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unit operations in cane sugar production

john howard payne



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JOHN HOWARD PAYNE



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PREFACE

This compilation is intended as a guide for the efficient performance of the several unit operations obtaining in a factory processing sugar cane. It is not a textbook, engineering handbook, or equipment operating manual. The purpose is only to present in simple form the basic principles involved and some of the means of reaching optimum results.

The reader is assumed to be grounded in the fundamental chemistry, physics, engineering, biology, economics and common sense involved in sugar factory routine. He is also assumed to have had a reasonable length of experience in the industry.

These practices are designed for an Hawaiian type of raw material. That is, two-year cane, raze harvested under both wet and dry conditions, requiring the use of wet cleaning plants. The product is a sugar averaging 99 pol, designed for delivery to a refinery.

Although some of the Hawaiian conditions are not common, most of the practices are applicable to all cane sugar areas.

The author salutes with respect his predecessors who developed the vast reservoir of knowledge which forms the basis of present technology. He thanks his contemporaries who have inspired as well as contributed. He greets the upcoming with the admonition that if they do not improve on this, we both have failed.

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*When 'Omer smote 'is bloomin' lyre,
He'd 'eard men sing by land an' sea;
An' what he thought 'e might require,
'E went an' took - the same as me.*

Rudyard Kipling

CONTENTS

	Page
PREFACE	v
ACKNOWLEDGMENTS	vi
Chapter 1. FACTORY CONTROL	1
Procedures, 1	
Schedule for measuring, sampling and analysis, 9	
Daily report form, 12	
Weekly report form, 13	
Recovery and loss form, 14	
Chapter 2. CANE CLEANING	15
Thinning, 15	
Rock, gravel and sand removal, 15	
Schematic diagram, 16	
Washing, 17	
Fibrous trash removal, 17	
Operation, 18	
Cane salvager, 18	
Efficiency of cleaning, 18	
Water reuse, 20	
Waste disposal, 20	
Losses, 20	
References, 21	
Chapter 3. MILLING	23
Cane preparation, 24	
Two-roll crushers, 24	
Mills, 25	
Feeding devices, 25	
overfeed roll, 25; underfeed roll, 25; pressure	
feeder, 26; two-roll feeder, 26	
Grooving, 26	
circumferential grooves, 26; juice (Messchaert)	
grooves, 27; chevron grooves, 27	
Operation, 27	
mill settings, 28; maceration, 30; hydraulic	
loading, 31; speed, 31; general effects, 31	
Control, 32	
juice density curves, 32; mill juice curve, graph, 33	
References, 34	

Chapter 4. DIFFUSION	35
Introduction, 35	
Cane preparation, 35	
Juice displacement, 36	
Silver Ring Diffuser, 36; diagram, Silver Ring	
Diffuser, 37; diffuser gradients, graph, 38	
Bagasse dewatering, 39	
Press juice treatment, 39	
Press juice percolation, graph, 40	
Operation, 41	
permeability bed depth and diffuser speed, 41; diffuser	
flow balance, graph, 42; cell rupture, 43; draft and	
dilution, 43; press return, 43; juice flow percent fiber,	
diagram, 44; temperature, 45; bagasse dewatering, 45	
Diffuser flooding, 45	
Control, 46	
References, 47	
Chapter 5. BAGASSE MOISTURE	49
Effect on extraction, 50	
Effect on fuel value, 51	
Chapter 6. THE IMPACT OF EXTRANEEOUS MATTER ON	
MILLING AND DIFFUSION	53
Milling, 54	
Diffusion, 56	
Chapter 7. A COMPARISON OF DIFFUSION AND MILLING	
WITH RESPECT TO RECOVERY AND LOSSES	59
Chapter 8. CLARIFICATION	61
Polyelectrolytes, 61	
Magnesium oxide, 62	
Phosphatation, 62	
Sulfitation, 63	
Juice heaters, 63	
Rotary vacuum filters, 64	
bagasse fines, 64; filter station, diagram, 65; operating	
action diagram, 66; mixing fines with settlings, 67;	
pickup vacuum, 67; wash vacuum, 67; washing, 67;	
speed, 67; cake pol, 68; cake quantity, 68	
Clarifiers, 68	
flashing, 68; settling space, 69; operation of multi-	
compartment clarifiers, 69; holdover juice, 69;	
clarified juice screening, 70	
References, 70	
Chapter 9. EVAPORATION	71

Multiple effects, 71
 Vapor bleeding, 72
 Capacity, 73
 Operation, 73
 automatic control, 74; condenser and vacuum system, 74;
 condensate removal, 75; noncondensable gas, 75; scaling, 75;
 entrainment, 76; malfunctions, 77
 Evaporator calculations, 77
 References, 80

Chapter 10 COMMERCIAL SUGAR CRYSTALLIZATION 81

Vacuum pan crystallization, 81
 A-massecuite, 81; purity refractometer solids saturation
 diagram, 82; purity refractometer solids 1.2 supersaturation
 diagram, 83; purity refractometer solids boiling point, 1.3
 supersaturation, nomograph, 84; B-massecuite, 86; crystal
 content and pan drops, 86; vacuum pan design, 87;
 procedures, 88; quantity of masseccuities, 89
 References, 93

Chapter 11. LOW GRADE SUGAR CRYSTALLIZATION 95

Crystallization by cooling, 95
 viscosity-temperature relations, saturated molasses, graph,
 96; crystallizer design, 96; operation, 97; continuous
 crystallizer flow diagram, 99
 Vacuum pan crystallization, 98
 molasses refractometer solids at 1.2 supersaturation table,
 101; vacuum pan design, 102; procedures, 102
 References, 103

Chapter 12. GENERALIZATIONS AND DATA ON SUCROSE CRYSTALLIZATION 105

Generalizations, 105
 temperature, 105; supersaturation, 105; viscosity, 105;
 purity, 106; recirculation of final molasses, 106; low
 grade seeding, 106; seedslurry, 106; crystal yield, 106;
 exhaustion, 106
 Data, 107
 single crystal measurements, 107; crystal growth rate,
 table, 107, effect of purity on crystallization rate,
 figure, 108; variables governing molasses exhaustion,
 figure, 109; 3-massecuite, 1-high pol sugar boiling
 system, figure 110
 References, 111

Chapter 13. CENTRIFUGATION 113

Batch machines, 113
 commercial sugar, 113; low grade sugar, 114