

**Chapter 40-31**  
**Soil Amendments**

**Subject 40-31-1**  
**General Provisions**

**Rule 40-31-1-.01 Definitions**

Terms used throughout these rules will be defined as provided by O.C.G.A. § 2-12-71 and as follows:

- (1) "Applicant" means the owner of the site or the operator of the site;
- (2) "Commissioner" means the Georgia Commissioner of Agriculture;
- (3) "Composting" means the biological decomposition of organic matter accomplished by mixing and piling in a way to promote aerobic or anaerobic decay and inhibit pathogens, viable weed seeds, and odors;
- (4) "Distribute" means to import, consign, offer for sale, sell, barter, or otherwise supply a soil amendment to any person in Georgia;
- (5) "Distributor" means any person who imports, consigns, offers for sale, sells, barter, or otherwise supplies a soil amendment to any person in Georgia;
- (6) "Industrial by-product" means any industrial waste or by-product which has soil-amending properties;
- (7) "Industrial waste" means any discarded material generated through industrial, commercial, mining, or agricultural operations and from community activities. Industrial waste includes solid, liquid, semisolid, or contained gaseous material. Industrial waste does not include un-manipulated manure or human waste;
- (8) "Ingredient statement" means a collective and contiguous listing of all ingredients which compose a soil amendment in descending order by their volume or weight predominance in non-quantitative terms;
- (9) "Land with a low potential for public exposure" means land that the public uses infrequently. This includes, but is not limited to, agricultural land and forest;
- (10) "Monitoring well" means a well purposely installed to ensure monitoring results that provide an accurate representation of groundwater quality;
- (11) "Other ingredients" means non-soil-amending ingredients present in a soil amendment;
- (12) "Owner" means any person owning land where a soil amendment will be or is applied;
- (13) "Permit" means an application permit for a soil amendment derived from an industrial by-product issued to an applicant by the Department for site-specific land application;

(14) “Soil-amending ingredient” means a substance which will improve the soil’s physical, chemical, biochemical, biological, or other characteristics;

(15) “Un-manipulated manure” means the excreta of animals when not artificially mixed with any material other than that which has been used for bedding, sanitary, or feeding purposes for the manure-producing animals or for the preservation of the manure, or when the excreta has not been subjected to processing other than composting, and provided such composted products are distributed in bulk only; and

(16) “Well” means an exaction or opening into the ground by which groundwater is sought for use. This term does not include monitoring wells used to sample for groundwater quality.

Authority: O.C.G.A. § 2-12-70, *et seq.*

**Rule 40-31-1-.02 General Prohibitions**

In addition to all other requirements set forth by O.C.G.A. § 2-12-70, *et seq.*, and this subject, a person must not:

- (1) distribute an unregistered soil amendment;
- (2) distribute an unlabeled or improperly labeled soil amendment;
- (3) distribute a misbranded soil amendment;
- (4) distribute an adulterated soil amendment;
- (5) apply an adulterated soil amendment derived from an industrial by-product;
- (6) distribute or apply a soil amendment derived from human waste; or
- (7) fail to comply with a stop sale, use, or removal order.

Authority: O.C.G.A. §§ 2-12-73, 2-12-76, 2-12-77, 2-12-80, and 2-12-81.

**Rule 40-31-1-.03 Sampling and Analysis**

(1) The Commissioner or his duly designated agent is authorized to collect samples of a soil amendment upon demand without charge or cost from any public or private premises within this state in which a soil amendment is manufactured, processed, packed, stored, distributed, or held for distribution and from any vehicle used to transport or hold such a soil amendment. Methods of sampling will be those prescribed by the Commissioner.

(2) The Commissioner or his duly designated agent is authorized to collect samples of a soil amendment derived from an industrial by-product upon demand without charge or cost from any public or private premises within this state in which a soil amendment is applied or held for application and from any vehicle used to transport, hold, or apply the soil amendment. Methods of sampling will be those prescribed by the Commissioner.

(3) The methods of analysis and sampling must be those adopted by the Commissioner from sources such as the AOAC International or other sources acceptable to the Commissioner.

Authority: O.C.G.A. §§ 2-12-78 and 2-12-80.

**Subject 40-31-2**  
**Registration, Labeling, and Records**

**Rule 40-31-2-.01 Registration and Renewal**

(1) Each soil amendment registrant must submit a copy of each soil amendment's label to the Commissioner alongside the registration request. The Commissioner may require experimental data providing evidence of each claim made by the soil amendment.

