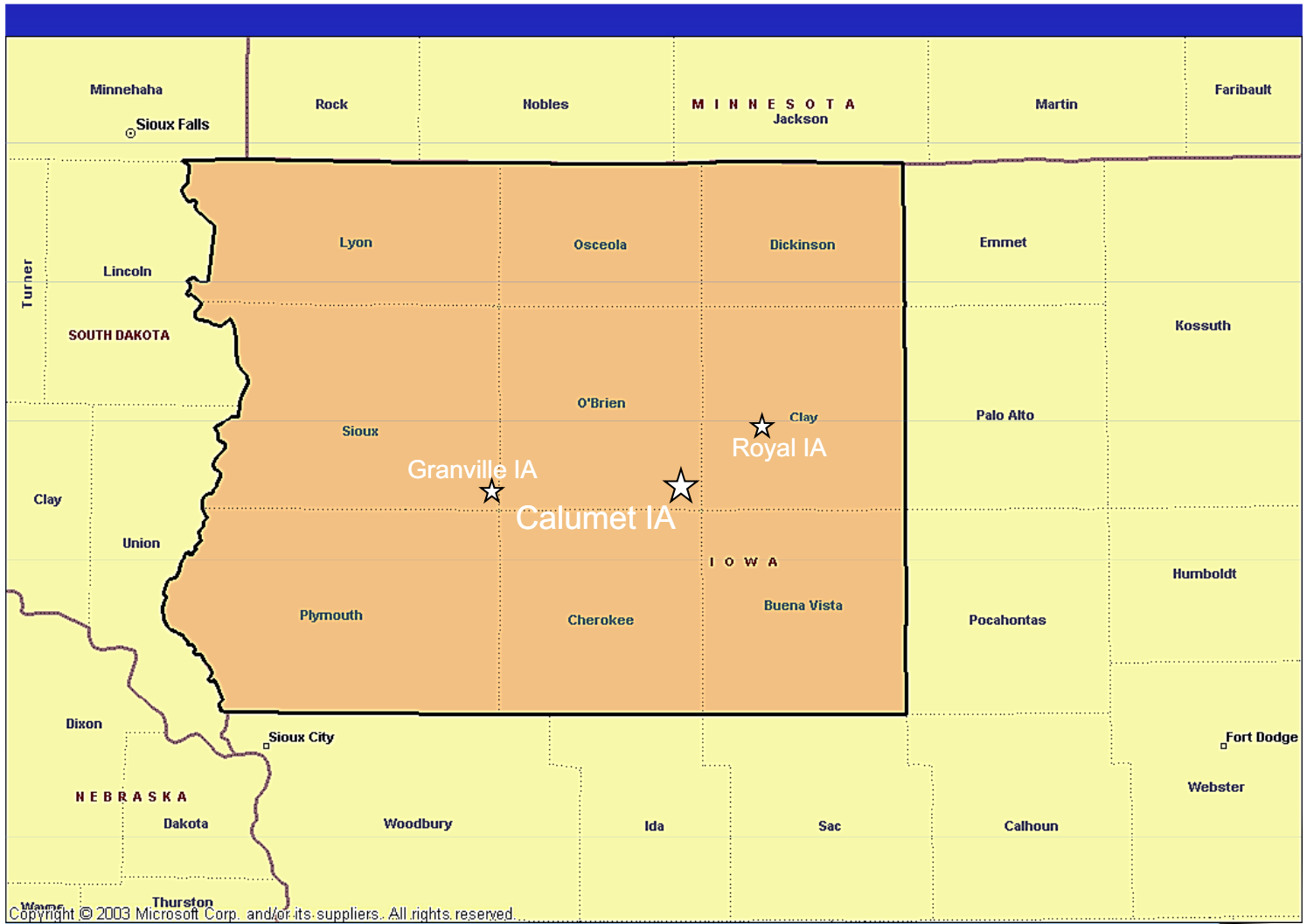


Animal Waste Used As Fertilizer

Craig Struve
C-S Agrow Services
Calumet IA







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C-S AGROW SERVICE

Services and Products for Maximum Production

- *Nutrient Management Programs*
- *Conventional & Intensive Soil Sampling*
- *Professional Fertility & Ag Chem Application*
- *Ag Enterprise System*
 - *Precision VRT Fertilizer Application*
 - *Variable Rate Lime Application*
 - *Yield Monitor Sales and Service*
 - *Crop Data Management*
- *Strip-Till and No-Till Crop Production*
- *Crop Scouting Programs*
- *Plant Food*
- *Crop Protection Products*
- *Corn & Soybean Seed Programs*

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Ag Land Custom Company



Calumet Manure Management



Management of Nutrients



Animal Nutrients Management & Application

- Swine Confinements
 - Dairy Confinements
 - Beef Confinements



What IS New

The environmental and economic concerns of ALL applied nutrients.



Iowa Animal Nutrients...Regulated by the:

- Iowa Department of Natural Resources
 - Natural Resource and Conservation Service
 - Iowa Department of Land Stewardship
 - Environmental Protection Commission

Application of Nutrients Based On:

- Product Analysis
 - Soil Test Levels
 - Phosphorus Index – Dominant Soil Type
 - Cropping System and Yield History

The Economics of Nutrients

"A New Picture"



The Economics of Nutrients

"A New Picture"



Nutrient Application and Cost

| | <u>Swine</u> | <u>Dairy</u> |
|--|---------------------------------------|------------------|
| Number of Animals | 4800 | 4500 |
| Acres Required | 800 | 6800 |
| Volume of Material | 1.5 million gl | 60-65 million gl |
| Gallons/Acre | 35-4000 gl | 13-15,000 gl |
| Nutrients/Acre | 190-133-155 | 200-130-170 |
| Applied Cost | \$50/acre | \$110-\$130/acre |
| Commercial Cost | \$196/acre | \$205/acre |
| 2 Year, Corn/Soybean Crop Removal | 220-123-150 cost: \$160-\$170/acre | |

Value of Livestock for Rural Iowa

- 100 million gallon ethanol plant:
 - ❖ 37 million bushels of corn
 - ❖ 80 workers directly employed
- 37 million bushels of corn:
 - ❖ Farrow – Finish = 800 directly employed
 - ❖ Wean – Finish = 242 directly employed
 - ❖ Beef Feedlot = 278 directly employed

Source: Dr. John Lawrence, ISU Extension Economist & Directory, Iowa Beef Center

Changes Ahead.....

- Green Movement
 - Public Awareness and Demands
 - Increased Regulation of Applied Nutrients



Thanks for your indulgence and have a great conference.