



## GREEN COUNTY AGRICULTURE NEWS

April 2009

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Extension Service**  
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### Calculating Fertilizer Cost

With tough economic times, everyone is trying to figure out how to cut costs while maintaining productivity. An important cost to consider in farming is fertilizer. The essential first step to consider how much fertilizer you need is to take a soil sample from the field and send it to a laboratory for testing. The University of Kentucky offers soil testing if you submit your sample to any of the County Extension Offices. The soil is tested in the lab and a recommendation for nitrogen, phosphorus, and potash will be made based on the crop to be grown.

A calculator is available on the web that will allow you to determine the cost of fertilizer based on nitrogen, phosphorus, and potash recommendations from a soil test. The calculator is called Mult Fert Econ and can be found on the internet at [soils.rs.uky.edu/calculators.php](http://soils.rs.uky.edu/calculators.php). In addition to the nutrient recommendation in pounds per acre, you enter total number of acres, cost of fertilizer in dollars per ton, and any additional side-dress nitrogen to be added. An amount needed for each of the fertilizers in pounds per acre and a cost for the fertilizer in dollars per acre will be calculated. A total cost for the whole field is also calculated. You can enter up to three different options in nutrient recommendations and compare the costs from the different options. When entering fertilizers such as urea, DAP, and muriate of potash, a calculation of fertilizer needs will exactly match nutrient recommendations. When entering fertilizers with multiple nutrients, such as 9-23-30, there may be a surplus or deficit for a particular nutrient. The calculator will also allow you to enter animal manure as a fertilizer which contains multiple nutrients.

### Selecting a Scab-Immune Apple Tree

An apple tree usually is one of the first fruit crops backyard fruit growers think about planting in their yard. However, they are one of the more difficult fruit crops to grow, primarily because of the wide range of pests that like them. One of the more difficult diseases for home fruit growers to combat is apple scab. This is a fungus that causes lesions on the fruit and can also defoliate the tree and kill the spurs – the structures that produce the flower buds.

Several other diseases Kentucky fruit growers must contend with are fire blight, cedar apple rust and powdery mildew.

Over the past 25 years, a number of scab-immune apple varieties have been released. The following apple varieties have performed well in Kentucky and are discussed in order of ripening. Most also have resistance to several other diseases.

**Redfree** – a red apple that ripens in August and colors well for this time of the season. Redfree is a tart, sweet apple which will keep for several months and also has resistance to cedar apple rust, as well as sooty blotch and fly speck diseases.

**Liberty** – a very tart, McIntosh-type apple that ripens in late August. In a cool fall, Liberty develops dark red stripes over a green/yellow fruit.

**Enterprise** – a red, spicy, crisp and fine-grained apple that ripens in mid-to-late October. Enterprise has a relatively thick skin, a very good disease resistance package and stores well until February.

**Gold Rush** – a very firm, tart, yellow apple that ripens in mid-to-late October. It sweetens up in storage and is one of the best storing apples available, keeping up to eight months. It has a very good resistance to scab and fire blight, but is susceptible to cedar apple rust.

**Sundance** – a firm, yellow apple, which is more difficult to find. It is very resistant to all four of the early season problem diseases and ripens in mid-October.

Since these apples are disease resistant, many novice growers mistakenly believe they don't need to spray them. Unfortunately, these varieties don't have any insect resistance. Attempting to grow apples without spraying for plum curculio, codling moth, rosy apple aphid and scale can cause major crop losses, if not complete crop loss, depending on the season.

The most important sprays for apple varieties are the early ones, the dormant oil, pin, petal fall and first-cover sprays.

The publication, Disease and Insect Control Programs for Home-grown Fruit in Kentucky with Organic Alternatives (ID-21), provides descriptions of these varieties and spray recommendations.

Spring-Calving Cows

# Timely Tips

The spring calving season should be in full swing now, top priority should be to get a live calf and keep cows in sufficient body condition to rebreed early.

