CHAPTER - V

PRODUCTIVITY MEASUREMENT OF

THE VASANTDADA SHETKARI SAHAKARI SAKHAR KARKHANA LTD.,

SANGLI.

C H A P T E R - V

PRODUCTIVITY MEASUREMENT OF THE VASANTDADA SHETKARI SAHAKARI

SAKHAR KARKHANA LTD., SANGLI.

As stated earlier in the Chapter No. III, accounting ratio is the technique to measure productivity and with the help of the accepted formulae, productivity of influencing factors is measured as follows :

1) Labour Productivity :

In case of the Vasantdada Shetkari Sahakari Sakhar Karkhana Ltd., Sangli, the factor labour is as important as machinery. Labour productivity is measured --

a) In terms of hours :

Following figures show production and total actual hours during the year.

Particulars	Years				
	85-86	86-87	87-88	88-89	89-90
Production (Bags) (In lakh)	9.715	10.363	9.345	9.825	11.804
Total Actual Hours	4041	4283.35	3926.20	3363.25	3987.55
Productivity (in bags)	240.41:1	241.95:1	238.03:1	292.13:1	296.03:1

From the above figures, it seems that every man hour production is between 283.03 bags to 296.03 bags from 1985-86 to 1989-90.

i) <u>Lost Time Percentage</u> :-

It is also necessary to calculate the lost time percentage. Following figures indicate the total manhours lost and actual hours worked.

Particulars	Years				
	1985-86	1986-87	1987-88	1988-89	1989-90
Man hours lost	276.10	361.55	525.40	705.35	883.05
Actual hours worked	4041	4283.35	3926.20	3363.25	3987.55
Lost Time Percentage	6.83%	8.44%	13.38%	20.97%	22.14%

Above percentage shows that 6.83 hours to 22.14 hours are lost for every 100 actual hours from 1985-86 to 1989-90. It is also clear with the help of line graph A.

Following figures and Line graph B indicate the percentage of hours lost to hours available.

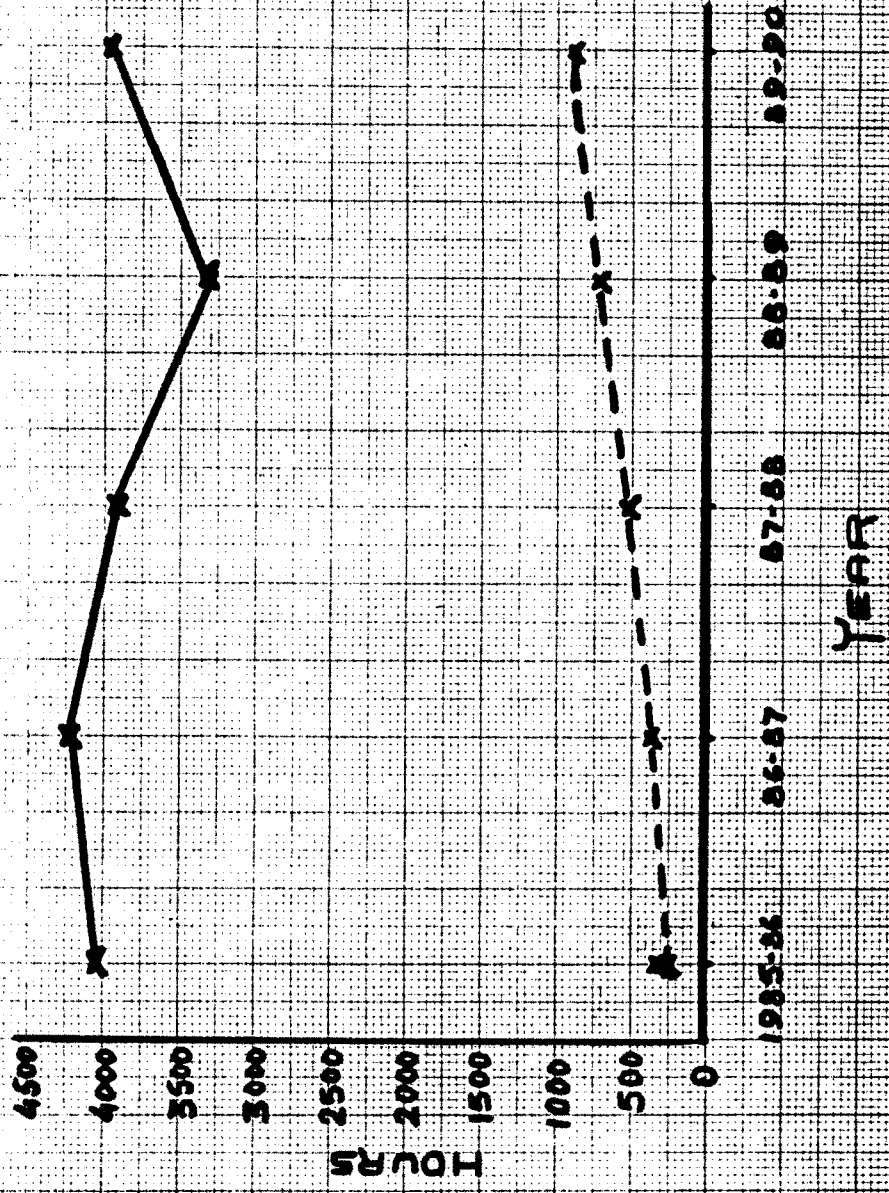|	1985-86	1986-87	1987-88	1988-89	1989-90
* Percentage of hours lost	6.40%	7.79%	11.81%	17.34%	18.13%

Above percentage and line graph B represent that 6.40 hours to 18.13 hours are lost for every 100 actual hours from 1985-86 to 1989-90.

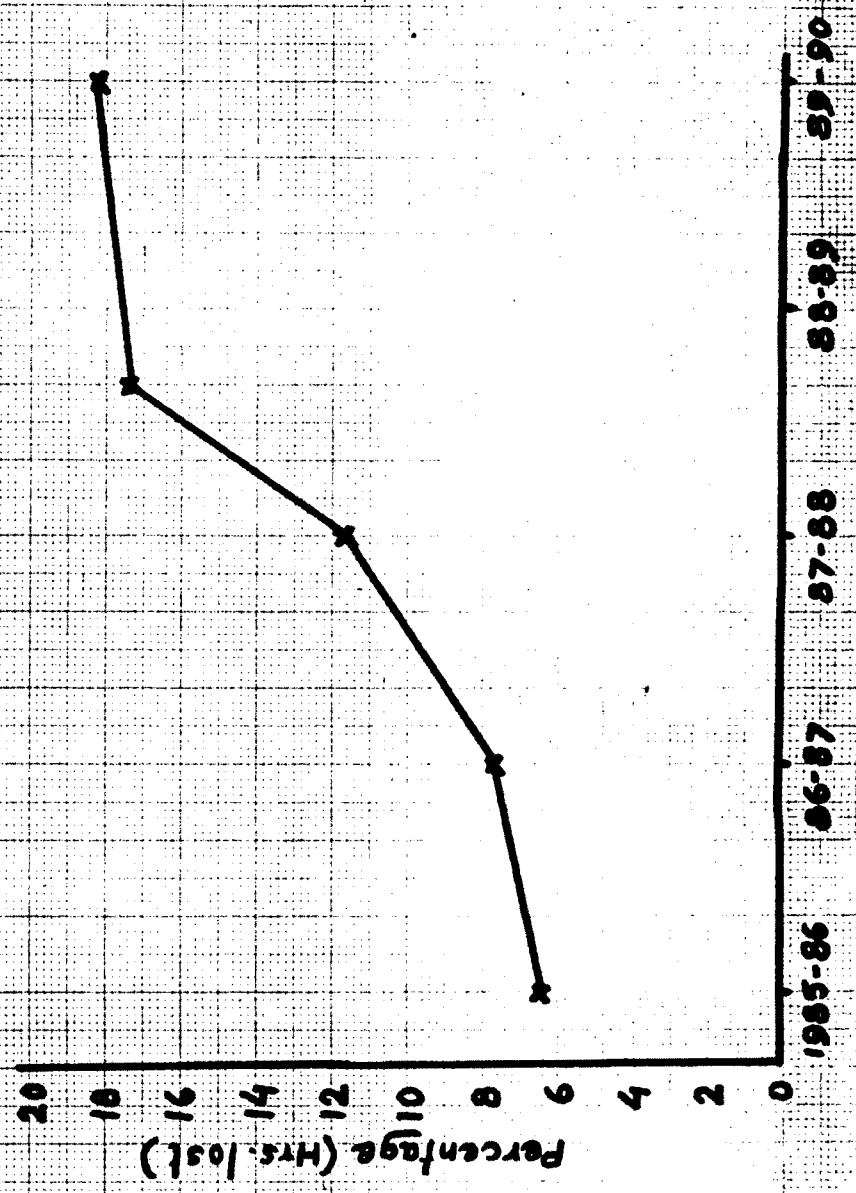It is also better to study why the hours lost ? What are the various causes of hour lost ?

