

### ABSTRACT

Pressure filtration of treated cane juice was studied with a view to finding an alternative to the existing method of clarification, i.e. settling followed by filtration of the settled mud.

A specially designed filter was tried in which the filter cake could be removed by vibrations so that short filtration cycles were possible, virtually without any extra labour.

It was found that even for small filtration cycles of the order of 15 mins., the filtration of the treated cane juice as such was uneconomical due to its very low rates of filtration.

The effect of different parameters, i.e. addition of filter aids, addition of coagulant, increasing the  $P_2O_5$  content of the juice, increasing the pressure and type of filter cloth on the rate of filtration was studied. It was found that by combination of suitable parameters like the additions of crushed bagacillo (passing through No. 52 mesh screen), plus coagulant, increasing the pressure up to 37 lbs/sq.in. and using Dacron filter cloth, the filtration rates can be considerably improved and can become economically feasible.

However, in the above filter the arrangement to remove the filter cake by vibrations was inadequate and requires improvements before it can be used in actual practice.