

# CHAPTER

# 4

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## CHAPTER- IV

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# **ECONOMIC PROGRESS OF DR. D.Y. PATIL SUGAR FACTORY**

## **4.1 Introduction:**

Padmashree Dr. D.Y.Patil Co-Operative Sugar Factory Ltd. Dyanshantinagar, Asalaj is located in Gaganbawada taluka of Kolhapur district. It is situated at a distance of 9 km. east from Gaganbawada on the Gaganbawada-Kolhapur road. The area of sugar factory is 90 acres.

Padmashree Dr. D.Y.Patil Co-Operative Sugar Factory has played progressive role in the socio-economic development of Gaganbawada taluka. The Gaganbawada taluka is rainy area in Kolhapur District. Mostly, the taluka covered by black soil and red soil. Kumbhi River is flowing from the Gaganbawada taluka which also creates favourable opportunity to sugarcane producers. The farmers of the taluka grow sugarcane in traditional manner. Area under sugarcane has increased rapidly with the establishment of sugar factory.

Padmashree Dr. D.Y.Patil Co-Operative Sugar Factory was established by the local leaders under the proper guidance of the Padamashree Dr.D.Y.Patil, Satej D. Patil and Mansing Patil. Padmashree Dr. D.Y.Patil Co-Operative Sugar Factory Ltd: Dyanshantinagar, Asalaj was registered as a Co-Operative society under the Maharashtra Co-Operative Societies Act of 1960 on 6<sup>th</sup> April 1994. Vide registration number is KPR/GWA/PRG/(A)/S-50. Its initial crushing capacity was 2500 TCD (Tone crushing per day)

The construction of factory was completed within two years and crushing session was started since 2003-04. Sometimes sugarcane is brought from Panhala, Radhanagari, Vaibhavwadi, Kankavali taluka.

## **4.2 Membership of Sugar Factory:**

For establishment of any Co-Operative sugar factory, the important role is being played by farmers and share holders of the area needs of proper leadership in co-operation, geographical factors as well as economical support. Padmashree Dr. D.Y.Patil sugar factory has got all there aspects for the benefits the area. The factory

provids incentive to the members for self help, thrift and popularize the new methods of cultivation as well as to supply the improved seeds, fertilizer, pesticides etc. to the members. In this way, the factory is not only just to be a manufacturing and profit seeking institution but a nucleus of all round development of the Co-operation.

The table no. 4.1 shows the increase of membership of Padmashree Dr. D.Y.Patil Co-Operative Sugar Factory Ltd. Dyanshantinagar, Asalaj, Taluka Gaganbawada during the year 2003-04 to 2011-2012 Membership is classified into following types.

1. 'A' Grade producers
2. Society members
3. Government of Maharashtra

**Table No. 4.1**

**Progress of Membership of Sugar Factory**

Sr. no.	Year	A' Grade producers	Society members	Government of Maharashtra	Total
1	2003-04 (%)	6464 (99.78)	13 (0.20)	1 (0.02)	6478 (100)
2	2004-05 (%)	6464 (99.78)	13 (0.20)	1 (0.02)	6478 (100)
3	2005-06 (%)	6464 (99.78)	13 (0.20)	1 (0.02)	6478 (100)
4	2006-07 (%)	6464 (99.78)	13 (0.20)	1 (0.02)	6478 (100)
5	2007-08 (%)	6464 (99.78)	13 (0.20)	1 (0.02)	6478 (100)
6	2008-09 (%)	6464 (99.78)	13 (0.20)	1 (0.02)	6478 (100)
7	2009-10 (%)	6464 (99.78)	13 (0.20)	1 (0.02)	6478 (100)
8	2010-11 (%)	6464 (99.78)	13 (0.20)	1 (0.02)	6478 (100)

