

CODE OF ORDINANCES
CHAPTER 14.5 – MISCELLANEOUS PROVISIONS
ARTICLE II. - MANUFACTURED FERTILIZERS

Editor's note — Ord. No. C-310, adopted April 15, 1991, specified that its provisions be included as an article to a new Ch. 27. In order to preserve the alphabetical sequence of the Code, and with the township's consent, the editor has redesignated these provisions as Art. II, §§ 14.5-11—14.5-21, to a new Ch. 14.5.

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Sec. 14.5-11. Intent and purpose.

- (a) Based upon scientific studies and general knowledge, the township board has determined that certain compounds containing nitrogen and phosphorus which are contained in manufactured fertilizers, when used within the township, enter into the township's water resources, including wetlands and watercourses, resulting in excessive and accelerated growth of algae and aquatic plants (eutrophication) which is detrimental to such water resources. Therefore, the township board has determined it necessary and appropriate to regulate the rate and application of manufactured fertilizers.
- (b) It is the intent of this article to regulate the application of manufactured fertilizers on turf areas and not on or in areas such as gardens, farms or landscape amenities.
- (c) It is also the intent of this article to implicitly recognize that mature topsoil has sufficient compounds such as phosphorus which occur naturally to promote adequate turf root growth.
- (d) It is the further purpose and intent of this article to require licensure of commercial and institutional applicators of manufactured fertilizers within the township.

- (e) It is recognized that there is a probability that stormwater flowing through an over-fertilized area of turf is likely to pick-up and carry portions of the fertilizer with it. It is also recognized that if such stormwater, carrying all or some of the elements from the fertilizer, should ultimately drain into a water course, an adverse impact upon such water course is likely. Therefore, it is the further intent of this article to provide regulations that are reasonably calculated to reduce the extent of adverse impact from fertilizer application upon water courses.
- (f) Although the risk of water pollution from potassium may not be as great as from nitrogen or phosphorus content in manufactured fertilizers, potassium does increase turbidity and otherwise adversely impact water quality, and being water soluble, is particularly prone to runoff during certain times of the year due to ground saturation and/or when low soil temperatures limit absorption by plant roots.

(Ord. No. C-310, § 1(1), 4-15-91; Ord. No. C-310-B, § 1, 5-21-01; Ord. No. C-310-C, § 1, 9-24-01; Ord. No. C-310-E, § 1, 4-19-04)

Sec. 14.5-12. Definitions.

In the interpretation of this article, the following definitions shall apply:

Commercial applicator: Any individual or entity who applies manufactured fertilizer in the township in exchange for money, goods, services or other valuable consideration.

Department: The Charter Township of West Bloomfield Department of Planning and Environment.

Director: The director of the department.

Institutional applicator: Any individual or entity who applies manufactured fertilizers for the purpose of maintaining turf areas of more than one (1) acre. Institutional applicators shall include, but shall not be limited to, owners, operators and caretakers of golf courses, public lands, schools, parks, religious institutions, utilities, industrial or business sites and any residential properties maintained in condominium and/or common ownership. Owners of individual parcels in single-family residential districts shall not be considered as institutional applicators.

Manufactured fertilizer: A commercially manufactured substance which enriches the soil containing elements essential for turf growth, being primarily nitrogen, phosphorus and/or potassium.

Turf: A covering of grass vegetation which has both aesthetic and functional benefits maintained at a given level of management.

(Ord. No. C-310, § 1(2), 4-15-91; Ord. No. C-310-E, § 1, 4-19-04)

Sec. 14.5-13. Construction of article.

This article shall be liberally construed in favor of protecting the water resources of the township, including watercourses and wetlands.

(Ord. No. C-310, § 1(3), 4-15-91)

Sec. 14.5-14. Rates and application schedule; prohibitions.

