Resource Responsible Farming

Within the square mile of Delta College property lies approximately 218.3 acres of land which are divided among three rental contracts to local farms for the production of agriculture. Although each farmer manages the leased property according to their production needs, both the college and the leasers support resource responsible farming practices which allow for the use of fertilizers and chemicals that are appropriate to standard farming practices.

Improving nitrogen use efficiency and reducing nitrogen fertilizer in crop production is an important goal given the energy and greenhouse gas costs of its manufacturing and the potency of nitrous oxide which is 310 times that of carbon dioxide.

Each farm exercises 'minimal' to 'no tillage', leaving stalks and stubbles on the surface of the soil. This practice reduces soil erosion by the wind and provides wildlife refuge. It also minimizes the potential for the soil to enter local drain systems via surface water and creates a filter which aids in preventing fertilizer and pesticides from entering the watershed.

Because the cost of fertilizer is closely linked to the cost of energy, the farmers have the soil analyzed and use only the necessary fertilizers for the crops being produced. Phosphorus and potassium are required to maintain the natural levels of these minerals in the soil. The quantity of nitrogen is determined by the ability of the plant to utilize it before the plant matures. For example, the following fertilizer is required per acre:

- Soy Beans - generally do not require fertilizer
- Corn - 150 lbs N, 30-40 lbs PH, 50 lbs P
- Sugar Beets - 120 lbs N, 30-40 lbs PH, 50 lbs P
- Wheat – 100 lbs N, 0 lbs PH or P
  (N)itrogen, (PH)osphorous, (P)otassium

Fertilizers are applied using modern technology. Computers control the application rate, radar determines ground speed, and applicators are guided by a global positioning system.

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