**Source:** Annual Report of the Factory.

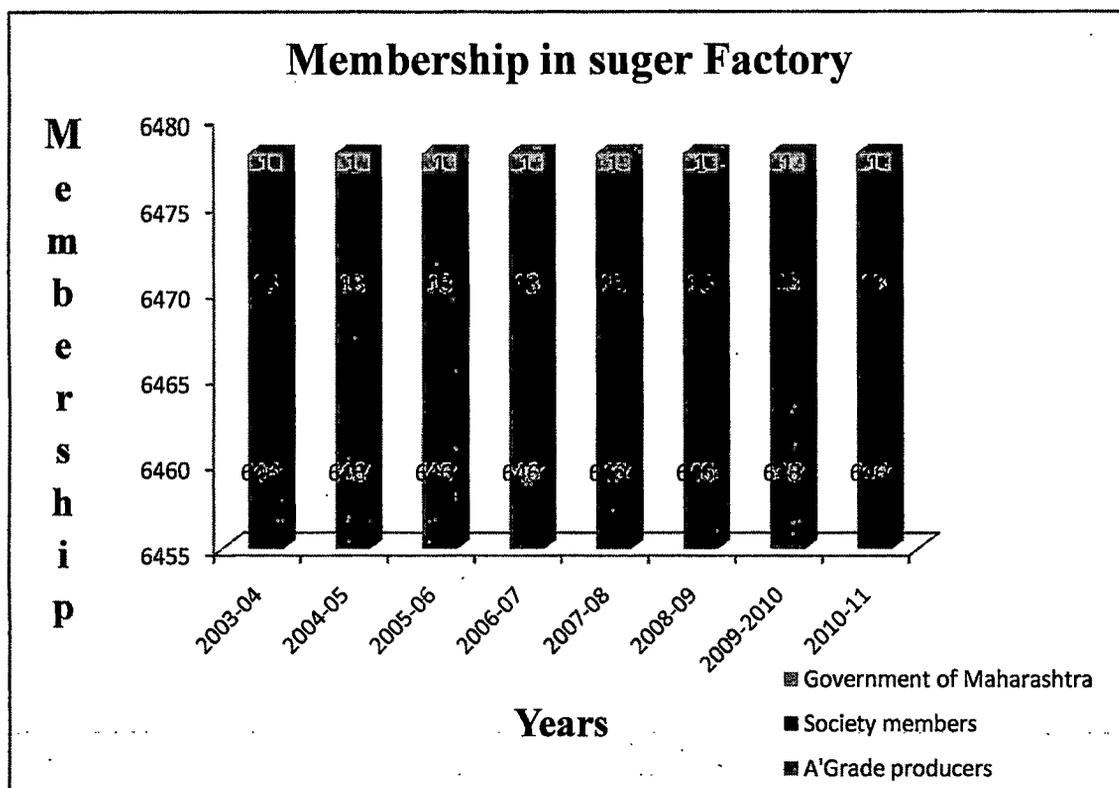


Table 4.1 explains the number of 'A' Grade producers, No. of Society members, Govt. of Maharashtra, Total no. of members and percentage change of total members.

The number of 'A' Grade producers in 2003-04 to 2011-12 was remained constant was i.e. 6464. In 2003-04 to 2011-12 the percentage change of 'A' Grade producers was 99.78. In case of society members in 2003-04 to 2011-12 was 13. In 2003-04 to 2011-12 the percentage of society members was 0.20. The number of Govt. of Maharashtra has remained constant during the 2003-04 to 2010-11. In 2003-04 to 2010-11 the percentage was 0.02.

Total membership of the factory including, 'A' Grade, Society & Govt. of Maharashtra was 6478 over a period of time.

#### 4.3 Progress in area under Sugarcane:

The jurisdiction of Padamashree Dr. D. Y. Patil Co-Operative Sugar Factory includes 102 villages from Gaganbawada taluka and other four talukas at present. The climate for sugar cultivation is proper, which induce to the farmer to produce the sugarcane.

**Table No. 4.2**

**Progress in area under sugarcane (Area in Hectare)**

Sr.No	Year	Area under Jurisdiction (Area in Hectare)	% Change	Out of Jurisdiction within State (Area in Hectare)	% Change	Out Side State (Area in Hectare)	% Change	Total Area (Area in Hectare)
1	2003-04	3279.20		4020.56		0.00		7299.76
2	2004-05	4812.00	46.74	6331.00	57.47	0.00	0.00	11143.00
3	2005-06	3032.70	-36.98	5257.56	-16.96	433.19	0.00	8723.45
4	2006-07	3297.72	8.74	3862.76	-26.53	597.56	37.94	7758.04
5	2007-08	3211.36	-2.62	4795.23	24.14	562.05	-5.94	8568.64
6	2008-09	2849.59	-11.27	4712.71	-1.72	0.00	-100.00	7562.30
7	2009-10	3015.27	5.81	4538.57	-3.70	0.00	0.00	7553.84
8	2010-11	3505.42	16.26	4926.88	8.56	0.00	0.00	8432.30
9	2011-12	3737.72	6.63	5228.65	6.12	0.00	0.00	8966.37

Source: Annual Report of the Factory.

