

## Hay bales made into silage for wet weather harvesting

UNIVERSITY PARK — Converting giant hay bales into silage may be one of the best ways for farmers to protect wet hay from spoilage, according to agricultural engineers at Penn State. This can be done by sealing wet bales in black plastic at about 50 per cent moisture, they suggest.

Ensiled in giant round bales, losses are less than from equal-sized bales of field-cured alfalfa hay, says Paul M. Anderson of the College of Agriculture. Experiments compared the silage with field-dried alfalfa hay baled at 20 to 22 per cent moisture content.

Where wet weather makes hay harvesting difficult, farmers who normally produce giant bales should consider this ensiling method as a way to save their crop, Anderson suggested.

Dry matter losses in field harvesting of hay silage amounted to 10 per cent of the standing crop, compared to 24 per cent for field-cured hay, it was pointed out. Losses during four months of storage for the silage were only two per cent of the initial bale weight, giving proof of the success of the

fermentation or ensiling process.

Such hay silage was well accepted when fed to beef cattle, Anderson reported. In a feeding trial comparing field-cured hay with baled silage, about five per cent more hay was needed than silage for the same animals.

Round silage bales self-fed to beef cattle were exposed for one week without spoiling when daytime temperatures averaged above 50° Fahrenheit. Spoilage did not penetrate the interior of the bale. The exposed outer bale surface dried quickly and did not mold.

These large round silage bales weighed 1200 to 1400 pounds. Analyzed for nutrients after storage, the silage bales were judged to be at the most favorable protein levels, but were high in fiber for legume silage.

The results were obtained from hay field-cured to 50 per cent moisture content and baled without rain. No experiments were carried out on partially dried hay wet with rain.

Other faculty members working with the project were W. L. Kjelgaard in agricultural engineering, L. D. Hoffman in agronomy, and L. L. Wilson in dairy and animal science.

"The black plastic covering was effective in reducing bale heating and in maintaining conditions favorable for fermentation and preservation," Anderson stated.

He and associates found in other research that acid preservatives can be helpful in protecting field-cured hay bales when the moisture content is 25 per cent or less. Such acid preservatives are of no value at moisture levels higher than 30 per cent, it was affirmed.

## Parasites Are A Frequent Problem With Pets

Intestinal parasites are a chronic problem with many pets, and worm medicines are some of the most common non-prescription pet medicines sold. These medicines may be more beneficial if pet owners understand some basic information about parasites and their control.

First, you should know that pets usually acquire worms from fecal material containing worm eggs, and from fleas carrying immature worms. Puppies may even be born with worms that migrated into the mother's womb. Pets do not automatically develop worms from eating sweets, milk or certain other foods.

Second, the symptoms of worm infestation can vary greatly, depending upon the type of parasite and the age of your dog or cat. Some pets with worms lose weight, become anemic and have dull coats or potbellies. Others show few signs, if any. Generally, young animals are more susceptible to the effects of internal parasites than older pets.

Any pet that harbors a large number of parasites runs the risk of serious physical injury. Worms that travel from one organ to

another damages tissues and interfere with the proper functioning of the body's systems. With heavy infestation, a critical amount of blood may be lost and young animals may die. Those that survive may be permanently stunted. Adult animals may become sluggish, have diarrhea and generally appear ill.

Your veterinarian can determine if worms are present by examining a fecal sample under a microscope. He or she may also examine the area around the pet's anus for rice-like particles that are tapeworm segments.

Worms are controlled by medications given by mouth or by injection. Generally, two or more doses are given, two to three weeks apart. The first treatment will kill the adult worms; the others will eliminate the young worms that hatch from remaining eggs.

If you decide to treat the pet yourself, remember that a worm medicine is not a cure-all. Too many pet owners turn to this medication at the first sign of any sickness in their pets. A definite diagnosis of a worm problem is necessary if the medicine is to be effective. Vague symptoms

such as fever or diarrhea are not positive signs of worm infections. Many individuals worsen the situation by overdosing, or worming a pet that is sick for another reason.

The common internal parasites found in pets include roundworms, hookworms and tapeworms. These worms reside in the intestinal tract and rob cats and dogs of vital nutrients by feeding on intestinal contents or drawing blood from the mucous membranes lining the intestinal walls.

Successful worm control procedures combine the use of a worming agent with a thorough cleaning of the animal's living quarters. Check with your veterinarian regarding a disinfectant suitable for use in kennels and other pet areas. To help prevent reinfection of your pet, plan on regular removal of waste from litter pans and runs, plus a flea control program.

Because your pet can become infected with a wide variety of internal parasites, and because identification of the parasite is necessary before treatment, it is strongly suggested you consult your veterinarian in order to establish a worming program for your cat or dog.



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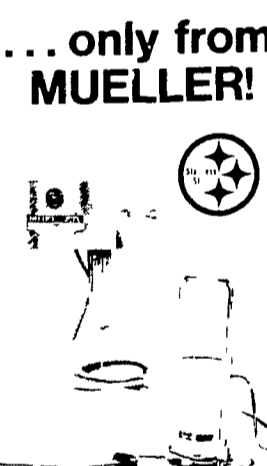
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