



# AG NEWS

**Division of Agricultural Sciences & Natural Resources  
Oklahoma State University**

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## **CRABGRASS PREVENTERS**

Crabgrass preventers are another name for preemergence herbicides that prevent crabgrass seeds from developing into mature plants. Many people have a somewhat foggy idea of how they work. They don't actually keep the seed from germinating; rather, the germinating plant takes up some of the herbicide and is killed. Crabgrass preventers are just that-- preventers. With few exceptions they will have no effect on existing crabgrass plants. Therefore, preventers have to be applied before crabgrass germinates. Additionally, they don't last forever once applied to the soil. Microorganisms and natural processes in the soil begin to gradually break them down soon after they are applied. Therefore, if some products are applied too early, they may have lost much of their strength by the time they are needed. Most crabgrass preventers are fairly ineffective after about 60 days, although there is considerable variation among products (Dimension and Barricade are longer lasting; see below).

Crabgrass typically begins to germinate around May 15, or a little later. Therefore, April 15 to May 1 is a good target date for which to apply the preventer; this gives the active ingredients some time to evenly disperse in the soil before crabgrass germination starts. Additionally, weather varies from one spring to the next, and with it the timing of crabgrass germination. For this reason application timing of preventers is sometimes based on the bloom of ornamental plants. For example, when the Eastern redbud trees in your area are approaching full-bloom, apply your crabgrass preventer. A follow-up application will be needed about 8 weeks later, unless you are using Dimension or Barricade.

Dimension and Barricade are the only two products that will give season long control of crabgrass from a single application. In fact, they can be applied much earlier than April 15 and still will have sufficient residual strength to last the season. Barricade can even be applied in the fall

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for crabgrass control the next season. Dimension can be applied as early as March 1. Because of the added flexibility in timing, these products are favorites of lawn care companies that have many customers to service in the spring.

Though Dimension cannot be applied as early as Barricade, it is the herbicide of choice if you must apply later than recommended. Dimension is the exception to the rule that preemergence herbicides do not kill existing weeds. Dimension can kill crabgrass as long as it is young (2 to 3 leaf stage). Therefore, if you are late applying your crabgrass preventer, use Dimension. Note that products that contain Dimension and Barricade may use the common name rather than the trade name. The common chemical name for Dimension is dithiopyr and for Barricade is prodiamine. Remember, when using any pesticide, read the label and follow instructions carefully.

## **U.S. LIKELY TO SEE AVIAN FLU THIS YEAR**

Last week, the government completed its plan to test 75,000 to 100,000 wild birds this year for avian flu. While people are not yet at risk, the government expects 20 to 100 suspected cases of avian flu to undergo testing by year's end. After a suspected case receives an initial screening and comes back positive, it will take another five to 10 days for USDA's laboratory in Ames, Iowa, to confirm the results.

Officials worry the virus might spread from migratory wild birds to the nearly 10 billion chickens raised annually in the United States. If one chicken were to test positive, the flock is quarantined, the birds killed and the area disinfected. USDA Secretary Mike Johanns says the government would compensate farmers for destroyed flocks.

## MAKING OIL FROM MANURE

Converting hog manure to crude oil seems like a stretch, but that what University of Illinois researchers are proposing to do. They have teamed with industry partners to design a pilot plant for a large commercial livestock farm that will convert swine manure to crude oil.

The plant is based on research which developed a system using thermochemical conversion to transform organic compounds (like swine manure) in a heated and pressurized enclosure to produce oil and gas.

The researchers have achieved as high as 70 percent conversion from swine manure volatile solids to oil. At that rate, the manure excreted by one pig during the production cycle could produce up to 21 gallons of crude oil and add a \$10-per-pig profit. Worldwide BioEnergy is working with the University of Illinois to build the pilot plant.

## ORNAMENTALS Ten Rules for Planting Trees

Before you begin spring landscaping, here are some tips on planting trees.

1. Select the right tree for the site. To avoid serious problems, choose trees that are adapted to your location. Consider whether the tree produces nuisance fruit or if there are disease-resistant varieties available. For example, there are a number of crabapple varieties that are resistant to apple scab and rust diseases. Also consider the mature size of a tree to be sure you have enough room. Ask a local nurseryman for suggestions.