Table 4.2 shows the progress of area under sugarcane cultivation which is available for crushing to Gaganbawada factory during the period of 2003 to 2012.

The sugarcane area under jurisdiction was only 3279.20 Hectore and it is increased to 3737.72 Hectore in year 2011-12, (6.63 % of total). The sugarcane area under the outside state was 433.19 Hectore (0.0 % of total) and it was increased to 597.56 Hectore in 2006-07 (37.94 % of total). The sugarcane area under out of jurisdiction within state was increased from 4020.56 in 2003-04 to 5228.65(6.12% of total) in 2011-12.

It indicates that the sugarcane area within jurisdiction is considerably increased and it was because of the positive efforts made by the factory management by proper planning for increasing sugarcane cultivation area. It also indicates that the factory is showing healthy trend to depend less on the sugarcane area outside the jurisdiction.

#### 4.4 Sugarcane Crushed:

The Padmashree Dr. D.Y.Patil Co-Operative Sugar Factory has made sugarcane available for crushing from 1) Area under jurisdiction 2) Out of jurisdiction within state 3) Outside state. The daily crushing capacity of Padamshree Dr.D.Y.Patil Co-Operative Sugar Factory is 2500 TCD. The supply of sugarcane increased year by year since 2003-04. The following table no.4.3 shows the per year total sugarcane crushed.

**Table No. 4.3**

#### Sugarcane Crushed (In MT)

Sr.No	Year	Sugarcane Crushed	% Change
1	2003-04	74331.07	
2	2004-05	48117.55	-35.27
3	2005-06	188199.94	291.13
4	2006-07	355153.50	88.71
5	2007-08	355084.30	-0.02
6	2008-09	225045.64	-36.62
7	2009-10	272524.43	21.10
8	2010-11	405146.48	48.66
9	2011-12	361140.52	-10.86

Source: Compiled from the Annual Report.

