

| Missouri 4R Nutrient Stewardship Certification Standard Audit Requirements and Evidence <i>Administered in the state of Missouri by The Missouri Fertilizer Control Board</i> MoFCB Staff: | | Retail Name: Location: Date: Staff Contact: |
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| Req. No. | Requirement | Evaluation |
| T1 | Nutrient Service Providers' sales and application staff have undergone 4R training and staff are able to demonstrate knowledge about 4R Nutrient Stewardship and the 4R Certification Program. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| T1 Acceptable Evidence | Meeting agendas, education log, or materials indicating 4R concepts and topics (Right Rate, Time, Place, and Source) were covered with a roster of those in attendance. Can also be an interview with various staff. | |
| T1 Evidence Observed | Evidence: <input type="checkbox"/> Resources online <input type="checkbox"/> 4R print materials <input type="checkbox"/> MoFCB 4R certification training videos <input type="checkbox"/> Other | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| T2a | Ongoing education and training of Nutrient Service Providers, sales, and application staff | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| T2a Acceptable Evidence | Evidence of training sessions attended, training materials covered indicating 4R concepts, and verification of attendance. Criteria should include training for various roles (sales, recommendations, application), specific topics, frequency or timeframe, number of trainings or CEUs achieved, and administered by an accredited body, such as ASA, Extension/University, or NRCS. | |
| T2a Evidence Observed | Evidence: <input type="checkbox"/> Resources online <input type="checkbox"/> 4R print materials <input type="checkbox"/> MoFCB 4R certification training videos <input type="checkbox"/> Other | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| T2b | Ongoing education and training of certified professionals must have current certification in good standing. A certified professional must be on staff or contracted to review nutrient recommendations. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| T2b Acceptable Evidence | Print-off of current credentials and/or certification which include: Certified Crop Adviser (CCA), USDA-NRCS Comprehensive Nutrient Management Plan (CNMP), Certified Professional Agronomist (CPAg), or other relevant accreditation from the American Society of Agronomy or National Alliance of Independent Crop Consultants. | |
| T2b Evidence Observed | Evidence: <input type="checkbox"/> At least 1 certified professional on staff with current credentials to review nutrient recommendations <input type="checkbox"/> Certified professional hired contractually to review nutrient recommendations <input type="checkbox"/> Other | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |

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| T3 | 4R education and training of grower customers. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| T3 Acceptable Evidence | Proof of distribution of 4R materials to customers via post mail, email, meeting description, or forum on an annual basis. | |
| T3 Evidence Observed | Evidence: <ul style="list-style-type: none"> <input type="checkbox"/> Resources online <input type="checkbox"/> Inserts in or notes on invoices <input type="checkbox"/> 4R print materials <input type="checkbox"/> MoFCB 4R certification training videos <input type="checkbox"/> Social media posts by ag retailer <input type="checkbox"/> Other | Source of Evidence: <ul style="list-style-type: none"> <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| D1 | Nutrient Service Providers will record a list of grower customers and number of acres in the following categories: full service, recommendation only, and application only. The list should include columns designating the CCA assigned to the customer and a designation if the customer utilizes manure-based nutrients, if applicable. NOTE: Grower customer records to be kept confidential by Nutrient Service Provider and made available for review during an audit. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| D1 Acceptable Evidence | The NSP will record and submit a list as noted- this is the auditor's population for sample selections. This list can be coded (i.e. Customer A, B, C, etc.) For the pilots the customer list will only include those involved in the cost share practice. | |
| D1 Evidence Observed | Evidence: | Source of Evidence: <ul style="list-style-type: none"> <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| D2 | Field map records include information such as yield goals, sensitive areas, soil type delineation, setbacks, soil test results, watershed location and nutrient recommendations. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| D2 Acceptable Evidence | Review of records on file, can be hard copy or electronic. Multiple data layers or maps/documents are acceptable. | |
| D2 Evidence Observed | Evidence: <ul style="list-style-type: none"> <input type="checkbox"/> Provided in nutrient recommendation software <input type="checkbox"/> Other | Source of Evidence: <ul style="list-style-type: none"> <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| D3 | 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. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| D3 Acceptable Evidence | Review of applicable laws, can be kept in hard copy or electronic format by Nutrient Service Provider. | |

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| D3 Evidence Observed | Evidence: <input type="checkbox"/> Resources available online <input type="checkbox"/> Hardcopy on location <input type="checkbox"/> Other | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| D4 | Nutrient recommendations and services are reviewed by the certified professional and with the grower customer. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| D4 Acceptable Evidence | Customer service agreement to show growers services and recommendations included with planning process. To be tested during pilot phase. Could be the cost share agreement document. | |
| D4 Evidence Observed | Evidence: <input type="checkbox"/> CCA reviews and discusses with customer <input type="checkbox"/> CCA reviews and agronomy staff reviews with customer <input type="checkbox"/> Other | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| R1a | Soil tests must be completed by a Missouri State Approved Soil Testing Lab and completed a minimum of every 4 years. Samples should be uniform on 25 acres or less. With grid/zone sampling being more robust and accurate, these technologies should be considered. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| R1a Acceptable Evidence | Current soil test records on file. | |
| R1a Evidence Observed | Evidence: <input type="checkbox"/> Retailer uses _____ for soil analysis <input type="checkbox"/> OM <input type="checkbox"/> P <input type="checkbox"/> K <input type="checkbox"/> pH <input type="checkbox"/> CEC | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| R1b | Soil tests must include minimum results of OM, P, K, pH, CEC and scope of sample on 25 acres or less. NOTE: With grid/zone sampling being more robust and accurate, these technologies should be considered. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| R1b Acceptable Evidence | Current soil test records on file. | |
| R1b Evidence Observed | Evidence: <input type="checkbox"/> Provided in nutrient recommendations <input type="checkbox"/> OM <input type="checkbox"/> P <input type="checkbox"/> K <input type="checkbox"/> pH <input type="checkbox"/> CEC | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |

