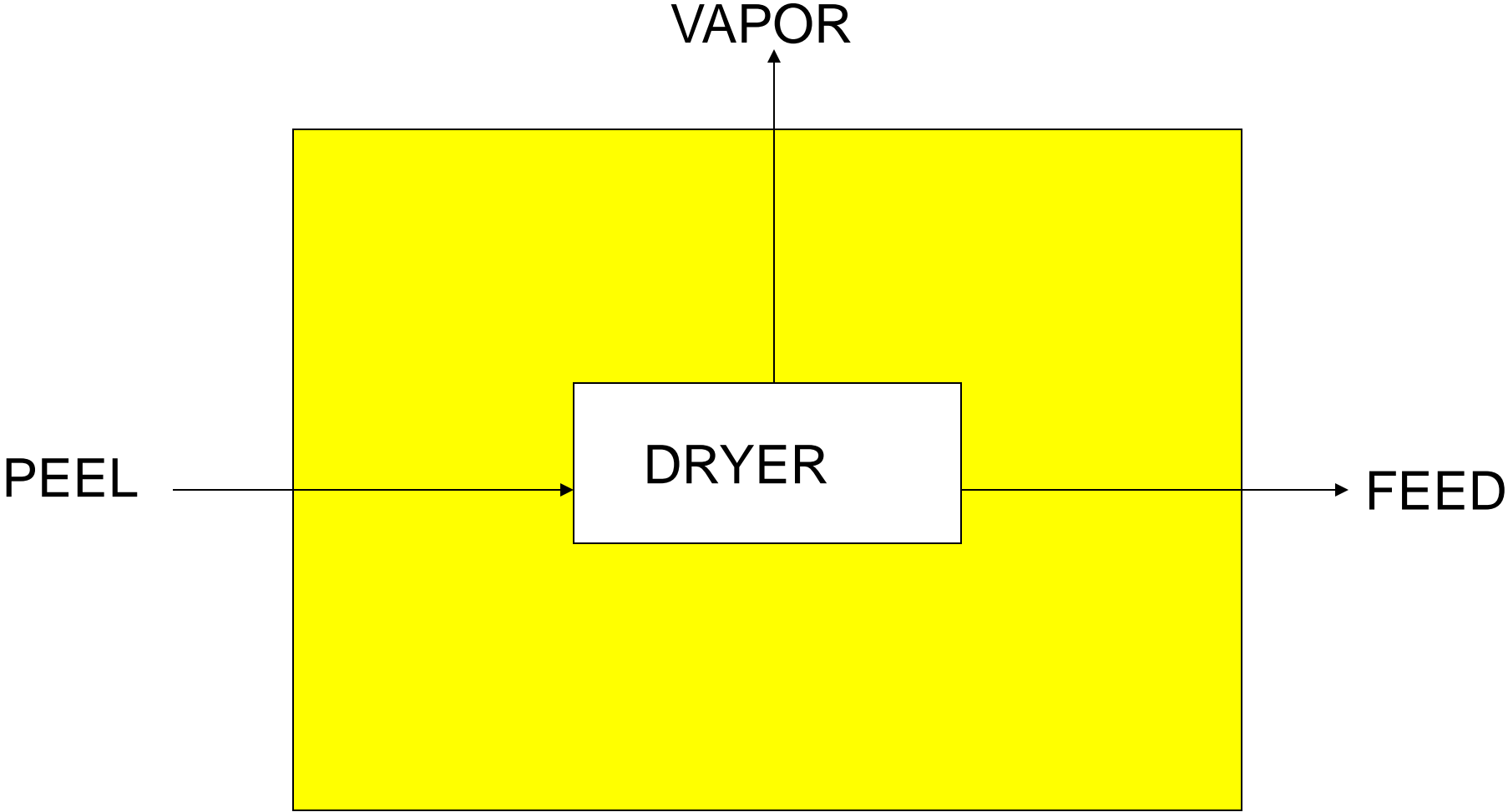
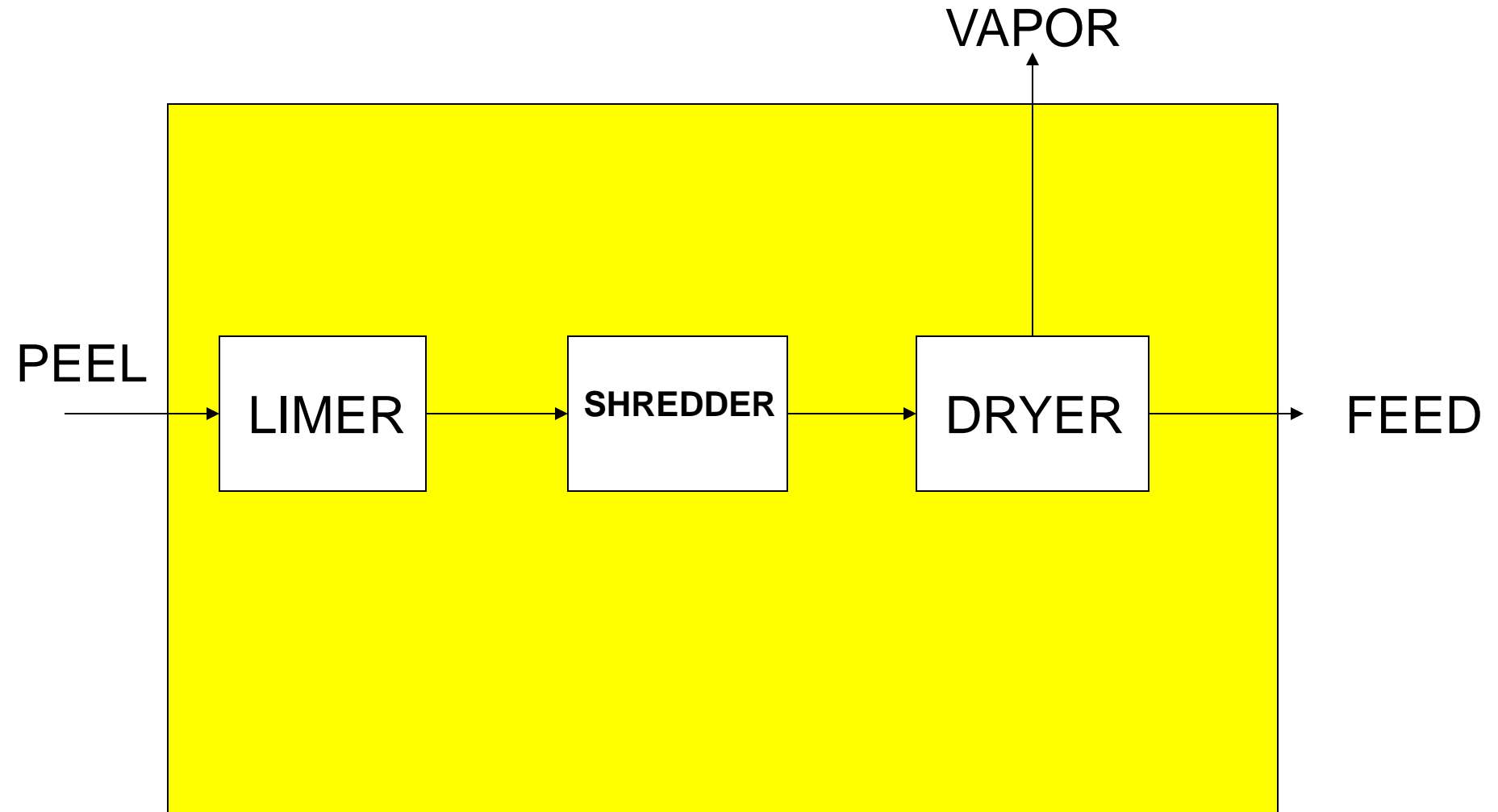


