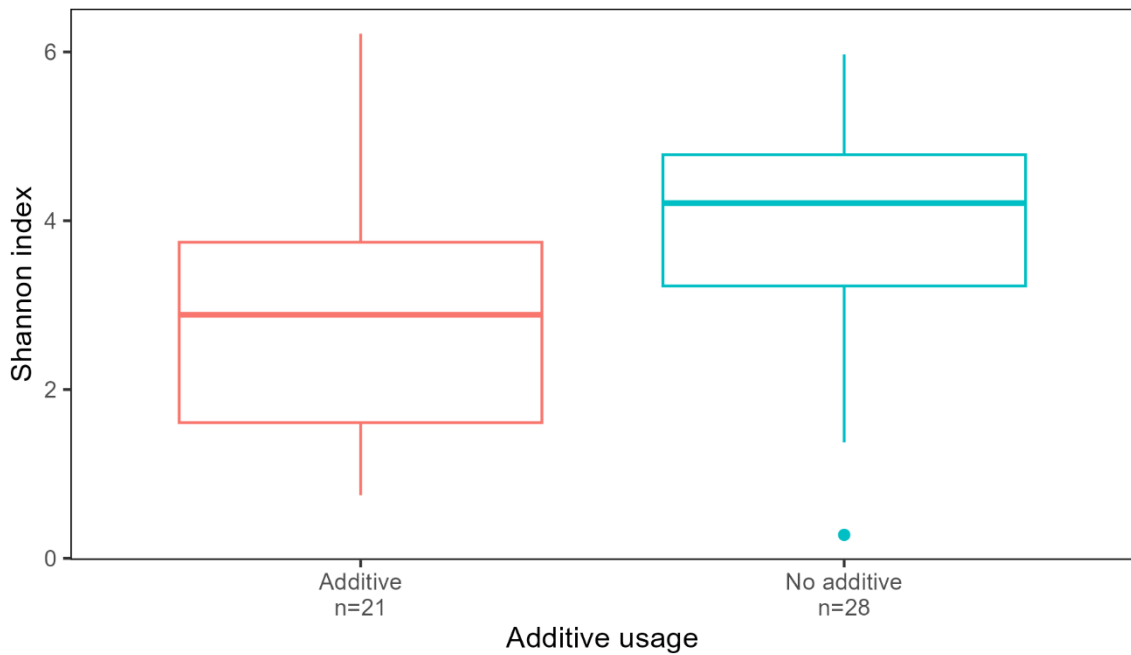a

b

Figure S1. Boxplot of Shannon index in forage samples showing the effect of (a) forage preservation method and (b) use of a silage additive. The horizontal line in each box is the median value, the lower and upper edges of the boxes indicate the 25th and 75th percentiles of the distribution, respectively. Whiskers indicate the maximum and minimum values, dots are considered outliers.
