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### Summary

This study was carried out to investigate effects of storing shredded round bale silage in a highly airtight silo on fermentative quality, microflora, and aerobic deterioration. Well-preserved round bale silages were made from first-cut Italian ryegrass with moisture content of 53–60%. They were stored in drum silos after shredding on day 30 of fermentation. The drum silos were opened and fermentative quality, microflora, and aerobic deterioration of silages were examined on days 0, 1, 3, 5, 7, 10, 30, 60, and 90 of fermentation. The results were as follows : the content of acetic acid in silage increased after re-storage, whereas the content of lactic acid slightly decreased. However, degradation of fermentative quality such as rise of pH value and production of butyric acid was not observed. The number of yeasts in silage decreased gradually after re-storage and increase in silage temperature after opening the silo was prevented. These results indicate that storing the shredded well-preserved silage from a wrapped round bale in a highly airtight silo can maintain its fermentative quality and prevent its aerobic deterioration.

Keywords: Aerobic deterioration, Fermentative quality, Microflora, Round bale silage