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* Final Manufacturing Report VSSSK.

ACTUAL HOURS & MAN HOURS LOST

scale: 1 cm = 500 hours

—— ACTUAL MAN HOURS

---x--- MAN HOURS LOST

HOURS: 4500, 4000, 3500, 3000, 2500, 2000, 1500, 1000, 500, 0

YEAR: 1985-86, 86-87, 87-88, 88-89, 89-90

scale : 1 cm =
2 percent

PERCENTAGE OF HOURS LOST
TO HOURS AVAILABLE

Percentage (Hrs. lost)

20 18 16 14 12 10 8 6 4 2 0

1985-86   86-87   87-88   88-89   89-90

Following table shows various causes and hours lost.

T A B L E   N O.   13

Year	Hours Lost due to					
	Cane Shortage	Mechanical & Electrical	Proce-ss	Rain	Cleaning	Miscellaneous
1985-86	28.10	93.15	00.25	10.20	112.00	32.00
1986-87	78.10	120.05	00.30	19.50	94.00	49.20
1987-88	213.05	98.35	-	34.40	37.55	141.25
1988-89	194.00	187.50	-	31.50	50.45	241.10
1989-90	176.25	342.00	-	8.10	133.40	222.50

(Source : Final Manufacturing Report)
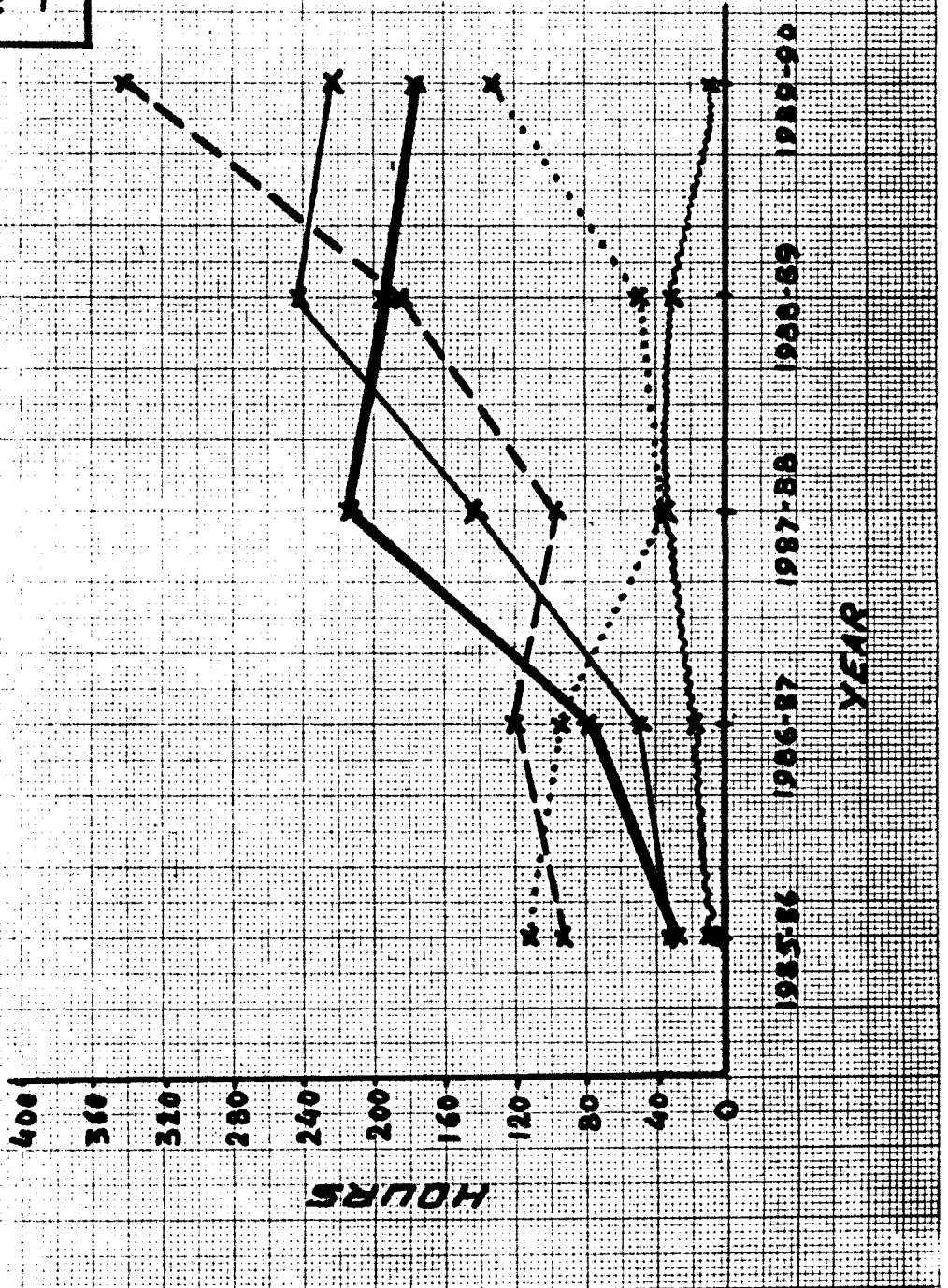
It is also explained with the help of Line Graph C.

From the above table and multi-line graph C, it is clear that hours lost due to cane shortage in 1985-86 is 28.10 hours while it is increased upto 78.10 hours in 1986-87. In the year 1987-88 hours lost is 213.05, it is reduced upto 194.00 hours in 1988-89 and in the year 1989-90 it is 176.25 hours.

Hours lost due to mechanical and Electrical in 1985-86 are 93.15 and increased upto 120.05 in 1986-87 while they are again decreased upto 98.35 in 1987-88. It is highly increased in 1988-89 and 1989-90 upto 187.50 hours and 342.00 hours respectively.

HOURS LOST

scale : 1 cm : 40 hours

Legend:
- cane shortage
- mechanical & electrical
- rain
- cleaning
- miscellaneous

HOURS

400
360
320
280
240
200
160
120
80
40
0

YEAR

1985-86   1986-87   1987-88   1988-89   1989-90

Hours lost due to rain is not so high. In the year 1985-86, it is 10.20 while in 86-87, 87-88 is 19.50 and 34.40 hours respectively. It is reduced upto 31.50 in 1988-89 and in 1989-90 it is lowest then other years, which is 8.10 hours. On account of cleaning, hours lost is declined from 1985-86 to 1987-88, which is 112.00 hours, 94.00 hours and 37.55 hours respectively. In 1988-89 and 89-90 it is 50.45 hours and in 1989-90 it is highly increased upto 133.40 which is the highest.

Under Miscellaneous reasons hours lost are not negligible. In 1985-86 it is 32.00 hours and in 1986-87 increased upto 49.20 hours. In 1986-87 and 1987-88 increased upto 49.20 hours and 141.25 respectively. While in the year 1988-89 and 1989-90 hours lost are 241.10 and 18.20 respectively.

b) In Terms of Revenue :-

Labour productivity is also measured in terms of revenue. Following figures furnish the information regarding sales value of output and number of workers.

Particulars	Year			
	1985-86	1986-87	1987-89	1989-90
Sales Value (Rs.in Crores)	62.73	65.41	96.67	87.72
No.of Workers	1951	2516	2517	2444
Productivity :	0.032	0.026	0.038	0.036

The above ratio shows that for each worker sales value is between Rs. 2,60,000 to Rs. 3,80,000 from year 1985 to 1989-90.

It is found that the period from 1987 to 1989 contains 18 months due to change in Accounting year.

