

Proposed 4R Certification Guidance Documentation Required For Minnesota

MN 4R Nutrient Stewardship Certification Standard Version 2.0



The standards are divided into four main sections: T = Training; R = Recommendation; A = Application; and D = Documentation.

Note - Training and Recommendations apply to all types of Nutrient Service Providers pursuing certification in the program. Parts of Section 3 may not be applicable for those Nutrient Service Providers that either only make recommendations for nutrient use or only carry out nutrient application: F = Full Service Provider; R = Recommendation only Provider; A = Application only Provider

Each section consists of auditable evaluation criteria, which form the basis of the standards. There are a total of 39 auditable evaluation criteria. Of that total: 7 address training and education, 12 address nutrient recommendations, 11 address nutrient application and 9 address documentation.

Using the standards as the normative reference, audits will be conducted by third-party auditors to determine whether a specified agricultural retailer, agricultural service provider, or Certified Crop Advisor (CCA), acting as a Nutrient Service Provider, has met the requirements of the standards. The degree of conformance to the standards will be assessed by the auditor, who will evaluate each auditable evaluation criterion, as: Comply, Not Comply, or Not Applicable.

Educational based training programs (included but not limited to): MCPR Short Course, MAWRC 4R field day, Climate Smart N, Nitrogen Conference, Nutrient Management Conference, BMP training, MDA Ag certainty education training, online modules (CCA) and other states programs that border MN.

Adaptive Management: An ongoing process of developing improved practices for efficient production and resource conservation by use of participatory learning through continuous, systematic assessment. For the purposes of the Standard, the demonstration of adaptive management includes documented on-farm data showing reasonable expectation of improved crop yield without increased risk of harm to water quality.

Reference documents available to retailer and growers: [Minnesota Natural Resource Conservation Service 590 Standard](#); [University of Minnesota Nitrogen Best Management Practices](#); [University of Minnesota Fertilizer Guide](#); other bordering state land-grant university fertilizer guides; [Minnesota Phosphorus Index](#); and [Minnesota Pollution Control Agency Manure guidelines and setbacks](#).

****BOLD** text under “Evidence” column below, indicates what documentation is preferred during audit to evaluate whether standard is met.*

Req. No.	Requirement	Audit Year	Grower Customer Category	Evidence
T1	Certified professionals must have current certification in good standing.	1	FR	Print-off current credentials and/or certification. Credentials should include one or more of the following: Certified Crop Adviser (CCA), CCA 4R Specialty, USDA-NRCS Comprehensive Nutrient Management Plan (CNMP) Specialist (or TSP), Certified Professional Agronomist (CPAg), or other relevant accreditation from the American Society of Agronomy or National Alliance of Independent Crop Consultants.

T2	At least one (1) nutrient service provider staff member and/or contract position, has been trained in writing nutrient management plans or have a list of trained contractors on file to be provided to grower customers.	2	FR	Attendance, certification, and/or evaluation through a USDA NRCS (590), University of Minnesota -approved training or Department of Agriculture training. Certification is not necessary. To view the list of technical service providers trained in writing nutrient management plans, visit https://techreg.sc.egov.usda.gov/CustLocateTSP.aspx .
T3	Nutrient Service Providers, sales, and application staff have undergone an initial training and staff are able to demonstrate knowledge about 4R Nutrient Stewardship and the 4R Certification Program.	1	FRA	Meeting agendas, education log, or materials indicating 4R concepts and topics (Right Rate, Time, Place and Source) were covered, roster of those in attendance. Can be an interview with various staff. Educational information and sample presentations available at 4rcertified.org/resources . Other MN based training programs must be approved by Program Administrator.
T4	Nutrient service providers, or any staff providing nutrient recommendations, attend a training, at least once every two (2) years on the practices and principles of 4R Nutrient Stewardship, soil sampling and testing techniques, and/or nutrient water interaction. This is demonstrated through a minimum of 5 (five) approved CEUs of relevant training.	2	FR	If the staff person is a CCA, then proof of active status is sufficient. If not a CCA, but still a certified professional, print off of classes taken is needed. If not explicit, include agendas of meetings attended.
T5	Nutrient service providers, sales, and application staff attend a training at least once every two (2) years on 4R Nutrient Stewardship. This is demonstrated through a minimum of two (2) hours of relevant training approved by the Minnesota 4R Retailer Certification program administrator.	2	FRA	Program Administrator must review training offered, it may be through the agri-business itself or through a third party. Agenda and attendance is required.
T6	Nutrient service provider has conveyed informational materials on 4R Nutrient Stewardship to all grower customers.	2	FRA	Signature by grower, OR proof of attendance at a company sponsored 4R Nutrient Stewardship educational event, OR proof of distribution of materials via mailing list. Informational 4R materials can be provided by International Plant Nutrition Institute, The Fertilizer Institute, or Program Administrator.