## Sugarcane Crushed (in MT)

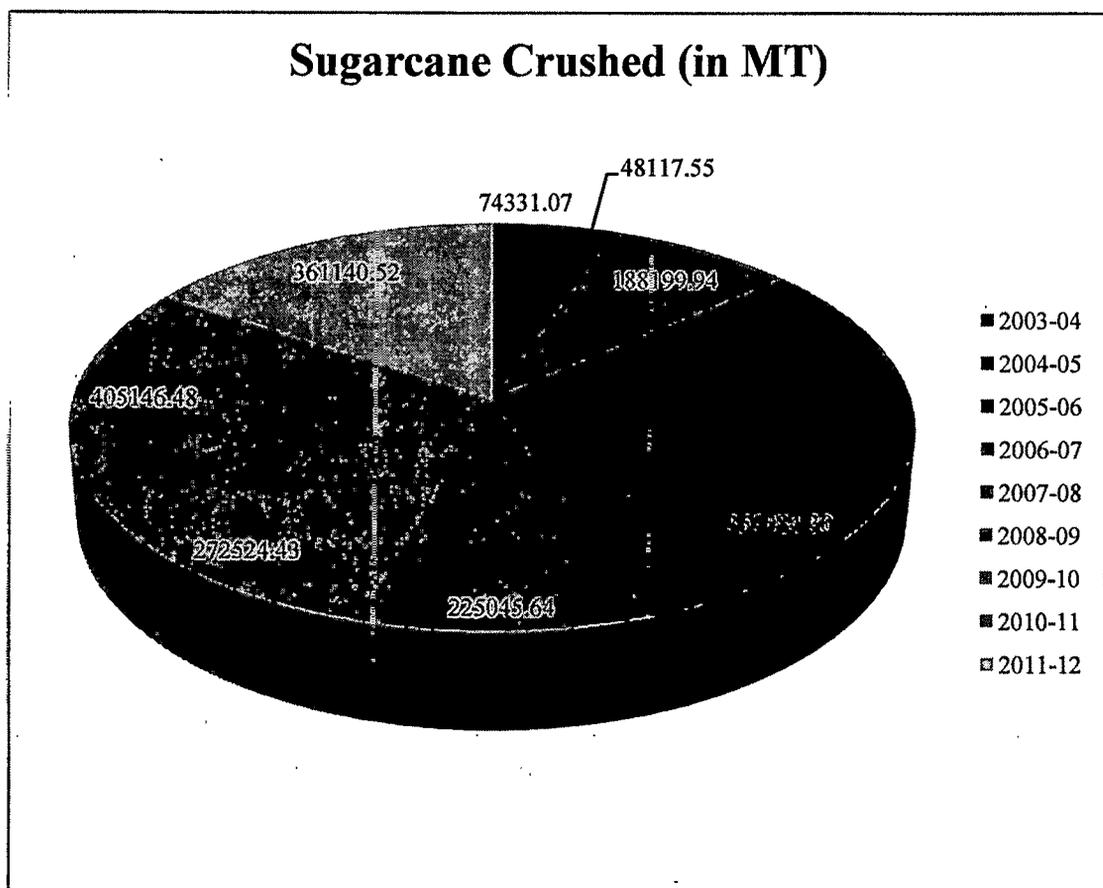


Table 4.3 illustrates the change in total sugarcane crushing in over a period of time. The total sugarcane was crushed 74331.07 MT.in 2003-04 where as it was increased up to 355153.50 MT. in 2006-07 (88.71% of total) and further it was increased up to 405146.48 MT. in 2010-11 (48.66% of total ). Then total sugarcane crushed was decreased by 361140.52 MT. in 2011-12(-10.86% of total ).

### 4.5 Sugar Production:

The sugar production of this factory depends upon the sugarcane in the area of operations as well as sugarcane outside the area of operation. Sugarcane must be in the prefect and good quality. Higher the availability of sugarcane and recovery rate leads to higher the production of sugar. The table no. 4.4 shows the progress in sugar production of Padmashree Dr.D.Y.Patil Co-Operative Sugar Factory Dyanshantinagar Asalaj taluka Gaganbawada during the year 2003-04 to 2011-12.