Labour productivity of following departments of sugar factory is measured in terms of revenue as follows :

Following figure shows the sales value and No.of each division :

(Rs. in lakh)

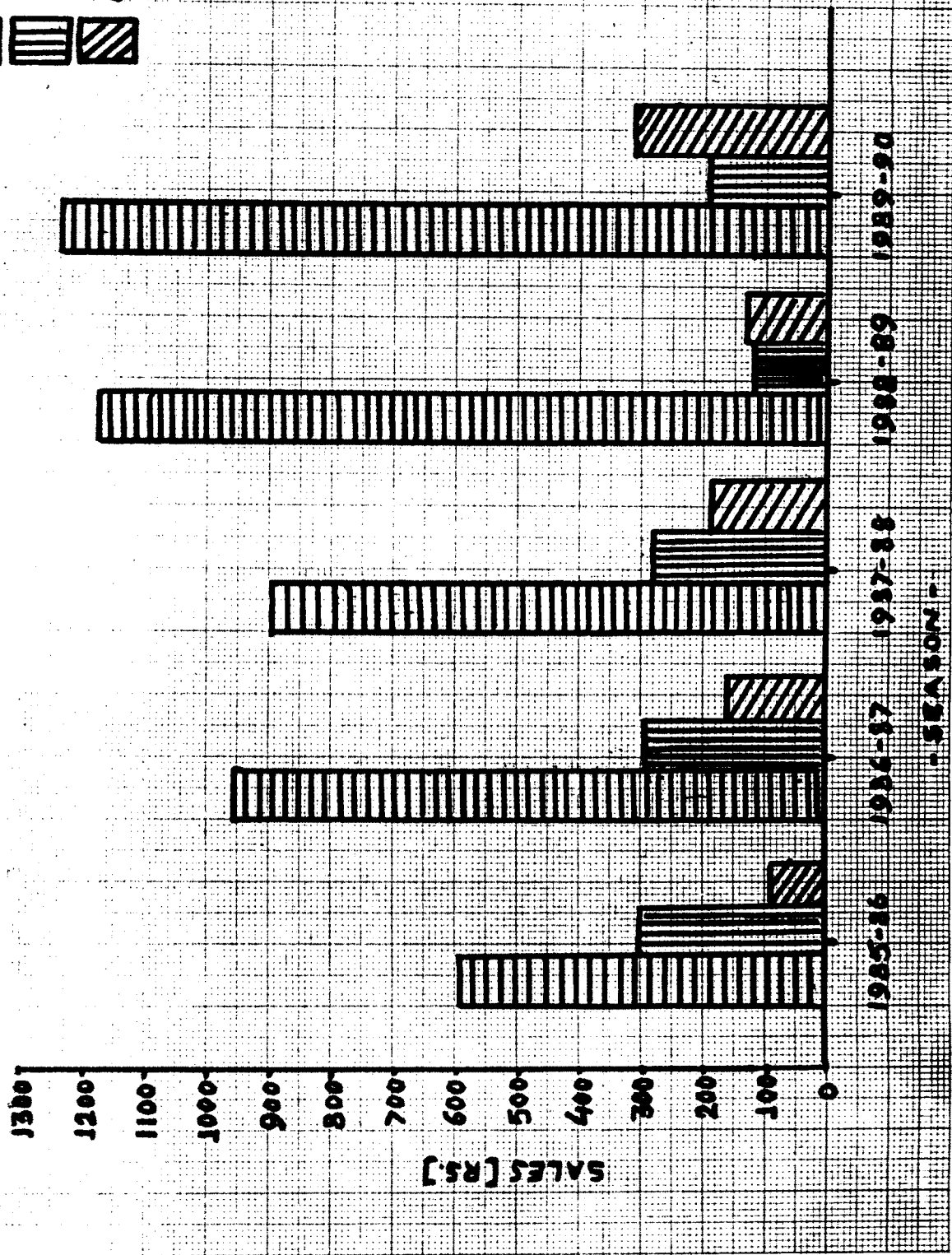| Particulars	85-86	86-87	87-88	88-89	89-90
Distillery & Liquor :					
Sales Value	597.40	957.46	899.30	1179.96	1240.00
No.of workers	-	223	213	208	205
Cattle Feed :					
Sales Value	302.38	296.77	281.09	124.24	196.41
No.of workers	7	7	6	7	7
Acetic Anhydride :					
Sales Value	91.52	166.63	189.34	130.92	315
No.of Workers	-	127	113	123	

(Sales Value excluding tax)

Sales Value of Distillery and Liquor division includes sale of spirit, I.M.F. Foreign Liquor, Country Liquor sales etc.
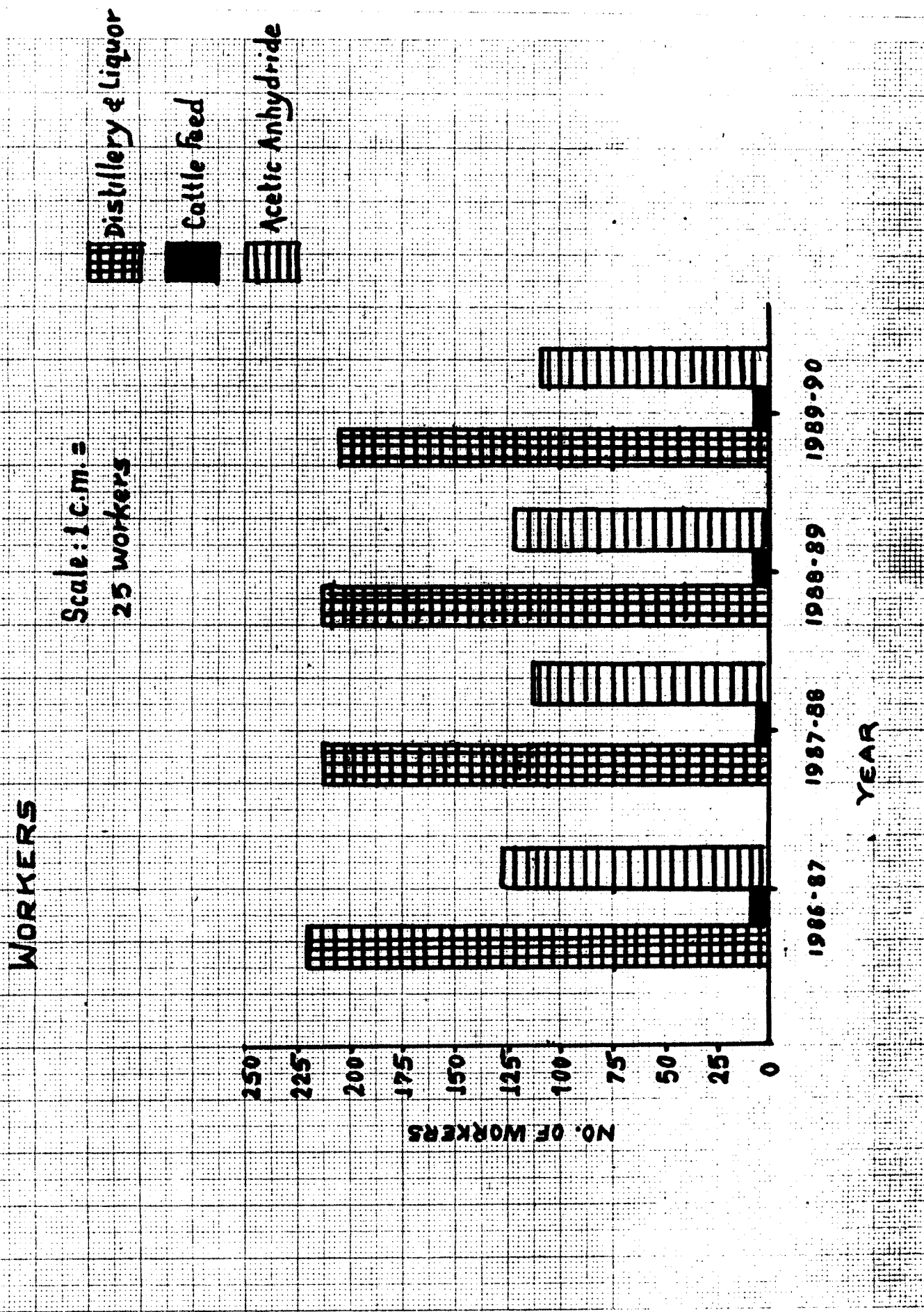
Bar graph No. 4 & 5 indicates division-wise sales value and No.of workers.

SALES VALUE

Scale : 1 c.m. = Rs.100 lakhs

Legend:
- Distillery & Liquor
- Cattle Feed
- Acetic Anhydride

SALES (RS.)

1300, 1200, 1100, 1000, 900, 800, 700, 600, 500, 300, 200, 100, 0

Seasons: 1985-86, 1986-87, 1987-88, 1988-89, 1989-90

- SEASON -

WORKERS

Scale : 1 c.m. = 25 workers

Distillery & Liquor
Cattle Feed
Acetic Anhydride

NO. OF WORKERS

250, 225, 200, 175, 150, 125, 100, 75, 50, 25, 0

1986-87 1987-88 1988-89 1989-90

YEAR

LABOUR PRODUCTIVITY RATIO :

	85-86	86-87	87-88	88-89	89-90
				(Rs. in lakh)	
Distillery & Liquor	-	4.293	4.222	5.672	6.048
Cattle feed	43.197	42.395	46.848	17.748	28.058
Acetic Anhydride	-	1.312	1.678	1.064	2.896

Following Line Graph D shows the trend in Labour Productivity Ratio of the above mentioned Divisions.

