

Equipment Tax Credit Implementation Guidance

The 1996 General Assembly amended §58.1-337 and §58.1-436 of the Code of Virginia relating to a tax credit for the purchase of equipment that provides for more precise application of fertilizers and pesticides. The Virginia Soil and Water Conservation Board, at its July 18, 1996 meeting, revised the Specifications for Certified Equipment.

Agricultural Production

Equipment qualifying for this credit must be used in “agricultural production for market”. To elaborate, the Code of Virginia definition (Section 15.1-1508) is as follows:

“Agricultural products shall mean crops, livestock and livestock products which shall include, but not be limited to the following:

- Field crops, including corn, wheat, oats, rye, barley, hay, tobacco, peanuts, potatoes and soybeans.
- Fruits, including apples, peaches, grapes, cherries and berries.
- Vegetables, including tomatoes, snap beans, cabbage, carrots, beets and onions.
- Horticultural specialties including commercial flowers, nursery stock, ornamental shrubs, ornamental trees and Christmas trees.
- Livestock and livestock products including cattle, sheep, hogs, goats, horses, poultry, furbearing animals, milk, eggs and furs.

Agricultural production shall mean the production for commercial purposes of crops, livestock and livestock products and shall include the processing or retail sales by the producer of crops, livestock and livestock products which are produced on the parcel or in the district.”

Nutrient Management Plans

An additional component of the legislation is the requirement of a nutrient management plan approved by the local Soil and water Conservation District (District). The key components of the nutrient management plan are:

- Field Maps indicating field locations and environmentally sensitive areas
- Soil Productivity information
- Nutrient Management Recommendation by field or rotation based upon soil and/or manure tests as applicable
- Plan narrative to explain how to use the plan

The nutrient management plan should be developed to utilize the more precise application equipment to which the tax credit applies. Each district must establish a technical review process for such plans to assure that all nutrients are being properly utilized. Plan approval is a one time requirement fulfilled only for the year in which the tax credit is taken.

Equipment Certification

To receive the tax credit, a piece of equipment must meet all the specifications for its category as adopted by the Virginia Soil and Water Conservation Board. It will be the responsibility of the purchaser to determine if the equipment can meet these specifications. The Virginia Soil and Water Conservation Board will not be producing an approved equipment list or reviewing each request. Nor is it the responsibility of the District or any other agency staff to determine or advise the purchaser if his equipment qualifies. Similarly, it will be the responsibility of the individual to pursue the development of a nutrient management plan and have it approved by the District.

Filing the Commonwealth of Virginia Tax Return

The Virginia Department of Taxation will require as certification a copy of the letter from the local District indicating that the nutrient management plan has been approved. This letter (along with a list of the qualifying equipment purchased) must be attached to the Schedule CR with the state tax return when it is filed to receive the credit.

Nutrient management plans for the 1996 tax year and all future tax years must be written and approved prior to the required filing date of the individual's or corporation's tax return for that year. The tax credit will not be approved without the attached letter of approval by the District board.

Additional questions regarding tax policy should be directed to either a qualified tax consultant or the Virginia Department of Taxation, Office Services Division, Taxpayer Assistance Section.

Specifications for Certified Equipment

Tax Credit for Purchase of Advanced Technology Pesticide and Fertilizer Application Equipment

The following criteria have been developed to comply with §58.1-337 and §58.1-436 of the Code of Virginia. This section of the Code of Virginia established a “Tax credit for purchase of advanced technology pesticide and fertilizer application equipment.” The requirements for eligible individuals and corporations (Commercial applicators excluded) for receiving this credit are:

- Establishment of a nutrient management plan approved by the local Soil and Water Conservation District.
- Purchase of “equipment certified by the Virginia Soil and Water Conservation Board as providing more precise pesticide and fertilizer application.”

The categories of equipment covered include:

- I. Sprayers for Pesticide and Liquid Fertilizers**
- II. Pneumatic Fertilizer Applicators**
- III. Monitors and Flow Regulators for Sprayers and Liquid Fertilizer Applicators**
- IV. Manure Application Equipment**
- V. Tramline Adapters**
- VI. Starter Fertilizer Banding Attachments for Planters.**
- VII. Variable Rate Application Equipment Using Spatial Positioning Systems**
- VIII. Other Equipment**

The certification criteria for equipment eligible to receive this income tax credit are as follows:

I. Sprayers for Pesticides and Liquid Fertilizers

Newly purchased sprayers, to qualify for the credit, must have all of the following features.

