

Agroforestry as an ally for the circular bioeconomy

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Economic growth in the last decades has been running at the expense of our environment. Given that all products derived from fossil fuel can be obtained from biomass, agroforestry reveals itself as one of the best allies for the circular bioeconomy, which can be part of the solution to address some of the most eminent European and global challenges: climate change, biodiversity loss, forest fires, the plastic ocean...

Would you like to be **innovative** in your region? Or are you looking for ideas to incorporate to your farm to become more **resilient** and **profitable**? Have a look to the wide range of products you can obtain at your farm!

Agroforestry is known for the diversification of products that can be obtained in an integrative way, providing a great variety of raw materials that may be later on transformed into bio-based products.



Wood chips for energy. Photo by Francisco Braga.



Citrus peels as source of bio-textiles. Source Adobe Stock.



Wool in different colors. Photo by Sampo Luukainen.

From trees

- woodchips as fertilizer or mulch
- timber for construction
- wood-based textile fibres
- tree bark for cosmetics
- juice from spruce needles
- sweetener from birch's sap
- carbon fibers
- wood pellets or firewood

From cork

- stoppers
- insulation
- floors
- vehicles
- 3D printing material

From crops

- bioethanol or biodiesel from crops like maize, wheat, sugar cane, sorghum
- biodiesel
- carbon fibres from fibre rich crops for cars, planes, tennis rackets, bicycles, wind turbine blades, etc.
- textiles from stinging nettle
- cosmetics from sugar beet or cardamom
- food for snails from fruits and vegetables not reaching commercial quality

From animals

- powdered milk converted into textile fibres
- wool for textiles or insulation materials
- dairy whey as probiotic or biostimulant
- bone meal as fertilizer
- manure as biofuel

From forestry and agricultural waste

- biogas
- biochar
- bioplastics for packaging, cutlery, coffee cups, toys
- textiles from citrus peels

Pros and cons

- Bio-products provide an added-value to the product, increased benefits for farmers, while contributing to the global sustainable economic growth.
- Biodegradable polymers for instance, could become an everyday reality in a few years, given the large amounts of waste in the agri-food chain.
- The main challenge is the lacking nearby industry not being able yet to produce such bio-products and demanding those resources to the growers. Once the production of bio-products become cost-effective for the industry, they will be part of our economic growth.