

**Title** Storability of modified wet distillers grains with solubles  
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### **Abstract**

Distillers grains, a high-quality co-product from dry-grind ethanol production processes, is widely used as a livestock feed both locally and internationally. However, the wet form of distillers grains deteriorates (i.e., undergoes dry matter loss-DML) rapidly during storage which affects overall management and utilization. There are several active research initiatives aimed at developing alternative preservation methods to retard storage losses thus extending the wet feed storage life to meet the fundamental principle of availability of feed during scarcity. And yet, data on wet distillers grains DML is highly limited. This study investigated the effect of 0.1% w/w CakeGuard(TM) preservative (propionic acid-based) and temperature (10°C, 20°C and 30°C) on modified wet distillers grains with solubles (MWDGS) DML under aerobic conditions during storage for 21 days. There was significant difference in DML with preservative treatment at 20°C and 30°C. Effect of temperature treatment was significant. Preservative and temperature interaction effect on DML was significant. Treated MWDGS DML after 21 days averaged 3.12%, 16.8% and 19.3% DML whereas untreated samples averaged 3.22%, 21.4% and 28.0% DML at 10°C, 20°C and 30°C respectively. Overall, the preservative helped maintain appearance and texture of the wet feed within the storage period. While further research is obviously necessary to define criteria for predicting storage losses, this study serves as a foundation for future investigations.