Calculating Manure Nitrogen Credits for Prior Years

(Credits must be calculated for the 2 previous years)

	Last Year	2 Years Ago
1. Percent (%) Organic Nitrogen		
____%N - ____%NH_4-N = %Organic N (Last year)		
____%N - ____%NH_4-N = %Organic N (2 years ago)		
2. Mineralization Rate		
3. Conversion Factor		
4. Application Rate		
5. Nitrogen Credit (lbs./acre)		

- Values are from a manure analysis.
- If no analyses were performed, use average analyses. (See "Manure Summary Sheet".)

- Refer to the ***Infocard*** for the mineralization rate for the appropriate animal species year (last year or 2 years ago).

- Conversion factor is 20 if the units are lbs./ton.
- Conversion factor is 0.0837 if the units are lbs./1000 gallons.

- This is the amount of manure applied in each year.
- Enter the rate as tons/acre or gallons/acre.

- Multiply **#1** X **#2** X **#3** X **#4**.

% Organic N X Mineralization Rate X Conversion Factor X Application Rate = N Credit

Calculating Net Nitrogen Recommendation

6. Gross Crop N Recommendation (lbs./acre) ☐

- See ***SFM-1*** for crop nutrient recommendations.

7. N Credits (lbs./acre)

A. Manure credit from last year (See **#5**.) _____

B. Manure credit from 2 years ago (See **#5**.) _____

C. Legume credit (See ***Infocard***.) _____

8. Total N Credit (lbs./acre) ☐

- Add **7A** + **7B** + **7C**.

9. Net Crop N Recommendation (lbs./acre) ☐

- Subtract total N credit (**#8**) from gross crop N recommendation (**#6**).

Gross Crop N Recommendation - Total N Credit = Net Crop N Recommendation

Calculating an N-Based Manure Application Rate

10. Manure Application Rate

- Expressed as tons/acre or gallons/acre.
- Divide the crop net nitrogen recommendation (**#9**) by PAN in manure.

11. Available Nutrients in Manure

- Expressed as lbs./ton or lbs./gallon.
- For N, enter PAN.
- If manure is solid or semisolid, multiply $\%P_2O_5$ and $\%K_2O$ from manure analysis by 20 and enter result.
- If manure is liquid, multiply $\%P_2O_5$ and $\%K_2O$ from manure analysis by 0.0837 and enter result.

12. Nutrients Supplied by Manure (lbs./acre)

- Multiply available nutrients in manure (**#11**) by the manure application rate (**#10**).

Calculating Additional Fertilizer Requirements When Using Manure

13. Nutrient Recommendations for Crops (lbs./acre)

- Enter the net N recommendation from **#9**.
- Consult ***SFM-1*** for P_2O_5 and K_2O recommendations.

14. Nutrient Supplied by Manure (lbs./acre)

- Enter the amounts from **#12**.

15. Additional Fertilizer Requirements After Manure (lbs./acre)

- Subtract the nutrients supplied by manure (**#14**) from the nutrient recommendations for crops (**#13**).
- If the number is less than zero, enter zero.

	N	P_2O_5	K_2O
10. Manure Application Rate			
11. Available Nutrients in Manure			
12. Nutrients Supplied by Manure (lbs./acre)			
13. Nutrient Recommendations for Crops (lbs./acre)			
14. Nutrient Supplied by Manure (lbs./acre)			
15. Additional Fertilizer Requirements After Manure (lbs./acre)			

Printed by the Agricultural Nutrient Management Program, February 2006