- Calving areas should be accessible and as clean and as free of mud as possible. Pastures which have good sod and are close to facilities work best.
- Check cows at least twice daily and first-calf heifers more frequently than that. Be ready to assist those not making progress after 1 to 2 hours of hard labor. Chilled calves should be dried and warmed as soon as possible.
- See that each calf gets colostrum within an hour of birth, or administer colostrum (or a commercial colostrum replacement) with an esophageal feeder.
- Identify calves with eartags and/or tattoos while calves are young and easy to handle and record birthdate and Dam ID. Commercial male calves should be castrated and implanted as soon as possible. Registered calves should be weighed in the first 24 hours.
- Separate cows that have calved and increase their feed. Energy supplementation to cows receiving hay is necessary to prepare them for rebreeding. For example, a 1250 lb cow giving 25 lb/day of milk would need about 25 lb of fescue hay and 5 lb of concentrate daily or 12 hay and 14 lb of concentrate (if you are limiting hay) to maintain condition. If you need to go from a condition score of 4 to 5, you will need to add about 2 more lb of concentrate. Cows must be in good condition to conceive early in the upcoming breeding season.
- Watch for calf scours! If scours become a problem, move cows which have not calved to a clean pasture. Be prepared to give fluids to scouring calves that become dehydrated. Consult your veterinarian for advice and send fecal samples to diagnostic lab to determine which drug therapy will be most effective. Try to avoid feeding hay in excessively muddy areas to avoid contamination of the dams' udders.
- Continue grass tetany prevention. Be sure that the mineral mix contains magnesium and that cows consume adequate amounts. You can feed the UK Beef IRM High Magnesium mineral.
- Vaccinate calves for clostridial diseases (Blackleg, Malignant Edema) as soon as possible. You might choose to do this at the prebreeding working in late April or early May.
- Prepare bulls for the breeding season. Increase feed if necessary to have bulls in adequate condition for breeding.
- Obtain yearling measurements on bulls and heifers this month (weight, height, pelvic area, scrotal circumference, ultrasound data, etc.) if needed for special sales. Heifers should reach their target weight (65% of mature weight) by the breeding season.
- Finalize plans for your spring breeding program. Purchase new bulls at least 30 days before the breeding season – demand performance records and check health history including immunizations. Use visual evaluation and expected progeny differences (EPD's) to select a bull that fits your program. Order semen now, if using artificial insemination.

Fall-Calving Cows

- Bull should be away from the cows now!
- Creep feed calves with grain, by-products or high quality forage. Calves will not make satisfactory gains on the dam's milk alone after about 4 mos. of age – since there isn't much pasture in March, fall calves need supplemental nutrition. Consider creep grazing on wheat pasture, if available. Calves can also be early-weaned.
- Calves intended for feeders should be implanted.
- Plan to pregnancy check cows soon.

General

- Renovation and fertilization of pastures should be completed.
- If you have a dry, sunny day, use chain-link harrow to spread manure in areas where cattle have overwintered. This may be done in conjunction with renovation.
- Plan for a feeding area with filter fabric and crushed rocks, if mud is a problem this year. You can check on cost-share availability.
- Watch for lice and treat if needed.
- Start thistle control. They can be a severe problem in Kentucky pastures. Chemical control must be done early to be effective.
- Repair fences, equipment and handling facilities.

# Spring Pasture Walk

## Topics to be covered:

- Weed Control
- Fencing Systems
- Rotational Grazing
- Non-Traditional Forages

For more information contact your local Extension Office:

Adair County  
Nick Roy  
(270) 384-2317

Green County  
Brian Newman  
(270) 932-5311

Taylor County  
Pat Hardesty  
(270) 465-4511



Join us for a Spring Pasture Walk on

**Thursday, April 16**

**5:30 p.m. CT/6:30 p.m. ET**

Barney Janes' Farm  
Columbia, Kentucky

Sponsored Meal Provided  
RSVP by Wednesday, April 15

Directions from Greensburg & Campbellsville:  
Go to Greensburg and take Hwy. 61 South 12.2 miles and turn right onto Hwy. 768. Go 2.4 miles and turn right onto Ray Coffey Road. Barney Janes' Poultry Houses (parking) are 0.3 miles on right, just over a hill.

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**Cooperative Extension Service**

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