FEEDMILL #1



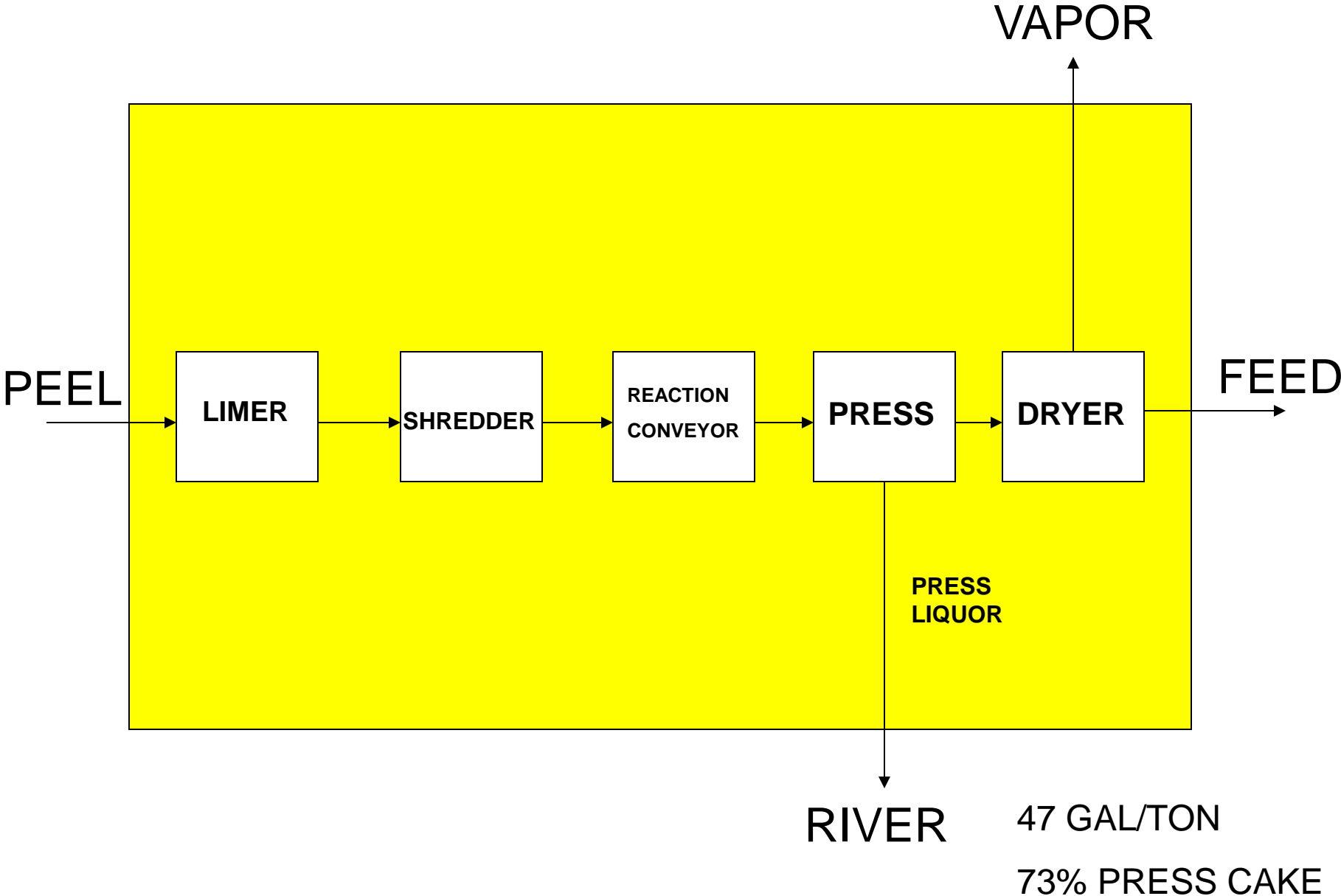
70 GAL/TON

FEEDMILL #2

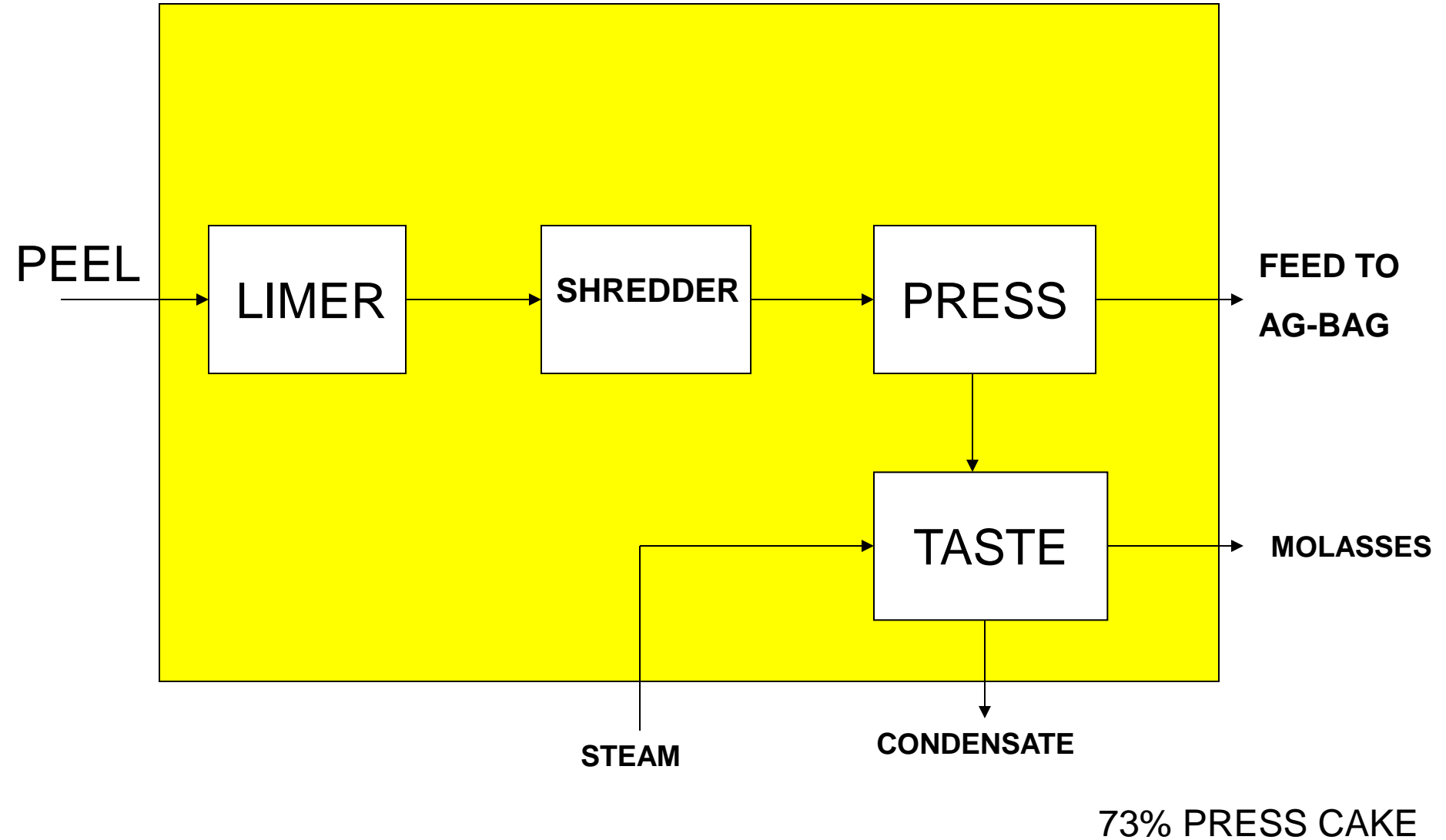


70 GAL/TON

FEEDMILL #3



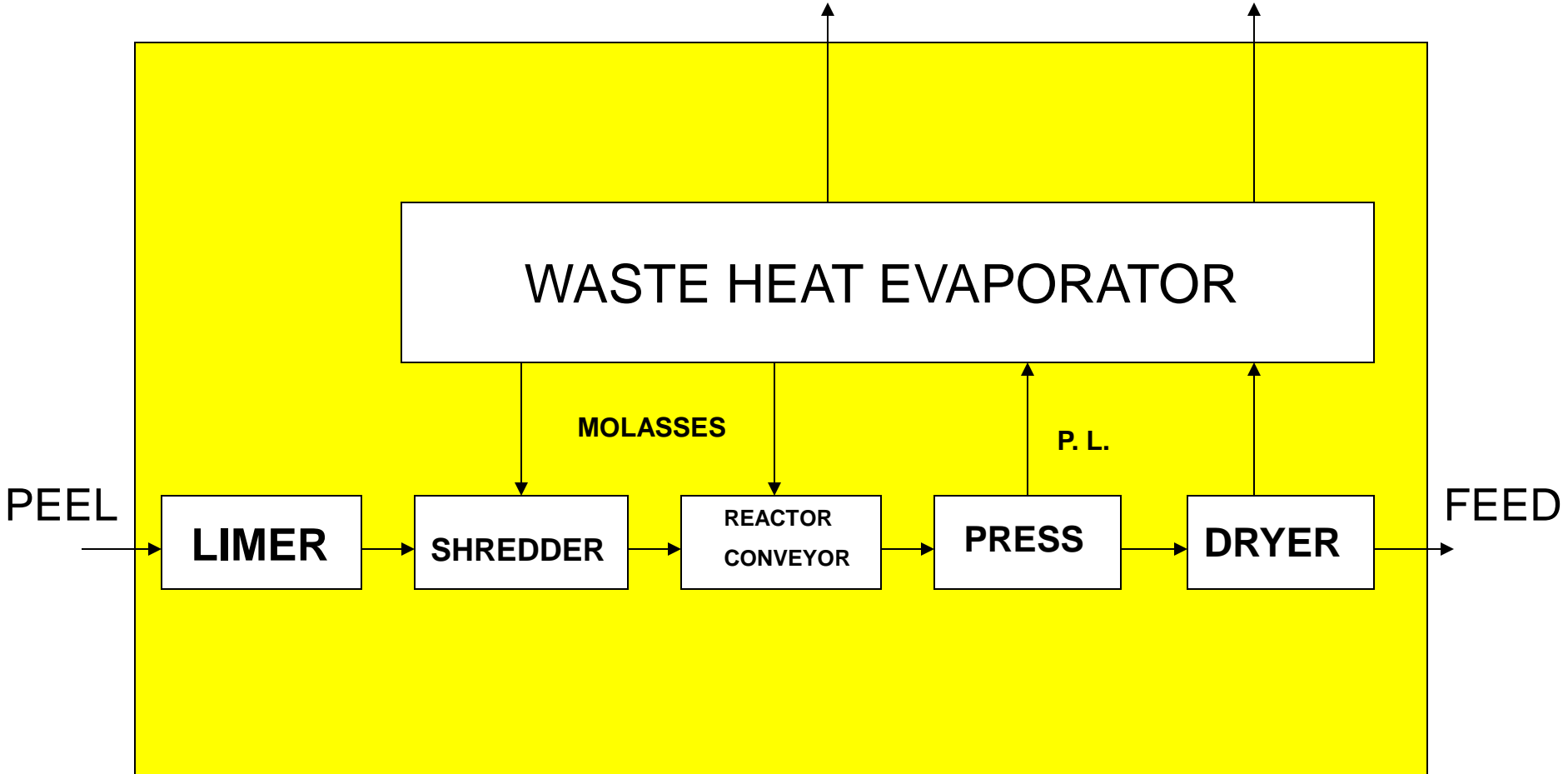
FEEDMILL #4



FEEDMILL #5

CONDENSATE

VAPOR



31 GAL/TON