The above figures and graph show that the number of workers of Distillery and Liquor is declined year to year while the sales value of the same is increased, while the sales value of the cattle feed division is between Rs. 124.24 to Rs. 302.28 lakh. Acetic Anhydride division indicates the fluctuating trend in case of sales value and number of workers.
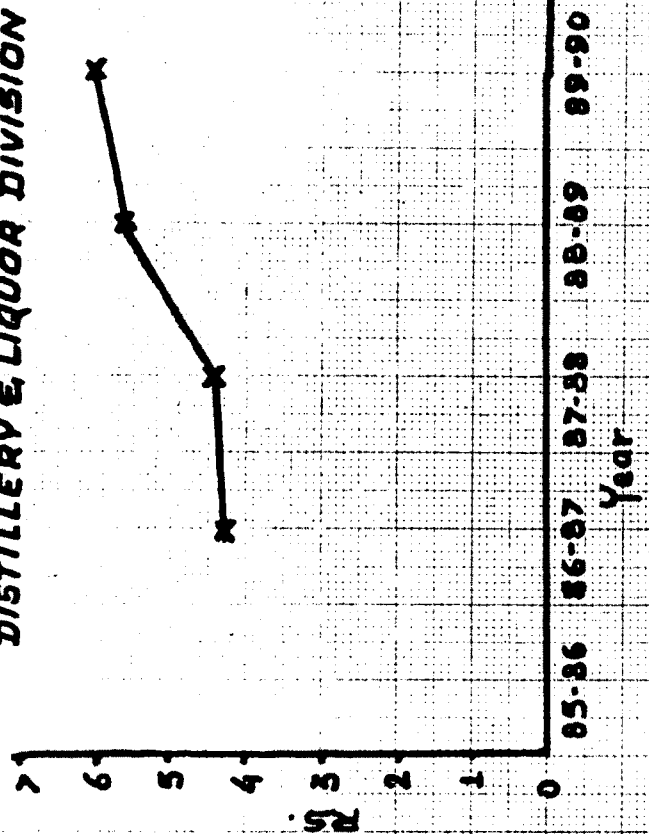
2) Machine Productivity :

Below mentioned data furnishes the information regarding the output and total actual machine hours. i.e. total hours actual crushed.

	1985-86	1986-87	1987-88	1988-89	1989-90
Output (Total Net Sugar made Qtls. in lakh)	10.06	10.56	9.33	9.75	11.74
Actual machine hours	4041.00	4283.35	3926.20	3363.25	3987.55
Machine Productivity (Qtls.)	249	246	237	289	294
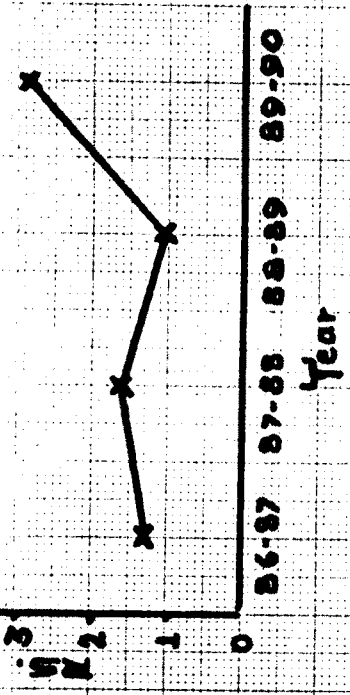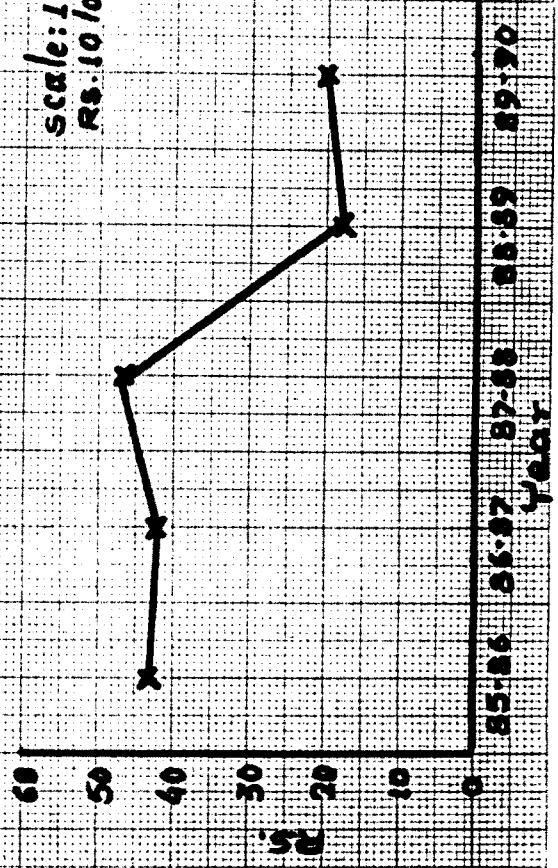
The figures show the machine productivity which is between 237 quintals to 294 quintals per machine hour from 1985-86 to 1989-90.

The following figures indicate the rate of crushing per 24 hours including as well as excluding stoppages and sanctioned capacity.

RATE OF CRUSHING PER 24 HOURS.

(Figures in Quintals)

Rate of Crushing per 24 hours	1985-86	1986-87	1987-88	1988-89	1989-90
Including Stoppages	45960.00	49030.57	45325.80	49172.91	50629.41
Excluding Stoppages	52946.90	53173.16	51394.20	59488.43	61840.70
Sanctioned Capacity	50000.00	50000.00	50000.00	50000.00	50000.00

Rate of crushing per 24 hours including stoppages is between 45325.80 quintals to 50629.11 quintals while excluding stoppages the same is 51394.20 quintals to 61840.70 quintals from 1985-86 to 1989-90.

Following figures and graph No. 6 provides information regarding rate of crushing per hour excluding stoppeges and including stoppages.

Rate of crushing per hour. (Quintals)

	1985-86	1986-87	1987-88	1988-89	1989-90
Including Stoppages	2065	2043	1889	2049	2110
Excluding Stoppages	2206	2216	2141	2479	2577

Rate of Crushing per hour

scale : 1cm = 250 quintals

including stoppages
excluding stoppages

Quintals

Year: 1985-86, 1986-87, 1987-88, 1988-89, 1989-90
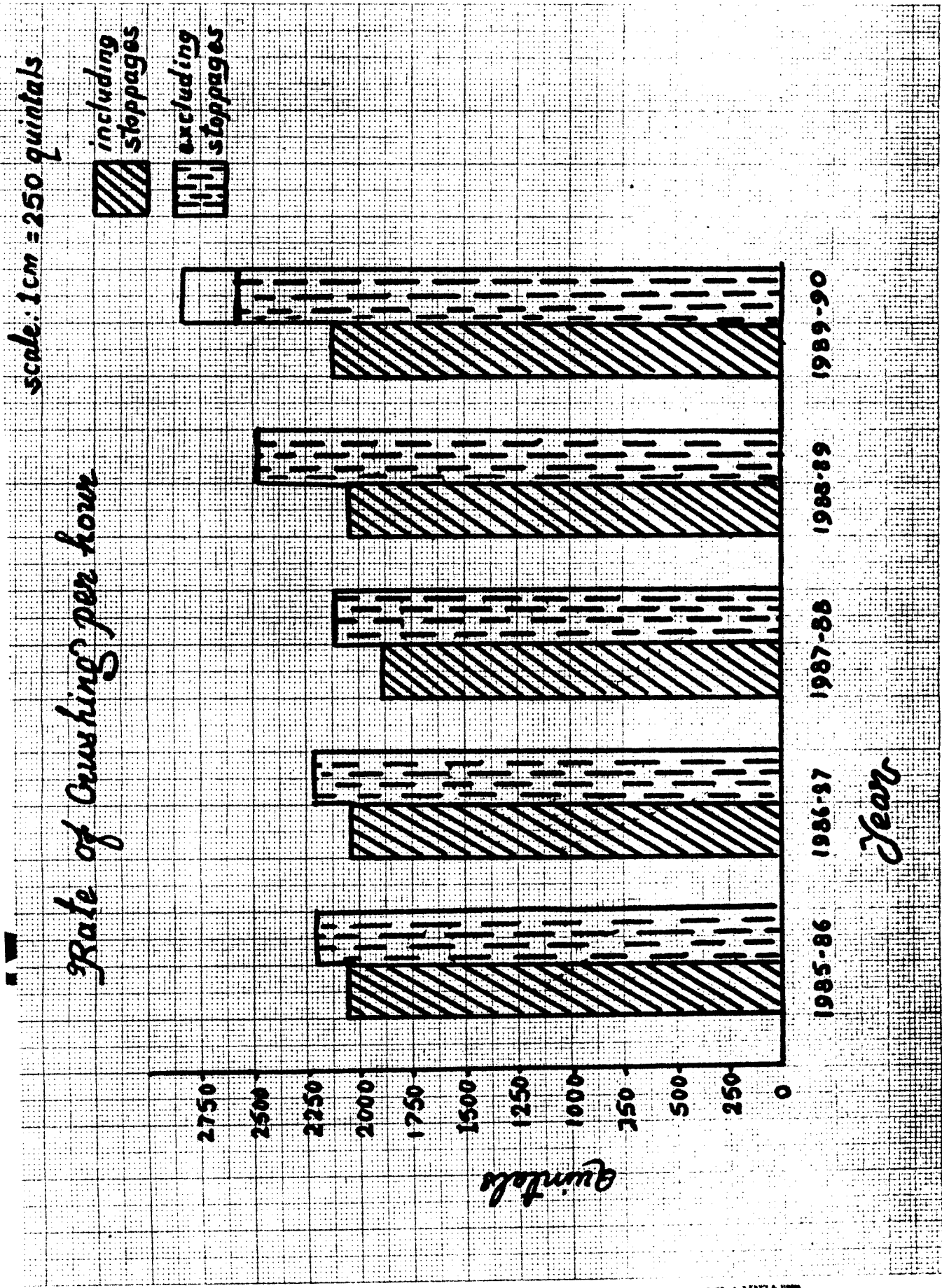
3) Material Productivity :