**Table No. 4.4**

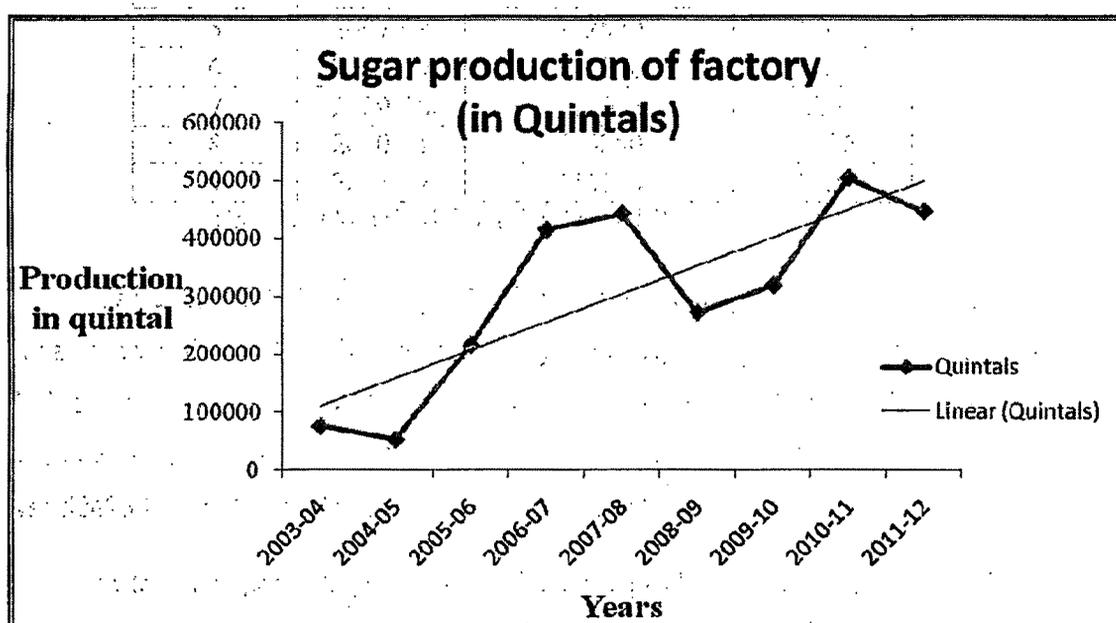
**Sugar production of the factory**

Sr. No	Year	Sugar production (Quintals)	% Change
1	2003-04	75610	
2	2004-05	52270	-30.87
3	2005-06	215105	311.53
4	2006-07	414690	92.78
5	2007-08	442520	6.71
6	2008-09	272750	-38.36
7	2009-10	319025	16.97
8	2010-11	504250	58.06
9	2011-12	446100	-11.53

Source: Compiled from the Annual Report.

Table no. 4.4 shows the production of sugar and percentage change of the Padamashree Dr. D.Y.Patil Sugar Factory Ltd. Dyanshantinagar, Gaganbawada during over a period of time. Total production was 75610 quintals in 2003-04 which was decreased to 52270 quintals in 2004-05. In 2010-11, the total sugar production was 504250 quintals was decreased to 446100 quintals in year 2011-12.

In terms of percentage change of the sugar production was -30.87 %in 2004-2005 where it was increased up to 58.06% in 2010-11,which was decreased to -11.53% in 2011-12.



#### 4.6 Sugar Recovery:

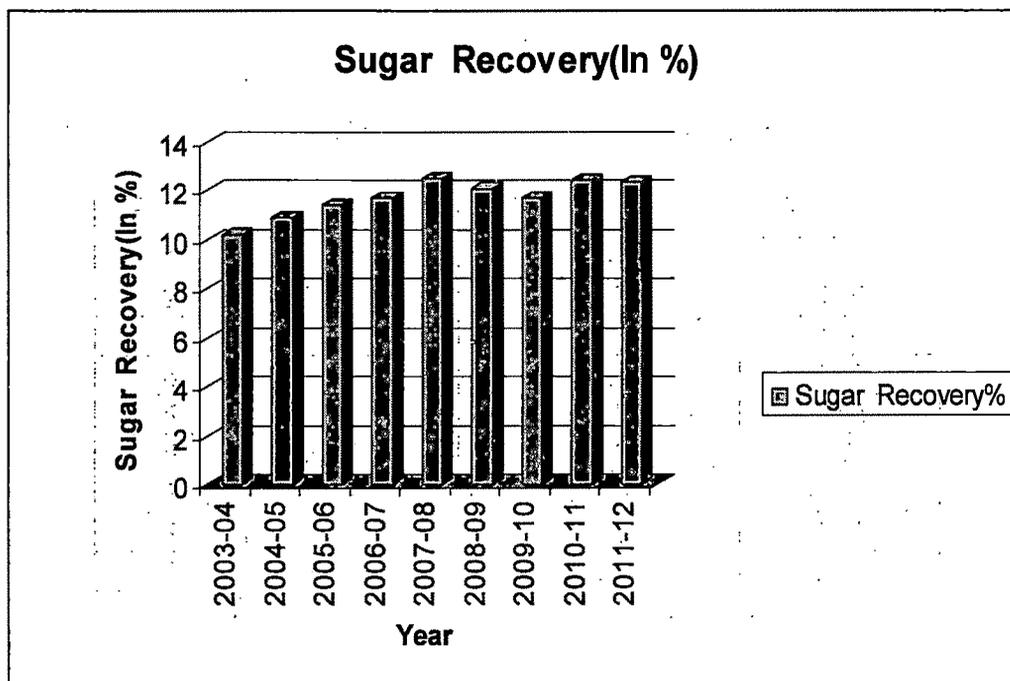
The sugar recovery means the percentage of sugar produced out of the total sugarcane crushed in MT. This depends on the variety of sugarcane, period of harvesting the sugarcane, geographical factors and many other factors such as land type etc. Following table shows that the sugar recovery of during the year of 2003-04 to 2011-12.

**Table No. 4.5**

#### Sugar Recovery of the Factory

Sr. No	Year	Sugar Recovery %	% Change
1	2003-04	10.21	
2	2004-05	10.9	6.76
3	2005-06	11.43	4.86
4	2006-07	11.68	2.19
5	2007-08	12.5	7.02
6	2008-09	12.1	-3.20
7	2009-10	11.72	-3.14
8	2010-11	12.45	6.23
9	2011-12	12.36	-0.72

Source: Compiled from the Annual Report.



