## When the seed breaks, when the fibre sticks... Some contaminants of cotton

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## Abstract:

After defining the word 'contamination' in cotton materials (seed-cotton or fibers), the authors detailed their origins and their incidence into the processing as well as possible solutions to limit their presence. Seed coat fragments and cotton stickiness are emphasized in this presentation.

Seed coat fragments (SCF) are created when fibers are pulled from the seeds during ginning, and may due to a fragility of the seed coat. SCF create irregularities and defects in yarn structure and therefore are to be avoided. Tools have been developed to detect and size seed-coat fragments in card web, card fleece, yarn boards or fabrics. These tools have been used in breeding programmes to efficiently select varieties with low SCF content.

Cotton stickiness appears as soon as insect honeydew deposits get onto opened bolls in the cotton fields. When fibers are processed in specific ambient conditions, honeydew deposits melt and stick with fibers onto processing parts of spinning machines at least, thus creating quality and productivity incidences. Various measuring methods have been developed in order to predict the stickiness potential of fiber samples. Activities are undertaken by CIRAD and the ITMF-ICCTM working group for harmonizing these methods measurement results at an international level.

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