T7	Nutrient service provider has sponsored, publicized, supported, or directly provided educational opportunities on 4R Nutrient Stewardship that is available for all grower customers.	2	FRA	Agenda of the company-sponsored educational event shows training on 4R Nutrient Stewardship approved by the Program Administrator. Done on an annually basis.
R1	Soil tests are conducted at least once every four (4) years.	1	FR	Review of records on file, can be hard copy or electronic. No soil test result may be older than four (4) years old.
R2	Soil tests are taken from relatively uniform areas no larger than 20 acres.	2	FR	Review of records on file, can be hard copy or electronic. Maps indicating acres represented in sample must be provided. All areas sampled must be smaller than 20 acres. (See NRCS 590 criteria).
R3	Soil (analysis) tests are conducted by a Minnesota Department of Agriculture accredited lab which include, at minimum: Phosphorus (use U of MN recommendations on analysis Bray, Olsen, and M3), Potassium, pH.	1	FR	Review of soil testing records on file, can be hard copy or electronic. All four (3) items must be indicated on the records.
R4	Discussion with grower customers on nitrogen Best Management Practices include options of split application, nitrification and urease inhibitors, slow release technologies, timing, placement, rates, and sources.	2	FRA	Signatures of grower customers on file. Credit will be given to growers that attend: nitrogen SMART meeting, MN Nitrogen Conference, and/or MN Nutrient Management Conference every two years. A grower who is certified under the MN Ag Certainty Program meets this requirement.
R5	Discussion with grower customers on phosphorus Best Management Practices include VRT technology, timing, placement, rates, and sources.	2		Signatures of grower customers on file. Credit will be given to growers that attend: MN Nutrient Management Conference or other educational event every two years. A grower who is certified under the MN Ag Certainty Program meets this requirement.
R6	All sources of nutrients are accounted for in the nutrient management recommendation, including but not limited to commercial fertilizers, starter fertilizer, manure/litter, biosolids, cover crops, and the previous crop.	1	FR	Nutrient recommendations indicate all sources of nutrients in the recommendation records. Refer to N rate calculator (MRTN).

R7	If manure is applied, manure analysis must follow University of Minnesota guidance regarding required analysis and/or include, at minimum: total nitrogen (N), total phosphorus (P) or P2O5, total potassium (K) or K2O, and percent solids. The manure analysis of applied material report is dated less than 1 month before the manure application.	1	FRA	Manure nutrient analysis records (hard copy or electronic) will be reviewed if manure is applied on fields where recommendations are made or fertilizer applied. If an analysis is not available, book values from the MN Department of Agriculture or NRCS will be accepted. Refer to MPCA feedlot rules and regulations. Recommended: If manure is applied from more than one source, a sample shall be taken from each. At least one test shall be a laboratory analysis; the others may be on-farm tests using a hydrometer or nitrogen meter. Testing for Ca, S and Mg is recommended, but not required. It is suggested that manure be tested at or prior to application.
R8	Nutrient recommendations are based on the soil test history of the field, including results from the most recent soil test, and yield goals.	1	FR	Review of records on file, can be hard copy or electronic. Soil test results must be equal to or less than four (4) years old. If it is a new field, county averages, drainage, and soil type should be taken into consideration. Retailer should review past soil tests with producer. See R5 for yield goals documentation.
R9	Crop yield goals are discussed with the grower and are based on previous crop yield history, and soil potential. If actual yield history by field is missing, county averages or local adaptive management can be used.	1	FR	Review of records on file, can be hard copy or electronic. Proof of level of crop management may be previous yield history, county averages, or local adaptive management research. Discussion about the process and some documentation or records of process.
R10	Nutrient recommendations and/or application adhere to minimum setbacks from all sensitive areas, such as tile inlets, well heads, gullies, and water bodies specified in applicable national, state, or local laws.	1	FRA	Records of application recommendations and actual applied maps or spreading tickets.
R11	For all nutrient recommendations and/or application, the inclusion of a minimum setback distance (e.g., 35-100 ft.) near known sensitive areas, such as tile inlets, well heads, gullies, and water bodies is documented and discussed with the grower customer.	1	FRA	Signatures of grower customers will be on file or included on customer's application, recommendation cover sheet, or maps.

