# Neps, Seed-Coat Fragments, and Non-Seed Impurities in Processed Cotton

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Pages: 53-67
*Textile Technology*

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We studied the effect of mechanical-processing procedures on the presence of defects in cotton. Deltapine (DPL) 50 cotton (*Gossypium hirsutum* L.) samples collected from four different ginning (cage, saw) and lint-cleaning (zero, one) combinations and collected after carding and combing were examined microscopically for neps, seed-coat fragments, and non-seed impurities. In all four gin-type/lint-cleaning combinations, the numbers of neps were highest, followed by seed-coat fragments and non-seed impurities. Microscopically obtained numbers of neps and seed-coat fragments were higher than numbers obtained with AFIS. Differences in size and appearance between neps in cage-ginned and in saw-ginned lint were documented with microscopy; however, AFIS data did not reflect this difference. Fiber processing, such as carding, significantly affected the number and the size of neps in cotton. Combing significantly decreased most types of impurities in each of the four gin-type/lint-cleaning combinations.

The Journal of Cotton Science is published four times a year by The Cotton Foundation.
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