

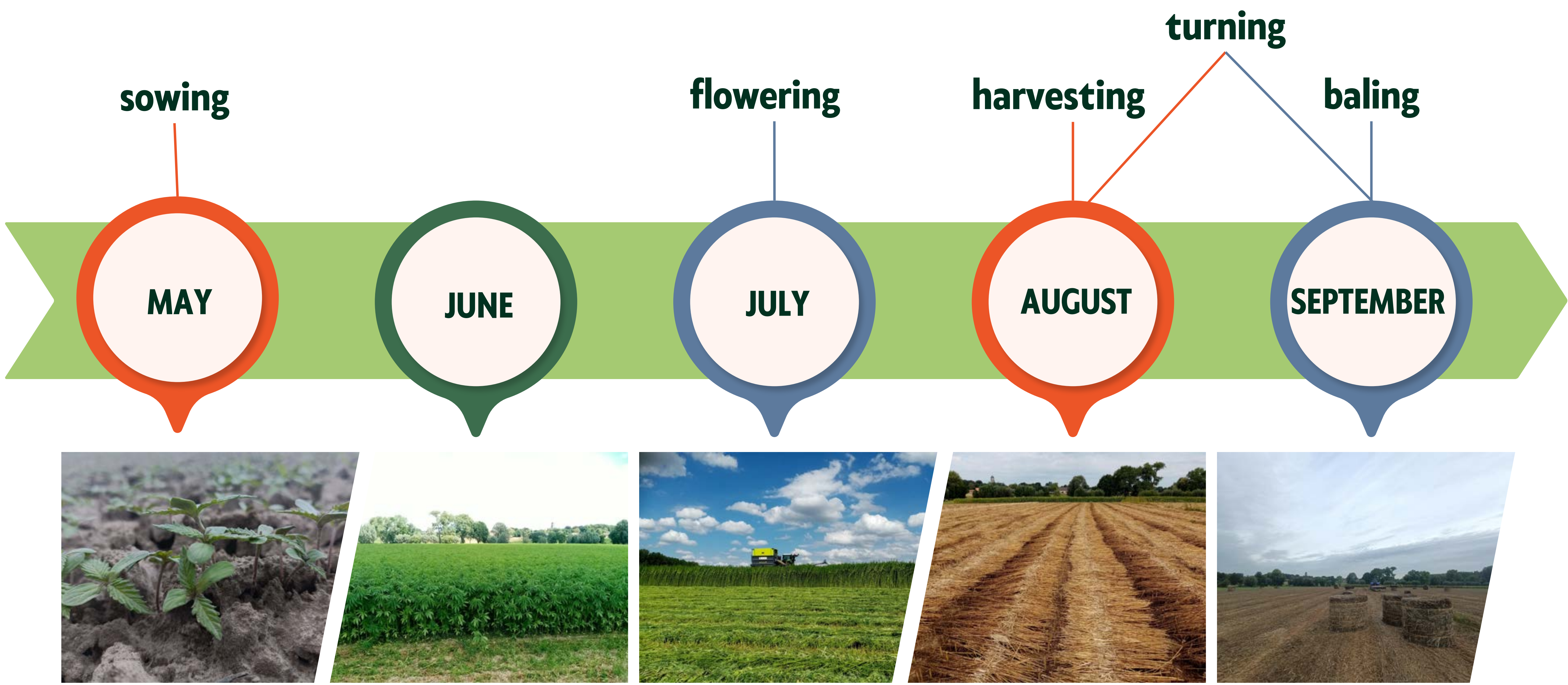
HEMP AS A SUSTAINABLE TEXTILE FIBER

Hemp (*Cannabis sativa* L.) is one of the oldest and most environmentally friendly fiber crops in the world. Recent developments in harvesting machinery allow hemp to be processed with existing flax machinery. This produces a fiber similar to flax (linen), which can be used for the production of sustainable textiles.