The following regulations shall apply for turf applications of manufactured fertilizers:

- (1) Manufactured fertilizers shall not be applied more than once every six (6) weeks or more than five (5) times during any one (1) calendar year to any turf area, provided, however, that such limitations shall not apply where more frequent application is undertaken in order to reduce below the maximum limits specified in this article the quantity of nitrogen included in each individual application.
- (2) Application of manufactured fertilizers shall not be permitted prior to May 1 nor after November 15 in any year (due to the inability of frozen soil to absorb nutrients, and due the lack of need or use of such nutrients by the turf, thus resulting in excess fertilizer remaining to be picked-up by stormwater and causing adverse impacts). In a year in which there has been unseasonably warm temperatures in the spring, any person may request the environmental department to authorize the application of manufactured fertilizer prior to May 1. In the consideration of such a request in a given year, the date set by environmental department for commencing the application of manufactured fertilizer shall be at least three (3) weeks after the commencement of the active lawn growing season generally experienced in the township (i.e., three (3) weeks after so called "green-up" in such year), as certified to the environmental department by a person selected by the department as having expertise in turf management.
- (3) Manufactured fertilizers shall not be applied to sidewalks, streets, driveways or other nonturf or nonlandscaped areas unless removed within a period of two (2) hours.
- (4) In view of the specialized needs of golf course turf areas, the application schedules set forth in subsection (1) above shall not apply to golf courses. Golf courses shall conform to the permissible rates specified in subsection (5). New greens and tees on golf courses shall be allowed a greater amount of annual rate of fertilizer than permitted in subsection (5) for the first two (2) years of growth, provided written notice that the permissible rates will be exceeded is given to the department prior to or immediately following the initial application of manufactured fertilizer to the green or tee area, which notice shall contain the intended schedule and rates for the two-year exemption period. Written notice of any changes or deviations from the intended schedule and rates shall be given to the department.

- (5) Individuals who are not commercial or institutional applicators shall conform with the following rates and applications. Commercial applicators and institutional applicators shall apply manufactured fertilizer only at the lowest rate necessary and without exceeding the maximum weight per application. Section 14.5-21, of this article, is intended to assist all applicators in making the determinations necessary to comply with these maximum rates.
- a. *Nitrogen (N)*. Elemental nitrogen shall be applied at the maximum of three and one-half (3½) pounds per one thousand (1,000) square feet of turf area per year. Single applications of elemental nitrogen shall not exceed one (1) pound per one thousand (1,000) square feet of turf area.
 - b. *Phosphorous (P)*. For commercial applicators, no elemental phosphorous whatsoever shall be applied to any turf area. Persons who are not commercial applicators shall use their best efforts to apply fertilizer with no elemental phosphorous; however, if a fertilizer with no elemental phosphorous is reasonably available for purchase by a noncommercial applicator, such person may apply an alternate fertilizer so long as the nitrogen to phosphorous ratio in such fertilizer is at least five-to-one (5 to 1). In addition, for all applicators, in the event a soil test is conducted, and the test results demonstrate based upon well accepted standards in the industry that the turf area in question clearly requires an application of phosphorous, then, an application of the minimum quantity of phosphorous determined by the test to be required shall be permitted, and records of such testing and results shall be maintained, made available and filed as required in section 14.5-18, below; and, in all events, application of elemental phosphorous shall not exceed the following limits:
 1. Elemental phosphorous shall not be applied in a quantity greater than seven tenths (0.7) pounds per one thousand (1,000) square feet of turf area per year; and
 2. Single applications of elemental phosphorous shall not exceed one quarter (0.25) pound per one thousand (1,000) square feet of turf area.
- (6) Because fertilizer on impervious surfaces does not achieve any benefit, and is likely to be picked-up by stormwater and carried to areas that may cause adverse impacts, the following requirements shall apply:
- a. A commercial applicator shall not leave the site at which manufactured fertilizer has been applied without first taking affirmative actions to ensure that all manufactured fertilizer on impervious surfaces is broomed, washed or otherwise moved onto areas of turf.
 - b. All persons other than commercial applicators shall, within six (6) hours following the application of a manufactured fertilizer take affirmative actions to ensure that all fertilizer on impervious surfaces is broomed, washed or otherwise moved onto areas of turf.