(2) Each registrant of a soil amendment derived from an industrial by-product must submit the following to the Commissioner alongside the registration request:

(a) A copy of the soil amendment's label;

(b) Experimental data providing evidence of each claim made by the soil amendment;

(c) A current representative analysis; and

(d) Experimental data providing evidence that the soil amendment does not contain any deleterious or harmful agent in sufficient quantity to be injurious to beneficial plants, animals, or aquatic life found in Georgia when applied in accordance with the directions for use shown on the label.

(3) Experimental data – Each experiment providing data as proof of a soil amendment's claims must be conducted under conditions identical or closely related to those conditions present in Georgia.

(4) Current representative analysis – To be classified as current, a representative analysis must have been conducted within six months of submission. Each analysis must be conducted by a laboratory approved by the Commissioner. Results from each laboratory analysis must appear on the laboratory's letterhead and indicate the specific analytical method utilized. Each analysis must include the following items:

(a) Ammonia as Nitrogen (%);

(b) Total Kjeldahl Nitrogen (%);

(c) Nitrate as Nitrogen (%);

(d) Percentage of volatile solids;

(e) Percentage of total solids;

(f) pH (standard units);

(g) Total Phosphorus as Phosphorus (%);

(h) Total Potassium as Potassium (%);

(i) Arsenic (mg/kg);

- (j) Cadmium (mg/kg);
- (k) Copper (mg/kg);
- (l) Lead (mg/kg);
- (m) Mercury (mg/kg);
- (n) Molybdenum (mg/kg);
- (o) Nickel (mg/kg);
- (p) Selenium (mg/kg); and
- (q) Zinc (mg/kg).

(5) Renewal – Each registration renewal application for a soil amendment derived from an industrial by-product must include a current representative analysis.

(6) Soil amendments derived from industrial by-products – The registrant must identify a product as “derived from industrial by-products” in the registration application for any soil amendment that is derived from an industrial by-product and packaged as a single ingredient product or blended with another soil amendment, fertilizer, agricultural mineral, or lime product. The application must identify the industry producing the by-product, the industry process or processes generating the by-product, and the location of the facility that generated the by-product.

(7) Additional laws and regulations – Registration of a soil amendment with the Department does not entitle a person using the product to violate laws or regulations administered by another authority holding jurisdiction, including water quality standards administered by the Department of Natural Resources.

Authority: O.C.G.A. §§ 2-12-73 and 2-12-80.

## **Rule 40-31-2-.02 Labeling**

(1) Each soil amendment label must include an application rate as part of the soil amendment's minimum application directions.

(2) The label of each soil amendment derived from an industrial by-product must include the following as part of the minimum application directions:

(a) Application rate;

(b) Application timing and minimal intervals;

(c) Method of application;

(d) Buffer zone requirements;

(e) Recordkeeping requirements;

(f) The statement "APPLY ONLY AS DIRECTED" or a statement of similar designation; and

(g) The statement "APPLY ONLY UNDER PERMIT FROM THE GEORGIA DEPARTMENT OF AGRICULTURE" or a statement of similar designation.

(3) Bulk Shipments – Any soil amendment distributed in a bulk shipment must be accompanied by a printed label that meets the specifications detailed in the appropriate section of this rule. This printed label must accompany the delivery and be supplied to the purchaser at the time of delivery.

Authority: O.C.G.A. §§ 2-12-76 and 2-12-80.

### **Rule 40-31-2-.03 Records**

(1) Distribution Records – Each person who distributes a soil amendment in Georgia must maintain records of each distribution. Each distribution record must include the following:

- (a) Each distributed product;
- (b) Quantity of each distributed product;
- (c) Date of distribution;
- (d) Name of person supplying the product, if different from the distributor; and
- (e) Name of each person receiving the product.

(2) Application Records – Each person who applies a soil amendment derived from an industrial by-product in Georgia must maintain records of each application. Each application record must include the following:

- (a) Each applied product;
- (b) Quantity of each applied product;
- (c) Date and time of application;
- (d) Size of area where the product is applied;
- (e) Application rate (volume per acre);
- (f) Name of person supplying the product, if different from the applicator;
- (g) Address or GIS coordinates of the field receiving the product;
- (h) Name of the property owner;
- (i) Crop or vegetation grown on the site;
- (j) Amount of precipitation within the period beginning 24 hours before application and ending 24 hours after application; and
- (k) Notation of any unexpected occurrence during application.