Following is the information regarding material cost and number of units produced.

	(Rs. in lakh)			
	1985-86	1986-87	1987-89	1989-90
Material Cost	3723.79	3962.03	7185.14	5332.11
No.of units produced (Bags)	10.07	10.59	-	11.80
Material Productivity	369.79	374.13	-	451.87

Material cost includes sugarcane purchase and other expenses.

Following information shows cost of raw material purchased and no. of units produced by Distillery and Liquor, Cattle Feed and Acetic Anhydride Divisions.

Cost of Raw Material

			(Rs. in lakh)	
Divisions	1985.86	1986-87	1987-89	1989-90
Distillery & Liquor	101.09	79.05	142.50	184.12
Cattle Feed	233.20	233.89	309.02	148.83
Acetic Anhydride	61.60	92.20	150.66	133.21

NO. of units Produced.

Divisions	1985-86	1986-87	1987-89	1989-90
Distillery & Liquor (lakh) (Ltrs)	82.55	42.08	89.99	54.47
Cattle Feed (M.Ton)	19300	17483	15622	10602
Acetic Anhydride (M.Ton)	1785.314	3462.528	-	4418.561

Production of Acetic Anhydride Division includes
production of Acetic Aldehyde, Acetic Acid and Acetic Anhydride
and production of cattle feed division includes cattle feed,
poultry feed and other while production of Distillery and Liquor
Division includes Special Denatured Spirit, Ordinary Denatured
Sprit, Extra Neutral Spirit, Country Liquor and Foreign Liquor.

Material Productivity

			(Rs.in lakh)	
	1985-86	1986-87	1987-89	1989-90
Distillery & Liquor	1.224	1.878	1.583	3.380
Cattle Feed	0.012	0.013	0.019	0.014
Acetic Anhydride	0.034	0.027	-	0.030

Bar Graph No. 7 indicates the trend in cost of raw
material and number of units produced.

From the above figure, it seems that material
productivity of Distillery and Liquor Division is between to
Rs. 1.224 lakh to Rs. 3.380 lakh while Cattle Feed Rs. 0.012
lakh to Rs. 0.019 lakh and Acetic Anhydride Division is between
to Rs. 0.030 lakh to Rs. 0.034 lakh from 1985-86 to 1989-90.
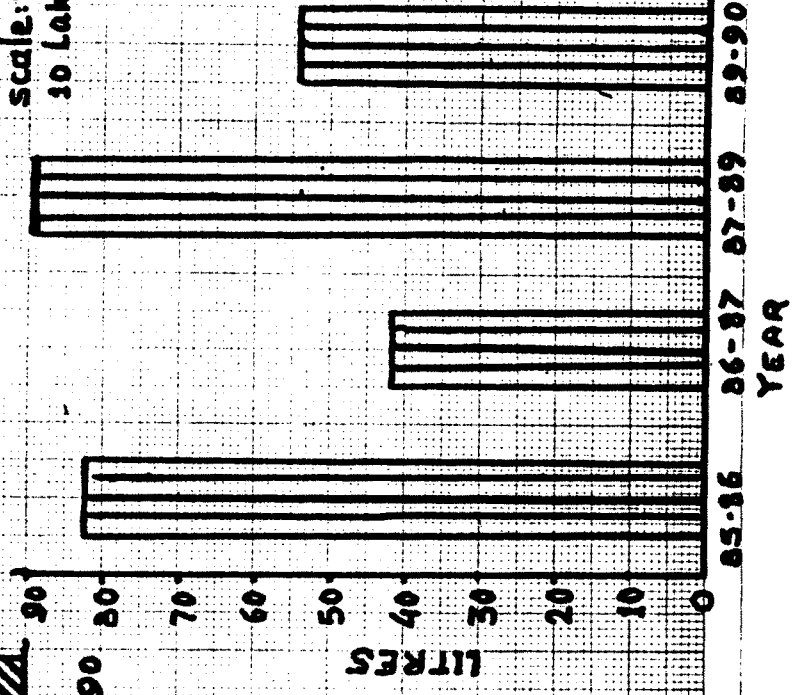
MATERIAL COST

DISTILLERY & LIQUOR
CATTLE FEED
ACETIC ANHYDRIDE
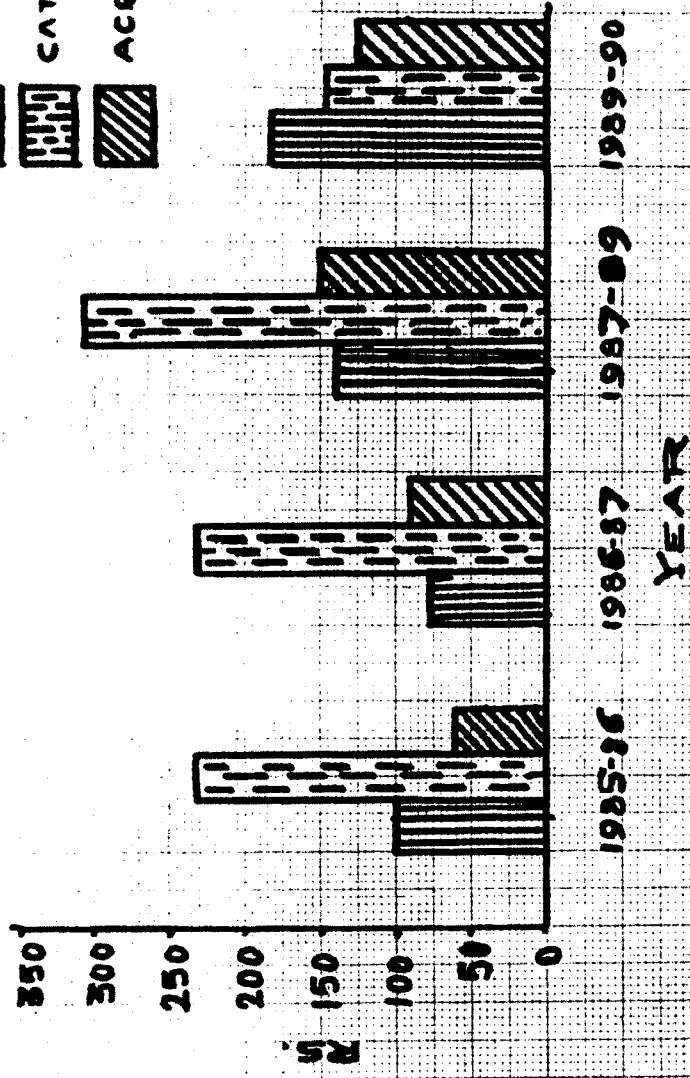
DISTILLERY & LIQUOR PLANT
PRODUCTION

scale:1 cm = 10 Lakh Ltrs.

YEAR

LITRES

DISTILLERY & LIQUOR PLANT

Purchase Efficiency :

Following figures indicate purchases made during the year..

