



## **4R Program Education guidelines to meet Requirements 1.2.3 and 1.3.2**

**1.2.3 - Nutrient Service Providers sales, and application staff attend a training at least once every 2 years on 4R Nutrient Stewardship. This is demonstrated through a minimum of 2 hours of relevant training approved by the program administrator.**

*Evidence:*

An educational session attended with a focus on pre-approved topic(s). Pre-approved topics are listed below. If a company has a topic that does not directly fit into a topic area below, please contact the Program Administrator, Ohio AgriBusiness Association - Andrew Allman at 614.326.7520 ext. 1 or [aallman@oaba.net](mailto:aallman@oaba.net), and keep a record of the correspondence on file.

Agenda and/or certificate of attendance of the educational event proving training on 4R Nutrient Stewardship (approved by the Program Administrator or meeting a topic(s) below) for at least 2 Continuing Education Credit or 120 minutes.

**1.3.2 - Nutrient Service Provider has sponsored or directly provided a training session on 4R Nutrient Stewardship that is available for all grower customers.**

*Evidence:*

An educational session held as a part of a company's hosted event or sponsorship of an educational program held in the branch location's market area. The program should be advertised to all grower customer clients of the branch location, making it widely available. Pre-approved topics are listed below. If a company has a topic that does not directly fit into a topic area below, please contact the Program Administrator, Ohio AgriBusiness Association - Andrew Allman at 614.326.7520 ext. 1 or [aallman@oaba.net](mailto:aallman@oaba.net), and keep a record of the correspondence on file.

Agenda of the company-sponsored educational event proving training on 4R Nutrient Stewardship (approved by the Program Administrator or meeting a topic(s) below) for at least 0.5 Continuing Education Credit or 30 minutes.

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### **4R NUTRIENT STEWARDSHIP PRE-APPROVED EDUCATIONAL TOPICS UNDER THE 4R NUTRIENT STEWARDSHIP CERTIFICATION PROGRAM:**

1. Overview of Sustainable Practices and Principles
  - a. Definition of sustainable = economics, environment, society
  - b. Sustainable and Risk dynamics in the Western Lake Erie Basin or other Ohio waters
  - c. Tri-State Fertilizer Guide
  - d. Adaptive management

**4R NUTRIENT STEWARDSHIP PRE-APPROVED EDUCATIONAL TOPICS UNDER THE 4R NUTRIENT STEWARDSHIP CERTIFICATION PROGRAM (continued):**

2. 4R Practices and Principles
  - a. Right Source
    - i. Commercial
      1. Dry
      2. Liquid
      3. Additives and Stabilizers
    - ii. Biosolids and Animal and Green Manures
  - b. Right Rate
    - i. Plant Nutrient Demand
    - ii. Soil Nutrient Supply
    - iii. Fertilizer Efficiency
    - iv. Economic Returns
  - c. Right Time
    - i. Crop Uptake
    - ii. Soil Nutrient Supply
    - iii. Soil Nutrient Loss
      1. Rainfall
      2. Temperatures
  - d. Right Place
    - i. Root Uptake
    - ii. Broadcast Application
    - iii. Banding Application
    - iv. Foliar Application
    - v. Variable Rate Technology
3. Soil Testing Procedures
  - a. Timing
  - b. Tillage Type
  - c. Management Zone or Grid
  - d. Understanding soil test methods and results
4. Other 4R Supporting Practices and Programs
  - a. Development and implementation of Nutrient Management Plans
  - b. Soil and Water Conservation Practices that help reduce nutrient runoff
  - c. Cost sharing assistance available for implementing nutrient management plans and conservation practices.