R12	Recommended nutrient application levels are to suggested/recommended limits specified by nutrient application recommendations recognized by a land-grant university in MN or surrounding State, allowing for adaptive management based on documented on farm data showing reasonable expectation of improved crop yield without increased risk of harm to water quality.	1	FR	Records will be compared to University of Minnesota Fertilizer Recommendations or bordering Land Grant University Fertilizer Guidelines or equivalent tool. If above these levels, data from adaptive management research must be presented justifying the different recommendation. Field averages will be used to evaluate this criteria. Software tools for variable rate application recommendations should validate that the software is following the University of Minnesota Guidelines or results of adaptive management. Following a drought year for corn on corn, credit should be given to residual nitrate in nutrient recommendation: soil nitrate-N is best measured in the spring before planting from a two-foot sampling depth.
A1	Application records shall not exceed recommendations for custom applied acres.	1	FA	Review of records on file, can be hard copy or electronic. Fertilizer recommendations and applied scale ticket or as applied map.
A2	Nutrients are applied according to a written nutrient recommendation that has been prepared within the prior two (2) years.	1	FA	Records of application will be compared to the recommendations on file. Only applicable to the full service providers.
A3	Records of nutrient application include at minimum: <ul style="list-style-type: none"> • method of application; • time of application; field map showing locations of application	2	FA	Review of records on file, can be hard copy or electronic.
A4	Phosphorus and nitrogen applications are neither made nor recommended to be made on frozen or snow covered ground.	1	FRA	Recommendation records indicate the preferred timing. Application records indicate there is no frozen ground or snow present. Frozen ground is defined: soil frozen to a depth that does not allow for the proper placement and incorporation of fertilizer. For purposes of this subpart, proper placement means that a responsible party is able to incorporate granular products within three (3) days of application at a minimum depth of three (3) inches below the surface of the soil. Snow covered ground is defined: when soil cannot be seen because of snow cover.

A5	<p>For spring-planted crops, right time for nitrogen to be applied is normally before, at or after planting. When fall applications of nitrogen [including phosphate sources containing nitrogen] are made or recommended, growers are informed about the risk, amount, and fate of nitrogen losses associated with the application. With this in mind, fall application of nitrogen fertilizer above 50 pounds per acre* is not recommended for spring planted crops.</p>	1	FA	<p>Signatures of grower customers on file. Rate is based on typical rates as applied with fall application of typical nitrogen and phosphate sources; research will be reviewed and conducted to determine if this amount needs to be revised. Records of application will be compared to the recommendations on file. Only applicable to the full service customers.</p>
A6	<p>Phosphorus is neither applied nor recommended to be applied at rates that exceed University of Minnesota fertilizer recommendations for corn, soybeans, alfalfa and wheat and specialty crops and the total application does not to exceed the quantity needed for the next two (2) years of planned crops. A bordering state land grant university fertilizer recommendations may also be used.</p>	1	FRA	<p>Records will be compared to University of Minnesota fertilizer recommendations, or a bordering State land grant university. Field averages will be used to evaluate this criteria. Records of individual soil test will be compared to land grant recommendations or equivalent tool. Variable rate application recommendations should be validated that the software is following the land grant guidelines or results of adaptive management.</p>
A7	<p>Phosphorus injection, subsurface banding, or broadcasting with immediate incorporation are the recommended placement methods</p>	1	FRA	<p>Recommendation records indicate the preferred placement. Statement on phosphorus placement given/mailed to grower customers or grower customer signature indicating understanding. Disregard this standard if requirements meet A8.</p>

