

An assessment of the seasonal variability in Forage and milk quality parameters on Dairy farms in a medium to low rainfall area

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Fluctuations in milk solids on many dairies in Barbados required a study on the interaction of season, forage and milk quality. Analyses in 2009 included 93% of hay samples <5% CP, 44-53% ADF and 64-77% NDF. Grass, sorghum and maize silages were generally of better quality with an average 7.5 CP %, 65% and 45% NDF and ADF respectively. The % CP of pastures ranged from 3-13% while the NDF and ADF averaged 70 and 50% respectively.

Cows produced an average of 25kg milk /day and milk volume during the dry period was unaffected. However, weekly assessment of % total milk solids, fat and solid nonfat milk in 2008 and 2009 indicate that quality was affected on several farms. Data analyses indicate that fat was significantly low during the first quarter of 2008 ($P < 0.05$). Seventeen % of dairies experienced low SNF and fat depression throughout that year. In 2009, 58% of dairies experienced either low SNF or fat depression during the 1st quarter. Dairies in areas receiving <800 mm of rain in 2009 were primarily affected. Dairies with inadequate pasture-lands and which purchased hay were more affected than those using silage. Strategies to mitigate those problems in the dry season are proposed.

Palabras Claves/Key Words: Forage, milk quality, SNF, fat depression