(Rs. in Crores)

	1984-85	1985-86	1986-87	1987-89	1989-90
Purchases :	33.91	41.20	43.67	77.89	55.88
Purchase Efficiency :	-	1.21	1.06	1.78	0.71

Above efficiency shows that purchases in current period always increased as compared to the purchases in previous period except purchases in 1989-90.

4) Capital Productivity :

It is necessary to calculate the following ratios for measuring capital productivity.

a) Proprietors' Ratio :- Following figures represent the information regarding proprietors' funds and total assets.

(Rs. in Crores)

	1985-86	1986-87	1987-89	1989-90
Proprietors' Funds :	15.95	17.09	18.46	20.05
Total Assets :	44.00	49.38	73.42	80.96
Proprietors' Ratio :	0.362	0.346	0.251	0.247

Proprietors' ratio is between to Rs. 0.247 Crores to Rs. 0.362 crores from 1985-86 to 1989-90.

b) <u>Capital Employed to Fixed Assets</u> :

Following figures show the information about capital employed and fixed assets. :

		(Rs. in lakh)			
		1985-86	1986-87	1987-89	1989-90
Capital Employed	:	1956.63	1996.73	3343.71	3619.13
Fixed Assets	:	1276.72	1385.89	1459.05	1564.31
Capital Employed to Fixed Assets Ratio :		1.53 :1	1.44 :1	2.29 :1	2.31 :1

From the above figure it seems that, capital employed to fixed assets ratio in 1985-86 and 1986-87 is Rs. 1.53 lakh and Rs. 1.44 lakh respectively while it is increased in 1987-89 and 1989-90 upto Rs. 2.29 lakh and Rs. 2.31 lakh respectively.

c) <u>Current Ratio</u> :

Following figures represent the current assets and current liabilities of the sugar factory.

		(Rs. in Crores)			
		1985-86	1986-87	1987-89	1989-90
Current Assets	:	20.41	23.71	45.48	50.46
Current Liabilities	:	13.61	17.60	26.63	29.91
Current Ratio	:	1.49 :1	1.34 :1	1.70 :1	1.68 :1

In the year 1985-86 and 1986-87 Current Ratio is 1.49 :1 and 1.34 :1 respectively, while in 1987-89 and 1989-90 it is 1.70 :1 and 1.68 :1 respectively.

d) Current Assets to Fixed Assets Ratio :

Below mentioned figures indicate current assets and fixed assets from 1985-86 to 1989-90.

(Rs. in lakh)

	1985-86	1986-87	1987-89	1989-90
Current Assets :	2041.24	2370.73	4547.96	5046.12
Fixed Assets :	1276.72	1385.89	1459.05	1564.31
Current Assets to Fixed Assets Ratio :	1.60	1.71	3.12	3.22

From the above ratio, it seems that current assets to fixed assets in 1985-86 and 1986-87 is Rs. 1.60 Lakh and Rs. 1.71 lakh while it is rapidly increased in 1987-89 and 1989 -90 upto Rs. 3.12 lakh and Rs. 3.22 lakh respectively.

e) Capital Gearing Ratio :

Following figures show long term debts as well as equity share capital.

(Rs. in Crores)

	1985-86	1986-87	1987-89	1989-90
Long-term Debts :	15.48	15.64	29.42	32.21
Equity Share Capital :	3.22	3.29	3.35	3.42
Capital Gearing Ratio :	4.81	4.75	8.78	9.42

The above ratio indicates that capital gearing ratio is increasing year after year.

f) <u>Liquid Ratio</u> :

This ratio reveals the degree of solvency, the efficiency of financial policy the movement of working capital and ability of the sugar factory to pay its debts in the short term. following figures furnishes information regarding liquid assets and liquid liabilities.

		(Rs. in lakh)		
		1985-86	1986-87	1987-89	1989-90
Liquid Assets	:	1843.41	1939.88	4024.48	4548.39
Liquid Liabilities	:	1338.23	1728.58	2610.40	2910.58
Liquid Ratio	:	1.35:1	1.12:1	1.54:1	1.56:1

Traditionally, if liquid ratio is 1:1 the liquidity position of the firm is considered to be satisfactory.

5) <u>Productivity of Power and Services</u> :

Effective utilisation of power and other services is essential in sugar factory. Following figures furnish information regarding machinery repairing and maintenance cost as well as number of hours worked.

	(Rs. in lakh)		
	1985-86	1986-87	1987-89	1989-90
Machinery·repairs and Maintenance (Rs.)	164.11	109.33	235.18	191.54
No.of hours worked	4041.00	4283.35	3363.25	3987.55
Powers and Services Ratio	0.040	0.025	0.069	0.048

Machinery repairs and maintenance cost is fluctu-
ating year to year. This cost is between to Rs. 164.11 lakh
to Rs. 235.18 lakh from 1985-86 to 1989-90.

6) Return on Capital Employed Ratio :

Following figures show the information regarding
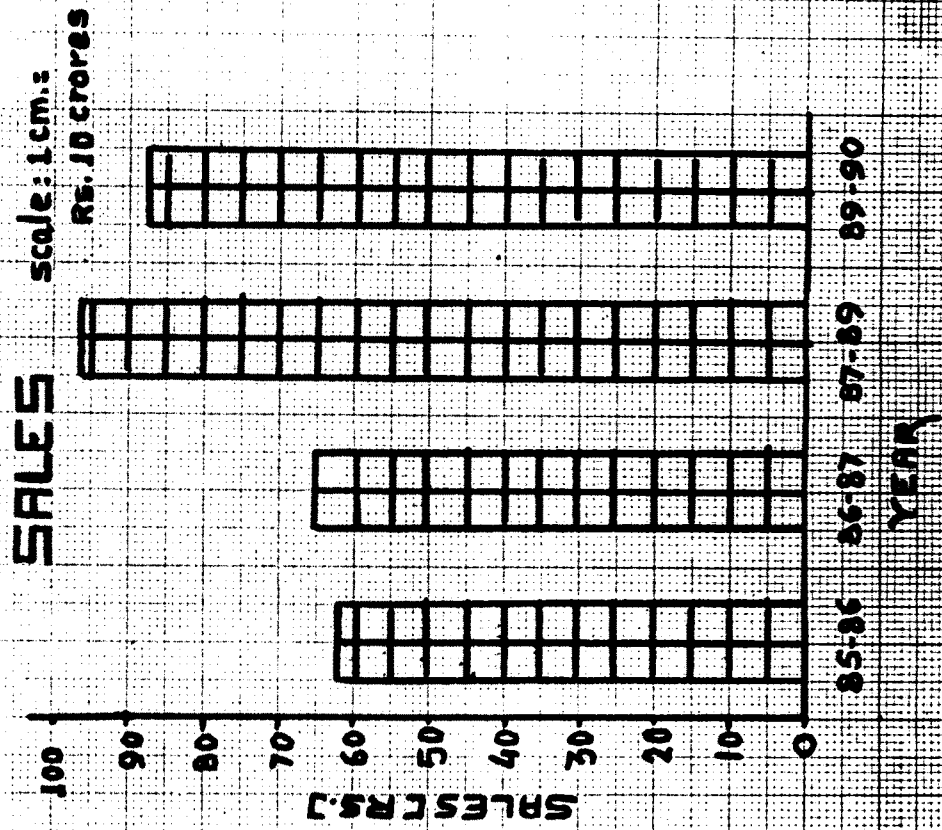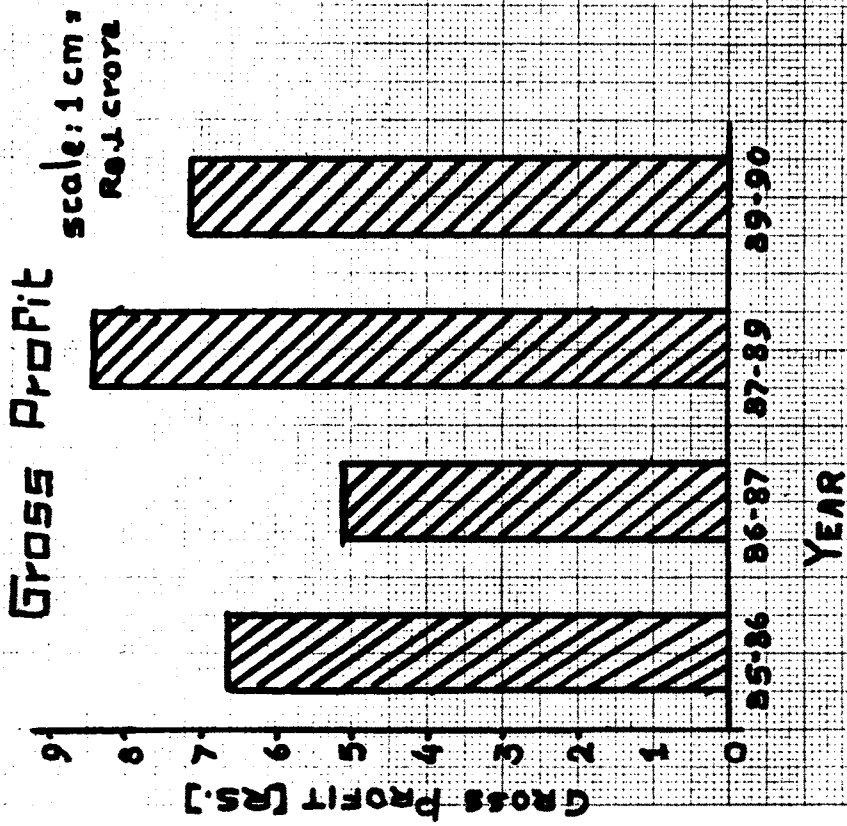profits earned and capital employed during the rear.