- A. Quick change nozzle tips to enable operators to select and position the correct spray tip for each type of pesticide and/or liquid fertilizer application. These must also be “no drip” type nozzles.
- B. Adequate pump capacity to maintain required pressures at all nozzle tips on the boom and to ensure complete mixing at all times of the spray solution by recirculating at least 40% of the pumped volume.
- C. Sectioned boom “cutoffs” for boom widths greater than 20 feet that enable the operator to reduce spray width and thus reduce overlaps and applications to non-field areas when finishing irregularly shaped areas of fields.
- D. Pressure gauges on each boom section to ensure adequate pressure for even applications rates across the boom.
- E. Steps and a platform or other means where applicable to safely and easily add materials to the spray tank. The spray tank opening must be large enough for the safe addition of materials to the tank and have a lid that seals.
- F. Calibration kits for all new sprayers.

The following components are optional for new spray systems but considered desirable. Both of these items and those listed above, when purchased as components for addition to an existing sprayer will qualify for the tax credit.

- G. Spray tank drain that can be opened and closed without exposure of the operator to the solutions.
- H. Mechanical or hydraulic boom height adjustment to enable operators to select the appropriate height for each spraying situation.
- I. Marker systems which allow the applicator to more precisely locate previously sprayed areas to prevent over application in the overlap between sprayer passes.
- J. Clean water rinse systems which provide the ability to rinse spray tanks or pesticide containers in the field at the time the application is being made.
- K. Self-leveling booms which minimize boom movement and assure accurate spray patterns across the width of the boom.
- L. Multiple nozzle body systems or multiple boom systems which allow for a rapid change between previously selected tips to allow for appropriate changes in the field without leakages.
- M. Chemical injection metering systems which eliminate the need for tank mixing.
- N. Air carrying sprayers.

Newly purchased air carrying application equipment must have the following features. Items added to upgrade an existing sprayer qualify if the resultant sprayer meets the following criteria also:

1. Air carrying sprayers must have the essential features previously stated for sprayers in items B – F above. Nozzles need not be “quick change” but must be “no drip” for the system to qualify.
2. Manifold sections must have separate cutoff valves.
3. There must be top deflectors, guide vanes, or other means to adjust the direction of the flow of air.
4. The equipment must be capable of variable air volume (i.e. a variable pitch fan, variable slot width, etc...)

Optional Features:

5. Multiple nozzles.
6. Powder mixers or pre-mixers.
7. Optical or electronic sensing system to control sprayer application by providing spray shut off to the whole nozzle bank or to individual nozzles when no target is present.
8. Equipment which permits the recovery of excess spray for reuse.
9. Shields or deflectors to contain or direct the spray.

II. Pneumatic Fertilizer Applicators

Pneumatic applicators are capable of uniformly applying materials that vary in particle size on non-uniform terrain. They must possess the following characteristics to qualify for the tax credit:

Essential Criteria:

- A. Provide uniform division of the fertilizer materials from the central hopper to each “nozzle” on the boom.
- B. Allow infinitely variable rates of application within the range of application rates for the particular applicator.
- C. Have a spread pattern coefficient of variation of less than 15% for the entire boom width.

Optional but desirable criteria:

- D. Be equipped for “static” and/or moving calibration prior to field use.
- E. Have monitoring equipment which indicates the actual application rate for boom sections during field operation.
- F. Be equipped to vary the rate of application during field operation.

III. Monitors and Flow Regulators for Sprayers and Liquid Fertilizer Applicators

These are defined as electronic and mechanical devices which provide operators with an accurate indication of any of the following:

- A. True ground speed
- B. Sprayer pressures
- C. Flow rates of the spray solution
- D. Air flow in air carrying sprayers
- E. Blocked spray tips
- F. Actual application rates
- G. Allows for the accurate adjustment of application rates while spraying
- H. Metering for injected liquid fertilizer application at or post planting

IV. Manure Application Equipment

Newly purchased manure application equipment must have the following features. Items added to upgrade an existing applicator qualify if the resultant spreader meets the following criteria also.

