



**REGENERATIVE  
Cotton & Wool**



# REGENERATIVE COTTON

Climate positive cotton produced with ecology at the forefront, data driven improvement practices and traced from grower to garment.

## THE CONCEPT

Producing cotton based on regenerative agricultural practices represents a change in attitude towards prioritizing long-term environmental well-being and health of our soils. Regenerative cotton sequesters more carbon than it emits through the growth life cycle.

Through less disturbance of the soil, minimal tillage, maintaining living roots in soil, continuously covering bare soil, integrating livestock where feasible, reduced inputs and amendments, the regenerative agricultural practices lead to ongoing improved environmental effects, good soil and plant health and a maximization of diversity with an emphasis on crops, soil microbes and pollinators

First results show that the yield is likely to increase and the fibre strength and properties are at least as good as GOTS cotton.

Creating diversity on the fields by adding other plant types and animals – moving away from the traditional mono-crop concept – will further enhance benefits.

Healthy plant life draws carbon from the atmosphere, storing it in leaves and branches and sinking it into the soil through the plant roots. This increases essential nutrients, enhancing the microbiome and soil structure. The plants' capacity to absorb increases and carbon is effectively captured and stored under the soil.

As per March 2023, Win-Win Textiles is able to offer product development and production of garments made of circular knits and with regenerative cotton. The fibre is imported into Portugal and processes from yarn spinning to the final garment all take place in Portugal and partly in facilities using renewable energy. Fully traceable.

We hope you would like to be part of this attempt to improve our soil, our biodiversity and our climate.



## NATURAL DYES & PRINTS

Our Portuguese partners have developed a 100% natural and organic dye based on regenerative principles. Dyes are developed from food waste, roots, leaves, wood and seed extracts, where 50% is of Portuguese origin. The entire process from selection, control, development of dyes and until delivering the final product all take place in Portugal.

Among others, we use: used ground coffee, onion shells, wood chips from furniture production, eucalyptus, beech, walnut, sappenwood, urucum, rubia and mulberry.

The dye process uses less water, no chemicals and less energy with little need for waste water treatment. It has been designed for brands who would like to create products, which are completely natural and ecological as well as biodegradable. The solid residues after dyeing go through a 4-5 month composting process and are used in agriculture as a fertilizer afterwards. Please refer to the process chart in the photos, where you can also get an idea of the available shades.

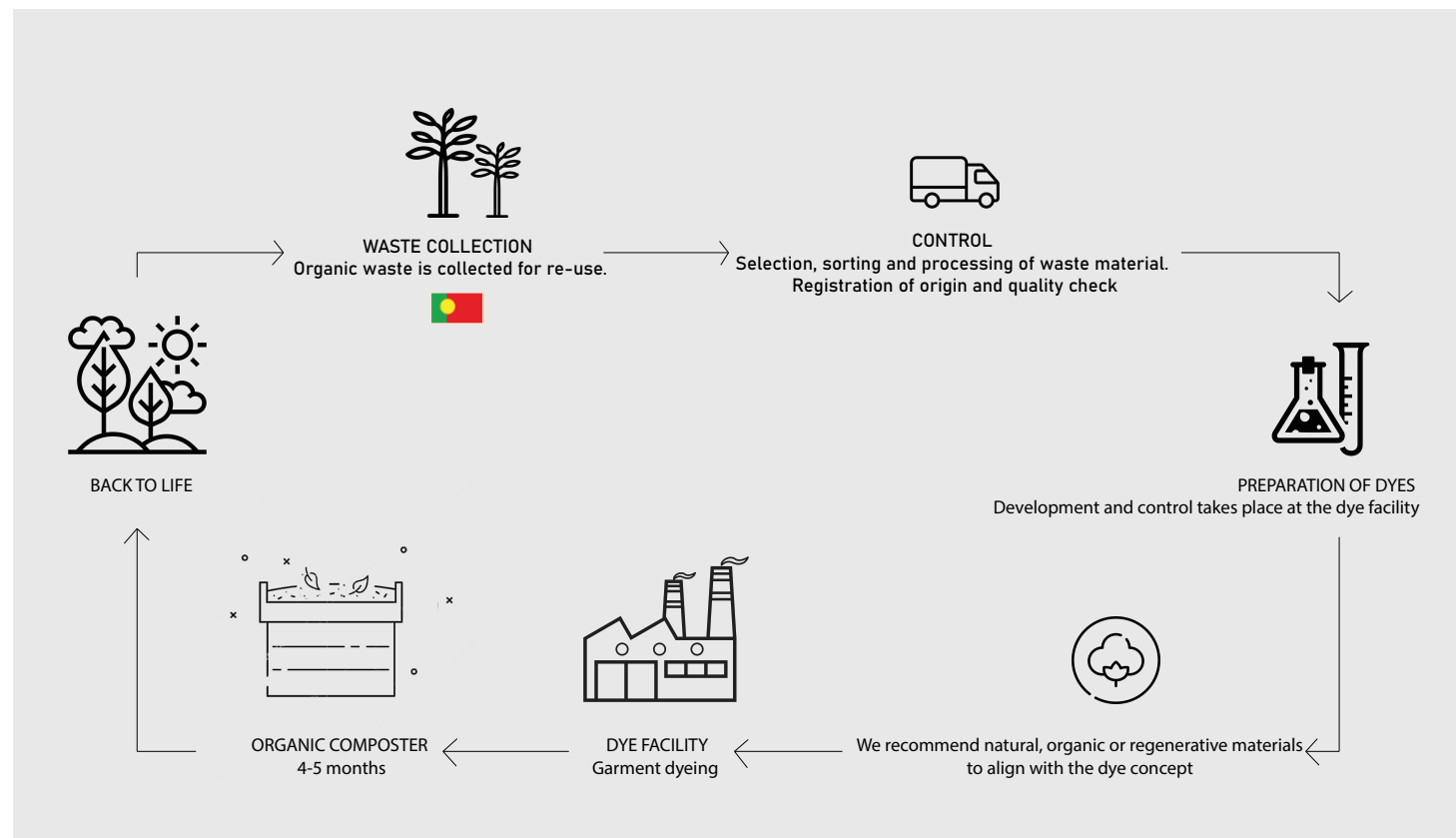
These dyes are in conformity with GOTS and ZDHC and are fully traceable.

