Will increased demand for *Vascepa*® negatively affect the global fish supply?

The commercial success of *Vascepa*®, no matter how significant, could not negatively affect global fish supply because only a relatively small amount of byproduct from existing fishmeal operations of sustainable fishery systems is needed to make *Vascepa*.

The fish oil from which *Vascepa* is derived is a byproduct from fisheries that focus on the production of fishmeal. Fishmeal is a dry powder or cake made by cooking, compressing and drying small wild pelagic fish (e.g., sardines and anchovies). Fishmeal is sold as a concentrated source of protein and other nutrients primarily for use as feed in aquaculture and to feed animals. Fishmeal production drives the demand for fishing related to fish oil production. Historically, oil produced when compressing fish was dumped back into the ocean or burned as a useless byproduct in commercial fisheries. Consistent with the "whole animal" movement, which promotes full utilization of captured species, a portion of this fish oil is now put to good use as starting material for *Vascepa* and other commercial products.

Vascepa production does not result in an increased demand for fish oil to a degree that affects supply. The amount of fish oil used to make *Vascepa* is a small fraction of the total amount of fish oil recovered from fishmeal production. On an annual basis, the world harvests more than 170 million tons of fish and seafood.[1] About half of this production (90 million tons) is used to make fishmeal. [2] From this 90 million tons of biomass one million tons of fish oil is extracted.[3] Of the one million tons of fish oil, approximately 90% is currently used for nutritional purposes in animal feed and aquaculture and less than 10% is consumed by humans primarily through food additives, dietary supplements and to a smaller degree, pharmaceutical products.[4] The production of fish oil for use in FDA-approved drugs and dietary supplements for human consumption represents less than 1% of fish oil use.[5]

Further, the fish oil used to make *Vascepa* is derived from small wild pelagic fish (e.g., sardines and anchovies) the supply of which is tightly regulated by a number of governing bodies focused on ensuring sustainability of fish supply.[6]

Amarin is committed to ensuring responsible and sustainable manufacturing processes for *Vascepa* that will not increase the demand for fish or harm the environment.

Date October 15, 2019

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[1] http://www.fao.org/state-of-fisheries-aquaculture

[2] *Id.*

[3] https://www.seafish.org/media/1689782/acig_apr17_fm_fo_iffo.pdf

[4] Data on file at Amarin

[5] http://www.fao.org/state-of-fisheries-aquaculture

[6] *See, e.g.,* https://www.worldbank.org/en/news/feature/2017/03/06/peru-anchoveta-pescadores (featuring steps taken by Peru with the assistance of the World Bank to regulate commercial fishing operations in favor of preserving sustainable fishery supply).