Spring Corn Residue Mangement 3.26.2009 *03/26/09 11:35:28 AM*

Corn Residue Management/Burning Corn Stalks
3/26/2009

Because of last fall, the long winter, and now some spring flooding, there may be a few farming challenges this spring. One issue that I think should be addressed is what to do with our corn residue. There are not a lot of real good concrete answers out there to address this issue, but here are a few ideas surrounding this topic

1) **Plan on planting a crop that can be planted later**- The Corn residue acts like a blanket. The sun can not reach the soil which prevents the ground from drying out or warming up. This means that it will take longer to be able to get into the field and for the right planting conditions to happen. Planning on a crop like soybeans in this situation may be a good choice.
2) **There are two basic choices for managing corn stalks in the Spring**

a. **Be patient and till the ground-** Must wait long enough to drive in the field to get tillage equipment through without making tracks. This can take a long time
b. **Burn the Corn Stalks to get the soil blacker which helps dry out and warm up the soil quicker-** I'm assuming this will be a popular strategy for our area this year. It is not my favorite thing to see because there is a loss of organic matter and nutrients. However, in some field this may the only choice in order to get that ground planted this year. There are some real good arguments for both sides of this discussion. Consider some these when deciding what is best for your operation.

3) **Pro's of Burning Corn Stalks**

a. Blacken the soil surface- dry out & warm up faster
b. Less trash to put through tillage equipment

4) **Con's of Burning Corn Stalks**

a. Safety- This is your friendly reminder to watch where you are burning and keep it in control. Also, remember that people like to report fires as concerned citizens. So, if you are burning remember to notify your local fire department so the volunteers don't have to respond to a controlled burn. This is especially true if you are close to the Interstate.
b. Check with your landlords before burning. I have heard of some farmers loosing rented land because they burned a field when a landlord thought that it was not environmentally friendly or that it was hurting their land.
c. Loss of Nutrients and Organic Matter- The most popular question that I get from farmers who are considering burning their corn stalks is, "What am I loosing?" Please see below…

5) **What is lost from burning corn stalks?**

a. Below is a formula for how much Nitrogen Loss occurs from burning corn stalks. This information is from John E. Sawyer, Department of Agronomy, Iowa State University- http://www.ipm.iastate.edu/ipm/icm/2000/4-10-2000/burnfield.html . This is an estimate of loss formed by assuming dry matter of the residue is approximately equal to the dry matter of the grain that was harvest and then using the bushels per acre to assign the lbs of lost residue. Please check out the article for more information

b. Here is a Formula for figuring out the Nitrogen loss
c. 140bu grain yield X 56 lbs/bushel= 7840 lbs
d. 7840 lbs X 0.845 = 6625 lbs (this is a factor to consider the dry bushels)
e. 6625lbsX 1% N= 66 lbs per acre of N lost
f. 66lbs= 0.033tons; assume $450 46-0-0
g. 0.033 tons X $450= $14.85/acre of Nitrogen Lost

h. There is also Organic Matter and Sulfur that is lost- but assigning a per acre value to each of these is much more difficult
i. Potassium & Phosphate remain in the ashes, but if the ash leaves the field so do those nutrients (through wind or water)