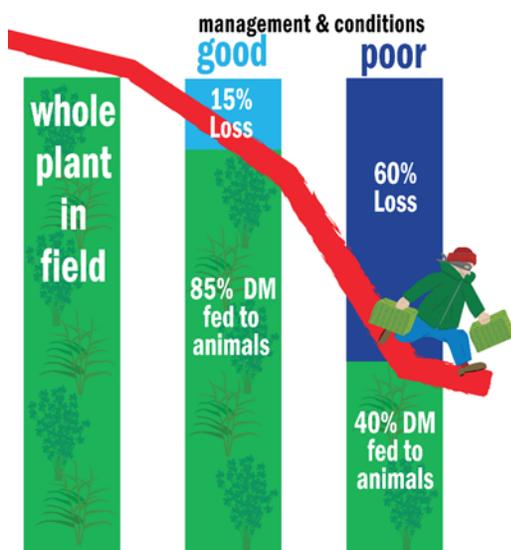


Are forage thieves robbing you of your profits?



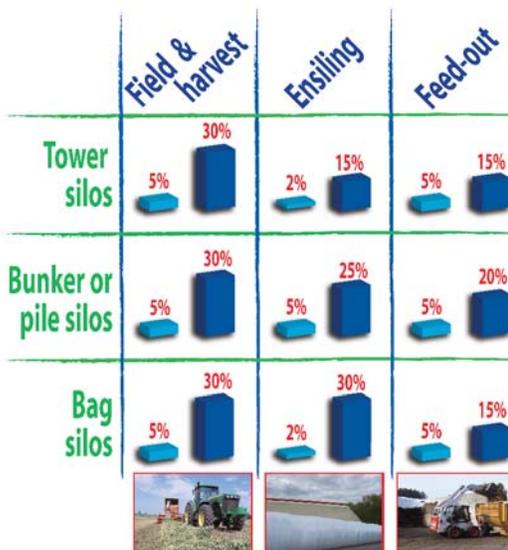
We don't always see forage losses, but they can accumulate in a hurry. From the field to the cow's mouth, as much as **60%** of forage dry matter can be lost on farms. However, with good forage management, this loss can be reduced to as little as **15%**.

Comparison of potential DM losses with good vs. poor management & conditions



Estimates of dry matter losses are based on research results and on-farm observations. Losses in the low range (good mgmt.) rarely go lower. Losses in the high range can go considerably higher under disastrous mgmt. &/or conditions.

Range of potential DM losses with good vs. poor management & conditions



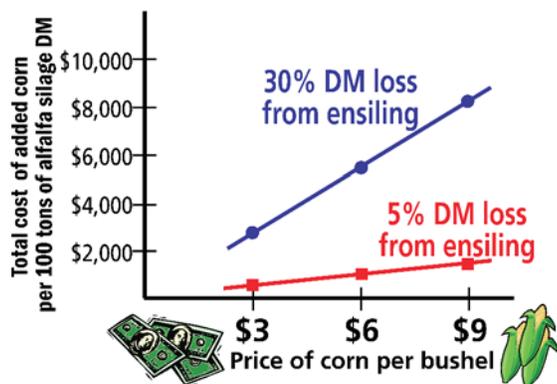
Estimates of dry matter losses are based on research results and on-farm observations. Losses in the low range (good mgmt.) rarely go lower. Losses in the high range can go considerably higher under disastrous mgmt. &/or conditions.

Forage losses are more costly than ever

With ensiling, the loss in dry matter does not occur equally across nutrients; easily available carbohydrates, such as energy-rich sugars, disappear in greater proportion than fiber or protein.

Therefore, when dry matter losses are great, you not only have less silage to feed; you also have poorer quality silage to feed. And this usually means more corn must be added to the ration to provide energy.

Cost of replacing forage energy losses with energy from corn at 3 different corn prices



NRC energy values used were: alfalfa silage, 2.98 Mcal digestible energy/Kg; and corn, 3.85 Mcal digestible energy/Kg.

What's causing these losses and how can they be minimized?

Field and harvest losses

Caused by:

Slow drying – respiration losses
Rain damage
Mechanical losses

Can be minimized by:

Conditioning the crop properly; laying the forage out wide to dry



Feed-out losses

Caused by:

Low feed-out rate off the silo face

Can be minimized by:

Removing at least:

4" per day from tower silos

6" per day from bunkers and piles

12" per day from bags

Keeping a smooth face; removing only as much as you are going to feed.



Ensiling losses

Caused by:

Not ensiling at the right dry matter content for the silo type
Low silage density
Not keeping oxygen out

Can be minimized by:

Ensiling at:

30-40% DM in bunkers, bags and piles

40-50% DM in concrete stave towers

45-55% DM in oxygen-limiting towers

Using heavy tractors and plenty of packing time when filling bunkers and piles

Sealing bunkers and piles well with plastic

Monitoring and patching plastic on bunkers, piles and bags



U.S. Dairy Forage Research Center

USDA-Agricultural Research Service

1925 Linden Dr. W., Madison, WI 53706

608-890-0050

Contact: Lori.Bocher@ars.usda.gov

www.ars.usda.gov/mwa/madison/dfrc

Greener Horizons for Crops,
Cows, and Communities

