

# A Case Study of Waste Milk Quality Assessments at a Calf Ranch

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## Introduction

Non-salable whole milk from dairy farms is an economical, nutritious source of feed for neonatal calves and is purchased by calf ranches for feeding replacement heifers and dairy-source bull calves. However, for calf rearing operations that utilize this milk, quality control measures on milk coming from the dairies, other than pasteurization, are often lacking. It was the purpose of this project to evaluate some potential quality monitors for dairy waste milk intended for neonatal calf consumption.

## Materials and Methods

Waste milk samples from 12 dairies supplying milk and calves to one calf ranch were collected and evaluated for total solids, bacteria counts and spoilage using a laboratory and on-farm tests including bacteria count, somatic cell counts, total solids measurements, alcohol test and pH.

## Results

The samples varied greatly in all the quality monitors. Bacteria counts could provide some information on the quality of milk coming in to the calf ranch, but simpler methods such as pH of the milk or an alcohol test could be used at the ranch to make decisions on whether to accept the milk or not. The most variable finding was the total solids estimation. Many samples were low in total solids which contributed to low pooled milk total solids. A chart to add solids was devised for the producer so that the neonatal calves would not be underfed.

## Significance

Quality control measures for waste milk fed to calves should include methods to monitor spoilage, bacterial contamination as well as nutrient content. These measures can improve the health and growth of young calves.