## Nitrogen loss in soils

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. I was out looking at fields late last week and am becoming quite concerned about the corn crop. The corn is growing and growing very well, but is starting to look a little lighter green than I'd like and I'm afraid that this trend is going to continue. Part of the problem, in all honesty is that it has been consistently wet enough that we are facing an oxygen shortage in soils. You don't have to have standing surface water for that to occur, just constant enough rains that you can't get the necessary internal drainage to open up some of those pore spaces. My bigger concern is the loss of nitrogen from the soil root profile for a variety of reasons. The two factors that we are likely to see in our corn fields are denitrification and leaching. Two very different processes but both can cause significant loss of nitrogen. Leaching is probably the easier process to understand. Nitrogen is very mobile in water and when you have heavy rainfall and somewhat coarse grained soils, like we'll see in some of the river bottoms with a fair amount of sand, the nitrogen moves with the water right out of the root zone. Denitrification is going to occur on the finer or heavier clay soils. The water moves much more slowly through these soils so leaching isn't an issue. But the nitrogen can be converted to gaseous N which then slowly moves up and out of the soil. Once we get out of this wet weather, tissue testing may be in order to check N levels in plants, and additional N may need to be applied to fields! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## Controlling Roughleaf Dogwood

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. The three big woody brush issues that I see in pastures are buckbrush, smooth sumac and dogwood. Of these, dogwood may be the toughest to control. Buckbrush and sumac are both pretty susceptible to straight 2,4-D, but dogwood takes a little bit more than straight D. The three are actually quite intriguing to me. Buckbrush leafs out early so we can have good success controlling it with late April burns. It is also easily controlled with 2,4-D and other herbicides. Sumac absolutely is not controlled by fire and has to be treated with herbicides, but again, 2,4-D alone works pretty good. Dogwood can be controlled by fire, but because it leafs out so late, most people are already through burning. The other challenge with dogwood is that it is easily defoliated with most herbicides, but actual mortality is usually less than 25%, so several consecutive years of treatments are really required. There are a few products that can work better, achieving greater than 50% mortality on dogwood. These are PastureGard, Surmount and Grazon plus triclopyr. Best control is going to come from using these products as a 1% concentration and applying with high volume handgun spot treatments. Use a non-ionic surfactant to improve control. Mix in water only - NO diesel - in fact never use diesel in foliar treatments and apply as a through soaking spray. Timing is also critical and right now is a good time - I mean why not, it's too wet to do anything else. You also need to realize that one year of herbicides isn't going to do it - plan at least 2 to 3 consecutive years to get it under control. This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## 2014 Farm Managaement Summaries

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. This is the time of year that the Kansas Farm Management association releases data on how their roughly 3,000 farm members did financially in the previous year. Naturally these are state and region wide averages but they are good representations of the health of the farm economy. We've had some very good years the past five or so. Production has been good to great and prices have been off the charts. 2014 was a pretty good year, at least in our part of the state. However, both in the north central Farm Management association and state wide, accrual net farm income was the lowest it had been over the past 5 years. The drop in income was due to both a drop in value of farm production, the biggest component, and to a lesser extent, an increase in expenses. It wasn't all roses for all producers though. 21% of the farms, statewide, lost money in 2014. Keep in mind that sometimes losses aren't losses because of the things like inventory, capital purchases, etc, but a loss is still a loss. And as would probably be expected, there were more farms losing money in the parts of the state that were hardest hit by the drought of the past several years, mainly western Kansas and south central Kansas. Because of the high prices for cattle, those farms with good numbers of cattle had higher net farm income. Those crops that were strictly dryland crop production didn't do as well and those that had a crop, livestock mix probably did best of all. The last figure I'll share with you is family living expenses and all I'll say is that they are more than you probably think they are! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.