

FORAGER



Agronomics with livestock in mind!



IN THE FIELD – Fertilizing Forage

With first cutting off and in the silo it is an excellent time to top dress alfalfa and grass stands. Alfalfa requires large amounts of phosphorus and potassium to obtain maximum yields and persistent stands. Alfalfa typically removes about 15 lbs of phosphate and 50 lbs of potash for each ton of dry matter produced. Soil sampling and following nutrient recommendations is the best way to ensure that the crops' nutrient requirements are being met. If fertilizer is needed, top dressing after the first cutting and/or after the last cutting yields the best results. Fertilizer containing a N-P₂O₅-K₂O ratio of 0-1-4 with boron will work well for balancing out alfalfa requirements. Avoid putting nitrogen or manure on alfalfa stands, as it will stimulate grasses to take over the stand.

Fertilizing grass stands with about 150 lbs of nitrogen per year in split applications, about 50 lbs after each cutting, can provide economic returns. When applying fertilizer it is important to follow each farm's nutrient management plan closely to avoid nutrient build up.

PACKING BUNKS

Picking the best varieties and harvesting at the right time does not ensure quality silage. The amount of effort put into packing and covering a bunk is directly related to the quality of feed that will come back out. A typical rule of thumb is to pack 5 minutes per ton of wet forage. But how much can packing time be affected by tractor weight? Look at the table below.



Tractor Weight (lb)	Packing Time (hrs/day/1000 ft ² of bunker surface area)		
	14.8 lb DM/ft ³	15.8 lb DM/ft ³	16.8 lb DM/ft ³
6,000	2.2	2.9	3.6
13,000	1.0	1.3	1.7
26,000	0.5	0.7	0.8
32,000	0.4	0.5	0.7

(Ruppel, 1993 National Silage Production Conference)

The benefits of a heavier tractor are clearly shown. Doubling tractor size (a 6,000 lbs to 13,000 lbs) cuts packing time in half for the same density, or density will be increased along with the storage capacity of the structure. Smaller equipment will pack bunks if producers invest ample time to

achieve the recommended dry matter density, eliminating the air and improving fermentation.

Another frequently overlooked aspect of bunk management is covering bunks. For every \$1 spent on sealing a silo it gives an \$8 return (Cornell University, Bunker Silo Management). Time spent packing and covering will decrease DM loss, increase feed quality and pay for itself many times over.

THOSE LITTLE BLACK BUGS

Everyone from southeast Pennsylvania to western Ohio has been calling in about, "little black bugs on corn plants." Typically corn flea beetles are not a concern, but with the mild winter, survival of flea beetles was very high. A large numbers of flea beetles, along with late plantings, poor emergence, and stressed corn has caused heavy flea beetle damage in some fields.



Light feeding (by flea beetles) injury appears as thin, white or silver lesions running parallel with the leaf veins (pictured above). Heavy feeding injury causes leaves to turn brown and wilt or die, if the plant is infected with the bacterium *Pantoea stewartii* that causes Stewart's Wilt. Flea beetles are carriers of it. The economic threshold for flea beetles in corn varieties resistant to Stewart's Wilt is 5 or more beetles per plant prior to the 5 leaf stage of corn, or 50% of the plants with severe feeding. Varieties susceptible to Stewart's Wilt, such as sweet corn, popcorn, and even Fulltime and TMF hybrids, a threshold of 2-3 beetles/plant and 10% of plants damaged from feeding should be used when scouting.

Usually 20% or less of the flea beetles carry the pathogen that causes Stewart's Wilt. Fields with severe feeding injury or wilting plants should be sprayed to control flea beetles. Insecticides, such as Lorsban 4E (sprayed on), can provide good control of corn flea beetles.

There are 2 stages to Stewart's Wilt- the wilting stage and the leaf blight stage. The wilting stage generally occurs on seedlings. Individual leaves or the whole plant may wilt and die. The leaf blight stage can occur at any stage, but usually occurs after pollination. Hybrids that have been infected can often have plants that die prematurely in the fall. Leaf lesions also predispose plants to infections from stalk and root rot fungi that can create problems later in the season.