A8	<p>Recommended situations where incorporation of broadcast applications of phosphate isn't required are:</p> <ul style="list-style-type: none"> a) NOAA forecast indicates more than a 50% chance of a rainfall event involving less than an inch of rain beginning in the next 12 hours b) the field has been in continuous no-till for at least three years, or c) has a cover crop or growing crop , or d) The risk for phosphorus loss to surface waters has been demonstrated to be of low risk (under 2 on index scale), according to NRCS-approved phosphorus index risk assessment procedure. 	3	FRA	<p>Recommendation records indicate the preferred placement. Statement on phosphorus placement given, mailed, included on cover sheet to grower customer or grower customer signature indicating understanding. The MN Runoff Risk Advisory Forecast Tool is an educational tool to use with growers.</p>
A9	<p>All nutrient application equipment must be calibrated, at least annually.</p>	1	FA	<p>Calibration (i.e., maintenance) records indicating equipment service date and any maintenance/service required. Follow manufacturer's guidelines.</p>
D1	<p>Records related to grower customers are kept confidential by the nutrient service provider and are made available for review during an audit.</p>	1	FRA	<p>Confidentiality statement with NSP and auditor signatures. Records are kept confidential by NSP as demonstrated with computer codes, file cabinets, or "safe" rooms or confidentiality agreement with the grower customer.</p>
D2	<p>Nutrient service providers will record a list of grower customers and number of acres in the following categories: full service, recommendation only, application only, and an estimate of all other acres.</p>	1	FRA	<p>Review of records on file, can be hard copy or electronic. The NSP will record and submit a list of grower customers and acres per each in the following categories: full service, recommendation only, application only, and an estimate of all other acres.</p>
D3	<p>Nutrient service provider maintains records related to all growers' nutrient recommendations/applications for 3 years.</p>	1	FRA	<p>Review of records on file, can be hard copy or electronic. Fertilizer recommendations and applied scale ticket or as-applied map.</p>

D4	Records are reviewed with and available for grower/customer and include the following, as applicable: <ul style="list-style-type: none"> • Soil test results, • Field boundary, • Nutrient recommendations, • Crop yield goals, and • Rates applied to each field. 	1	FRA	Review of records on file, can be hard copy or electronic. May review grower signature sheet.
D5	Nutrient recommendations have been reviewed and acknowledged in writing by the grower/customer.	1	FR	Signatures of grower customers on file.
D6	Nutrient recommendations for each grower have been approved and signed by a Certified Professional.	1	FR	Signatures of Certified Professional (defined in T1) for each grower customer is on file, certifying that they approve the nutrient recommendation.
D7	Field maps must include information about yield goals, known sensitive areas (e.g. surface water, inlets, wells, areas of concentrated flow, etc.), soil type delineation, setbacks, and soil test results.	2	FRA	Review of records on file, can be hard copy or electronic. There may be multiple field maps to ensure all the information is outlined. Refer to sensitive area definition in the NRCS 590 standard.
D8	Field records related to monitoring of 4R implementation must include the watershed or watersheds where the farms are located.	3	FRA	Identify by HUC8 watershed name or supply GIS data layer and/or hard copy map.
D9	Nutrient service provider keeps onsite list and/or copies (either electronic or hard-copy) of relevant national, state, or local laws related to nutrient recommendations and application.	1	FRA	Review of records on file, can be hard copy or electronic and should be updated when needed. Program administrator may provide a list of current laws and regulations.