65% PRESS CAKE

FEEDMILL #6

CONDENSATE

VAPOR

W H E

MOLASSES

P. L.

MOL.

P. L.

PEEL

L

S

RC

PRESS 1

DIFF.
CONV.

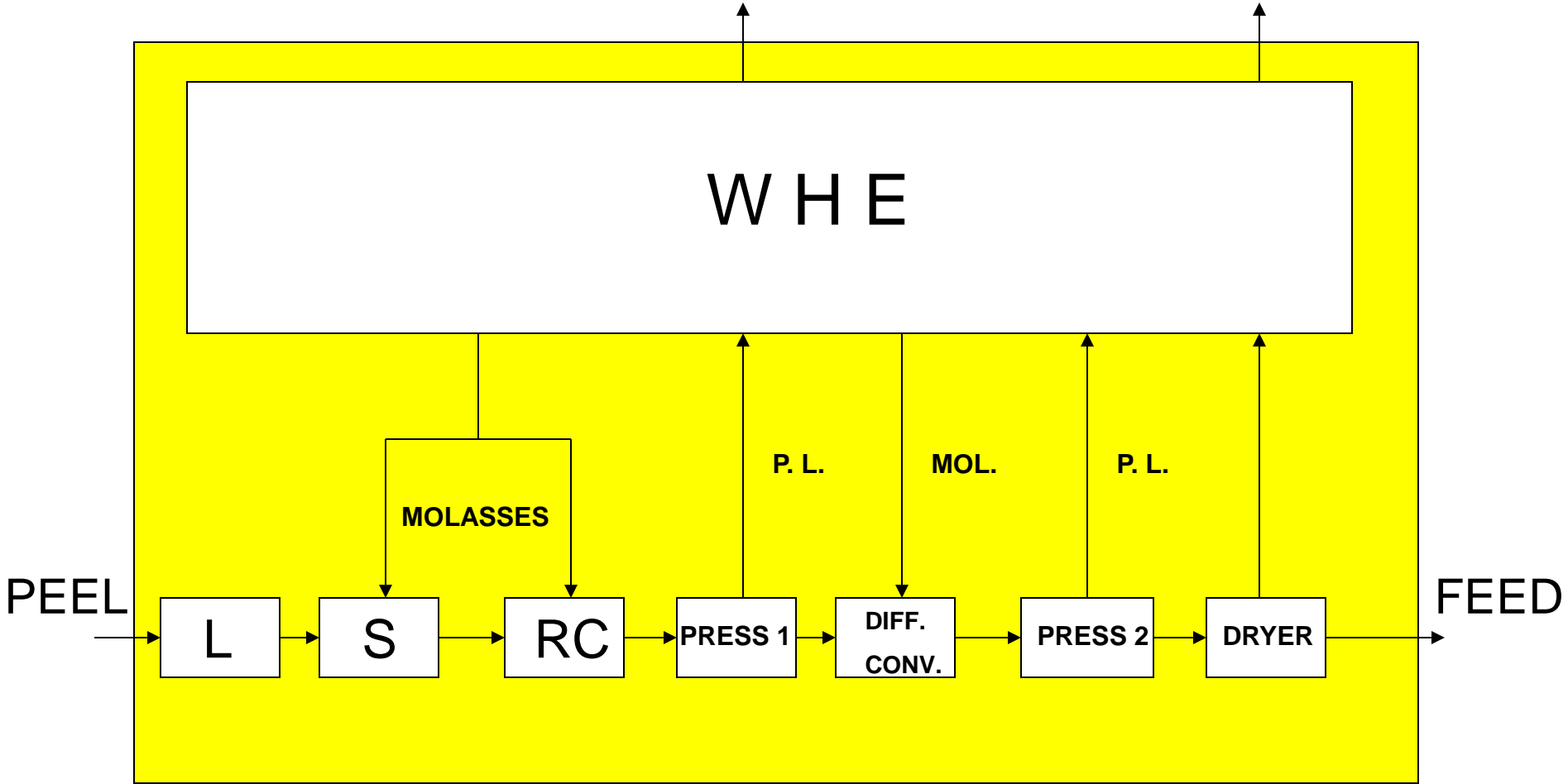
PRESS 2

DRYER

FEED

29 GAL/TON

63% PRESS CAKE



CITRUS FEEDMILLS PRINCIPAL EQUIPMENT

PEEL BIN	\$500,000
REACTION CONVEYOR	\$400,000
SCREW PRESS	\$500,000
WASTE HEAT EVAPORATOR	\$2,500,000
DRYER	\$1,000,000
PELLETING EQUIPMENT	\$400,000
OTHER: TANKS, PUMPS, CONVEYORS ELECTRICAL, DRY PEEL, STORAGE, SITE WORK, BUILDING	\$2,200,000
	\$7,500,000