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| R2a | Nutrient recommendations consider at least the following: land-grant university recommendations and soil tests taken within the last 4 years. Nutrients are applied according to a written Nutrient Recommendation that has been prepared within the prior 4 years. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| R2a Acceptable Evidence | Nutrient recommendations based on the University of Missouri guidelines, Tri-State Fertilizer Recommendations, or other Midwest Land Grant University recommendations, notation of soil conditions at time of application, and copy of soil tests. These guidelines allow for adaptive management based on documented on-farm data showing reasonable expectation of improved crop yield without increased risk of harm to water quality. | |
| R2a Evidence Observed | Evidence: <input type="checkbox"/> Nutrient recommendations based off MoFCB approved resource <input type="checkbox"/> Soil tests taken within the last 4 years <input type="checkbox"/> Other | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| R2b | Nutrient recommendations consider at least the following: all nutrient sources (including manure), yield potential/history, split N application and N inhibitors/stabilizers. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| R2b Acceptable Evidence | All sources of nutrients are included in the recommendation records. Credits are given to all nutrient sources applied (e.g., manure); commercial nutrient is adjusted accordingly. | |
| R2b Evidence | Evidence: <input type="checkbox"/> Information gathered during customer/retail staff discussion <input type="checkbox"/> Other | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| R2c | Potential soil conditions and soil management are documented before making nutrient recommendations - frozen or snow covered ground, tillage practices (no-till, reduced tillage, or other), soil temperature, method of application, P-Index | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| R2c Acceptable Evidence | Notation in Nutrient Plan of date of planned application, notation in plan of tillage practices and timing of tillage relative to nutrient applications, resource documented for observing soil temperature for N applications | |
| R2c Evidence Observed | Evidence: <input type="checkbox"/> Information gathered during customer/retail staff discussion <input type="checkbox"/> Other | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| A1 | Application records must not exceed nutrient recommendations for customer applied acres, within a 10% margin of error. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |

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| A1 Acceptable Evidence | <p>Hard copy or electronic records on file indicating nutrient recommendation and applied scale ticket or as-applied map. Records of application will be compared to the nutrient recommendations on file. Only applicable to the full-service customers. For applications made by the Nutrient Service Provider, records of nutrient application include at minimum:</p> <ul style="list-style-type: none"> - fertilizer/nutrient sources, - method of application, - rate of application, - time of application, - a field map showing locations of application | |
| A1 Evidence Observed | <p>Evidence:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Available through application software and/or documents <input type="checkbox"/> Fertilizer/nutrient sources <input type="checkbox"/> Method of application <input type="checkbox"/> Rate of application <input type="checkbox"/> Time of application <input type="checkbox"/> Field map showing locations of application | <p>Source of Evidence:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| A2 | <p>Nutrient placement considers tillage, growing crops, injecting/knifing/y-drops/banding, and broadcasting.</p> | <ul style="list-style-type: none"> <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| A2 Acceptable Evidence | <p>Nutrient plan includes evaluation of proper application process.</p> | |
| A2 Considerations for N and P placement | <p>Commercial phosphorus fertilizer shall not be recommended or applied to frozen or snow-covered ground. Phosphorus fertilizer should be incorporated as soon as practical in recommendations and application, as related to the risk for phosphorus loss to surface waters demonstrated in the MO Phosphorus Runoff Index risk assessment procedure.</p> | |
| | <p>Commercial nitrogen fertilizer shall not be recommended or applied in the fall without a nitrogen inhibitor product and until not applied until after soil temperatures are below 50 degrees F based on university soil temperature maps.</p> | |
| A2 Evidence Observed | <p>Evidence:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Information gathered during customer/retail staff discussion <input type="checkbox"/> Other | |
| A3 | <p>Weather or forecast use around nutrient applications.</p> | |
| A3 Acceptable Evidence | <p>Demonstrate weather forecasting tools used by the retail location.</p> | |

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| A3 Evidence Observed | Evidence: <input type="checkbox"/> In-house weather software/app (i.e. DTN) <input type="checkbox"/> Mobile weather app <input type="checkbox"/> Other | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| A4 | Crop yield goals are discussed with the grower and are based on previous crop history. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| A4 Evidence Accepted | Review of records on file (hard copy or electronic). Proof of level of crop management may be records of previous yield history. | |
| A4 Evidence Observed | Evidence: <input type="checkbox"/> Information gathered during customer/retail staff discussion <input type="checkbox"/> Other | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| A5 | Environmentally sensitive areas (such as tile inlets, well heads, areas of concentrated flow, gullies, and water bodies where nutrient application may occur) are documented and discussed with the grower customer. | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| A5 Evidence Accepted | Identify sensitive areas and/or show examples on field maps. | |
| A5 Evidence Observed | Evidence: <input type="checkbox"/> Information gathered during customer/retail staff discussion <input type="checkbox"/> Noted on field maps <input type="checkbox"/> Other | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |
| A6 | Regular equipment calibration frequency (annual calibration minimum). | <input type="checkbox"/> C <input type="checkbox"/> NC <input type="checkbox"/> NA |
| A6 Accepted Evidence | Calibration (i.e. maintenance) records indicating equipment service date and any maintenance/service required. Nutrient Service Providers should outline any new technology goals. | |
| A6 Evidence Observed | Evidence: <input type="checkbox"/> In-house maintenance and calibration records <input type="checkbox"/> Field test records <input type="checkbox"/> Other | Source of Evidence: <input type="checkbox"/> Document <input type="checkbox"/> Interview <input type="checkbox"/> Observation |