

## Rate of Application Worksheet:

Step 1. Nutrient needs of the crop (lbs./A) N    P<sub>2</sub>O<sub>5</sub>    K<sub>2</sub>O  
 Use soil tests and recommendations based on  
 University of Minnesota data \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_

Step 2. Determine total nutrient content of the manure (lbs./ton or 1,000 gal.) N    P<sub>2</sub>O<sub>5</sub>    K<sub>2</sub>O  
\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_

Step 3. Determine available nutrients from manure (lbs./ton or 1,000 gal.) Table 2  
 Multiply the values from Step 2 by the availability (    )    (80%)    (90%)  
 factors from Table 2 and from the text \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_

Step 4. Calculate the rates of application needed for each nutrient N    P<sub>2</sub>O<sub>5</sub>    K<sub>2</sub>O  
 Divide the values from Step 1, amount of nutrient \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_  
 needed, by values from Step 3, the available  
 nutrients per ton or thousand gallons

**Selected rate:** \_\_\_\_\_ (tons or 1,000 gal./acre)

Determine amount of available nutrients being applied by N    P<sub>2</sub>O<sub>5</sub>    K<sub>2</sub>O  
 multiplying the selected rate of application times the \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_  
 available nutrients, Step 3. This can be compared to crop  
 needs, Step 1, to show where deficits and excesses occur.

The amount of deficit is the amount of supplemental \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_  
 fertilizer that the crop will need