



Acreage Answers

Horse Pasture Management

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Inside This Issue

PAGE

2	Rural Directories
3	Carpenter Ants
3	Growing Vine Crops
4	Sad News for Scots Pine
4	Home and Family Questions
4	Minimizing Pesticide Drift
5	Soil Test Reports
6	

Proper manure management on pastures is important for the health of the horse and the environment. When properly applied in correct amounts horse manure is an excellent nutrient source for pastures and other field crops. A 1,000-pound horse can generate about 9 tons of manure per year. That equals about 110 pounds of nitrogen, 60 pounds of phosphate, and 110 pounds of potash. This is enough fertilizer for 1 to 2 acres of pasture.

If manure is allowed to accumulate in piles, it will attract flies, harbor parasites and pathogens, generate offensive odors, and create a pollution hazard. Rotational grazing is a pasture management technique that can be used to minimize manure build up and the cost of handling. If you have very little land you may need to remove the manure and place it in a compost bin. Composted manure is a great product to improve your garden and lawn soil.

Droppings from horses are often quite concentrated and can suffocate or stunt plants underneath them. To maximize pasture production, drag or harrow the pasture to break up the droppings and more evenly spread the manure. Horses should not be placed in a pasture that has just been dragged, as dragging spreads parasites over a wider area of the pasture. The manure should be allowed to dry and start decomposing, (during the summer about one day) before placing horses on that pasture. In rotational pastures, dragging after moving to next paddock works well.

To protect water quality and the environment, horses should not have free access to lakes, ponds, waterways, or wetlands. More information on pasture management can be found in *PM 1713 Pasture Management Guide*, a \$10 publication available at your local extension office.



Please share *Acreage Answers* with your acreage neighbors. Call your local ISU Extension office to be placed on the mailing list for *Acreage Answers* and to give us suggestions for future articles.

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Acreage Answers is available
on the web at
www.extension.iastate.edu/polk/ag

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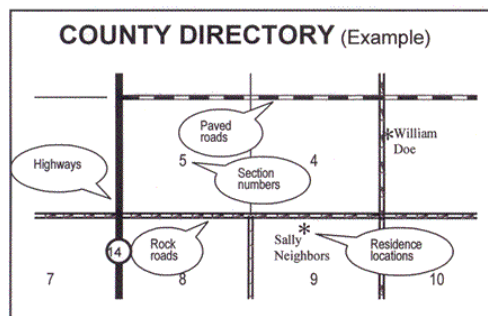
Cooperative Extension Service, Iowa State University of Science and Technology, and the United States Department of Agriculture cooperating.

Rural Directories: A Country Who's Who

by Shawn Shouse, ISU Extension Ag Engineering, Field Specialist

In town you can use a phone book to look up a name and street number. In the country you can use a rural directory.

Rural directories provide maps showing roads, residences, addresses, phone numbers, and sometimes land ownership. Everything you need to know about who lives in your neighborhood is right there under one cover. These directories are called by different names. Some called "plat books" will include both the rural directory and the plat (land) maps listing legal ownership of land parcels. "TAM books" will include Township maps, Alphabetical locator lists, and Mailing addresses.



Rural directory maps are generally broken down by townships. Townships are political jurisdictions that (in Iowa) encompass about 36 square miles (usually 6 miles square). Each square mile in the township (called a section) is assigned a number.

The numbering sequence for Iowa sections follows a consistent pattern starting in the northeast corner of the township. With practice, you can visualize where in the township a particular section number would be located.

With the help of a rural directory, you can familiarize yourself with the names of surrounding neighbors and landowners. You can locate minimum maintenance (dirt) roads, rural churches, cemeteries, and closed bridges.

If you live at a rural residence, you may get one for free. One prominent publisher of rural directors in the upper Midwest sells advertising in the directory, much like magazine advertising, to subsidize the cost of providing directories to rural residents. Publishers such as this one may send revised directories to all rural residents in a county every year. If you are not on the rural residence mailing list, are new to the area, or would like a directory for another county, additional copies are always for sale.

Most counties in the Midwest have directories available from at least one publisher for \$20-\$40. In Iowa, two such publishers are Farm & Home Publishers of Belmond, Iowa (515-444-3508) or www.fhpltd.com/ and R.C. Booth Enterprises of Harlan, Iowa (712-755-5425).