| | (Rs. in lakh) | | | |
	1985-86	1986-87	1987-89	1989-90
Profit	6.64	17.67	6.16	16.18
Capital employed	1956.63	1996.73	3343.71	3619.13
Return on Capital Employed Ratio (Percentage)	0.34%	0.88%	0.18%	0.45%

From the above ratio, it seems that percentage of
return on capital employed is fluctuating. In 1985-86, it is
0.34% while in the year 1986-87 and 1987-89 the same is 0.88%
and 0.18% respectively. In 1989-90 it is 0.45%.

For measuring return on capital employed, under
mentioned ratios are taken into account.

a) Gross Profit to Sales Ratio :

This ratio expresses relationship between gross
profit and net sales. Following figures and Bar graph No. 8
indicate Gross Profit and Sales during the year.

SALES

scale:1cm: Rs.10 crores

SALES (RS.)

YEAR

85-86 86-87 87-89 89-90

Gross Profit

scale:1cm: Rs.1 crore

Gross Profit (Rs.)

YEAR

85-86 86-87 87-89 89-90

		1985-86	1986-87	1987-89	(Rs. in Crores) 1989-90
Gross Profit	:	6.65	5.12	8.44	7.14
Sales	:	62.73	65.41	96.67	87.72
Gross Profit Ratio		10.60%	7.82%	8.73%	8.14%

From the above figures and graph No. 7, it seems
that gross profit in 1985-86 is Rs. 6.65 crores and sales is
Rs. 62.73 crores. In 1986-87 gross profit is decreased upto
Rs. 5.12 crores while sales is increased upto Rs. 65.41 crores.
Again in 1987-89 gross profit and sales is Rs. 8.44 crores and
Rs. 96.67 crores respectively. In the year 1989-90 it is
Rs. 7.14 lakh and Rs. 87.72 respectively.

Gross profit ratio is between to 7.82% and 10.60%
from the year 1985-86 to 1989-90 .

b) Net Profit to Sales Ratio :

This ratio helps in determining the efficiency
with which affairs of the business are being managed. Following
figure shows net profit earned and sales during the year.

Particulars		1985-86	1986-87	1987-89	(Rs. in Crores) 1989-90
Net Profit	:	0.07	0.18	0.06	0.16
Sales	:	62.73	65.41	96.67	87.72
Net Profit Ratio	:	0.11%	0.28%	0.06%	0.18%

From the above figures, it seems that net profit is fluctuating. In the year 1985-86 and 1986-87 net profit is Rs. 0.07 crores and Rs. 0.18 crores respectively, while in 1988-89 and 1989-90 it is Rs. 0.06 crores and Rs. 0.16 crores respectively. Net profit ratio is also fluctuating. Line graph E represents the trend in net profit ratio.

c) <u>Net Profit to Fixed Assets Ratio</u> :

Following figure shows net profit and fixed assets.

(Rs. in lakh)

Particulars		1985-86	1986-87	1987-89	1989-90
Net Profit	:	6.64	17.67	6.16	16.19
Fixed Assets	:	1276.72	1385.89	1459.05	1564.31
Net Profit to Fixed Assets Ratio	:	0.52%	1.27%	0.42%	1.03%

Net Profit to Fixed Assets ratio is between to 0.42% and 1.27% from 1985-86 to 1989-90.
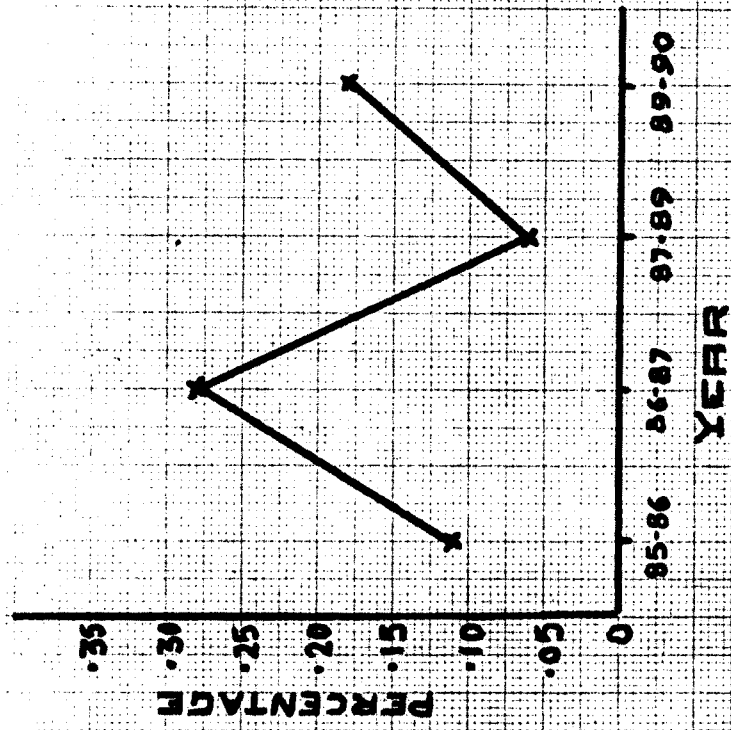
d) <u>Net Profit to Net Worth Ratio</u> :-

Figures indicating net profit and net worth are as below :

(Rs. in lakh)

Particulars	1985-86	1986-87	1987-89	1989-90
Net Profit	6.64	17.67	6.16	16.19
Net Worth	1237.16	1310.73	1372.18	1436.48
Net Profit to Net Worth Ratio	0.54%	1.35%	0.45%	1.13%

NET PROFIT RATIO CURVE

scale : 1 cm. = 0.05 %

PERCENTAGE

.35 .30 .25 .20 .15 .10 .05 0

85-86 86-87 87-89 89-90

YEAR

From the above figures, it seems that Net Profit to Net Worth ratio is between to 0.45% and 1.35% from 1985-86 to 1989-90.

e) Stock Turnover Ratio :

Following figure furnishes the information regarding cost of goods sold and average inventory.

	(Rs. in Crores)			
Particulars	1985-86	1986-87	1987-89	1989-90
Cost of Goods Sold	59.17	60.29	88.23	80.58
Average Inventory	7.87	9.38	20.21	31.39
Stock Turnover Ratio	7.52	6.43	4.37	2.57

Stock turnover ratio is between to Rs. 2.57 crores and Rs. 7.52 crores from the year 1985-86 to 1989-90, and it is declining year to year.

7) Other Productivity :

For measuring other productivity following ratio is used.

a) Cost of Sales to Sales Ratio : Following figure shows the relationship between cost of sales and sales.

	(Rs. in Crores)			
Particulars	1985-86	1986-87	1987-89	1989-90
Cost of Goods Sold	59.17	60.29	88.23	80.58
Sales	62.73	65.41	96.67	87.72
Cost of Sales to Sales Ratio	0.94	0.92	0.91	0.92

Above figures indicate that cost of sales to sales ratio in the year 1985-86 is Rs. 0.94 crores while it is reduced in 1986-87 and 1987-89 by Rs. 0.02 crores and Rs. 0.03 crores respectively with comparing to 1985-86. In the year 1989-90 , it is increased nearabout to Rs. 0.92 crores.

8) Total Productivity :

There are various formulae to measure total productivity, but out of these, formula based on economic unit is selected.

Following figures indicate the value of output and value of input during the year.

(Rs. in Crores)

| Particulars	1985-86	1986-87	1987-88	1988-89	1989-90
Value of Output	42.91	46.67	43.40	47.37	66.57
Value of Input	31.29	32.27	30.69	32.60	48.81
Total Productivity Ratio	1.371	1.446	1.414	1.453	1.363

Value of output means sugar production(in bags) during the year multiplied by average rate of sugar sale per quintal excluding tax.