(3) Signature of Application Supervisor – Each application record for a soil amendment derived from an industrial by-product must have the following certification statement signed by the person supervising the application: “I certify under penalty of law that this application was made under an approved permit with the Georgia Department of Agriculture and all storage, transport, and application requirements have been met. This determination has been made under my direction and supervision, and I am aware that there are significant penalties for false certification including the possibility of fine or imprisonment.”



(4) Record Retention – Each distribution record pertaining to a soil amendment must be maintained for two years. Each application record pertaining to a soil amendment derived from an industrial by-product must be maintained for five years.

(5) Submission of Distribution Reports – Each registrant must submit all distribution records to the Department on a semiannual basis as required by O.C.G.A. § 2-12-75. As part of collaborative efforts, the Department will share all distribution records received with both the Environmental Protection Division of Georgia’s Department of Natural Resources and the United States Department of Agriculture’s Natural Resources Conservation Service.

(6) Submission of Application Records – Each applicator must submit all application records pertaining to soil amendments derived from industrial by-products to the Department on a semiannual basis. Records produced from January 1 to June 30 must be received by the Department by July 30. Records produced from July 1 to December 31 must be received by the Department by January 30. As part of collaborative efforts, the Department will share all application records received with both the Environmental Protection Division of Georgia’s Department of Natural Resources and the United States Department of Agriculture’s Natural Resources Conservation Service.

(7) Request to Produce Records – Each distribution and application record must be made available to the Commissioner or the Commissioner’s designated agent upon demand.

Authority: O.C.G.A. §§ 2-12-75 and 2-12-80.

**Subject 40-31-3**  
**Additional Provisions**

**Rule 40-31-3-.01 Soil Amendments Derived from Industrial By-Products**

(1) Permitting – A soil amendment derived from an industrial by-product must not be applied without a site-specific permit issued by the Department. A permit will be issued by the Department without charge or cost upon receipt and approval of a permit application. All materials submitted must be complete and accurate, and applications must be accompanied by all required information and documentation.

(a) Each applicant must submit the following alongside a permit application: soil test results obtained from the specific site within 6 months of the application's submission, test results of the product to be applied to the specific site, and documentation of equipment calibration conducted within 6 months of the application's submission. Upon receiving a permit, the permit holder must follow best management practices for nutrient management.

(b) Each permit will cover the application of a single soil amendment at a single site and will expire one year following approval. An applicant may renew a permit to avoid a lapse in coverage; however, this renewal must be received by the Commissioner at least 120 days prior to the existing permit's expiration date. A renewed permit will have a fixed one-year term under the same provisions as the original permit.

(c) If the permit applicant is not the owner of the site, then the applicant must submit a letter of agreement between the applicant and the site's owner.

(d) A permit holder must not transfer or attempt to transfer a permit to another person, site, or soil amendment.

(e) Only land with a low potential for public exposure will be considered for an application permit.

(f) No human or hazardous waste may be applied to any permitted site.

(g) Any form submitted to the Department as part of the permit application process must be signed in accordance with the following: a responsible corporate officer must sign for a corporation; a general partner must sign for a partnership; the proprietor must sign for a sole proprietorship; and either a principal executive officer or ranking elected official must sign for a municipality, state, federal, or other public facility. All other reports or requests for information required by the Department must be signed by a person designated above in this subpart or a duly authorized representative of the person. To be classified as a duly authorized representative, a person must be designated as such in a writing submitted to the Commissioner.

(h) Any person signing a document under Subpart g of this Rule must make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my supervision in a manner calculated to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiries, the information submitted is true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment."

(i) The Commissioner may modify, suspend, or revoke a permit for good cause, including but not limited to the failure to provide accurate information in the permit application or failure to comply with any provisions of the permit, this Chapter, or applicable laws. Suspension is effective upon service of a written notice, and operation must cease immediately. The notice must state the basis for the suspension and advise the permit holder of the right to a preliminary hearing on request. If a hearing is not requested, the permit holder may request an inspection to reinstate the permit upon correction of all violations.

(2) Public Access – Public access to a permitted site must be restricted by fencing or other means approved by the Department, and the method of public access control will be specified in the permit. Each site entrance must be posted with a "No Trespassing" sign identifying the area as an application site for a soil amendment derived from an industrial by-product. The sign must include the name and address of the person engaging in the application and the site permit number.

(3) Monitoring – A soil amendment derived from an industrial by-product applied under an authorized permit with the Department must be subject to monitoring, recordkeeping, and reporting requirements reasonably required by the Commissioner. These requirements may include: the installation, use, and maintenance of monitoring wells or other equipment; the monitoring of surface waters; specific requirements for recording monitoring activities and results; and periodic reporting of monitoring results to the Department. All samples must be analyzed by a laboratory that is approved by the Department.