In above table we have considered sugar recovery and percentage of sugar recovery. Table no.4.5 indicates that in 2003-04 the percentage of recovery was 10.21% which was increased to 12.50% in year 2007-08. In 2011-12 the percentage of recovery was 12.36. The percentage change was also increased from 6.76 in the year 2004-05 to 7.02 in the year 2007-08 and -0.72 in the year 2011-12. In short above table shows that there was increasing trend of percentage of sugar recovery.

#### **4.7 Sugarcane Price:**

Sugar price is one of the important factors to the farmers. The cost of sugarcane is affected for the increased cost of Sugar production. Therefore, there is most important to study the price of sugarcane. The rates for sugarcane production given to the producers are given in the following table no.4.6

**Table No. 4.6**

#### **Sugarcane Price**

<b>Sr. No</b>	<b>Year</b>	<b>Sugarcane Price Amount Rs.(Per Tonne)</b>	<b>% Change</b>
1	2003-04	821	
2	2004-05	1054	28.38
3	2005-06	1200	13.85
4	2006-07	900	-25.00
5	2007-08	900	0.00
6	2008-09	1700	88.89
7	2009-10	2157	26.88
8	2010-11	2000	-7.28
9	2011-12	2150	7.50

**Source:** Compiled from the Annual Report.

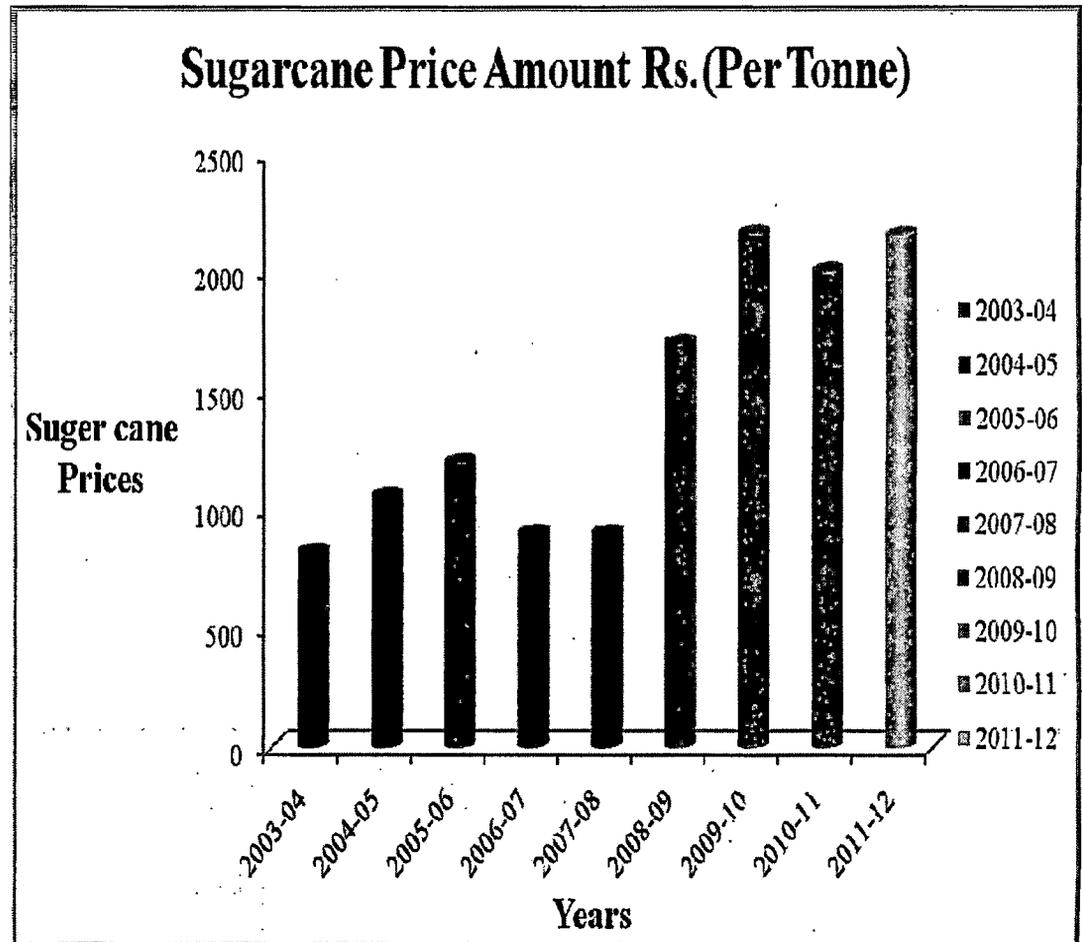


Table No. 4.6 indicates that in 2003-04, the sugarcane rate given by the factory was Rs. 821 per tonne. In the year 2005-06 the rate was Rs. 1200 per tonne (i.e.13.85 %). But in the year 2006-07 sugarcane Rate decreased upto Rs. 900 (i.e.-25.00 %) per tonne . In 2009-10 the price for- sugarcane was increased upto Rs. 2157 per tonne. ( i.e. 26.88 %). Then 2011-12 the sugarcane price was given Rs. 2150 per tonne. (i.e. 7.50%). In short it shows that there are fluctuations in the price of sugarcane production.