Value of input means total cane crushed multiplied by cane price paid per tonne.

Every bag is assumed one hundred Kg. i.e. One quintal.

The above figure shows that sales value of output in the year 1985-86 is Rs. 42.91 crores while value of input is Rs. 31.29 crores. In the year 1986-87 value of output and input is Rs. 46.67 crores and Rs. 32.27 crores respectively. In the year 1987-88 and 1988-89 value of output is Rs. 43.40 crores and Rs. 47.37 respectively while value of output is Rs. 30.69 crores and Rs. 32.60 crores respectively. In 1989-90 value of output and input is Rs. 66.57 crores and Rs. 48.81 crores respectively.

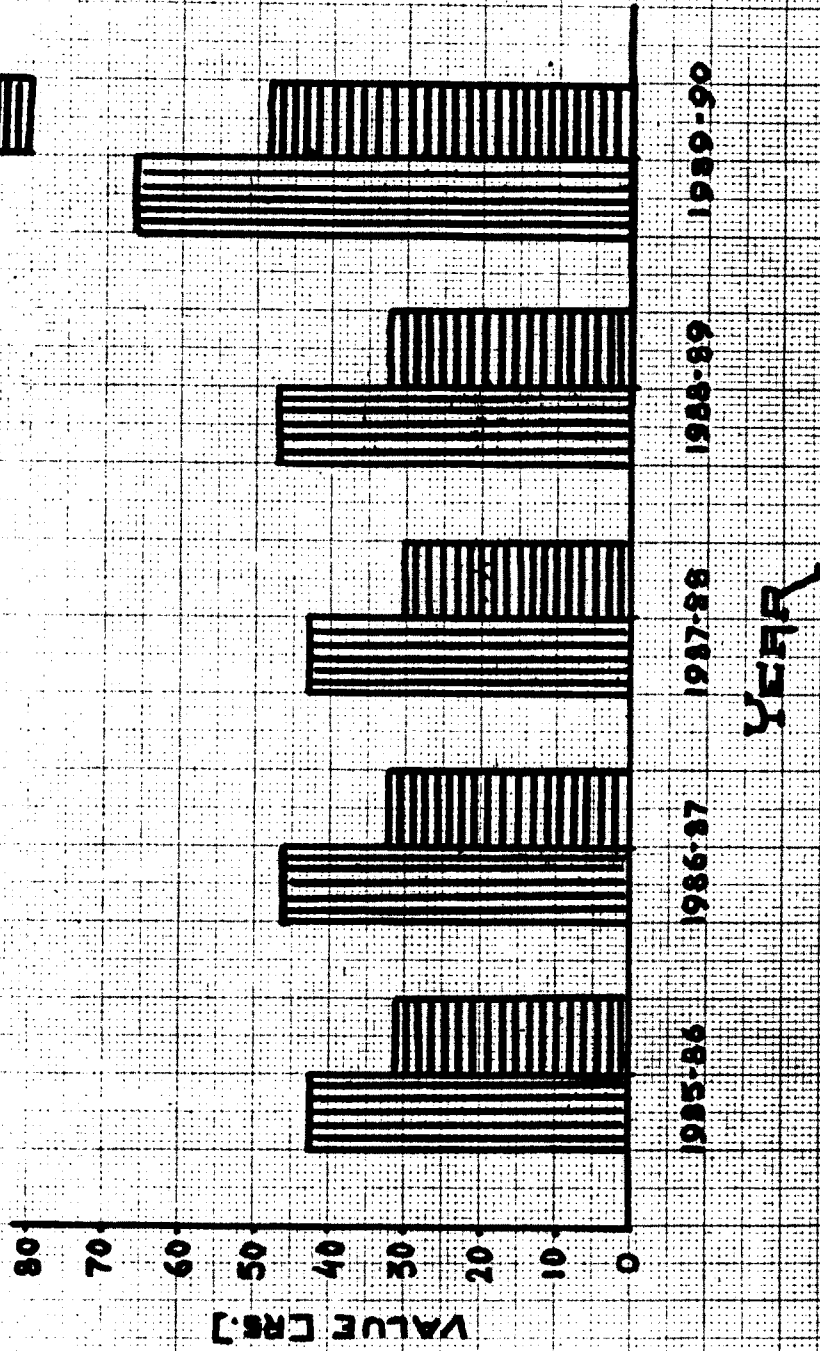Following bar-graph No. 9 indicates the value of output and input.
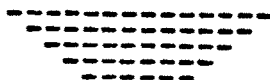
Scale : 1 cm = Rs.10 crores

VALUE OF OUTPUT

VALUE OF INPUT

VALUE OF OUTPUT & INPUT

Particulars	1985-86	1986-87	1987-88	1988-89	1989-90
1. Labour Productivity (In term of Hours) (Bags)	240.41:1	241.95:1	238.03:1	292.13:1	296.03:1
Distillery & Liquor(Rs. in Lakh)	-	4.293	4.222	5.672	6.048
Cattle Feed (Rs. in Lakh)	43.197	42.395	46.848	17.748	28.058
Acetic Anhydride (Rs. in lakhs)	-	1.312	1.678	1.064	2.896
2. Lost time Percentage :	7%	8%	13%	21%	22%
3. Labour Productivity (In terms of Revenue) (Rs. in Crores)	0.032	0.026	(1987-89)	0.038	0.036
4. Machine Productivity(Quintals in an hours)	249	246	237	289	294
5. Rate of Crushing per hour.(Quintals)					
Including Stoppages	2065	2043	1889	2049	2110
Excluding Stoppages	2206	2216	2141	2479	2577
6. Material Productivity (Rs.in lakhs)					
Distillery & Liquor (per Ltr.)	1.224	1.878	-(1987-89)	1.583	3.380
Cattle Feed (Per M.Ton)	0.012	0.013	-(1987-89)	0.019	0.014
Acetic Anhydride (Per M.Ton)	0.034	0.027	-(1987-89)	0.037	0.030
7. Purchase efficiency. (Rs. in Crores)	1.21	1.06	-(1987-89)	1.78	0.74
8. Capital Productivity :					
i) Proprietors Ratio					
ii) Capital Employed to Fixed Assets Ratio	1.53:1	1.44:1	-(1987-89)	2.29:1	2.23:1
iii) C.....					

Particulars	1985-86	1986-87	1987-88	1988-89	1989-90
iv) Current Ratio of Distillery & Liquor	1.29	3.89	-(1987-89)	5.84	5.96
Cattle Feed	4.73	5.77	-(1987-89)	17.20	15.84
Acetic Anhydride	34.55	7.37	-(1987-89)	20.47	3.05
v) Current Assets to Fixed Assets Ratio of -					
Distillery & Liquor	1.60	1.71	-(1987-89)	3.12	3.22
Cattle Feed	1.05	2.85	-(1987-89)	3.64	1.03
Acetic Anhydride	9.57	7.57	-(1987-89)	14.88	18.03
	0.08	0.13	-(1987-89)	0.17	0.20
vii) Liquid Ratio	1.35:1	1.12:1	-(1987-89)	1.54:1	1.56:1
viii) Capital Gearing Ratio	4.81	4.75	-(1987-89)	8.78	9.42
9. Productivity of Power & Services. (Rs. in Lakhs)	0.040	0.025	-(1987-89)	0.069	0.048
10. Return on Capital Employed Ratio : (Percentage)	0.34	0.68	-(1987-89)	0.18	0.45
Distillery & Liquor	2.243	0.786	-(1987-89)	0.311	-
Cattle Feed	0.302	0.196	-(1987-89)	0.177	-
Acetic Anhydride	-0.014	-0.059	-(1987-89)	-0.012	-
i) Gross Profit to Sales Ratio	10.60%	7.82%	-(1987-89)	8.73%	8.14%
ii) Net Profit Ratio	0.11%	0.28%	-(1987-89)	0.06%	0.18%
iii) Net Profit to Fixed Assets Ratio	0.52%	1.27%	-(1987-89)	0.42%	1.03%
iv) Net Profit to Net Worth Ratio	0.54%	1.35%	-(1987-89)	0.45%	1.13%
v) Stock Turnover Ratio	7.52	6.43	-(1987-89)	4.37	7.57

PARTICULAR	1985-86	1986-87	1987-88	1988-89	1989-90
11. Other Productivity - Cost of Sales to Sales Ratio	0.94	0.92	-(1987-89)	0.91	0.92
12. Total Productivity Ratio	1.371	1.446	1.414	1.453	1.363