2. Keep the tree well watered and in a shady location until planting. When moving the tree, lift it by the root ball or pot and not by the trunk.

3. Before planting, remove all wires, labels, cords or anything else tied to the plant. If left on, they may eventually girdle the branch to which they are attached.

4. Dig a proper hole. Make the hole deep enough so that the tree sits slightly above nursery level. Plant the tree on solid ground, not fill dirt. In other words, don't dig the hole too deep and then add soil back to the hole before placing the tree. The root flare (point

where trunk and roots meet) should be visible. If it isn't, remove enough soil or media so that it is. The width of the planting hole is very important. It should be three times the width of the root ball. Loosening the soil outside the hole so it is five times the diameter of the root ball will allow the tree to spread its roots faster.

5. Remove all containers from the root ball. Cut away plastic and peat pots; roll burlap and wire baskets back into the hole, cutting as much of the excess cut away as possible. If you can remove the wire basket without disturbing the root ball, do it. If roots have been circling around in the container, cut them and spread them out so they do not continue growing this way inside the hole and become girdling roots later in the life of the tree.

6. Backfill the hole with the same soil that was removed. Amendments such as peat moss likely do more harm than good. Make sure the soil that goes back is loosened - no clods or clumps. Add water as you fill to insure good root to soil contact and prevent air pockets. There is no need to fertilize at planting. Note: Adding organic matter to larger area than just the planting hole can be beneficial. However, adding amendments to the planting hole in heavy soil creates a "pot" effect that can fill with water and drown your new tree.

7. Don't cut back the branches of a tree after planting except those that are rubbing or damaged. The leaf buds release a hormone that encourages root growth. If the tree is cut back, the reduced number of leaf buds results in less hormone released and therefore fewer roots being formed.

8. Water the tree thoroughly and then once a week for the first season if there is insufficient rainfall.

9. Mulch around the tree. **THIS IS IMPORTANT!** Mulch should be 2 to 4 inches deep and cover an area two to three times the diameter of the root ball. Mulching reduces competition from other plants, conserves moisture and keeps soil temperature closer to what the plants' roots prefer.

10. Stake only when necessary. Trees will establish more quickly and grow faster if they are not staked. However, larger trees or those in windy locations may need to be staked the first year. Movement is necessary for the trunk to become strong. Staking should be designed to limit movement of the root ball rather than immobilize the trunk.

## **PRUNING NEWLY PLANTED FRUIT TREES**

Fruit trees planted this year should be pruned at planting to begin developing a strong structure of the main or scaffold limbs. This will help to prevent limbs from breaking over the years when the scaffolds carry a heavy fruit load.

## **CATTLE CYCLES: WHERE ARE WE & WHERE ARE WE HEADED?**

There are 97.1 million head of total cattle in the U.S. as of January 1, 2006. That is an increase of 1.78% over the 2005 value and an increase of 2.33% over the 2004 value. The January 1, 2004 value marked the end of the prior cattle cycle and the start of a new cycle. The total number of beef cows that have calved is now at 33.3 million head, an increase of one percent over 2005. This marks the 2nd year of heard growth and it appears that growth will continue in 2006; beef replacement heifers were at 5.9 million head, a 4% increase over the prior year. That is the most beef heifers held for replacements since 1997.

What are the longer term price ramifications of a growing beef cow herd? With the past two cattle cycles, prices peaked in the year the cycle turned or in the following year. Prices for all classes of cattle then declined as herd inventory numbers increased. With that in mind, prices will likely decline over the next few years from the peak levels of 2005. Calf prices typically decline each year the inventory is increasing and then increase once herd liquidation begins. Fed cattle prices typically decline even a year or two past the beginning of the liquidation phase, as the initial liquidation actually places more pounds of beef on the market. So, how long will herd growth continue and prices decline?

The growth in herd numbers for the last three cycles lasted 6, 4 and 8 years. The start of this cycle looks very much like the last cycle, so at this point in time, I would plan on 6 years of herd growth. That means 4 more years from now and the growth would end in 2009 with the largest inventory January 1, 2010.

