

Evaluation of effects of breed and parity on milking characteristics and milk components of dairy goats by portable milking device ⁽¹⁾

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Received: Feb. 25, 2014; Accepted: Jan. 19, 2015

Abstract

The aim of this study was to investigate the effects of breed and parity on the milking characteristics and milk components of dairy goats. Milk samples of does from four farms at the central or southern Taiwan were collected and determined by a portable milking device. The milk records were collected from 196 heads of Alpine goat and Saanen does ranging from 1th to 5th parity. The results showed that there were significant ($P < 0.05$) differences on lactation characteristics and milk components among the four farms. The total amount milk, highest milk flow, electrical conductivity at highest milk flow, average milk flow in the main milking phase, maximal milk flow rate in one minute, maximal electrical conductivity during end peak to end main milking, maximal milk temperature, percentage of milk fat and concentration of citric acid in milk of Alpine goats had significantly ($P < 0.05$) higher than those of Saanen goats. The percentage of milk protein, lactose, non-fat solids, total solids and concentration of urea nitrogen in milk at first parity of does were higher than those at other parities. Nevertheless, the concentration of citric acid in milk was lowest at first parity of does. As far as milk production concerned, there were 34.2% or 1.1 kg/day/head (2.14 or 3.25 kg/day/head) margin among these four farms. In conclusion, the milking characteristics and milk components of dairy goats had been significantly affected by farm, breed and parity.

Key words: Portable milking device, Dairy goat, Milking characteristics, Milk components.

(1) Contribution No. 2216 from Livestock Research Institute, Council of Agriculture, Executive Yuan.

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