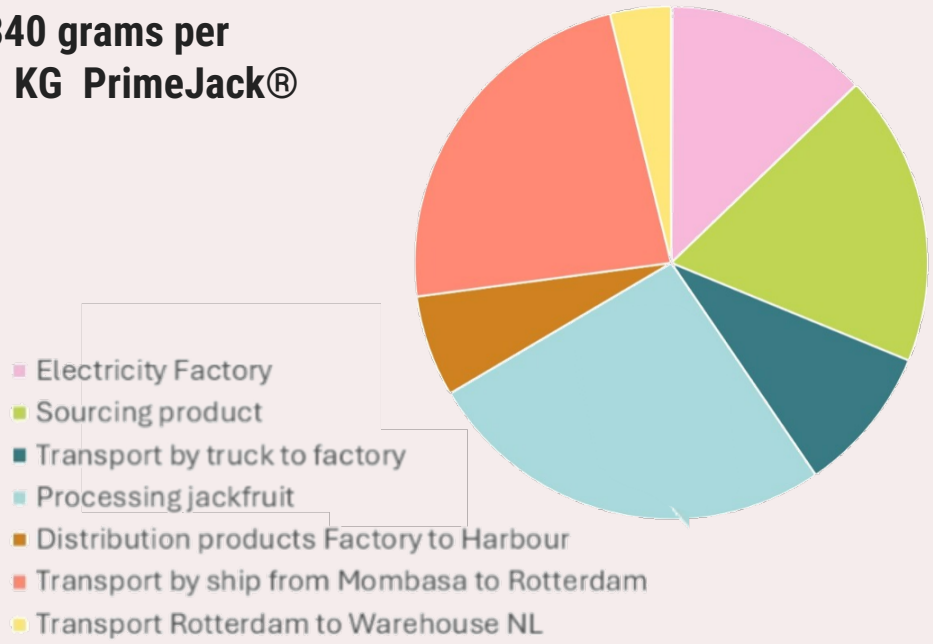
The Life Cycle Analysis (LCA) of PrimeJack®

Fiber Foods is on a mission to build a carbon neutral value chain of PrimeJack®. We performed a Life Cycle Analysis with the support of the research group SAM BV.

340 grams per
1 KG PrimeJack®

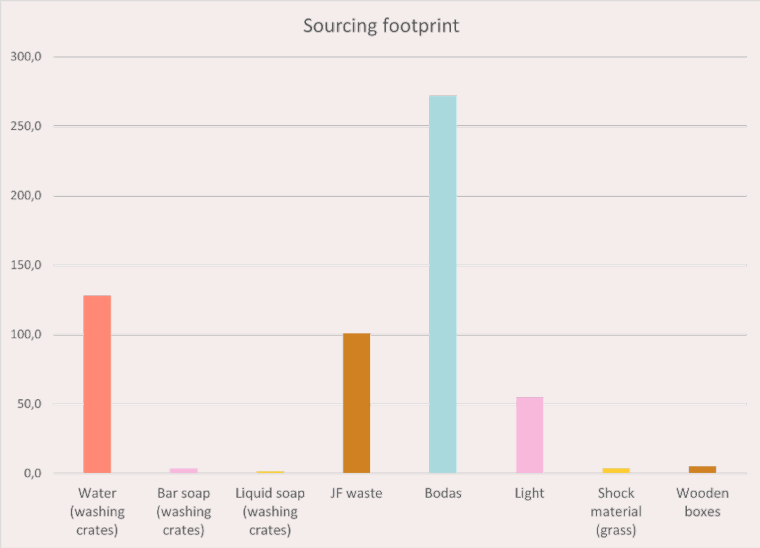


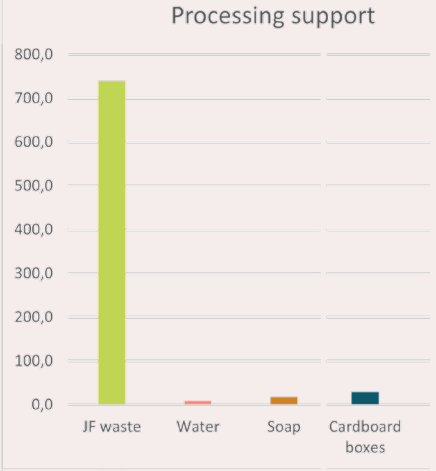
Key results:

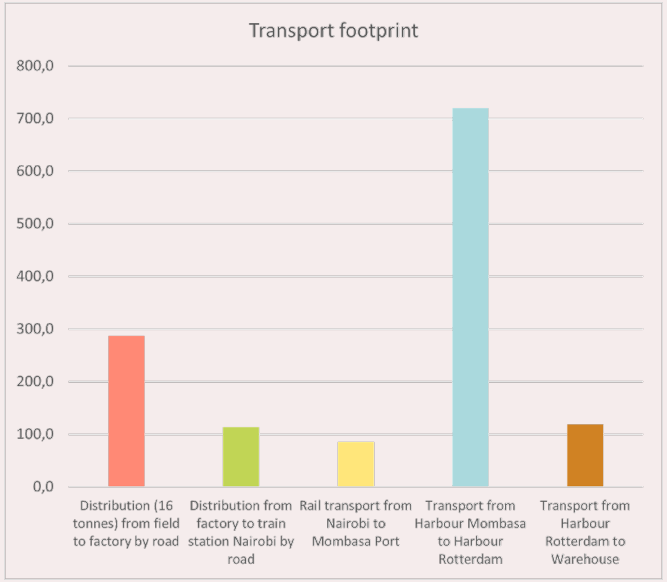
1. PrimeJack® has a very low footprint. Especially compared to meat: beef = between 15-30 KG, pork = between 5 - 12 KG, chicken = between 3 - 6 KG. Also compared to TVP, which is approx. 10 KG (according to Quorn)
And Field- and Fava bean isolate, which is between 2,6 - 2,8 KG (according to Bean me up). This is a fantastic starting point on our way to carbon neutral!

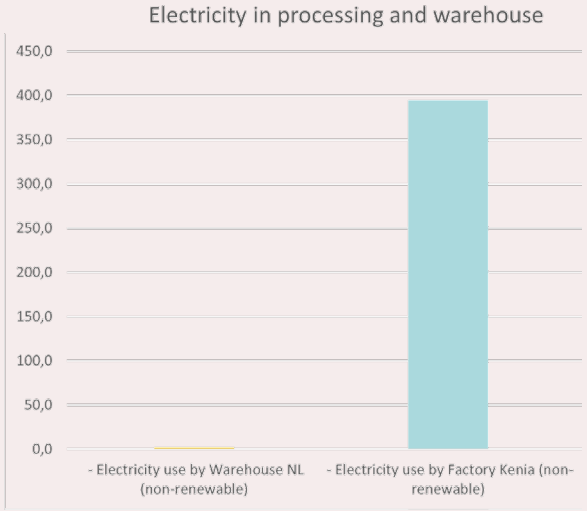
2. A decisive factor in the PrimeJack® supply chain is the low footprint of the production of jackfruit. Fiber Foods only sources from smallholder farmers with existing shade trees in their agroforest. No fertilizer, no equipment, no water needed to grow the jackfruit. The more you pick the more the tree will produce. By picking the young jackfruits the other jackfruit from the same branch will grow bigger.

3. Zooming in to the data we see that the highest CO2 emissions are generated by:
A. Container transport from Mombasa to Rotterdam
B. Electricity use of the drying process in the factory in Kenya
C. The jackfruit waste during production (this is 30% peel of the jackfruit)
D. The use of boda (motorbikes) from farmer to collection point









Journey towards carbon neutral – plans for 2024

Based on the LCA results we have designed our journey towards carbon neutral. For 2024 the following activities are planned:

A. To reduce the negative impact of the sea transport from Mombasa to Rotterdam, we will increase the amount of KG of PrimeJack®. Through more efficient packaging per bag and more bags per container.

B. The factory in Uganda has access to renewable energy and to hydropower which have both a very low emission factor. The factory in Kenya has less sustainable energy sources. For the short term the negative impact of the electricity used for drying is reduced by increasing the production of PrimeJack® in Uganda. For the long term, renewable energy sources will be established in the factory in Kenya.

C. In the LCA the jackfruit peel is calculated as waste. However, the jackfruit peel is 100% fed to black soldier flies and turned into organic fertilizer. A relatively easy step toward carbon neutral is to set off the positive impact of the organic fertilizer against the calculated waste. This will be arranged in the next LCA update.

D. Currently our farmers use boda's to bring the jackfruit to the collection center. The good thing is that many boda drivers are earning an income from the collection of jackfruit. The negative impact is of course the carbon generated by the fuels. Due to the income factor we have pushed this factor to next year. Expecting to be offered more electric motorcycle solutions over time.

For more information on the LCA, send us a mail: info@fiberfoodsgroup.com