NRCS Natural Resources Conservation Service

Nutrient Management

Alabama Job Sheet No. AL590C

Prepared for: _____

Prepared by: _____

Farm: _____ Tract Number: _____ Date: _____

DEFINITION:

Managing the amount (rate), source, placement (method of application), and timing of plant nutrients and soil amendments.

PURPOSES: (check all applicable):

- ☐ To budget, supply, and conserve nutrients for plant production.
- ☐ To minimize agricultural nonpoint source pollution of surface and groundwater resources.
- ☐ To properly utilize manure or organic by-products as a plant nutrient source.
- ☐ To protect air quality by reducing odors, nitrogen emissions (ammonia, oxides of nitrogen), and the formation of atmospheric particulates.
- ☐ To maintain or improve the physical, chemical, and biological condition of soil.

CONDITIONS WHERE PRACTICE APPLIES:

This practice applies to all lands where plant nutrients and soil amendments are applied.

SPECIFICATIONS:

The information provided in this job sheet and attachments (conservation plan, maps, and other documents) will meet the requirements of this practice and a nutrient management plan. This nutrient management plan should be implemented as a system of practices and not just a single practice. Fields that receives applications of nutrients may require the implementation of conservation practices as needed to treat erosion, run off and water management to protect water quality. An evaluation of the site specific risk for nutrient loss potential shall be made to insure the practice meets the needs of the producer and protects water quality. Additionally this nutrient management plan will be based on the principles of the 4 R's of nutrient management (Right rate, Right time, Right place, and Right source) and a nutrient budget that considers crop needs and all nutrient sources. Applications of nutrients must comply with all federal, state and local regulations including but not limited to ADEM requirements on the application of animal waste.

This Nutrient Management Plan Includes:

1. A plan map (acres indicated), soil map and map of sensitive areas or topo map (attached).
2. Planned crop or crop rotation (Table 1).
3. Results of soil test with recommendations (attached).
4. Results of applicable risk assessments, P index (attached if manure is used), N index (Table 1) and soil loss if crop land (attached).
5. Realistic yield goals for all crops (Table 1).
6. Recommended nutrient application rates, application time, placement and sources (Table 1, or attached soil test results and/or nutrient budget).

PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site, recorded in Table 1, a narrative statement in the conservation plan and attached maps, soil test results and other documents.

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OPERATION AND MAINTENANCE

Conduct periodic plan reviews to determine if adjustments or modifications to the plan are needed. At a minimum, plans must be reviewed and revised, as needed with each soil test cycle, or other major changes in the operation.

Calibrate application equipment to ensure accurate distribution of material at planned rates. Document the nutrient application rate in writing or as applied maps if applicable.

Table 1. Site specific information on the 4R's (right rate, right time, right source and right placement) needed to implement nutrient management. Right rate and right time information may be omitted from this table if information is included on the soil test report.

Track/Field	Crop/year(s)	Yield goal	N Index[1/]	Right Rate (lb/ac)[2/] N	P_2O_5	K_2O	Right Time[2/]	Right Source[3/]	Right Placement[4/]
			h						
			h						
			h						
			h						
			h						
			h						
			h						
			h						
			h						

1/ N index is the nitrogen leaching index. The leaching potential of N is high (h) throughout the state as a result of high average rainfall. As a result all N applications must be within 30 days of planting a crop or within 30 days of an actively growing crop to minimize N leaching, maximize N use efficiency and meet the requirements of the nutrient management standard. For more information on N leaching see Alabama Agronomy Technical Note Al-73, "N Leaching Index for Alabama".

2/ Right time and right rate information may be included on the attach soil test results and recommendation, if so indicated see soil test in table 1.

3/ Indicated planned nutrient source, commercial or organic waste (manure/litter). If the source is manure/litter insure that all applications comply with all federal, state and local regulations including but not limited to ADEM requirements and setbacks as indicated on the conservation plan maps.

4/ Indicated planned nutrient placement to minimized nutrient loss and maximize nutrient use efficiency. For example, broadcast on spreadable area as indicated on conservation plan maps or broadcast N starter, P_2O_5 and K_2O and band sidedress N at the planned rate.