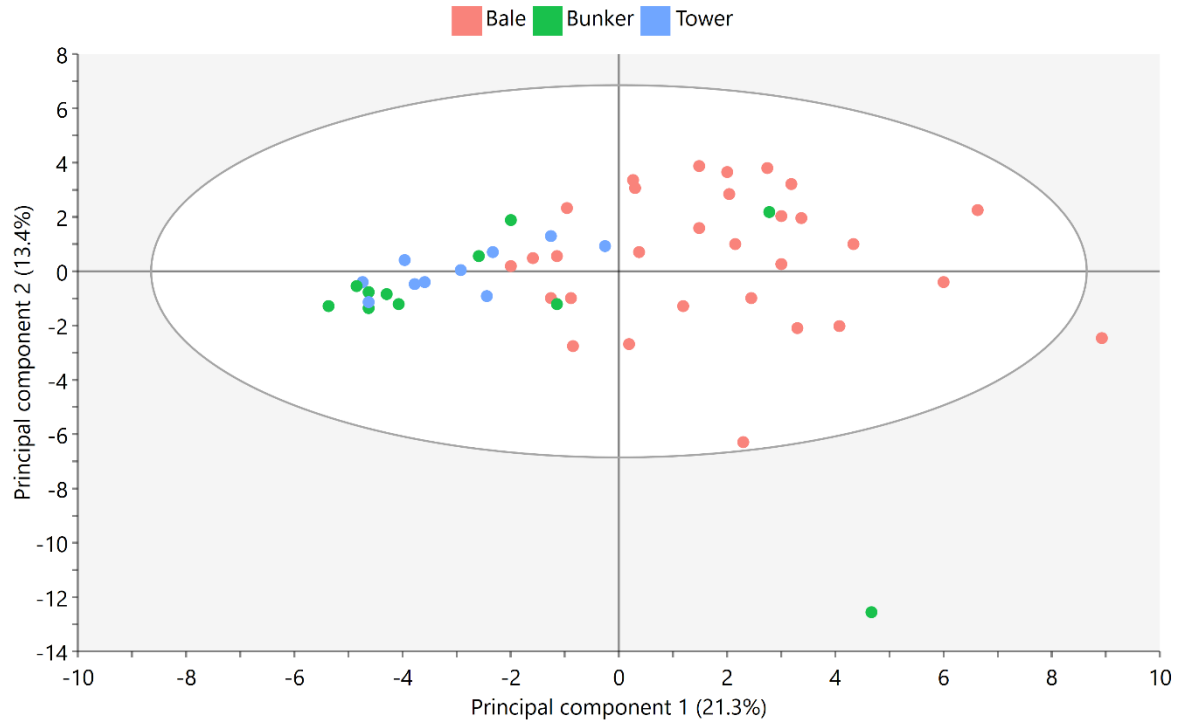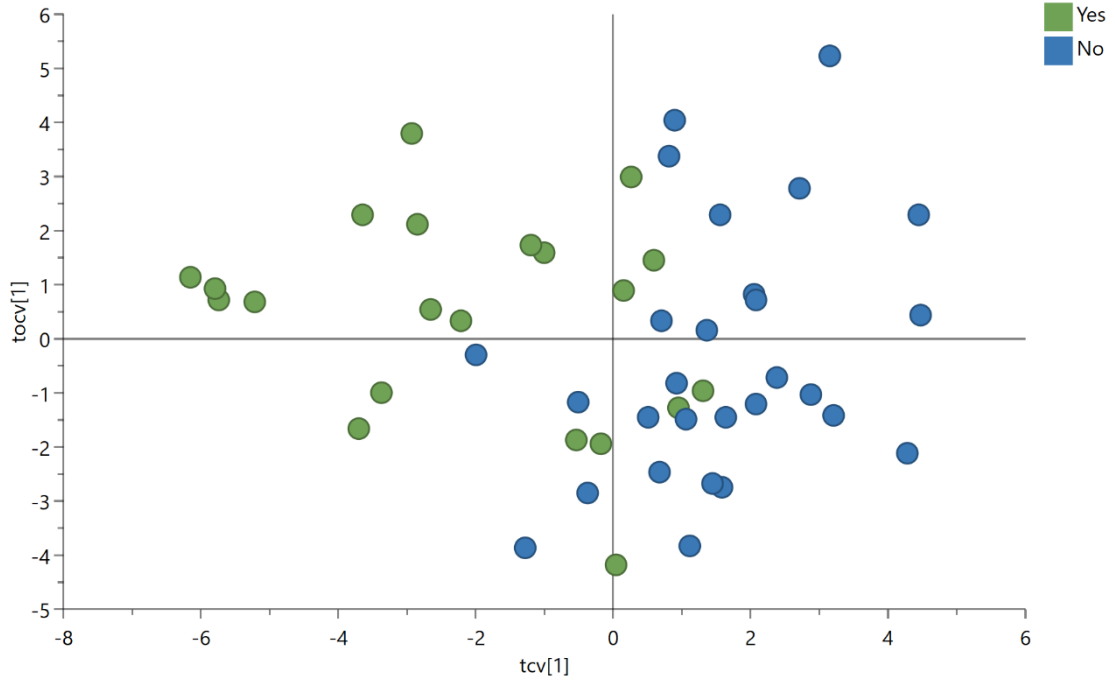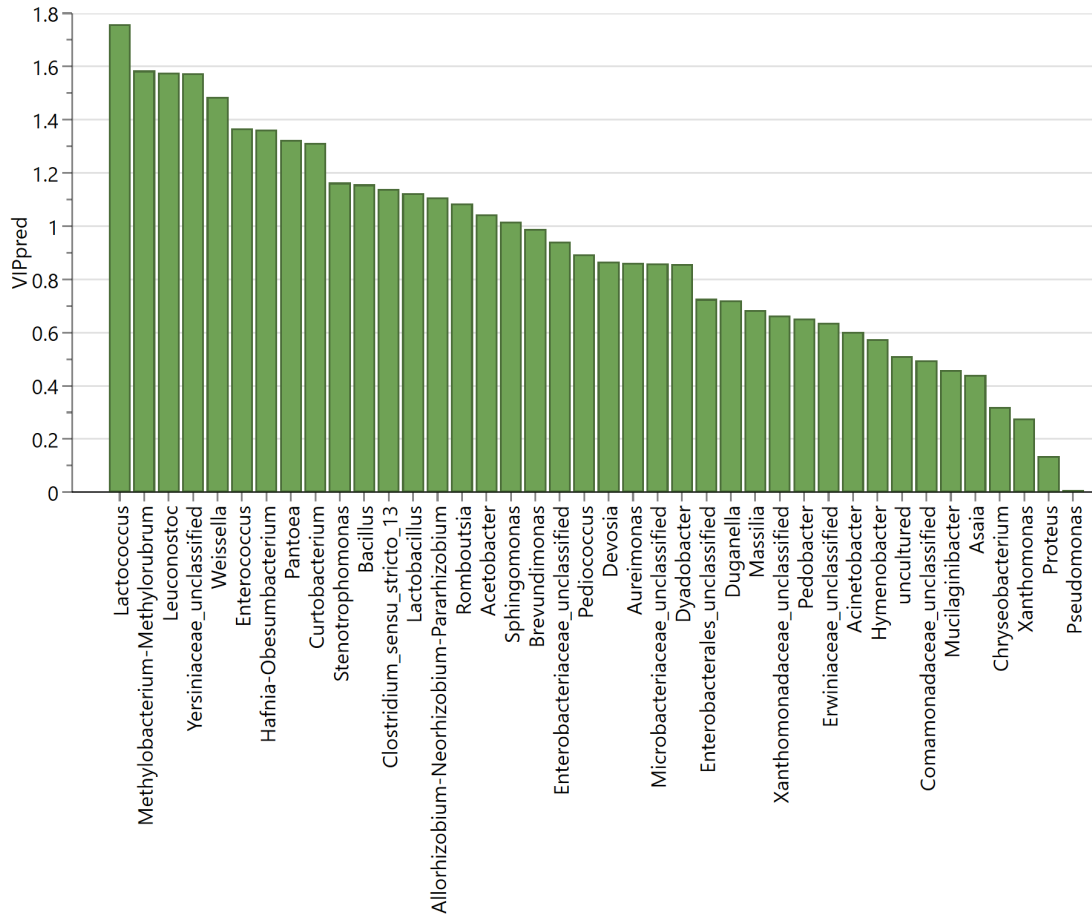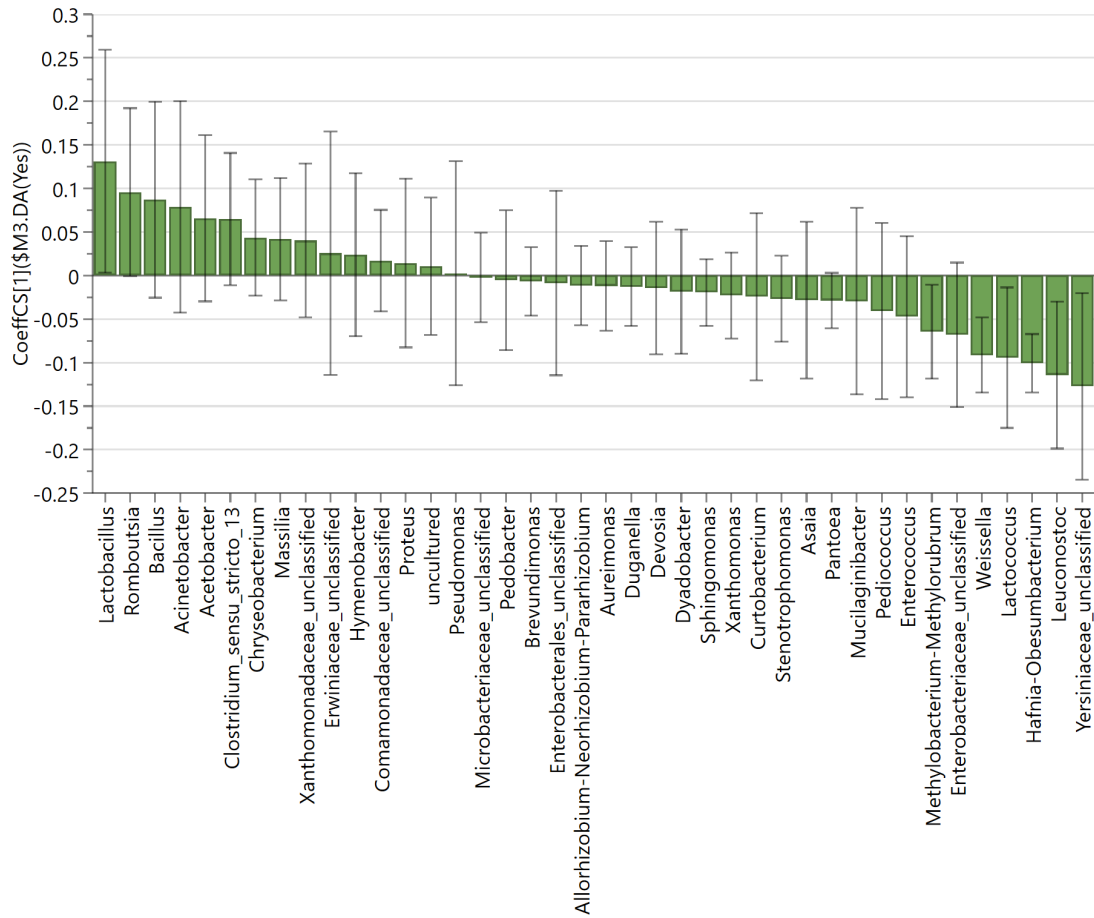
Figure S2. Principal component analysis score plot of the top 30 genera in forage samples produced using three different preservation methods: preserved as bales (n= 30), preserved in a bunker silo (n= 11) or preserved in a tower silo (n= 10).

a

b

c

Figure S3. (a) Cross-validation (CV) score plot of microbial data for forage produced with (Yes, n=21) and without (No, n=28) an additive (P<0.001, CV-ANOVA), (b) predictive variable importance for the projection (VIP-predictive) plot of genus and (c) coefficient plots of genus for forage samples associated with (positive values) and without (negative values) use of an additive. Genera with confidence interval >0 and VIP-predictive >1 were used for model interpretation.