DENSITY TESTING SILAGE AT THE TIME OF FILLING BUNKS, PITS AND DRIVE OVER PILES

Soon after filling begins, so can testing. Advantages include safety and ability to make changes to improve density.

By testing at the time of filling producers can identify problem areas and prevent problems later.

Start by cutting a hole approximately 8 inches square two feet deep using a narrow shovel sharpened on all edges.

Material can be removed after making four cuts.

Remove all the material by hand, saving it for weighing afterwards.

Insert a second plastic bag into the hole, making certain that the bag is touching as much of the hole's surface as possible.

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Fill the bag in the hole with water.

Make certain that the water fills the hole and the bag is able to extend and be able to fill the entire hole, level to the top.

We now have the silage removed from the hole for weighing and the water which was used to fill the hole from which the silage was removed.

Next we simply weigh the silage and the water.

To calculate the density on a dry matter basis be certain to retain a sample of the silage and test it to determine the actual dry matter of the sample.

COWS R US DAIRY WHEAT SILAGE 4/23/11

Silage density calculator at filling

Enter data recorded from weighing total silage removed from core, weight of water required to fill hole and weight of silage sample before and after drying in the yellow squares below. Results for fresh weight silage density, silage DM and silage DM density will be shown in the white squares outlined in blue.

Weight of silage (lb)	10
Weight of water (lb)	12.99
Fresh weight density (lb/ cu. ft.)	48.0
Weight of silage sample before drying	100
Weight of silage sample after drying	30
DM content of silage (%)	30.0%
DM density of silage (lb DM/ cu. ft.)	14.4

The densities can be calculated in an Excel spreadsheet once the silage weights and water weight are entered

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