Fertility Treatment Example

(Using the example field conditions sheet at end)

Example 1: We have a Land Class 1 or 2 (Corn)

Manure: Mark YES (as Manure is available and Nitrogen & Phosphorus are both needed & not over applied)

Nitrogen: 25# in soil + 95# in manure = 120# (crop needs 145#): Mark YES (needs 25# Nitrogen added)

Phosphorus: 10# in soil + 50# in manure = 60# (crop needs 65#): Mark YES (needs 5# Phosphorus added)

Potassium: 310# in soil + 10# in manure = 320# (crop needs 180#): Mark NO (does not need Potassium added)

Example 2: We have a Land Class 3 or 4 (Spring Wheat)

Manure: Mark NO (as Manure is available, but Phosphorus cannot be over applied with 10# in soil + 50# in manure = 60# & crop only needs 25#)

Nitrogen: 25# in soil (crop needs 120#): Mark YES (needs 95# Nitrogen added)

Phosphorus: 10# in soil (crop needs 25#): Mark YES (needs 15# Phosphorus added)

Potassium: 310# in soil (crop needs 75#): Mark NO (does not need Potassium added)

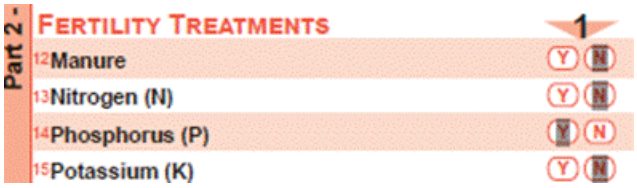
Example 3: We have a Land Class 6 or 7 (Grass)

Manure: Mark NO (as Manure is available, but Nitrogen cannot be over applied with 25# in soil + 95# in manure = 120# & grass only needs 25# & Phosphorus cannot be over applied with 10# in soil + 50# in manure = 60# & grass only needs 35#)

Nitrogen: 25# in soil (grass needs 25#): Mark NO (does not need Nitrogen added)

Phosphorus: 10# in soil (grass needs 35#): Mark YES (needs 25# Phosphorus added)

Potassium: 310# in soil (grass needs 140#): Mark NO (does not need Potassium added)



South Dakota Land & Homesite Judging
Field Conditions
Field Number 1

- Original topsoil thickness was 10 inches
- Seasonal high water table depth at 100 inches
- Flooding occurs 0 times in 100 years
- Soil test levels are:

25 lbs/a N 10 lbs/a P 310 lbs/a K

- Livestock manure available (yes/no) YES
- Nutrient value of manure: at 10 tons/acre rate only

95 lbs/a N 50 lbs/a P 10 lbs/a K

- Crop/plant to be grown and nutrient requirements:

If Land Class I/II then: CORN

145 lbs/a N 65 lbs/a P 180 lbs/a K

If Land Class III/IV then: SPRING WHEAT

120 lbs/a N 25 lbs/a P 75 lbs/a K

If Land Class V/VI/VII then: GRASS

25 lbs/a N 35 lbs/a P 140 lbs/a K

- Other Considerations

HOMESITE JUDGING

- Pay no attention to practices on the field
- Consider the most intensive use of the land