

PRODUCERS AND DAIRIES PAYMENT EFFECT BASED ON RAW MILK QUALITY IN MINAS GERAIS STATE, BRAZIL



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INTRODUCTION

The improvement of the milk quality produced in Brazil has been a major concern of the dairy industry. The goal is to meet the demand of a consumer market increasingly growing and at the same time, improve the production performance of the industrial plants. The achievement of this objective depends on the quality of raw milk supplied to the industry, considering that the quality and yield of the final product is closely linked to the raw material used. Thus, it becomes a crucial investment by the industry to incentivate the producers, making them interested in searching for new improvements in the conditions in which this raw material is produced. In this context, the payment for milk quality shows an interesting alternative to the industry, as it brings financial support to those who produce raw milk investing in good manufacturing practices feedback, resulting in a higher quality of milk supplied to dairy industry.

OBJETIVES

The aim of this study was to evaluate the effect generated by the implementation of Payment for Raw Milk Quality on the monthly income of the farmer as well as the quality of milk supplied to Dairy Industry.

MATERIAL AND METHODS

A dairy located in Lavras, Minas Gerais, Brazil, adopted measurements to encourage improvements in the raw milk quality, which was supplied to the company, the deployment control and good milking practices and payment for milk quality.

The implementation of good practices milking was done through the application of technical training, with specialized veterinary care, and developing weekly checklist of hygiene practices and operation of equipment involved in milking in addition to daily check list for temperature control tank cooling. Once the hygienic-sanitary procedures for milking were obeyed, the payment per quality was done according to the reductions achieved by producers in the values of Total Bacterial Countage (TBC) and Somatic Cell Countage (SCC). After implementation of good practices, milk samples assisted by the company and carried out microbiological and physico-chemical properties of the same analyzes were collected.



RESULTS AND DISCUSSION

Effects of the Good Practices program on TBC reduction

MILKING STEP	TBC before the Good Practices program (CFU/cm ²)	TBC AFTER the Good Practices program (CFU/cm ²)	TBC Reduction (%)
UTTER	71.000	8.000	88,4%
CAN STORAGE	2.56 million	4.34.000	99,84%
BUCKETS	>12.5 000	23	99,82 %
LINER	1.2 million	236	99,98%
MILK	12 million	24.000	99,70 %

Effects of the Good Practices program on SCC reduction

TYPE OF MILKING	SCC BEFORE the good practice program (CFU/cm ²)	SCC AFTER the good practice program (UFC/cm ²)	Reduction of SCC (%)
MANUAL	708.000	256.800	63,73%
MECHANIC	581.000	286.750	50,65%

Effects of the Good Practices program on SCC and milk price

SCC VALUES	Price (R\$) / L	Monthly Income (Production 100 L/day)
(BEFORE Good Practices)= 708.000	1,00 - 0,01= R\$0,99	0.99x100x30 = R \$2.970,00
(AFTER Good Practices)= 257.000	1,00 + 0,02 = R\$1,02	1,02x100x30= R \$3.060,00

Effects of the implementation of Good Practices on TBC and milk price

TBC Values	Price (R\$) / L	Monthly Income (Production 100 L/day)
(BEFORE the Good Practices)= 12 million	1,00-0,03= R\$ 0,97	0.97x100x30= R\$ 2.940,00
(AFTER the Good Practices)= 24.000	1,00+ ,05= R\$1,05	1,05x100x30= R\$ 3.150,00

MONTHLY GAIN AFTER THE DEPLOYMENT OF THE GOOD PRACTICES PROGRAM

CCS (3.060 – 2.970 = R\$90,00) + CBT (3.150 – 2.940 = R\$210,00) =
R\$ 300,00 (US\$135.00)

CONCLUSION

There was a significant gain in the amount received by the liter of milk produced. That result highlights the payment system for quality as an effective resource for both: the producer (who is valued according to receiving incentive to produce quality) and the industry (who gets a better raw material and, thus, can produce a final product that meets the demands of the consumer market).