Figure 1: Peel Bin



Figure 2: Peel Bin



Figure 2: Limer

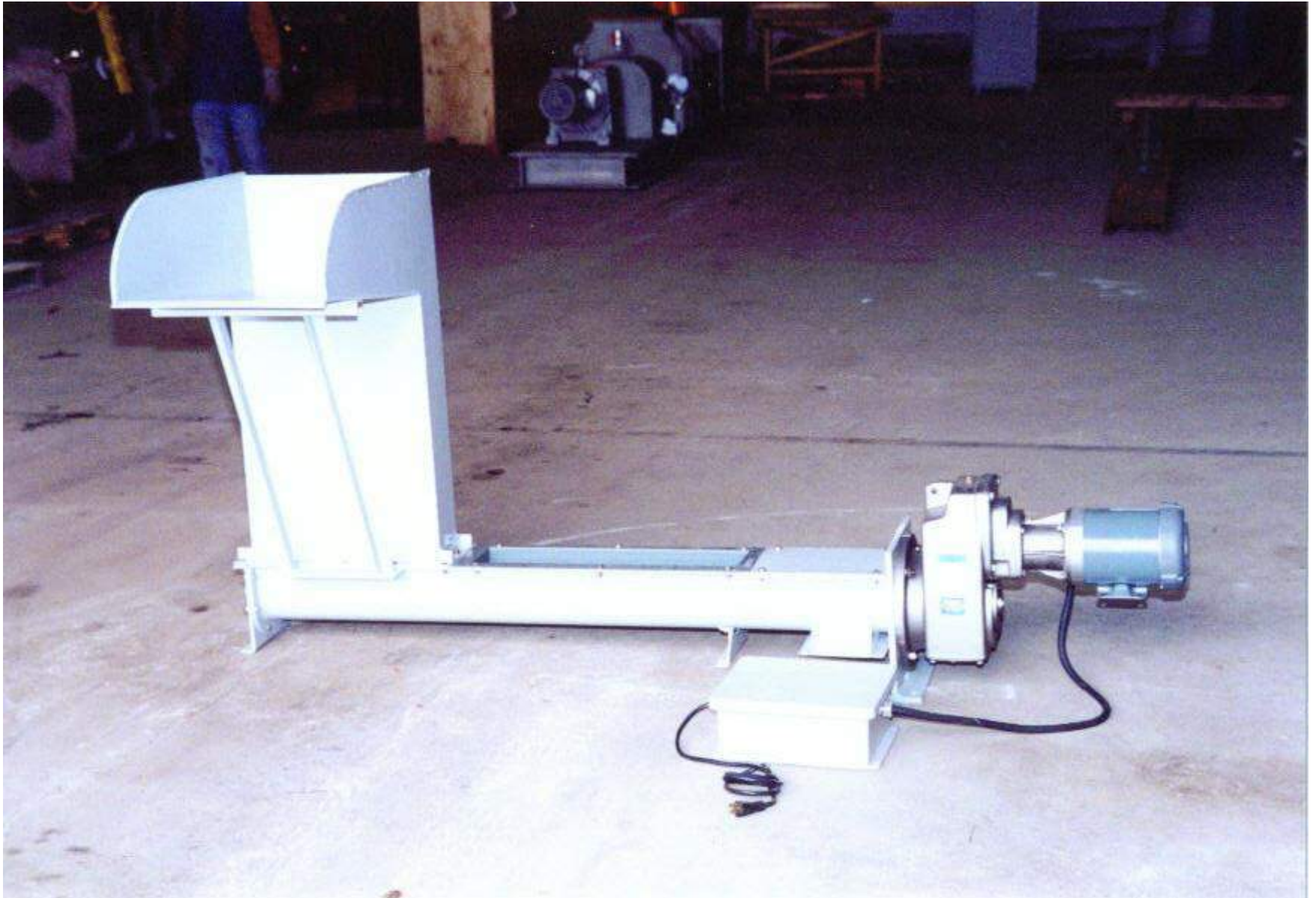


Figure 3: Shredder

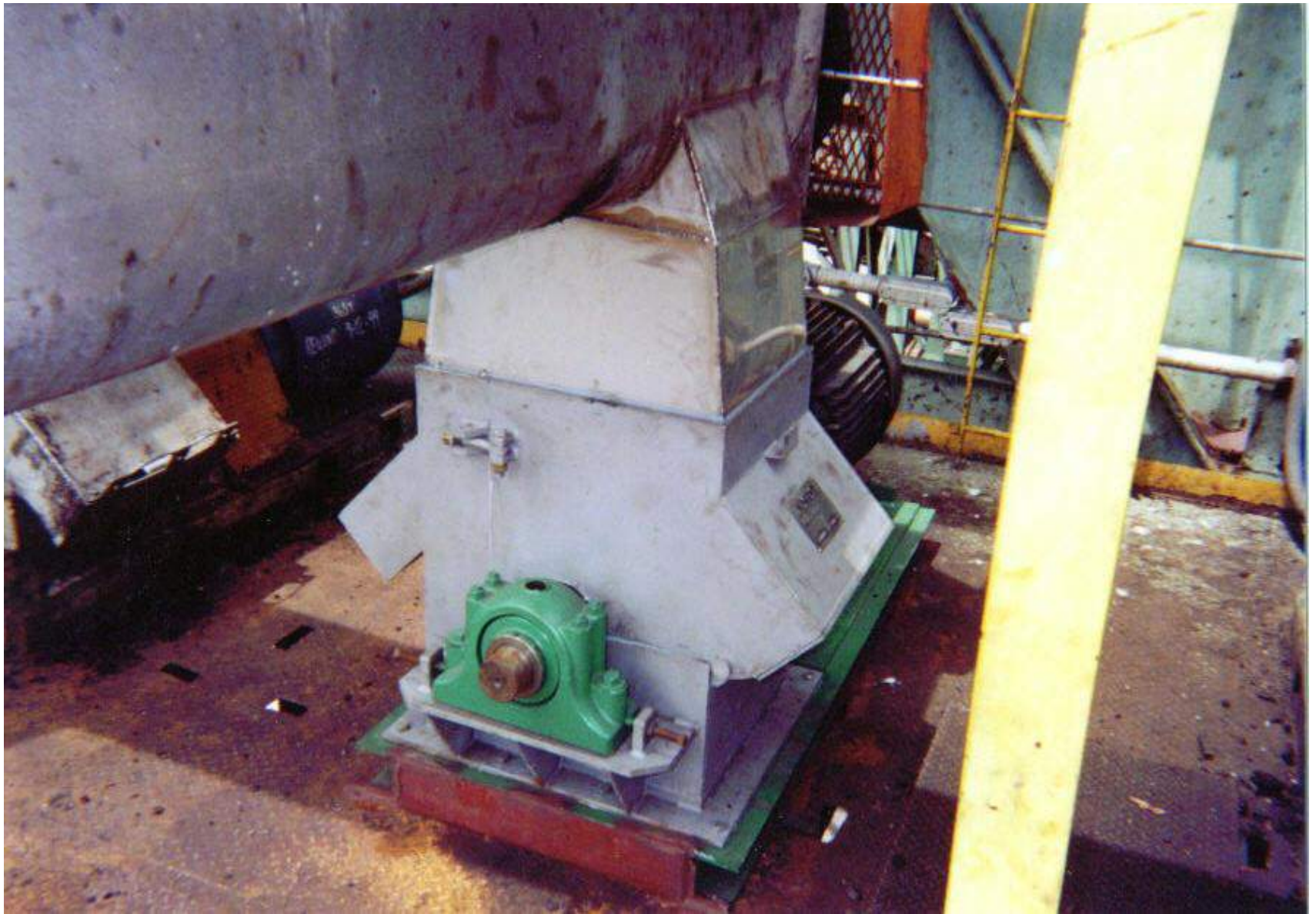


Figure 4: Screw Press (Soft Squeeze)



Figure 5: Screw Press (Hard Squeeze)



Figure 6: Fiber Filter



Figure 7: Waste Heat Evaporator



Figure 8: Dryer



CITRUS FEEDMILLS

PERFORMANCE MEASUREMENTS

RULES

KEEP WATER OUT OF FEEDMILL

USE AVAILABLE WHE CAPACITY

MEASUREMENT #1

THERMS PER TON (50)

OTHER MEASUREMENTS

POUNDS OF PELLETS PER BOX (8.5)

KWH PER TON (11 KWH/SHORT TON)

RECEIVED JUL 0 8 1998

JULY 6, 1998

Period 05-01-98 thru 05-31-98
 Report No. 07
 No. Operating 15

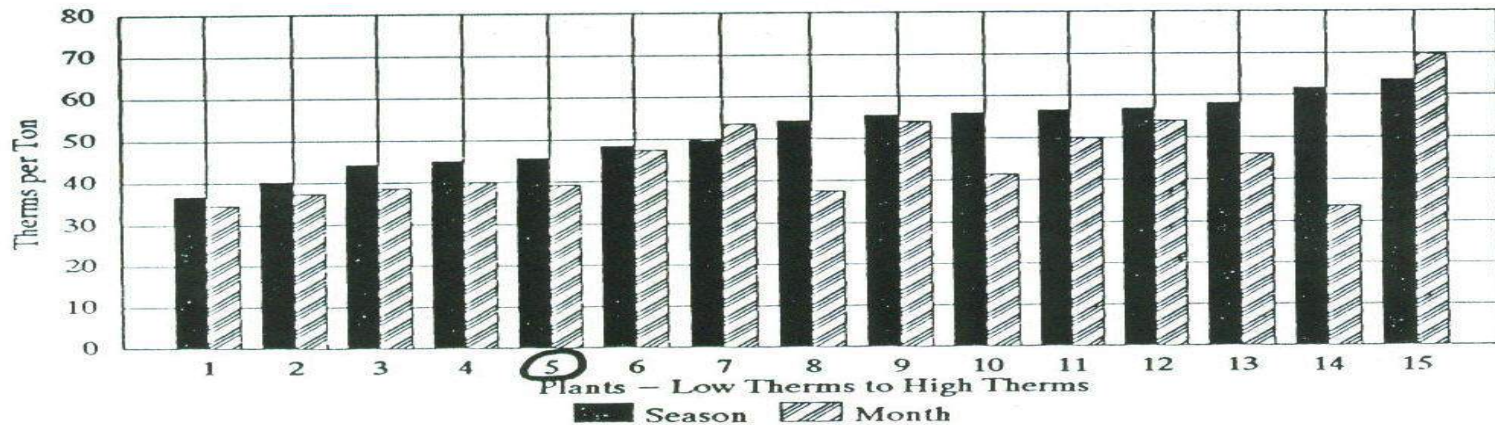
THERMS PER TON

PLANT	THERMS PER TON SEASON TO DATE	THERMS PER TON 05-01-98 THRU 05-31-98
1	36.82	34.62
2	40.28	37.39
3	44.17	38.73
4	45.01	40.06
5	45.61	39.22
6	48.39	47.43
7	49.58	53.56
8	54.21	37.61
9	55.40	54.10
10	55.88	41.50
11	56.54	49.82
12	56.86	54.09
13	58.10	46.00
14	61.52	33.82
15	63.51	63.73



Average therms per ton for period..... 46.63
 Average therms per ton season to date..... 50.80
 NOTE: 15 Firms are participating. Your firm is identified by arrow.

THERMS



GIVEN PARAMETERS:

DRYER FUEL REQUIREMENT IS 1,350 BTU PER POUND OF WATER EVAPORATED.
FUEL OIL RELEASES 135,000 BTU PER GALLON THAT IS BURNED.
ORANGE PEEL HAS 80% MOISTURE, 10 DEG BRIX, 11% SUSPENDED SOLIDS.
DRIED PEEL WILL HAVE 10% MOISTURE.