#### **4.8 Production of Baggasse:**

The Baggasse is produced from the solid waste of the crushed sugarcane. The production of Baggasse year wise of Dr.D.Y.Patil Co-Operative Sugar Factory is given in following table.

**Table No. 4.7**

**Production of Baggasse**

Sr. No	Year	Sugarcane Crushed(MT)	Production of Baggasse (MT)	% Change
1	2003-04	74331.07	22143.413	
2	2004-05	48117.55	15030.445	-35.27
3	2005-06	188199.94	54841.485	291.13
4	2006-07	355153.5	103971.271	88.71
5	2007-08	355084.3	106016.695	-0.02
6	2008-09	225045.64	67145.383	-36.62
7	2009-10	272524.426	81349.868	21.10
8	2010-11	405146.476	120564.757	48.66
9	2011-12	361140.52	107324.169	-10.86

**Source:** Compiled from the Annual Report.

Table no.4.7 shows that the baggasse production, total sugar production and percentage change of baggasse to sugarcane crushed during period the 2003-04 to 2011-2012. The total production of baggasse during the year 2003-04 was 22143.413 MT. and it was increased, up to 120564.757 MT. during the year of 2010-11. In the year 2011-12 production of baggasse decreased upto 107324.169 MT. The percentage change of baggass to sugarcane crushed in the year 2004-05 was -35.27 and it has increased 48.66 in the year 2010-11. In the year 2011-12 percentage change of baggasse production decreased by -10.86.

**4.9 Production of Mollasses:**

Padmashree Dr.D.Y.Patil sugar Factory also produces molasses along with the production of sugar. The production of molasses is most important because it give the extra income to the factory with sugar production. The year wise production of molasses as compared to the total sugarcane crushed, is given below in table no. 4.8.

