Fibre Guide
Introduction

All clothing—regardless of how it’s made, where it’s made, or what it’s made from—has an environmental impact.

However, some garments have more harmful impacts at different stages of their lifecycles than others. This depends on factors like the way the fibre was grown, how the fabric was made, or how you dispose of a garment when it’s no longer needed. These impacts may include water use, chemical pollution, greenhouse gas emissions, microplastics, and deforestation.

Fibres that form the fabrics we wear and use are classified according to three main categories:

- **Natural**: grown or produced from crops or animals, such as cotton, wool, linen and silk
- **Synthetic**: made using chemical processes, such as polyester, nylon, and acrylic
- **Regenerated**: made using chemical processes but with plant based raw materials, such as viscose

Understanding the impacts of different fibre types can be complex. That’s why we’ve put together a list of the most common fibres with an overview of their impacts—and some better choices you can make when shopping. Check the fibre content label on your clothing to see what they’re made from, and use the links provided to dig deeper and build your understanding.
**COTTON**

Impacts:
Conventional cotton is a highly water intensive crop to produce, and often uses large amounts of pesticides.

Better Option:
Certified organic cotton, Better Cotton, Cotton Australia myBMP, Fairtrade-Organic certified, or recycled cotton.

**LINEN**

Impacts:
Linen is made from the flax plant. Although it typically requires less chemicals than other fibres, its cultivation still uses nitrates, which can be harmful to waterways and ecosystems.

Better Option:
Certified organic linen.

**WOOL**

Impacts:
The way sheep are farmed can contribute to land degradation and soil erosion.

Better Option:
Responsible Wool Standard certified, certified organic, or recycled wool.
**POLYESTER AND NYLON (POLYAMIDE)**

**Impacts:**
Both polyester and nylon are made using raw materials from the oil industry (petro-chemicals). Their manufacturing processes are water and energy intensive, and the chemical dyes used for colouring are often highly toxic.

Both materials shed microplastics during washing, which pollute waterways. They’re also non-biodegradable, meaning they can take between 20 to 200 years to break down, depending on the environment.

**Better Option:**
Recycled polyester (rPET), recycled nylon (eg. Econyl), biobased synthetics, or, if possible, choose a natural fibre instead.

**LEATHER**

**Impacts:**
Leather is a co-product of the meat industry. Livestock agriculture can contribute to biodiversity loss, deforestation, and greenhouse gas emissions. Harmful chemicals are also used to turn the rawhides into leather during the tanning process.

**Better Option:**
Leather Working Group (LWG) leather, Land to Market leather, recycled leather.

**Beware:**
‘Vegan leather’ or ‘pleather’ is often marketed as a sustainable alternative, but in most cases is made from polyurethane (PU)—otherwise known as fossil-fuel based plastic.

**VISCOSE (RAYON)**

**Impacts:**
Viscose is made from wood pulp, which if not sourced responsibly, can contribute to deforestation. The production process is also water and chemical intensive, and can be highly polluting for the air and waterways.

**Better Option:**
FSC or PEFC certified, recycled viscose, or look for lyocell as an alternative.
A Note On Blended Fibres:

Some fabrics are made using a mix of fibres to maximise their different properties, such as a polyester and cotton 'polycotton' blend. Blended fibre mixes reduce the fabric’s ability to be recycled at its end of life, as it’s hard to separate the individual fibre types. Fabrics made from a single fibre, such as 100% cotton, can be recycled more easily.

The most sustainable wardrobe is the one you already have! Look after the clothes you own to extend their life, and when you no longer need them, repurpose them responsibly. Buy second-hand whenever possible, as this is going to be the lowest impact purchase you can make.