**FEEDMILL #1
AND FEEDMILL #2**

ONE SHORT TON (2000 POUNDS) OF DRIED PEEL IS PRODUCED.
THIS WILL HAVE 2,000 TIMES 90%, OR 1,800 POUNDS OF DRY SOLIDS.
1,800 POUNDS OF DRY SOLIDS WILL COME FROM 1,800/0.2 OR 9000 POUNDS OF PEEL.
THE DRYER MUST EVAPORATE 9,000 - 2,000 = 7,000 POUNDS OF WATER.
THIS WILL REQUIRE 7,000 x 1,350 / 135,000 OR 70 GALLONS OF FUEL OIL.

FEEDMILL #3

ONE SHORT TON (2000 POUNDS) OF DRIED PEEL IS PRODUCED.
THIS WILL HAVE 2,000 TIMES 90%, OR 1,800 POUNDS OF DRY SOLIDS.
THE PRESS WILL REDUCE THE MOISTURE CONTENT OF THE PRESS CAKE TO 73% MOISTURE.
THE MATERIAL BALANCE SHOWS THAT 469 POUNDS OF SOLIDS WILL GO IN THE RIVER.
THE MATERIAL BALANCE SHOWS THAT 540 POUNDS OF SOLIDS WILL GO INTO THE DRYER.
THESE SOLIDS WILL COME FROM 11,344 POUNDS OF PEEL.
THE DRYER MUST EVAPORATE 4,659 POUNDS OF WATER.
THIS WILL REQUIRE 4,659 x 1,350 / 135,000 OR 47 GALLONS OF FUEL OIL.

FEEDMILL #4

THE FEED THAT IS PUT IN THE AG-BAG HAS 72% MOISTURE.

**FEEDMILL #5
SINGLE PRESSING**

ONE SHORT TON (2000 POUNDS) OF DRIED PEEL IS PRODUCED.
THIS WILL HAVE 2,000 TIMES 90%, OR 1,800 POUNDS OF DRY SOLIDS.
THE PRESS WILL REDUCE THE MOISTURE CONTENT OF THE PRESS CAKE TO 85% MOISTURE.
THE MATERIAL BALANCE SHOWS THAT 1.76 POUNDS OF WATER RE EVAPORATED
IN THE WHE PER POUND IN THE DRYER.
THE MATERIAL BALANCE SHOWS THAT 31 GALLONS OF FUEL OIL ARE REQUIRED
PER TON OF PELLETS.

**FEEDMILL #6
DOUBLE PRESSING**

ONE SHORT TON (2000 POUNDS) OF DRIED PEEL IS PRODUCED.
THIS WILL HAVE 2,000 TIMES 90%, OR 1,800 POUNDS OF DRY SOLIDS.
THE PRESS WILL REDUCE THE MOISTURE CONTENT OF THE PRESS CAKE TO 63% MOISTURE.
THE MATERIAL BALANCE SHOWS THAT 2.00 POUNDS OF WATER RE EVAPORATED
IN THE WHE PER POUND IN THE DRYER.
THE MATERIAL BALANCE SHOWS THAT 29 GALLONS OF FUEL OIL ARE REQUIRED
PER TON OF PELLETS.

TO MAXIMIZE FEEDMILL EFFICIENCY:

EMPLOY THE MAXIMUM CAPACITY OF THE WHE.
MINIMIZE THE AMOUNT OF OIL HOUSE, CIP AND OTHER WASTE WATER.

FILE: FEEDMILL #3
16-Sep-05

**MATERIAL BALANCE
SINGLE PRESSING
DISCARD THE PRESS LIQUOR**

FEEDMILL #3

GIVENS:

INBOUND PEEL	10,000	PPH
TOTAL PEEL MOISTURE	80%	%
PEEL SOLUBLE SOLIDS	10.0	BRX
OIL HOUSE WATER	0	PPH
PRODUCT MOISTURE	10%	%
MOLASSES SOLIDS	40	BRX

THERMAL EFFICIENCY:

DRYER EVAPORATION	4,107
BTU/POUND EVAP	1,350
BTU/GAL FUEL OIL	135,000
TONS OF PELLETS	0.88
GALLON OIL/TON PELLETS	47

	TOTAL WEIGHT PPH	RATIO PERCENT %	WATER PERCENT %	WATER WEIGHT PPH	DEG BRX o	DISSOLVED SOLIDS PPH	SUSPENDED SOLIDS PPH	TOTAL SOLIDS PPH
INBOUND PEEL	10,000	---	80.0%	8,000	10.0	889	1,111	2,000
MOL to REACTION CONV	0	---	0.0%	0	0.0	0	0	0
INPUT REACTION CONV	10,000	---	80.0%	8,000	10.0	889	1,111	2,000
INPUT KP PRESS	10,000	---	80.0%	8,000	10.0	889	1,111	2,000
1st PRESS LIQUOR	4,130	41%	90.0%	3,717	10.0	413	0	413
1st PRESS CAKE	5,870	59%	73.0%	4,283	10.0	476	1,111	1,587
INPUT TO DRYER	5,870	59%	73.0%	4,283	10.0	476	1,111	1,587
WATER EVAPORATED	4,107			4,107				
DRYER PRODUCT OUT	1,763		10.0%	176		476	1,111	1,587
INTO THE RIVER	4,130			3,717	10.0	413	0	413

**MATERIAL BALANCE
SINGLE PRESSING**

GIVENS:

INBOUND PEEL	10,000	PPH
TOTAL PEEL MOISTURE	80%	%
PEEL SOLUBLE SOLIDS	10.0	BRIX
OIL HOUSE WATER	2,000	PPH
PRODUCT MOISTURE	10%	%
MOLASSES SOLIDS	40	BRIX

THERMAL EFFICIENCY:

DRYER EVAPORATION	3,532
BTU/POUND EVAP	1,350
BTU/GAL FUEL OIL	135,000
TONS OF PELLETS	1.12
GALLON OIL/TON PELLETS	31

	TOTAL WEIGHT PPH	RATIO PERCENT %	WATER PERCENT %	WATER WEIGHT PPH	DEG BRIX o	DISSOLVED SOLIDS PPH	SUSPENDED SOLIDS PPH	TOTAL SOLIDS PPH
INBOUND PEEL	10,000	---	80.0%	8,000	10.0	889	1,111	2,000
MOL to REACTION CONV	4,107	---	60.0%	2,464	40.0	1,643	0	1,643
INPUT REACTION CONV	14,107	---	74.2%	10,464	19.5	2,532	1,111	3,643
INPUT KP PRESS	14,107	---	74.2%	10,464	19.5	2,532	1,111	3,643
1st PRESS LIQUOR	0	0%	80.5%	0	19.5	0	0	0
1st PRESS CAKE	14,107	100%	74.2%	10,464	19.5	2,532	1,111	3,643
INPUT DIFFUSION CONV.	14,107	---	74.2%	10,464	19.5	2,532	1,111	3,643
INPUT TSP PRESS	14,107	---	74.2%	10,464	19.5	2,532	1,111	3,643
2nd PRESS LIQUOR	8,330	59%	80.5%	6,707	19.5	1,623	0	1,623
2nd PRESS CAKE	5,777	41%	65.0%	3,757	19.5	909	1,111	2,020
OIL HOUSE WATER	2,000	---	99%	1,980	1	20	0	20
EVAPORATOR INPUT	10,330	---	84.1%	8,687	15.9	1,643	0	1,643
EVAP WATER OUT	6,223	---	---	6,223	---	---	0	---
EVAP MOLASSES OUT	4,107	---	60.0%	2,464	40.0	1,643	0	1,643
MOL to DIFFUSION	0	0%	60.0%	0	40.0	0	0	0
MOL to REACTION	4,107	100%	60.0%	2,464	40.0	1,643	0	1,643
DRYER INPUT	5,777	---	65.0%	3,757	---	909	1,111	2,020
DRYER WATER OUT	3,532	---	---	3,532	---	---	0	---
DRYER PRODUCT OUT	2,244	---	10.0%	224	---	909	1,111	2,020
TOTAL OUT	12,000	---	83.2%	9,980	---	909	1,111	2,020

RATIO: EVAPORATOR LOAD TO DRYER LOAD = 1.76

FUEL CONSUMPTION

THE DRYER FUEL REQUIREMENT IS 1,350 BTU PER POUND OF WATER EVAPORATED.
FUEL OIL RELEASES 135,000 BTU PER GALLON THAT IS BURNED.

BRIX DEFINITION:

DISSOLVED SOLIDS DIVIDED BY THE SUM OF THE DISSOLVED SOLIDS PLUS WATER, x 100.
NOTE THAT SUSPENDED SOLIDS DO NOT ENTER INTO THE EQUATION.

GIVENS:

INBOUND PEEL	10,000	PPH
TOTAL PEEL MOISTURE	80%	%
PEEL SOLUBLE SOLIDS	10.0	BRIX
OIL HOUSE WATER	2,000	PPH
PRODUCT MOISTURE	10%	%
MOLASSES SOLIDS	40	BRIX

THERMAL EFFICIENCY:

DRYER EVAPORATION	3,249
BTU/POUND EVAP	1,350
BTU/GAL FUEL OIL	135,000
TONS OF PELLETS	1.12
GALLON OIL/TON PELLETS	29

	TOTAL WEIGHT PPH	RATIO PERCENT %	WATER PERCENT %	WATER WEIGHT PPH	DEG BRIX °	DISSOLVED SOLIDS PPH	SUSPENDED SOLIDS PPH	TOTAL SOLIDS PPH
INBOUND PEEL	10,000	---	80.0%	8,000	10.0	889	1,111	2,000
MOL to REACTION CONV	3,433	---	60.0%	2,060	40.0	1,373	0	1,373
INPUT REACTION CONV	13,433	---	74.9%	10,060	18.4	2,262	1,111	3,373
INPUT KP PRESS	13,433	---	74.9%	10,060	18.4	2,262	1,111	3,373
1st PRESS LIQUOR	5,373	40%	81.6%	4,387	18.4	987	0	987
1st PRESS CAKE	8,060	60%	70.4%	5,673	18.4	1,276	1,111	2,387
INPUT DIFFUSION CONV	8,918	---	69.4%	6,188	20.7	1,619	1,111	2,730
INPUT TSP PRESS	8,918	---	69.4%	6,188	20.7	1,619	1,111	2,730
2nd PRESS LIQUOR	3,425	38%	79.3%	2,714	20.7	710	0	710
2nd PRESS CAKE	5,494	62%	63.2%	3,474	20.7	909	1,111	2,020
OIL HOUSE WATER	2,000	---	99%	1,980	1	20	0	20
EVAPORATOR INPUT	10,798	---	84.1%	9,081	15.9	1,717	0	1,717
EVAP WATER OUT	6,506	---		6,506			0	
EVAP MOLASSES OUT	4,292	---	60.0%	2,575	40.0	1,717	0	1,717
MOL to DIFFUSION	858	20%	60.0%	515	40.0	343	0	343
MOL to REACTION	3,433	80%	60.0%	2,060	40.0	1,373	0	1,373
DRYER INPUT	5,494	---	63.2%	3,474		909	1,111	2,020
DRYER WATER OUT	3,249	---		3,249			0	
DRYER PRODUCT OUT	2,244	---	10.0%	224		909	1,111	2,020
TOTAL OUT	12,000	---	83.2%	9,980		909	1,111	2,020

RATIO: EVAPORATOR LOAD TO DRYER LOAD = 2.00

FUEL CONSUMPTION

THE DRYER FUEL REQUIREMENT IS 1,350 BTU PER POUND OF WATER EVAPORATED.
FUEL OIL RELEASES 135,000 BTU PER GALLON THAT IS BURNED.

BRIX DEFINITION:

DISSOLVED SOLIDS DIVIDED BY THE SUM OF THE DISSOLVED SOLIDS PLUS WATER, x 100.
NOTE THAT SUSPENDED SOLIDS DO NOT ENTER INTO THE EQUATION.