

Responsible management of forest resources

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People depend on forests. They are an important resource and essential to our ecosystem. Forests improve air quality, protect watersheds, prevent soil erosion, and provide habitats for animals; altogether contributing positively to our Earth's biodiversity. They also help mitigate climate change. Destroying forests, also called deforestation, causes approximately 15% of global greenhouse gas emissions.

At DSM, sustainability is the core value of the company. We are taking steps to reduce deforestation by sourcing ingredients like palm oil products, soy products, glycerin and wood fibers in a more sustainable way.

At DSM, our Sustainable Procurement Program helps us to make the right choices to reduce our environmental and social impact, and enable our suppliers to help us deliver on our promise of creating brighter lives for all – not just today but for generations to come.

Palm oil derivatives

DSM uses a limited amount of palm oil derivatives when making certain nutritional and materials products.

DSM, through its business group DSM Nutritional Products is a member of the Roundtable for Sustainable Palm Oil (RSPO), a not-for-profit, multi-stakeholder organization aimed at making sustainable palm oil the market norm. You can view [DSM's RSPO profile here](#).

The RSPO has four different supply chain models for certification: "Identity Preserved", "Segregation", "Mass Balance" and "Book & Claim". Have a look at [these infographics](#) to learn more about the difference between these four models.

DSM Food Specialties and DSM Nutritional Products has met its objective to use 100% RSPO certified sustainable palm oil products using RSPO "Mass Balance" supply chain models by 2020.

Going forward, DSM Nutritional Products aims to have all of the major production sites that use palm oil derivatives RSPO certified. At this moment, DSM Nutritional Products' production sites in Grenzach and Sisseln are certified under both the RSPO "Mass Balance" and "Segregation" supply chain models, and one site in Singapore is certified under "Mass Balance".

For non-RSPO purchases of palm oil products, DSM Nutritional Products buys GreenPalm "Book & Claim" RSPO certificates. The "Book & Claim" program allows us to offset each ton of palm (kernel) oil we use, by purchasing certificates from an RSPO certified palm oil grower. In this way, we indirectly support RSPO certified growers and farmers.

In 2019, DSM procured approximately 2,300 metric tonnes of palm oil products, of which 71% was certified:

- RSPO "mass balance" – 54%
- RSPO "segregation" – 6%

- GreenPalm “Book and claim” RSPO credits – 11%
- Uncertified – 29%

Soy derivatives

DSM uses soy derivatives mainly in the form of soybean oil, meal, protein and flour to produce certain nutritional, and materials products.

In 2019, DSM procured approximately 22,600 metric tonnes of soybean products. Going forward, DSM is making enquiries with its soy suppliers to trace the origin of the soy purchased.

DSM procured 48 MT of [Proterra certified](#) soy flour in 2019. This was mainly used by the DSM Food Specialties production site in Seclin. The remaining 70% of soy flour was procured in China, of which the supplier is chosen for food safety standards.

Glycerin

Crude glycerol, also known as glycerin, is the main byproduct of the biofuel industry. DSM uses glycerin in enzyme blending activities and for personal care products at production sites in Europe and China. DSM also uses glycerin for the production of coatings. DSM Food Specialties sources RSPO 'Mass Balance' certified palm-derived glycerin in Asia.

Wood fiber

Across DSM, wood fiber-based products are sourced mainly for pallets, cardboard, paper bags and for our biomass plant in Switzerland. In 2018, DSM started the Green Tender Initiative, a step-by-step approach to attaining more sustainable suppliers across all of these categories.

When sourcing pallets, DSM gives preference to suppliers who can demonstrate that at least 70% of their products originate from sustainably-managed forests with a [Forest Stewardship Council](#) (FSC) certification.

Going forward our ambition is to have our supplier use at least 80% of their wood consumption from FSC / PEFC certified forest.

DSM also sources wood chips for the biomass cogeneration plant at our vitamin production site in Sisseln, Switzerland. The cogeneration plant, opened in April 2019, reduces DSM's CO₂ emissions by approximately 50,000 ton/year thanks to more efficient production of renewable steam and electricity. The origin of the wood chips used is restricted by contract to forestry harvesting residues (such as tops and branches) and residues from forest industries (such as bark, shavings and sawdust) from the surrounding forests. Wood chips are sourced according to the criteria from the Roundtable on Sustainable Biomaterials (RSB) regarding climate change, soil protection, conservation of resources, and biodiversity and traceability, from within a 200-km perimeter.

Other plant extracts

DSM has a strong track record of sustainable innovations and pioneering in bio-based material solutions. DSM sources plant-based extracts including castor oil, rapeseed oil and crude tall oil for the production of solutions such as EcoPaXX®, Decovery® and bio-based Dyneema®.

The crude tall oil we use in the production of bio-based Dyneema® is a residue of the pulp making process. Wood for all pulp processing is legally logged and the origin of wood is always known. The tracing system and Chain of Custody model of our supplier's raw material providers cover the requirements for both the PEFC™ and FSC® forest schemes.

DSM is committed to sourcing plant extracts in a responsible way through the Supplier Sustainability Program. In addition, DSM is committed to the protection of deforestation, by certifying its own bio-based materials through globally recognized certification schemes. At the moment, ISCC Plus certification is available for bio-based Dyneema® and Stanyl® bio-based grades.