Practice Design Certification (To be completed after job sheet is complete and before practice installation)

The site specific requirements for the installation, operation, and maintenance of the practice on the client's treatment unit, as recorded in this job sheet, attached programmatic requirement (attached if applicable) and other attached documents, have been prepared in accordance with the 590 Nutrient Management Standard and the guidance in the 590 Nutrient Management Practice Specifications:

Planner: _____ **Date:** _____
(Signature)

Landowner/Cooperator: _____ **Date:** _____
(Signature)

EQIP Practice Guidelines

590 Nutrient Management

Participant Name: _____ ____ Date: _____

Contract Number: _____

General EQIP limitations: (Applicable to all EQIP contracts)

- Acres eligible for incentive payments are acres that have not previously adopted nutrient management as described below or acres that will apply the management at a higher level as described below.
- Participants will be **required** to provide the field office with hardcopy or electronic copy (shapefile (.shp), Rich Text Format (RTF), Portable Document Format (PDF), or jpeg file) of as-applied map including field boundaries, rate and date of application before completion of the contract.

☐ **EQIP limitations for variable-rate application (VRA):** Plan must indicate selected method (1 or 2) and a selected level of correction (a or b) if participating in this program. Circle selected method and correction. This incentive is only applicable on **cropland**.

VRA Method:

1. At least one VRA of nutrients (lime, phosphorus and/or potassium) based on soil samples and recommendations that represent grid sampling or zone sampling. Grid sampling shall not represent areas greater than 2.5 acres. Zone soil sampling can represent areas of no greater than 20 acres. Zones must be based on soil survey data or soil electrical conductivity data, or aerial or satellite images or georeferenced yield data. Any combination of the listed data may also be used to establish zones.
2. Nitrogen VRA should be made based on sensor technology (examples: Greenseeker, Crop Circle, etc). Sensor data can be used for an on-the-go variable-rate application or sensor data can be collected from the field and nitrogen applied based on said data in a subsequent application. All VRA of nitrogen based on sensor technology should be made in accordance with Alabama Cooperative Extension recommendations.

Level of GPS Correction for VRA Application:

a. VRA must be conducted using a vehicle equipped with a GPS-enabled guidance utilizing correction service with +/- 6 inch accuracy and year-to-year repeatability i.e. WAAS, SF1, etc.
b. VRA must be conducted using a vehicle equipped with GPS-enabled guidance utilizing RTK correction service (including CORS and network solutions) with +/- 1 inch accuracy and year-to-year repeatability.

O **EQIP limitations for precision application:** Plan must indicate selected method (1 or 2) if participating in this program. Circle selected method. This incentive is applicable on **cropland and pastures**.

1. At least one precision application of organic nutrients (litter) is made with a spinner-disc spreader that is equipped with a rate controller and GPS guidance. This GPS guidance must utilize a correction service with +/- 6 inch accuracy or better and year-to-year repeatability i.e. WAAS, SF1, RTK etc.
2. At least one precision application of organic nutrients (litter) is made with a spinner-disc spreader that is equipped with a rate controller, automatic section control and GPS guidance. This GPS guidance must utilize a correction service with +/- 6 inch accuracy or better and year-to-year repeatability i.e. WAAS, SF1, RTK etc.

Alabama Practice Certification:
590: Nutrient Management

Landowner/Cooperator _____

Field Office _____

Farm/Tract No. _____

The attached records and/or the producer certifies that they possess records that document the right rate, right time, right source and right placement was used that meets the requirements and/or applicable program limitations of nutrient management. If certification is associated with an EQIP payment for variable-rate application or precision application, a hardcopy or electronic copy (shapefile (.shp), Rich Text Format (RTF), Portable Document Format (PDF), or jpeg file) of as-applied map(s) including field boundaries, rate and date applied must be attached.

Yes___ No____

Notes:

This practice has been installed according to the site specific installation requirements and meets standards and specifications:

NRCS Certification: _____ **Date:**_____
(Signature)