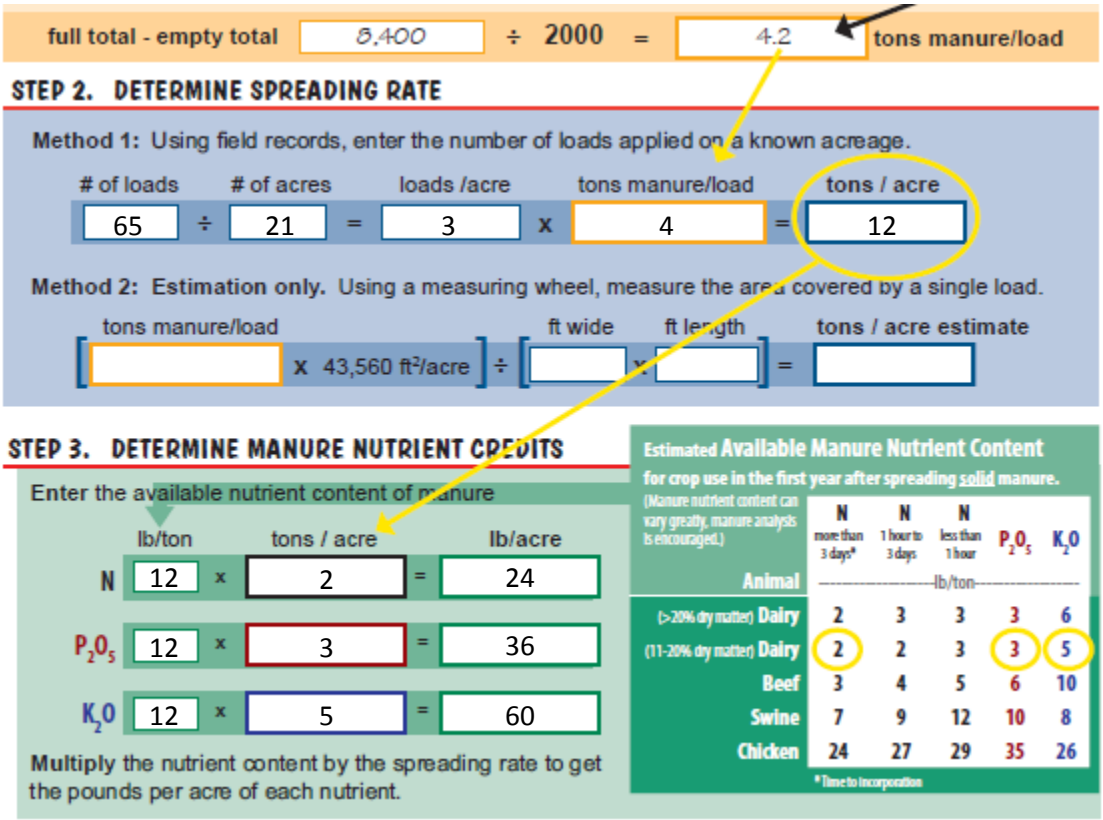
Nutrient Management Planning Workbook

USDA-NRCS 590 Nutrient Managment Standard for Wisconsin

Workbook Key

Page 4

1. See “Step 2”
2. See “Step 3”



Page 5

1. 120
2. Yes
3. No

Page 6

1. No
   a. Yes
2. No winter spreading of manure on red slopes (slopes greater than 12%)
3. 1000, 300
4. Yes
   a. Yes (see restrictions listed under “How does a SWQMA designation affect how I apply nutrients to my fields?” > “Non-winter”)
5. Soils have a strong possibility of being direct conduits to groundwater, such as high permeability, less than 20 inches to bedrock or less than 12 inches to the water table
6. 90 lb/ac
7. Yes
   a. Applications may not exceed 30 lb of available N/acre
8. No

Page 8-9

1. Rented, 5, 7, 9
2. Rented, 5
3. 4, 5
4. No
   a. No mechanical application of manure within 50’ of a residential well
5. No

Page 10

Prior Year's Crop:	Wheat	Soil Yield Potential (hint: see yellow box on soil test results)	High
Plan Year's Crop:	Corn Grain	Plan Year's Crop Yield Goal:	191-210 bu
Soil Test P (ppm):	21	Soil pH:	6.2
Soil Test K (ppm):	126		

1. Yes (noted on chart on page 9)
2. No
3. Yes (nitrogen restricted soil and slope restriction for winter application)
4. No

	Recommendation (lb/a)		Manure Credits (lb/a)		Legume Credits (lb/a)		Adjusted Rec. (lb/a)
Nitrogen (N)	140	subtract	24	subtract	0	equals	116
Phosphorus (P)	75	subtract	36			equals	39
Potassium (K)	60	subtract	60			equals	0

- Recommendation came from the Soil Test Report (page 11) or information is in A2809 and Nutrient Management Fast Facts

- Manure Credits from Manure Crediting Worksheet (page 4), chart of page 9 also shows quantity of manure spread on the Rented field
- Legume Credits 0 as wheat was prior crop and is not a legume
- Adjusted recommendation is the recommendation less the manure and legume credits

Using the adjusted recommendation from above, determine remaining fertilizer needs. Hint: products to use:

- 28% UAN (28-0-0, approx. 28 lb of N in 10 gal of product)
- DAP 18-46-0 (18 lb of N & 46 lbs of P in 100 lbs of product)
- Potash 0-0-61 (61 lb of K in 100 lbs of product)

Will you be recommending any starter (9-23-30)?

[X] Yes [ ] No

40 gal/a 28%

0 lb/a DAP

0 lb/a Potash

Adjusted Recommendation = 116-39-0

Recommend 150 lb/ac starter 9-23-30
(1.5 * 9-23-30 =13-34-45)

116-39-0 less starter 13-34-45 = 103-5-0

Approximately 2.8 lbs of N per gal of 28% UAN

103 lb N
2.8 lb N/gal = 37 gal → round to 40 gal/ac

Page 12-13

Use adjusted numbers (Over/Under Adjusted UW Recommendations) to determine fertilizer needs, note that all manure and legume credits are accounted for. Page 12 has an example completed for the alfalfa fields, details are explained in the workbook

*Assumption: farmer is willing to change his starter rate between fields

Corn on corn fields:

1. Need 154 lbs of N
    - 100 lb/ac 9-23-30
        - 154 less 9 lb N from starter = 145 lbs of N
    - 145 lb N ÷ 2.8 lb N/gal = 52 gal → 55 gal/ac 28% UAN

Alfalfa seeding fields:

1. Need 20 lbs of N on field 06
    - Disregard
        - a rate that small is not practical (if using urea, it would be less than 50 lbs per acre (20 lb N ÷ 0.46 N/lb = 43 lbs →round to 50 lbs))

First year corn silage fields:

1. Need 34 lbs of N, 46 lbs P, 180 lbs K
    - 200 lb/ac 9-23-30
        - 34 less 18 lb N from starter = 16 lbs of N
        - 46 less 46 lbs P from starter = 0 lbs of P
        - 180 less 60 lbs K from starter = 120 lbs of K
    - 120 lb K ÷ 0.61 K/lb = 196 lbs → 200 lb/ac Potash