01

CULTIVATION, HARVESTING AND RETTING

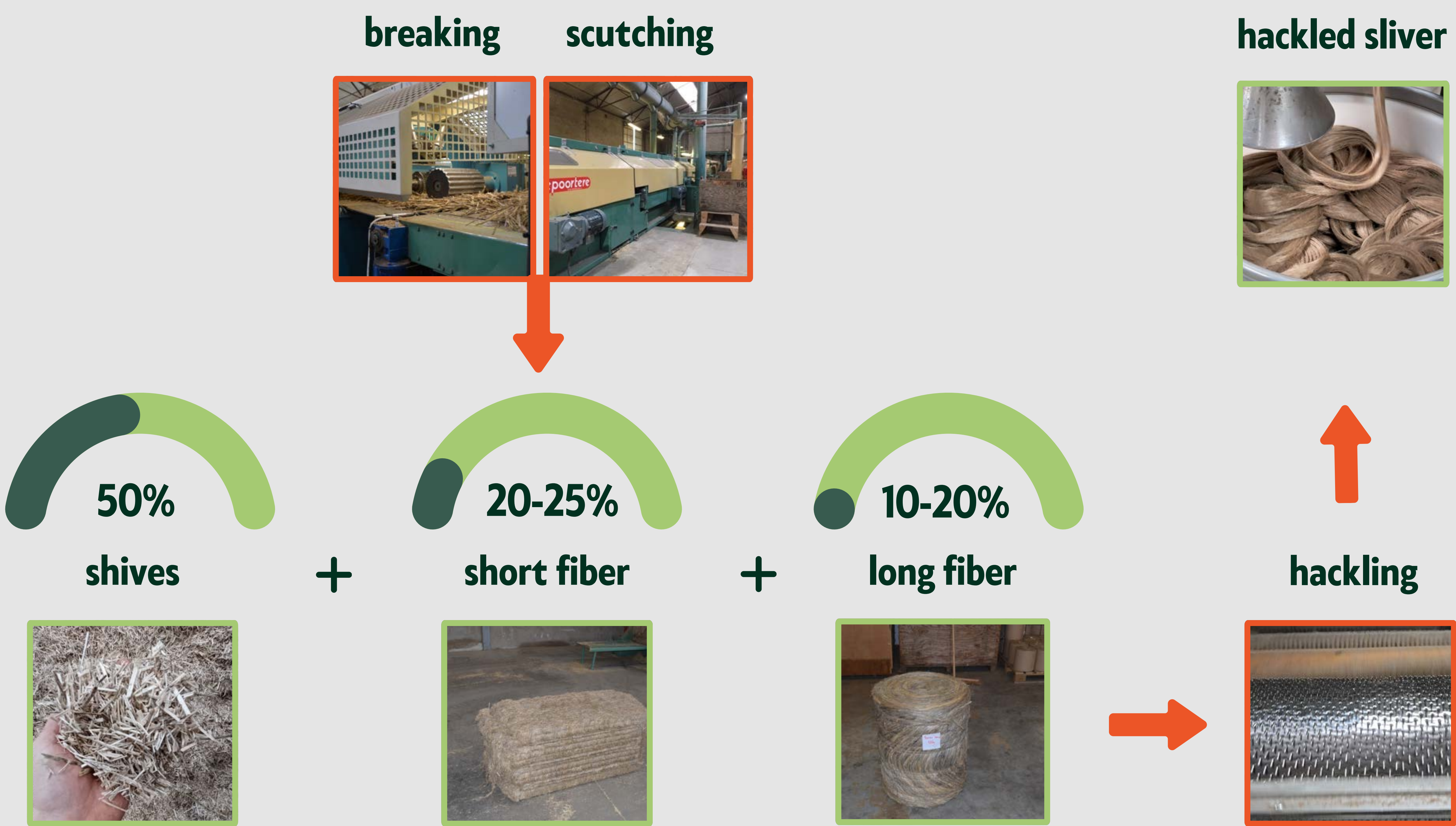
Hemp is preferably sown between the end of April and mid-May in a moist and warmed soil. Hemp is a fast-growing crop that can be harvested 80-100 days after sowing (when flowering). After harvesting, hemp remains on the field for another 4-6 weeks to ret, so that the bast fibers loosen from the woody core. During retting, it is turned 1 to 2 times. The retted hemp straw is pressed into round bales, yielding 6-10 tons per hectare.



02

SCUTCHING AND HACKLING

Hemp straw is processed on the flax scutching line, producing long fibers, short fibers and shives. After scutching, the long fibers undergo the secondary processing step: hackling. Here, the long fibers are combed and then smoothed, spread on top of each other and processed into the so-called hackled sliver.



03

SPINNING AND WEAVING

The hackled sliver serves as the basis for the following processing step: the production of yarns, i.e. spinning. Fabrics are created by weaving or knitting hemp yarns, techniques that are also used in the processing of flax.



04

MEET OUR EXPERTS AND GET IN TOUCH WITH US

HOGENT's AgroFoodNature and FTILab+ research centers have been conducting interdisciplinary research on hemp for textile applications since 2017.

Our efforts focus on:

- optimizing hemp cultivation
- improving fiber extraction and processing
- producing fine yarns with sustainable fiber preparation techniques
- exploring various application possibilities and their economic feasibility



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