Reducing molasses purity by optimising work in the C-product station

Analyses in

BMA's laboratory

The engineering services BMA provides also extend to investigating the potential for optimising the production process in the C-product station with the aim of reducing molasses purity. These services are available both for the beet and the cane sugar industries. For its engineering services, BMA assigns one of its technologists to the factory. Responsibilities include obtaining information on the present situation and the technology that is used for producing the seed magma, the evapo- and cooling-crystallisation and the centrifugation processes, and determining the potential that is available for optimisation. Such an assessment can relate to the existing equipment and also to the possibilities for optimisation with new plant elements.

Determining the theoretical molasses purity is a major step in this process, as it allows the minimum purity values to be defined that a factory can achieve. BMA is in a position to carry out the necessary laboratory analyses for the molasses in its own research facility, without having to use outside assistance. In the beet sugar industry, these analyses are quite common, while they are not used very often in the cane sugar industry. They do, however, form an excellent basis for defining the optimisation potential for the molasses purity and for implementing the necessary measures. The analyses are performed during the campaign.

In May 2011, such engineering services were carried out for the CSS cane sugar factory in Senegal, and the theoretical and the actually achieved molasses purities were shown to differ. The analyses that have been outlined above were performed immediately afterwards during the campaign. The final report for the factory included recommendations for technological and equipment improvements, some of which were at once put into practice. As a consequence, the molasses purity could be reduced by approx. 1.5 %. Equipment modifications take more time to be implemented and have therefore not been completed.

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