(a) The monitoring, recordkeeping, and reporting requirements will be specified in a permit when issued; however, the Commissioner may modify or require additional monitoring, recording, and reporting by written notification to the permit holder.

(b) The frequency of sampling and reporting will be specified in the permit, but in no case will the frequency be less than once per quarter.

(c) The permit holder must retain all monitoring records for a minimum of five years, unless otherwise required or extended by the Commissioner upon written notification.

(d) The permit holder must provide a report containing all monitoring records on a semiannual basis to the Department. A monitoring report covering January 1 through June 30 must be received by the Department no later than July 30 of each year. A monitoring report covering July 1 through December 31 must be received by the Department no later than January 30 of each year.

(4) Storage and Transport – A soil amendment derived from an industrial by-product must be stored and transported in a sealed, leak-proof, durable, and corrosion-resistant container. Open-air, underground, or in-ground containers must not be used for storage of any soil amendment derived from an industrial by-product.

(a) Each container must be maintained in good repair.

(b) Each container must be loaded, moved, and unloaded in a manner which prevents the contents from falling, leaking, or spilling.

(c) A container which has been used for any other purpose must be thoroughly cleaned and all residue must be removed before the container is used to hold a soil amendment derived from an industrial by-product. All wastewater generated through container cleaning must be handled in a manner which meets all applicable environmental laws and regulations.

(5) Method of Application – A soil amendment derived from an industrial by-product must be applied through subsurface injection at a rate which leaves no significant amount of product on the soil's surface within one hour following injection. A person must not discharge a soil amendment derived from an industrial by-product directly onto the earth's surface. Injection may be accomplished by any device that places the soil amendment beneath the soil in a narrow trench and promptly replaces the cover soil in the same action of trenching and placing the amendment. Excavation of a trench followed by placement of the soil amendment and later covering of the trench is not considered injection.

(6) Application Timing – A soil amendment derived from an industrial by-product must not be applied to soil saturated with water or during rain events.

(7) Buffer Zones – Any person applying a soil amendment derived from an industrial by-product must establish and maintain the following buffer zones:

(a) 300 feet between the area of application and a residence, facility, or land area frequently used by the general public, other than a school;

(b) 300 feet between the area of application and the normal water level of any impoundment, tributary, stream, or coastal water, or other body of water;

(c) 300 feet between the area of application and a marsh, wetland, or sinkhole;

(d) 500 feet between the area of application and a well; and

(e) 500 feet between the area of application and a school.

(8) pH Impacts – The pH of the soil in the permitted site must be maintained at a pH amendable for growing the cover crop.

(9) Annual Pollutant Loading Rate Limit – A person must not apply a soil amendment derived from an industrial by-product to a site at a rate that exceeds the annual pollutant loading rate limit in the following table for arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, and zinc:

<u>Pollutant</u>	<u>Annual Pollutant Loading Rate Limit (kg/hectare/year)</u>
Arsenic	2.0
Cadmium	1.9
Chromium	150
Copper	75
Lead	15
Mercury	0.85
Nickel	21
Selenium	5.0
Zinc	140

(10) Cumulative Pollutant Loading Rate Limit – A person must not apply a soil amendment derived from an industrial by-product to a site at a rate that exceeds the cumulative pollutant loading rate limit in the following table for arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, and zinc:

<u>Pollutant</u>	<u>Cumulative Pollutant Loading Rate Limit (kg/hectare)</u>
Arsenic	41
Cadmium	39
Chromium	3,000
Copper	1,500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2,800

(11) Additional Reporting – A permittee may be required to sample for additional parameters upon written notification of the Department. These parameters may include additional heavy metals and organic compounds. A permittee must also report the annual loading rate (kg/hectare/year) and cumulative loading rate (kg/hectare) of the following:

- (a) Total Nitrogen, mg/kg
- (b) Ammonia as N, mg/kg
- (c) Total Kjeldahl Nitrogen, mg/kg
- (d) Nitrate as N, mg/kg
- (e) Total Volatile Solids, mg/kg
- (f) total Solids, mg/kg
- (g) Total Suspended Solids, mg/kg
- (h) total Phosphorus as P, mg/kg
- (i) Total Potassium as K, mg/kg
- (j) pH, standard units

Authority: O.C.G.A. § 2-12-80.