Yikes! We've got Carpenter Ants

by Dr. Donald Lewis, ISU Extension Entomologist

If you've discovered carpenter ants wandering around indoors this winter, it usually signals that nests are somewhere within the house. However, ants found indoors during spring or summer could be invaders wandering in from outdoors, or they may be foragers from a nest in a wall or ceiling. While there is no easy way to determine the source, it does pay to check carefully before making any treatment plans.

Locating the source of carpenter ants is as important as it is difficult. It is especially difficult if only a few ants are seen at one time. Our best suggestion is to spend time observing ants to see if you can detect a pattern of movement. In spring and summer, observing ants after sunset with a flashlight on the outside and inside of the house may give an indication of the source. Sawdust is an important clue in locating nests.

Carpenter ant control can be a do-it-yourself project or a job for a professional pest control operator. Shop around and compare prices and services when selecting a pest control service.

People sometimes confuse large yellow ants, carpenter ants and termites. For proper identification or more information on treating carpenter ants, take a sample to your local ISU extension office or visit the "Horticulture and Home Pest News" Web site at www.ipm.iastate.edu/ipm/hortnews.

Growing Vine Crops in the Home Garden

By Richard Juron, ISU Horticulturalist

Though they take up considerable space, vine crops (cucurbits) are some of the most popular vegetables in the home garden. Cucurbits include cucumbers, muskmelons, watermelons, and squashes.

The basic requirements of vine crops are full sun and a fertile, well-drained soil. Heavy, poorly drained soils can often be improved by incorporating organic matter such as compost or well-rotted manure into the soil. If your soil has not been tested, apply and incorporate 1 to 2 pounds of an all-purpose garden fertilizer such as 10-10-10, per 100 square feet prior to planting.

Plant vine crops after the danger of frost is past and soil temperatures have warmed to 60° F to 70° F. In central Iowa, cucurbits may be planted in mid-May. Gardeners in southern Iowa can plant about

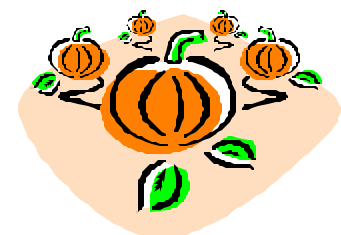
1 week earlier, while those in northern areas 1 week later.

Plant four or five seeds per hill at a depth of 1 inch. Later, remove all but two or three healthy, well-spaced plants per hill when seedlings have one or two true leaves.

For an earlier crop, start seeds indoors two or three weeks before the anticipated outdoor planting date. If garden space is limited, bush-type varieties of vine crops are available. Bush varieties can be planted closer than the vining types.

After planting, control weeds with frequent, shallow cultivation and hand pulling until the vines cover the ground. Water plants once a week during dry weather.

For more information on gardening, check the publications in your local extension office or at this ISU Web site www.extension.iastate.edu/pubs/ga.htm. Another ISU web site is www.ipm.iastate.edu/ipm/hortnews/ search by the key words "vine crops" and you will find several articles on growing and harvesting specific cucurbits.



Sad News for Scots Pines

by Mary Ann deVries, horticulturist,
ISU Extension Polk County

Iowa's beautiful Scots pine trees (also called Scotch Pine) are being hit hard by a disease called Pine Wilt. Small beetles feeding on pine twigs are responsible for spreading the disease, which is actually caused by a microscopic nematode delivered by the beetles.

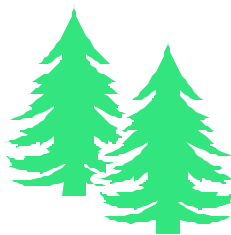
Initially, branches turn grayish green, then tan to brown. Within a few weeks, browning progresses to the remaining branches, although an entire tree can turn brown all at once. Pine Wilt seeks out trees that are more than 10 years old. There is no cure.

Pine Wilt is now so extensive in Iowa that Scots pines are no longer recommended as landscape plantings. Other pine species including Austrian and Mugo can be infected. It is estimated that 90 percent of Pine Wilt occurs in Scots pines.

Because dead pines become disease reservoirs, they should be cut promptly and then burned, buried or chipped. Wilt-killed pines should not be used as firewood because beetles can immerge from cut logs. Chipped wood should be well composted.

For more details on diagnosing and containing Pine Wilt, consult the ISU Extension publication *SUL9, "Pine Wilt, a Fatal Disease of Exotic*

Pines in the Midwest" – available from your county extension office.



