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Genocells: Individual somatic cell count of dairy cows by genotyping tank milk. Pierre Lenormand¹, Florent Perrin², Magali Foucher², Jean-Bernard Davière¹

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The somatic cell count (SCC) monitoring is essential for the health monitoring of cows in production and to optimize milk price.

GénoCellules® is a revolutionary technology that, from the DNA analysis of a sample of tank milk, is able to accurately determine the SCC of each cow that compose it. This technology is based on the correspondence between the animal genotypes (= genetic identity) of and the presence of their DNA in the mixing milk sample.

The principe of this method is based on the DNA for each cow which is found in the somatic cells. Then, the tank milk genotype allows obtaining the SCC for each cow.

The SCC results from this disruptive genomic method are as good as it could be found by the traditional flux cytometry method.

GénoCells® is more practical than a classic milk control operation because it's based on only one tank milk sample. This method can be performed several once in a year and in less expensive by 20% compared to the classic method.

The farmer can also get access to the genomic indexes to make selection schemes.

With this method, a quick decision regarding SCC can be performed and lead to a better financial impact. GénoCells® represents also a disruptive method to manage the SCC of the herd worldwide.

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