
EXPERIMENT 4 CALCULATION OF MILK PAYMENT BASED ON FAT AND TWO-AXIS PRICING POLICY

Structure

- 4.1 Introduction
- 4.2 Objectives
- 4.3 Experiment
 - Principle
 - Requirement
 - Procedure
 - Observations
 - Results
- 4.4 Precautions

4.1 INTRODUCTION

Dairy plants procure milk from different sources for the supply of fluid milk and manufacture of milk products. The suppliers of milk are to be paid for the milk supplied. The students shall learn how to work out milk payment on the basis of fat and two-axis pricing policy.

4.2 OBJECTIVES

- 1 to calculate milk payment on the basis of fat and two-axis pricing policy for the milk supplied during the week by milk producers; and
- 1 to know which method is better.

4.3 EXPERIMENT

i. Principle

The experiment is based on the premise that milk contains fat and SNF and, therefore, due weightage need to be given to these constituents while calculating payment of milk.

ii. Requirement

The students shall be provided with the data on the quantity of milk and its fat and SNF contents for seven milk producers who have supplied milk for a week to different agencies. The students require a simple calculator to determine the payment for milk. On the basis of information stipulated in the exercise.

iii. Procedure

Given the quantity and quality of milk supplied by milk producers to various agencies the students are to calculate milk payment applying the conditions of incentives and penalty for sub-standard milk wherever applicable. The exercise demands that the payment for milk is worked out on i) fat only ii) fat and SNF and iii) the total solids basis to cover all the situations that are prevalent in the market.

iv. Observations

The students shall work out and record the payments due to individual milk producers on various criteria as required in the exercise.

v. Results

The students shall draw inferences from the observations recorded about milk payment using various criteria as stipulated in the Exercise.

4.4 PRECAUTIONS

The students need to be careful to apply appropriate conditions of incentives and penalty wherever required for the quality of milk while computing payment for milk.

EXERCISE: The following Table 4.1 gives information regarding milk marketed during the week by seven milk producers namely A, B, C, D, E, F and G. The quality of milk in terms of fat and SNF is also given. You are asked to compute the value of milk supplied by each milk producer under the following conditions.

- i) Three milk producers A, C, and F supply milk to the Milk Producers' Co-operative Society (MPCS). MPCS has adopted two-axis pricing policy for milk payment. It pays for buffalo milk @ Rs. 180/Kg fat. The minimum acceptable SNF in milk is 8.8%. Incentive for SNF above 8.8% shall be paid @ 2.0 paise per point. But if the SNF is below 8.8% and up to 8.0% a deduction @ 3.0 paise per point shall be made. Buffalo milk containing fat below 5.0% will be paid 50% of actual rate.

For working out payment of Cow Milk, due weight is given to fat and SNF contents. Fat is paid @ Rs.108/Kg while SNF is paid @ Rs. 52/Kg. Milk containing fat 5% or more shall be treated as buffalo milk and paid accordingly.

If the Society makes payment on the basis of fat contents only for both types of milk, how much less money they (milk producers) shall get?

- ii) Two milk producers B and D supply milk to a Vendor. Milk vendor pays them a flat rate of Rs. 10/kg. For buffalo milk and Rs. 8.5/kg for cow milk. If these milk producers had also sold their surplus milk to MPCS, how much more (or less) money they would have earned if MPCS used two axis pricing policy.
- iii) The other two milk producers E and G supply milk to a Halwaii (Sweet maker) in a nearby town and incur a cost of Rs. 1/Kg in delivering milk to him. Halwaii (Sweet maker) pays these milk producers on the basis of Khoa yield which normally turns out to be 200gm. Per Kg of cow milk and 230 gm per kg of

buffalo milk. Halwahi has fixed a net price of Rs 55/ Kg Khoa after deducting Rs. 15/- as production expenses incurred by him for each kg of Khoa produced. Halwahi has clearly instructed the milk producers that if the yield of Khoa is less than the stipulated quantity their payment shall be reduced by 50 percent. How much more (or less) money they are getting per Kg of milk in comparison to milk producers A, C and F. Should they also start supplying milk to the MPCS? (Hint: Compare their present returns from the Halwahi against the returns they will get if they supply milk to the MPCS and MPCS pays on two-axis price system).

Table 4.1: Quantity and Quality of Milk Supplied by Milk Producers on Different Days of the Week

Days	Milk Producers																					
	A			B			C			D			E			F			G			
Type of Milk	Qty	Fat	SNF	Qty	Fat	SNF	Qty	Fat	SNF	Qty	Fat	SNF	Qty	Fat	SNF	Qty	Fat	SNF	Qty	Fat	SNF	
1	Cow	2.0	3.6	8.5	-	2.5	3.5	84														
	Buffalo	3.5	5.5	9.5	2.0	5.8	8.5	90	61	71	96	31	55	86	45	50	85	32	62	62	95	95
2	Cow	1.5	3.5	8.6	-	2.0	37	86														
	Buffalo	3.0	7.3	9.5	1.9	6.9	9.4	94	70	72	95	32	60	90	40	65	94	30	60	60	95	95
3	Cow	2.2	3.7	8.5	-	2.1	36	86														
	Buffalo	2.8	5.0	8.6	2.2	6.7	9.3	92	65	71	96	35	64	94	50	64	94	32	61	61	96	96
4	Cow	1.9	3.6	8.7	-	1.5	37	85														
	Buffalo	3.0	6.8	9.5	2.4	6.8	9.5	95	63	70	97	30	62	92	45	65	95	34	62	62	96	96
5	Cow	1.9	3.8	8.6	-	2.0	36	84														
	Buffalo	3.2	7.0	8.9	2.0	6.9	9.6	96	68	69	99	32	61	95	40	63	98	30	61	61	97	97
6	Cow	2.1	3.7	8.6	-	1.9	36	86														
	Buffalo	3.0	6.9	9.8	2.2	6.8	9.8	98	69	68	99	41	60	94	40	64	98	35	60	60	98	98
7	Cow	2.0	3.6	8.4	-	1.8	39	89														
	Buffalo	3.1	7.1	9.7	2.5	7.0	9.7	97	70	70	98	35	61	95	42	63	99	32	61	61	98	98

Qty stands for quantity of milk supplied in Kg. Fat and SNF are in percentages.