Home and Family Questions

by Joy Rouse, County Extension
Education Director, Warren County

Families Extension Answer Line is a program of Iowa State University Extension, providing information and resources for Iowa consumers with home and family questions.

For more than 25 years, questions have been answered through a toll-free phone service, (800) 262-3804, 9 a.m. - 4 p.m., Monday through Friday. Professional home economists answer questions in the areas of child development, cleaning, consumer management, food preparation, food preservation, food safety, home environment, household equipment, nutrition, textiles and laundry.

Answers to frequently asked questions can now be accessed on the Web 24 hours a day, 7 days a week at

www.extension.iastate.edu/answerline/ .



Minimizing Pesticide Drift

by Tom Jordan, Story County
Master Gardener and licensed
commercial pesticide applicator

Aachoo! Have you ever been in front of someone who sneezed? The same forces that put cold germs on the back of your neck can put weed spray on your tomatoes. Strong winds and small droplets can carry chemicals, as well as germs, where you don't want them.

The best way to eliminate drift when dealing with a garden pest is to combat the problem with mechanical or biological means. If you don't have to spray you won't have drift.

If you do need to spray:

- Read the label. Adding more chemical than recommended will increase the potential for damage.
- Don't spray when the wind is more than 10 miles per hour.
- Don't spray toward or near plants you don't want to risk.
- Pressure and spray nozzle height should be as low as possible.
- Avoid spraying when the temperature is above 85 degrees (or soon will be) because the spray can vaporize and move.

Gesundheit!

What's in a Soil Test Report?

by Mary Ann deVries, Horticulturist,
Polk County ISU Extension

It's always a good idea to test lawn and garden soils before planting or applying fertilizers. The cost from the ISU Soils Lab ranges from \$4 - \$14 per sample, depending on the tests being done. **The \$10 test is recommended for home gardens.** The bags and forms you will need for submitting a sample are available at your local extension office.

Once your soil is tested, the lab will mail the results to you, and another copy will be sent to your local extension office.

Initially, these results may look confusing but all the information you need to know will be there in the Table of Laboratory Results contained in the report, along with recommendations from the lab on fertilizer applications.

The first thing you will see on your table, is a column titled "**Lab No.**" A separate lab number is assigned to each sample you submit.

The next column, "**Sample No.,**" comes from the form and sample bags you filled out and submitted with your sample(s). You can submit up to eight samples per form.

If you take one sample from your garden and one from your lawn, you should record Sample 1 and Sample 2 on your form. It's important that you keep track of the location

of each sample. All the lab knows is that you numbered them 1 and 2.

Next comes "**% O.M.**" This means percent organic matter, and it will tell you if your soil is too heavy. For most garden organic matter (sometimes called compost) should range between 6 – 12 percent. Less than 6 percent and the soil is hard. More than 12 percent, and the soil begins to feel spongy.

If your results tell you that your organic matter is below 6 percent, you will need to add compost to your soil. ISU Extension publication *Pm-820 – Garden Soil Management* provides good information on how to do this.

Next comes "**ppmP**" and "**ppmK**" which stand for parts per million phosphate and parts per million potash. These are both measurements of soil minerals. Phosphate plays an important role in root growth. Potash helps maintain good plant health. Recommended levels for these minerals will appear at the bottom of your report. Be sure to compare your results with the recommended levels shown below the table.

The column "**ppmZn**" is usually marked as n/a or not applicable. Zn or zinc is a mineral of importance to farmers, but is rarely considered by home gardeners.

Finally, the column "**pH**" will tell you how acid or alkaline your soil is. A pH of 7.0 is called "neutral" – neither acid

or alkaline. Below 7.0, the pH is said to be acid. Above 7.0, the pH is said to be alkaline.

As the pH measurement increases (becomes more alkaline) or decreases (becomes more acid) it is often necessary to add soil amendments such as sulfur or lime. You'll find guidance on how to change the pH of your soil in the information that appears below the table.

Nitrogen, an important plant nutrient, is not tested by the lab because levels can vary widely and quickly. The lab gives general guidance on how much nitrogen to apply along with the other nutrients -- phosphate and potash. These recommendations will appear below the table.

Other questions about your soil test results can be directed to your county extension office or to the Iowa State University Hortline on campus at (515) 294-3108.

