# Manure and Pest Management

More than just cleaning stalls...



### Projects

Club	Compost Pile	Many farms are composting the and why is it a good idea for he
Ages 7-8	Stall Cleaning 101	answer these questions then app compost their manure and work are some of the benefits of com
		Resource Conservation Service
Ages 9-11	Fly Control 101	Awareness Program).
		• The composting process
		waste
Ages 12-15	Soil Testing 101	<ul> <li>Finished compost improv applied</li> </ul>
		• Since compost is already
		depletion in the soil.
		• Finished compost contain slowly deliver some fertility

**Compost 101** e composting their manure. What exactly does that mean good idea for horse wonders? Your job as a club is to uestions then approach a local barn that currently does no

nd why is it a good idea for horse wonders? Your job as a club is to nswer these questions then approach a local barn that currently does not ompost their manure and work together to start a program. Listed below re some of the benefits of composting that can be found on the Natural Resource Conservation Service under HEAP (Horse Environmental Awareness Program)

- The composting process kills parasites and weed seeds in horse waste
- Finished compost improves the soil quality of the fields to which it is applied
- Since compost is already broken down, it does not cause nitrogen depletion in the soil.
- Finished compost contains plant nutrients in a stable form which slowly deliver some fertility to the plants and crops that receive it. Find out more by visiting the following website:

http://www.ct.nrcs.usda.gov/programs/rc&d/km\_heap-program.html

Fun Fact: After manure is composted it can be spread on pastures, using in the garden or sold as fertilizer to local growers!

## Stall Cleaning 101

#### .....

#### Identify Tools and Teach Stall Cleaning Techniques

1.Create a poster that identifies and describes the different equipment used in stall cleaning and manure management.

#### Tools to include:

Plastic pitchfork Metal pitchfork Muck bucket Wheelbarrow Tractor Shovel Sawdust

Boots

2. Make a video or power point that outlines the steps to cleaning a stall or pasture of manure.

Highlight proper use of the tools and safety around the horses.

Show what a properly cleaned stall looks like versus a stall that was not completely cleaned.

If you are cleaning a pasture demonstrate safety around a tractor, gates and horses in the open.

Keep it fun and educational!



Fun Fact: A 1000 pound horse produces 31 pounds of feces and 2.4 gallons of urnin a day adding up to a total of 51 pounds of daily waste. (Taken from http://ww.esc.rugers.edu/FAQs/management\_faq.htm

# Fly Control 101

Horse owners spend a lot of money on keeping flies away from their horses. There are tons of different methods riders swear by including certain brands of fly spray, feed through supplements or traps in the barn. Manure management is key to keeping the population of flies low in the barn.

1. With so many products out on the market these days for fly control its important to know what actually works and is the most cost effective.

Help riders and owners pick the best fly control by testing different methods. Create an experiment that tests the effectiveness of the fly spray methods and ranks them by cost.

Compare the following in your study:

- Brands of fly spray
- Synthetic vs. Natural
- Application methods:

Ask local tack shops if they would be willing to donate to your study or post your findings at their store. You could also bring your findings to the next 4H horse show to share with other riders and 4Hr's 2. Unfortunately, topical treatments like fly spray are not always effective or horses may be allergic to them.

Research alternatives to typical fly sprays. Investigate:

- Feed through methods
- Manure management/Stall cleanliness
- Introducing fly eating bugs into the environment
- Mudding legs
- Fly repellant leg bands
- All other things that could be used to repel flies...

Create a pamphlet to hand out to horse people that describes their options outside of fly spray. This could also be a great public speaking topic.



<sup>(</sup>spray, roll-on, wipe-on)

## Soil Testing 101

Soil Nutrient Analysis Laboratory

Soil Nutrient Analysis Laboratory, 6 Sherman Place, Unit 5102, Storrs, CT 06269-5102 + Phone: 860-486-4274, Fax: 860-486-4562 Location: Union Cottage, Depot Campus, Mansfield

The location of manure on a farm impacts the appearance, water quality and air quality. It also can significantly change the soil quality because manure contains nutrients and chemicals that change the makeup of the soil.

If you are planning on having horses graze on a field or are going to harvest hay from a field, you should first take a soil sample to make sure all of the essential nutrient requirements are being met by the pasture or grasses that your horses are eating.

#### University of Connecticut Soil Testing Lab

- Prepare a sample to be sent to the soil lab by following the steps below:
  - 1. For each area tested, use a clean spade or trowel
  - 2. Take 10 or more slices of soil from different spots in the pasture or field.
  - 3. Dig down 3-4 inches if you are testing a grass pasture or field.
  - 4. Place the slices from each area into a big bucket
  - 5. Mix the samples together
  - 6. Removes one cup of the soil
  - 7. Place the sample in a sealed zip lock baggie
  - 8. Label the baggie if you are taking samples from different locations
  - Obtain a pamphlet from the soil testing lab by calling the office: (860) 486-4274
  - 10. Fill out the questionnaire and mail it in with the soil sample

Now What??

- Gather samples from the pasture, any fertilized fields and directly under or next to the manure pile.
- Compare the results of the soil sample
- Discuss which nutrients you should add to the to the soil for the pasture and where to buy them.
- Do the same with the place that the manure was located. Discuss how the concentration of nutrients is different from the pasture.

Compiled by: Courtney M. Murphy: Graduate Student, University of Connecticut NEAG School of Education

With Assistance from: Lauren Reynolds: Undergraduate Student, *University of Connecticut College of Agriculture and Natural Resources* 

Under the supervision of Dr. Jenifer Nadeau, Associate Professor and Equine Extension Specialist, *University of Connecticut*