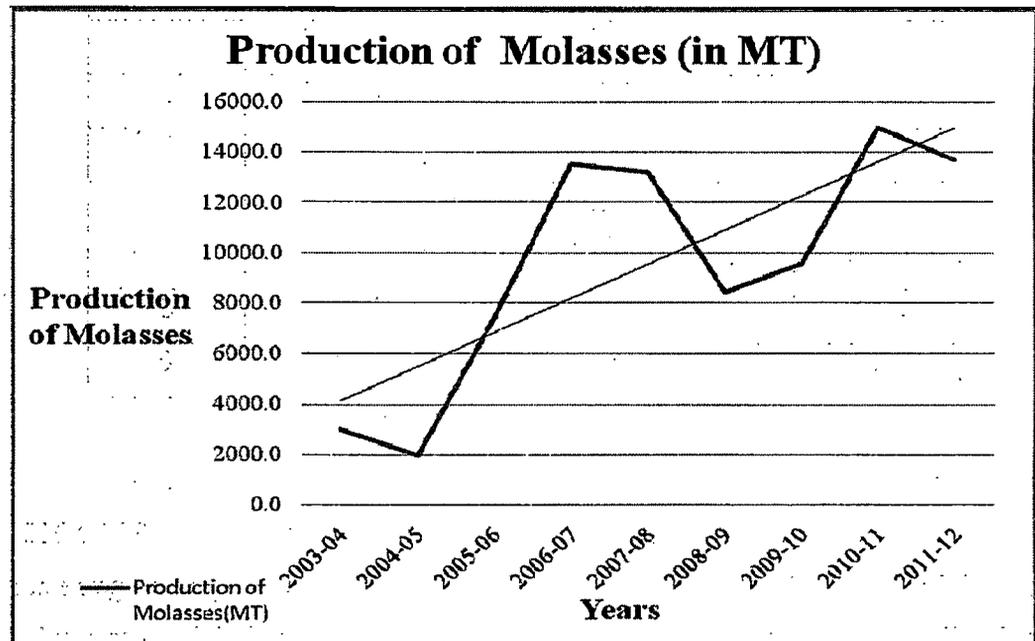
**Table 4.8**

**Production of Mollasses**

Sr. No	Year	Production of Mollasses(MT)	% Change
1	2003-04	3016.4	
2	2004-05	1973.7	-34.57
3	2005-06	7499.1	279.95
4	2006-07	13540.5	80.56
5	2007-08	13209.0	-2.45
6	2008-09	8430.0	-36.18
7	2009-10	9611.4	14.01
8	2010-11	15009.8	56.17
9	2011-12	13718.6	-8.60

**Source:** Compiled from the Annual Report.

The above table shows that, in 2003-04, the production of molasses was 3016.4 MT. and it was increased up to 13718.6 MT. in the year of 2011-12. The percentage change of molasses production in the year 2004-05 was -34.57 % and reduced to -8.60 % in year 2011-12. The highest change in percentage was 279.95 in 2005-06.



#### 4.10 Crushing Season and Crushing Days:

The Padamshree Dr. D.Y.Patil Co-Operative Sugar Factory Ltd. Dyanshantinagar Asalaj, taluka Gaganbawada has approved capacity of 2500 TCD (Tone Crushing per Day). The installed capacity is also 2500 TCD. The utilization of installed capacity means how much MT. of sugarcane is being crushed per day actually. The sugarcane crushed and total working days of crushing year wise is given below in Table no. 4.9

**Table No. 4.9**

#### **Crushing Season of Factory.**

<b>Sr. No.</b>	<b>Year</b>	<b>Crushing Season</b>	<b>Sugarcane Crushed (Tonnes)</b>	<b>Crushing Days</b>
1	2002-03	Test	1514	3
2	2003-04	First	74331.07	66
3	2004-05	Second	48117.55	63
4	2005-06	Third	188199.9	122
5	2006-07	Fourth	355153.5	129
6	2007-08	Five	355084.3	124
7	2008-09	Sixth	225045.6	89
8	2009-10	Seven	272524.4	124
9	2010-11	Eight	405146.5	140
10	2011-12	Nine	361140.5	114

**Source:** Compiled from the Annual Report.

The crushing days are one of the very significant determinant factor of the profitability, it means that more the days more will be the crushing & profit to the sugar factory. At the first initial stage during 2002-2003 there was just 3 days are crushing, after that there is up & downs in crushing days. The highest days of crushing is recorded during 2010-11 that is 140 days. The year wise sugarcane crushing shows that there is tremendous increase in sugarcane crushed from 74331.7 to 361140.05 tonnes during 2003-04 to 2011-2012.

#### **4.11 Conclusion:**

From the membership data of the Padmashree Dr. D. Y. Patil Sugar Factory Asalaj, Taluka Gaganbawada. The total members of the factory has been not increased from 6478 in year 2003-04 to 2011-12. After the establishment of sugar factory area under sugarcane within jurisdiction considerably increased due to positive effects of the factory. The total sugarcane crushed by the factory in year 2003-04 74331.07 MT which was increased to 361140.52 MT in the year 2011-12. The highest sugar recovery rate 12.50% has recorded during year 2007-08.

The sugarcane price paid by the factory to the farmers was Rs. 821 per MT in year 2003-04 and it was increased up to Rs. 2157 per MT in 2009-10, however it was decreased by Rs. 2150 per MT in year 2011-12. Thus it showed continually fluctuations in the sugarcane price.

The Padmashree Dr. D. Y. Patil Sugar Factory within the short period has approved the capacity of 2500 TCD.