We can create prints with the same pigments from onion shells, as we use for the dye.





## THE DYE PROCESS





## MINERAL DYES

These dyes are made from minerals, and the preparation of dyes and all following processes take place in Portugal. The pigments are completely natural and are derived from minerals in the soil. They are collected at quarries mainly in Italy, where the minerals are a bi-product. Dyeing with pigments from minerals is an ancient dye technique believed to date back to 2600BC.

Dyeing takes place at low temperatures, and therefore a substantial reduction in energy consumption is achieved. At the same time, reproductivity is very high, and we can obtain very good colour fastness results to washing and light. The dyes are in conformity with GOTS and ZDHC and are fully traceable.



INSPIRATION

# REGENERATIVE WOOL

One of the principles of regenerative agriculture is to integrate livestock. Sheep can be key to good soil health and good soil health, and diversity is key to animal welfare. We offer regenerative wool, which is RWS certified and fully traceable, in collaboration with Woolmark and our Portuguese partners.



## THE CONCEPT

By supporting the natural functions of the environment, regenerative agriculture is a holistic farming approach that focuses on developing the biology and fertility of soils as the basis of the entire farm ecosystem.

Regenerative agriculture works to support soil systems, increase biodiversity, improve water cycles, support bio-sequestration, increase resilience to climate fluctuation and strengthen soil health and vitality.

Including animals in farming systems can reduce the need for fertilizers, and implementing rotational grazing techniques ensures that grass is trimmed regularly, allowing it to regrow, store more carbon in its roots and support biodiversity in and above the soil.



We need to work together to increase the use of natural fibres. Wool is 100% natural, 100% biodegradable and 100% renewable as sheep produce a new fleece every year. The fibre is wrinkle resistant, as each Merino wool fibre at a microscopic level is like a coiled spring that returns to its natural shape after being bent. This also gives wool garments a natural elasticity, creating wearing comfort. Wool is naturally breathable; it is an active fibre that reacts to changes in body temperature and will warm/cool the body. Other benefits of using Merino wool is that the fibre has a natural protective outer layer, which creates stain repellency, as well as a natural anti-microbial function that makes it easy to care for, as it will need less washing.

With the present level of innovation in fibre production, Merino wool yarns are produced with high quality, making wool an excellent choice to create softness on the skin, and we can create unique textures and finishes. Wool has a natural UV resistant function, it is fire resistant and is simultaneously the most reused and recycled fiber.

Even though wool is only 1.2% of the global virgin fibre supply, it represents 5% of clothing donated to charity and is one of the most sought after textiles for recycling.

As per March 2023, Win-Win Textiles offers product development and production in generative wool, and we also offer recycled wool for fabrics and filling in quilted garments.



## Regenerative agriculture works to:



### Support soil systems

Return nutrients to the soil to increase microbial health and diversity.



### Increase biodiversity

Encourage and support flora and fauna species co-habitation.



### Improve water cycles

Repair erosion and reduce and remove water pollution.



### Support bio-sequestration

Increase dry matter compost and soil structure to lock carbon back into soil.



### Increase resilience to climate fluctuation

Build resilience through ground cover and water storage capacity.



### Strengthen soil health and vitality

Improve water retention, compost, microbial health and pastures and tree root systems.







*"It is good to use organic materials. This resolves part of the problems we have created, mostly in relation to chemicals and improved social conditions. However, a lot is left unsolved, and we need to go much further and take more responsibility.*

*Through regenerative principles applied in fibre production, in management of businesses, in stakeholder management, in our relationship to nature and through the Inner Development Goals and the SDGs, we can approach our problems and truly take responsibility in a systemic and holistic way."*

Lars Gøtterup, Win-Win Textiles

