

Maturation process of curds, analysed for *Lactococcus* strains with multiple chromosomes

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Aim and Description:

The purpose of this project is to develop methods to control the ripening process independent of the acidification phase by controlling the starter culture composition. Specific objectives of the project will be to examine:

- 1) Detention of haploid and diploid strains of curds - both individually and in mixtures
- 2) Which factors determine whether a bacterium is haploid or diploid - i.e. the genetic factors that give rise to altered cell cycle in diploid strains
- 3) How diploid strains at the nanoscale differ from normal haploid strains in terms of shape and surface. This will be analyzed by means of atomic force microscopy
- 4) How *L. lactis* senses confinement in curds and ripening process, using data from DNA microarray analyzes