



# INFLUENCE OF MILKING PARAMETERS ON MILK QUALITY IN HIGH CAPACITY MILKING PARLOURS



Stefan Mihina<sup>1,2</sup>, Ana Haulíková<sup>1</sup>, Jan Brouček<sup>2</sup>

<sup>1</sup>Slovak University of Agriculture, Tr. A. Hlinku 2, 949 76 Nitra, Slovakia

<sup>2</sup>Animal Production Research, Hlohovecká 2, 951 41 Lužianky, Slovakia

## INTRODUCTION

Milk quality parameters are primarily influenced by milking equipment parameters, milkability of cows and work routine. In modern milking parlours is the whole course of milking of individual cows constantly monitored and recorded. Various features of milk flow rate can be evaluated individually from these records. It is known that the features are modified by real milking machine technical parameters, animals ability to let down milk and milker labour routine, too. The question is whether they are important also for milk quality. The aim of the presented research is to evaluate any relationship between parameters of milk flow rate and the Somatic Cell Count (SCC).



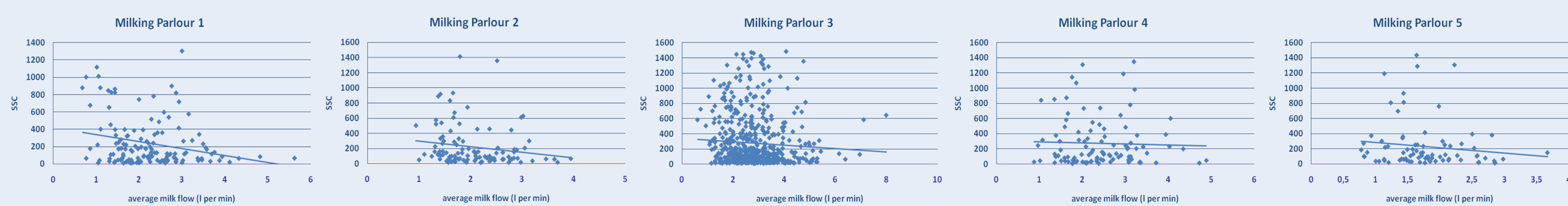
## MATERIAL AND METHODS

Data of milk yield, course of milk flow during entire milking, time of cow entrance, milking cluster attachment and detachment time of individual dairy cows were collected from five Slovak large-scale farms. At the same time SCC was evaluated in individual milk samples.

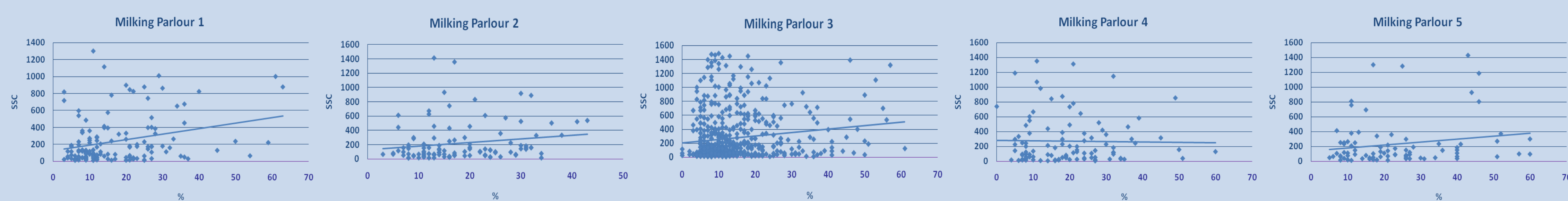
From milking data were calculated: time of milking, time when cow stays in parlour before a cluster is attached, average milk flow, time when milk flow is less than 1 l per minute, yield during first two minutes of milking, ratio of milk flow during first two minutes and average milk flow of entire milking. Correlations among calculated parameters of milking course and individual SCC were set. The most relevant are presented in the results.

## RESULTS

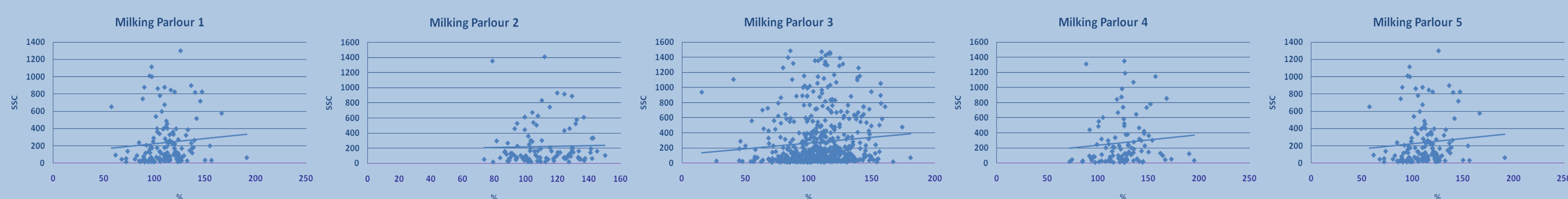
### Average milk flow (l per min)



### Part of total milking time with milk flow less than 1 l per min (%)



### Milk flow during first 2 min/average milk flow\*100 (%)



## CONCLUSIONS

- Parameters of milking course could be used as indicators of milk quality
- SCC declined with the growth of average milk flow rate
- SCC grew as time with very low milk flow rate (less than 1 l per min) increased in all evaluated parlours
- Surprisingly SCC also increased with increase of coefficient, which characterises the ratio between milk flow rate in first two minutes and average milk flow rate
- Monitoring continues