

INSTRUCTIONS FOR FILING ANNUAL NITROGEN AND WATER MANAGEMENT REPORT

The completed report is **due December 31.**

WELL REGISTRATION NUMBER is the number Nebraska Department of Natural Resources assigns to that well when it is registered. Use the number on the report form.

The top three lines of the form refer to the soil sample results from lab.

Line 1. **"Soil Sample Identification Number."** The testing laboratory will provide this number.

Line 2. **"Acres Represented . . ."** Enter the number of acres in the sample area. Only forty (40) acres can be represented by any one composite sample unless you have worked with an agronomist and/or sampled this field, and are familiar with the field variability; (then use no more than sixty-five (65) acres per sample.) It is recommended that producers pull a composite sample from each of the two depths (for each 40 acre tract if the field is larger than 40 acres). Each composite sample will consist of eight probes taken at each of two depths. The depths will be 0-8 inches and 8-36 inches. Results will be used in determining commercial fertilizer application rates. Only four samples can be listed on one form. If your field is larger than 160 acres, use an additional form and indicate on each form the number of forms being used.

Line 3. **"Residue Nitrogen ... Parts per Million (ppm)."** Enter soil samples in **ppm**. These are the results of the soil tests before any nitrogen application. Results should be reported in **parts per million (ppm)**. If your lab reports only in pounds per acre (lbs/ac), you can convert that reading by dividing the number in lbs/ac by the factor of .3, and then by the soil depth sampled. (Example: 15 lbs/ac divided by .3 divided by 8 inch soil depth = 6.25 ppm; and 44 lbs/ac divided by .3 divided by 28 inch soil depth = 5.24 ppm.)

(In this section on fertilizer data, use the 'Current Year' column for the crop year being reported. Fill in the remaining columns on the form with data reported in previous years (as applicable) to provide a record of three consecutive years, along with the current year to provide comparisons.) If you have different areas of the field which you can apply nitrogen fertilizer at different rates, mark out the previous year and label that column as sample (2,3 etc.). Follow that column thru Line 14.

Line 4. **"Water Nitrate Results as ppm NO₃-N..."** Enter water samples in **ppm**. These are the results from samples taken **before** application of any nitrogen for the crop year being reported. (To simplify testing, water samples can be obtained during the irrigation season, with the results to be used for the crop to be planted in the following year.) Water samples should be collected at about the same time each year. List the results from the testing laboratory in parts per million (ppm). If your field is not irrigated or is irrigated with surface water, enter "0" on this line. Irrigation water samples are required from ground water irrigation wells only. If you mix both ground water and surface water to irrigate your field, the water sample should only be collected from the ground water well. If you use more than one well to irrigate your field, a water sample is needed from each well. Use an average of those results on Line 4. **If you do not have a sample result from the previous year, use the attached chart to determine the nitrate in wells nearest to your location.**

Line 5. **"Crop Planted."** Enter the crop planted for the year being reported. If no crop is planted, a report is not necessary. If the field is in a rotation, soil, water, and manure samples must be taken as appropriate in order to use those results in calculating nitrogen recommendations for future crops.

Line 6. **"Expected Goal."** Enter yield goal in bushels/acre. A reasonable yield goal can be determined by using the average of the yields for the past five years and adding five (5) percent. **Refer to page 19 in your Managing Irrigation and Nitrogen to Protect Water Quality booklet.**

Line 7. **"Total Nitrogen Needed ..."** Enter result using crop factor from crop chart (following the instruction sheet) times Expected Yield.

Line 8. **"Nitrogen Available from Water."** Multiply the number in ppm used on Line 4 (Water Nitrate Results...) by the conversion factor of .227, and then multiply again by 12 inches of irrigation water. (Example: 14 ppm x .227 x 12 inches =38.13 lbs N per acre.) As a guideline, 12 inches of irrigation water is the number that is used from the NRCS Tech Guide for this area of the State. This is the amount of water applied during the growing season that the plant is able to use the nitrogen from. **Refer to page 25 in your Managing Irrigation and Nitrogen to Protect Water Quality booklet.**

Line 9. **"Residual Nitrogen Available in . . ."** is the **average** of soil samples taken for the field and listed on Line 3.

Line 10. **"Lbs of Nitrogen per Acre Available from Manure for Year Applied."** is obtained by multiplying the manure application rate per acre (tons manure per acre) by the laboratory analysis report from the manure sampled in lbs. nitrogen per ton as received "first year". Farm operators who use manure for fertilizer purposes should sample manure prior to application. The district maintains a list of commercial laboratories that provide a manure sampling and analyzing service.

Line 11. **"Nitrogen Available from Past Crop . . ."** is probably ZERO unless the previous crop was alfalfa or beans. The extension educator, crop consultant, agronomist, or fertilizer dealer can help you to calculate this amount. **Refer to page 24 in your Managing Irrigation and Nitrogen to Protect Water Quality booklet.**

Line 12. **"Nitrogen Recommendation . . ."** is the total from Line 7 minus the amounts on Lines 8, 9, 10, and 11.

Line 13. **"TPNRD Guideline."** This is a summary line of the calculations above. (If Line 12 is zero (0) pounds or under and the surface sample analysis (0"- 8" depth) shows less than 20 lbs, use 50 **lbs** as a maximum recommendation.)

The top section, Lines 1 thru 13, should be filled out in the spring prior to fertilizer application and planting of the crop. The remaining section of the form, Field Data, needs to be completed as appropriate after harvest. For inches of water applied, **refer to page 41 in your Managing Irrigation and Nitrogen to Protect Water Quality booklet.** The operator is required to sign the form. The report(s) is due in the Twin Platte Natural Resources District office by December 31st.