What are some factors that may alter the length of the current cycle? Drought comes to mind as a major fac-

tor. The southern plains is experiencing severe drought at the present time and much of the rocky mountain and northern plains regions probably have not fully recovered from drought. This may limit herd growth in these areas. This could lengthen the herd expansion phase as growth may occur more slowly and then these areas may expand in the future as their resource base permits. However, it could end the expansion phase if the drought persist and expands in geographic area. International trade may also play a role in this cattle cycle. If exports expand fairly rapidly over the next couple of years, prices for beef and fed cattle will likely not decline as much and this may encourage continued expansion. However, if the U.S. is slow to regain export markets in the pacific rim, then sharply lower beef and fed cattle prices may discourage further herd expansion after this year or next. We are due for a new Farm Bill next year, and changes in farm policy could alter feed costs, trading competitiveness, milk prices, etc., all of which could impact profits in the cattle industry and therefore, alter herd expansion plans.

Predicting changes in the cow herd numbers over the next several years is obviously risky given the number of factors that can and will likely change. Prices are not the perfect mirror image to inventory numbers as additional economic market forces add variability to the prices. Therefore, long term predictions into cattle prices should be viewed with a fair amount of caution. With that disclaimer in place, I expect 2006 price levels to be near 2004 price levels: fed cattle could average about \$86 per cwt.; 750 pound steers in Nebraska could average about \$112 per cwt.; and 550 pound steers in Nebraska could average about \$127 per cwt. Prices for calves and yearlings will likely be above those levels for the first half of the year, but then will decline late in the 3rd quarter and into the 4th quarter. Prices may decline to the low \$70 per cwt. range for fed cattle in 4-5 years, with 750 pound steers in the low \$90 per cwt range and prices for 550 pound steer calves near \$100 per cwt.

While I would not bet very much money on these exact price levels, I am more confident of the direction in prices over the next few years. Keep this in mind as you make decisions on buying and raising replacement heifers and/or buying or selling additional cows.

Source: [Dillon M Feuz](#), University of Nebraska-Lincoln

## EFFECTS OF TRACE MINERAL SOURCE ON COW PRODUCTIVITY

Florida researchers recently used 160 Braford cows over three years to study inorganic vs organic sources of cobalt, copper, manganese, and zinc. The inorganic sources of these trace minerals were cobalt carbonate, copper sulfate, manganese oxide, and zinc oxide. For the organic trace minerals, Zinpro Corporation's Availa-4<sup>o</sup> was used. In general trace minerals were fed at two to three times the level of current NRC recommendations. In this study, cow body weight, cow body condition score, and calf weaning weight were not effected by mineral source. Three- and four-year old cows on organic minerals had shorter calving intervals in year 1 (355 vs 374 days) and year 2 (374 vs 400 days) of the study and higher pregnancy rates in year 2 (89 vs 57%) and year 3 (88 vs 65%). These researchers concluded that organic minerals may improve reproductive performance in young cows, but not in mature cows.

In a recent Colorado study, young beef females (21 to 22 month old heifers to start with) were fed either inorganic sources or a 50/50 combination of inorganic and organic sources of copper, manganese and zinc over a two-year period. Inorganic trace minerals were supplemented in the sulfate form, whereas organic minerals were provided from Alltech's Bioplex<sup>o</sup> proteinated trace minerals. Trace minerals were fed at current NRC recommendations. Final liver copper concentrations and final liver manganese concentrations were greater in females receiving organic minerals. No differences in cow/calf performance or reproductive performance were noted. However, organic trace minerals appeared to increase the immune response to foreign antigens which may be beneficial if animals encounter a stressor or are exposed to disease.

Research has generally shown that organic trace minerals are more bioavailable than inorganic minerals. Research suggest that organic trace minerals may enhance the immune response or improve health above that observed with animals fed inorganic trace minerals. Thus, organic trace minerals may be of greater value when an animal is under nutritional, disease or production stress.

Source: BEEF CATTLE RESEARCH UPDATE by Britt Hicks, Area Extension Livestock Specialist, Oklahoma Panhandle Research & Extension Center



### LIEBLING BROTHERS CIRCUS

Saturday, April 8, 2006 — Beaver Co Fairgrounds  
5:30-6:30 pm & 7:30-9:00 pm

Free tickets are provided for children 14 and under.  
For more information contact Steven Perry at 580-625-4072.

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