, the Walmart Scorecard is only using the carbon footprint through containerboard production – not the full life cycle.

If someone asks for a carbon footprint number for corrugated without any qualifiers, that is a warning signal that they may not know what they're asking for or what it means. This is a great opportunity to engage them in a conversation about what they really need or want to know.

- 9. The carbon calculator appears to be a great sales tool. Keeping in mind that we are trying to show why corrugated is the best choice, are there other calculators that show how corrugated compares to other packaging options (e.g.) plastics?**

We are not aware of any comparative calculators. But, we're trying to give our members a method of quickly responding to inquiries from their customers.

Walmart:

- 10. When do you expect Walmart will have this new data incorporated into the Scorecard? Will it help alleviate the emphasis on the weight of corrugated material?**

It is not yet clear whether Walmart will include the data at this point, since it is based on an industry-average corrugated product (not a specific package). CPA is working with Walmart on its potential acceptance of the LCI data. GreenBlue will vet the data, once submitted, which will take 9 months or longer, based on other material submissions and provided they have sufficient funding to do it.

- 11. Is Walmart asking for industry general data for greenhouse gas, or is the Scorecard specific to each packaging application?**

Scorecard data is industry average, unless a particular firm has LCA data supporting another value. Don't forget, the Consumer Packaged Goods supplier (CPG) fills out the Scorecard and most likely has multiple packaging suppliers, so even if each supplier had its own LCA data, the CPG would input a Scorecard value based on a weighted average of the various suppliers.

- 12. Why don't the Walmart Scorecard metrics include converting data?**

Data doesn't exist yet for most substrates. Most industries were starting from ground zero when the Scorecard was being built. The thought was that raw material extraction and substrate production would be the largest impacts in the life cycle anyway, so it was considered a good starting point. Converting data for most substrates (e.g. plastics) is much more complicated.

- 13. What does Walmart have to say about the results of the study? - And what do they plan to do with the information, regarding the use of corrugated in their stores?**

Remember, Walmart has stated that the Scorecard is only intended to be a tiebreaker between suppliers that meet requirements in all other

categories. The Scorecard is not meant to be an ISO-compliant comparative tool. It is meant as a tool to help Walmart's buyers encourage the poorer-scoring packaging suppliers within a category to improve. It is unknown if this will drive any material / substrate selection decisions.

- 14. I understand Walmart data has no credit for sequestration. Does this explain the six-fold difference?**

The GreenBlue model feeding the Scorecard includes sequestration. Six-fold improvement in carbon impact between Walmart's number and that found in this LCA study is due to Walmart having used data from a 1990 Franklin study, which does not meet current ISO standards. This is one of the reasons the corrugated industry decided to conduct its own, ISO-compliant, expert-reviewed LCA study to generate data that can stand up to scrutiny and challenge earlier, less defensible "studies" that have been used until now.

Comparison to other packaging materials:

- 15. What other LCAs have been completed for competing materials (i.e. plastics) and how do we compare?**

LCA data is available in the US LCI database for virgin and recycled plastics through raw material manufacture (much like us stopping at the mills.). Other materials, like aluminum, glass and steel are in various stages of completing their LCAs and are expected to submit their data for inclusion in the US LCI database.

- 16. Regardless of the Scorecard scope, is this LCA data suitable to challenge the RPCs favored by Walmart? Is this an FBA objective?**

It should be helpful. We are providing the LCA data to Walmart in hopes that they will use it to replace current Scorecard data. Using our data should help improve scores for corrugated packaging options. One of CPA's objectives is to provide Walmart with substantiated, credible facts that can be used in making responsible packaging decisions. It is our belief that use of this data would allow for fair consideration of the benefits of using corrugated versus RPCs. However, keep in mind that the initial decision to use Reusable Plastic Containers was not based on their sustainability.

- 17. The plastics industry has been fairly aggressive in targeting corrugated. Can we use this tool to mount a more effective**

response?