A. Dry Manure Spreaders

Required Features:

1. Constructed so as to prevent leakage during transport and include a litter/slurry pan or a hydraulic end gate.
2. Capable of spreading manure at 2.5 tons/acre or less in a uniform swath.
3. Box spreaders (flat bottom) having a beater spreader mechanism shall be equipped with an upper beater and a gear reduction unit (slow down kit) to provide chain speeds of no more than 2.5 feet/minute.

Optional Features:

4. Spreaders having an adjustable discharge gate/door may be equipped with an indicator to display the position of the gate/door.
5. Spreaders used to apply poultry manure and litter less than 50% moisture content may have cupped beaters.

B. Liquid Manure Spreaders

Required Features:

1. Constructed so as to prevent leakage during equipment transport.
2. Capable of spreading manure at 1,000 gallons/acre or less in a uniform swath behind the spreader.
3. Have an application swath width of 20 feet or greater. The spray must be driven by a positive discharge system.

Optional Features

4. Equipment to inject the manure directly into the soil. The application swath width requirements are waived for this option.

C. Manure Irrigation System:

1. Designed for a maximum application rate of .30"/acre/hour. The nutrient management plan must address the issues of infiltration rates and environmentally sensitive areas.
2. Components submitted for the tax credit must meet the IRS "equipment" definition requirements of Federal Tax Regulation 1.48-1(c). Pipe installation in the ground is defined as real property and does not qualify.
3. Be purchased and utilized primarily for waste application.

Equipment added to irrigation systems which provide more precise pesticide or nutrient application will qualify for the tax credit. Eligible necessary components include:

1. Accessories to protect the water source by preventing back flow or back siphoning.
2. A flow sensor to monitor water flow and adjust the injection rate of pesticide or fertilizer to achieve the appropriate application rate.

V. Tramline Adapters

A tramline adapter alters a grain drill to leave certain rows unplanted. This allows for later access to the growing crop for split application of fertilizers and pesticides without damage to the crop. For the purposes of these criteria, the adapter is defined as the following components necessary for the adoption of the system:

- A. The tramline mechanism for the drill.
- B. As a set, the tires and associated rims, not to exceed 13.6" wide, necessary to adapt tractors for use in tramline systems.

VI. Starter Fertilizer Banding Attachments for Planters

Starter fertilizer attachments for planters, drills and transplanters include appropriate soil opening components and allow for accurate band applications of fertilizers near the root zone when planting or transplanting a crop. Fertilizer hoppers or liquid fertilizer tanks attached or connected by hoses to the planter during field operation are an integral component of this equipment. The starter fertilizer banding system may be purchased as part of a new planter or purchased for installation on an existing planter. For newly purchased planter, only the cost of the starter fertilizer banding system is eligible for this tax credit. The starter fertilizer banding attachment must meet the following criteria:

- A. Constructed to place fertilizer in a band below the soil surface and within the root zone of seedlings or transplants.
- B. Capable of accurately metering a range of application rates.

VII. Variable Rate Application Equipment Using Spatial Positioning Systems

This equipment combines the use of spatial positioning systems, such as global positioning using satellite technology, with variable rate application equipment for nutrients or pesticides, to result in more precise applications. To qualify for the tax credit, the equipment must:

- A. Be electronically or physically attached to sprayers for pesticides and liquid fertilizers, pneumatic fertilizer applicators, manure applicators, or starter fertilizer banding attachments for planters.
- B. Result in automated variable nutrient or pesticide application rates using:
 - 1. Spatial positioning systems
 - 2. Variable application rate controllers
 - 3. Other input data such as grid soil analysis result, soil types, expected yields or weed maps

VIII. Other Equipment

Application systems which incorporate entirely new technology or application technology not covered by these criteria will be considered by the Board on a case by case basis upon request.

- A. Pesticide application systems incorporating electrostatic charging technology to improve spray deposition shall qualify for the tax credit.