

SHIPPEN, WAYNE R.\*., The Amalgamated Sugar Company, Mini-Cassia Factory, 50 South 500 West, Paul, Idaho 83347. - Design and Construction of a Thin Juice Softener System at the Mini-Cassia Factory.

To allow sugar to be removed from molasses using the TASC0 separator, it is necessary to provide a molasses feed stock free of calcium and magnesium ions. A softening process to remove these ions from thin juice using a hydrogen form resin with affinity for divalent cations was installed during 1989. This resin is regenerated using sulfuric acid producing calcium sulfate that is returned to the diffuser supply as a pressing aid. In addition to producing suitable feed stock molasses, benefits include clean evaporators, extended filter cycles, improved pulp pressing, and elimination of pan boil outs, leading to increased slice of approximately 300-400 tons per day in the 1989-90 campaign. Detrimental effects observed included increased corrosion to carbon steel evaporator shells and piping.