We can use the data generated by the LCA study to put out real facts that are substantiated and were gathered using ISO-compliant standards. The real facts can be used to refute falsities that are often found in competing materials' claims. The facts can also be used to educate customers and stakeholders about the measured impacts and about the dangers of comparing apples to oranges. Only a comparison based on identical functional unit and life-cycle scope/ boundaries can produce meaningful information. The corrugated industry has produced a life-cycle study measuring its own impacts with transparent system scope and boundaries. If another industry were to conduct a similarly transparent, ISO-compliant study with comparable scope and boundaries, a credible comparison could be made.

18. Do you have examples of other products in comparison to corrugated?

We do not. Comparisons can only be made with comparable data that we cannot generate. Comparative studies would require same scope, boundaries and functional unit, as well as ISO-compliant methodologies and expert review. To date, this has not been attempted.

19. Why choose corrugated over RPCs? What is the data regarding the use of one over the other? Several chains require the use of RPCs.

In addition to environmental reasons for choosing corrugated. There are other considerations involved in deciding to use RPCs, such as cost / economic considerations. In most cases, corrugated is still the preferred packaging material because it is:

- Durable
- Versatile
- Lightweight
- Sustainable
- Environmentally responsible
- Made from a renewable resource
- Customizable
- Protective
- Graphically appealing
- Cost-effective

More information about corrugated's benefits, and how it compares against RPCs, can be found at: <http://www.corrugated.org>.

Fiber Use:

- 20. Did you only use virgin fiber in your LCA study and if so why? Also, how much secondary fiber is included in the virgin fiber data if any?**

We did **not** use only virgin fiber in the study. The LCA study included data from mills of all types -- virgin, swing and 100% recycled. The study analyzed data inputs and outputs/ impacts for an industry-average corrugated product only because mills do not break out their data according to furnish type (i.e. virgin or recycled).

Recycled Content:

- 21. Is the methane gas reduction from landfills and improvement to GWP due to use of recycled fiber, which is thus not going into landfill included in the End-of-Life number?**

There are several methods to reduce the end-of-life (EoL) GWP impact, primarily by capturing the methane generated at the landfill or reducing the amount of OCC sent to landfills. There are several approaches to diverting OCC from landfills, including increasing OCC recovery rates and increasing the OCC sent to waste-to-energy, incinerators, or composting.

- 22. When you refer to recycled content, how do you define this (i.e.) is this only post-consumer recycled content or is it a combination of pre- and post-consumer content?**

Recycled content is recycled content – it is OCC that was generated outside of the mill and is returned to the mill.

- 23. Based on the last slide (regression curve) higher recycled average does not positively impact greenhouse gas (GHG) impact?**

Correct – it does not. The CPA asked NCASI to run a sensitivity analysis that would illuminate what difference, if any, recycled furnish might have on global warming potential. The NCASI analysis shows that there is no statistically significant relationship between recycled content and GWP on an industry-wide basis, as shown below. Other plant-specific characteristics (such as equipment used, energy efficiency and energy sources) far outweigh the impact that variable recycled content has on GWP.

- 24. Customer question: For improved sustainability scorecard results should I buy packaging in 100% recycled material?**

Not necessarily (see answer to Q 23). On an industry-wide basis, the decision to use 100% recycled has more to do with sourcing availability and marketing than improving sustainability. In individual cases, this decision also depends on each customer's package performance requirements in the distribution system.

Communications:

- 25. Do you have a PowerPoint slide you could send us showing the "Paper Tree" responsible package ad?**

Yes. Please email your request to rkenyon@fibrex.org.

- 26. May we use the ads shown with our corporate logo?**

Unfortunately, not at this time. We are developing additional artwork that we will attempt to design with appropriate personalization space.

- 27. May we put the link in our corporate website?**

Yes. Feel free to promote the Responsible Package campaign by adding a link to the industry website on your own corporate website: <http://theresponsiblepackage.com>. For additional information specific to the corrugated life-cycle study, you may also post a link directly to <http://corrugated.theresponsiblepackage.org>.