

A. Set-up time (putting 1st round of frozen juice into receiving drum, stretching filters): 10 min (Potential time saving: ~5 min by increasing efficiency of filtration protocol). B. Pomace management, putting 2^d round of frozen juice into receiving drum, replacing filters, washing screens): 26 min (Potential time saving: ~20 min by having redundant screens that could be washed during evaporation, instead of on-the-go during grinding, placing all the ice at once in the beginning, by increasing efficiency of filtration protocol). C. Weighing Cayana, calculating juice yield taking brix of Cayana and POJ: 7 min (Potential time saving: ~7 min). D. Break and filter management: 6 min (Potential time saving: 0). E. Transferring juice from drum to kettle, filtering, etc., before firing the furnace: 19 min (Potential time saving: ~5 min by firing the kettle before all the juice is transferred). Not shown: I poured out about 5 gallons of juice because I had ground too much cane. (A 60-gallon kettle holds 50 gallons up to the rim and about 55 gallons halfway up the flange, which is where I like to start since the juice expands on heating, adding about 2.5 gallons in my case.) Total time to set up, grind, and get 50 gallons in the kettle (while using 10 gallons of frozen juice): 211 min. Total time actually grinding: 144 min (n.b., this grinding rate of 0.35 gallon min⁻¹, was somewhat slower than with average cane). Potential for saving: 37 min (+ ~14 min for not grinding extra juice). So, by making some changes, I could reduce my juice preparation time to ~160 min, or with a helper to the actual grinding time. Interestingly to me, my mill is a Golden's No. 2 (New Model), the same as my Watson ancestors used (and which I have in Tallahassee). At the peak of syrup production on the Watson homeplace, they cooked off 5 kettles per day (the kettle was about 60 gallons, but as it was stolen, there's no way to know for sure)--they began at 4 am with juice from the day before and ended the day at 10 pm with a barrel of juice ready for the next morning. I know this pace had to have been a struggle for the mule.