- (7) An objective of this article is to prevent manufactured fertilizer from being washed away from a site before it is absorbed by the turf intended to be benefited. Therefore, applying manufactured fertilizer while it is raining shall be prohibited.
- (8) The environmental department shall implement a plan to educate persons applying fertilizer to areas of turf in the township. Such education shall primarily involve the deliverance of information to those residents in assisting in the development of goals and strategies.

(Ord. No. C-310, § 1(4), 4-15-91; Ord. No. C-310-B, § 1, 5-21-01; Ord. No. C-310-C, § 1, 9-24-01)

Sec. 14.5-15. Administrative relief.

- (a) All applicators desiring to apply manufactured fertilizers more frequently than permitted in subsection 14.5-14(1) or in amounts exceeding the quantities prescribed in this article may seek administrative relief in accordance with this section.
- (b) An applicator desiring to seek administrative relief under this section shall file an application with the department on the form approved by the township board.
- (c) A soil sample or samples shall be taken from the site on which an applicator is proposing to apply manufactured fertilizers in amounts exceeding the quantities prescribed in this article. Such soil samples shall be taken by the director or his designee and forward to the Oakland County Extension Service for analysis. Following completion of the analysis, the results shall be reviewed by the director or the director's designee.
- (d) Approval or denial of the application shall be determined by the director as expeditiously as possible, but in no event later than five (5) days after receipt of the soil analysis, taking into consideration the following criteria:
 - (1) Anticipated environmental impact upon surrounding water resources.
 - (2) Permeability of soils and topographic conditions of the site.
 - (3) Conditions of stormwater management systems and ability of the system for nutrient uptake.
 - (4) Percentage of the site allocated to impervious surfaces.
 - (5) Necessity demonstrated by the application with regard to the turf management requirements of the site.

(Ord. No. C-310, § 1(5), 4-15-91)

Sec. 14.5-16. Special regulation for wetlands and watercourses.

Manufactured fertilizers shall not be permitted within any wetland or watercourse as defined in chapter 12 of this Code, or within any environmental feature setback area as defined in chapter 26 of this Code. The township through the wetland review board and/or township board may impose additional requirements or prohibitions with regard to the rate, area and applications of manufactured fertilizers for the purpose of protecting wetlands, watercourses and environmental feature setback areas.

(Ord. No. C-310, § 1(6), 4-15-91; Ord. No. C-310-B, § 1, 5-21-01; Ord. No. C-310-C, § 1, 9-24-01)

Sec. 14.5-17. Licensure requirement and procedure.

- (a) All commercial and institutional applicators shall be licensed in good standing by the township prior to applying manufactured fertilizers on any lands in the township.
- (b) A license issued under this article shall be valid until expiration, suspension or revocation.
- (c) To secure a license, a commercial and/or institutional applicator shall complete and submit to the township clerk a license application. Previously licensed applicators shall submit their applications by January 31 of the year for which a license is requested. The license application shall include the following:
 - (1) Legal and business name(s), address, telephone number and contact person of applicant.
 - (2) Name (if applicable), address and description of institutional applicator property, including the use, area and dimensions of the property.
 - (3) A copy of the applicant's material safety data sheet (MSDS) may also be required as part of the license application.
 - (4) The product name of names of manufactured fertilizers to be used, including the percentage weight and ratios of elemental nitrogen and elemental phosphorus.
 - (5) A description of the vehicles, including trailers, which will be used by the applicator during the license period to apply manufactured fertilizer to turf areas in the township, which shall include the make, model, year and weight of the vehicle; the size of any manufactured fertilizer tanks; the vehicle identification number; the license plate/registration number assigned by the Michigan Secretary of State and any other registration or identification numbers assigned by other state or federal governmental agencies.

- (d) Upon submission of an application to the clerk, the applicant shall pay the fee according to the schedule established by resolution of the township board, which fee schedule shall be calculated to cover the costs of the license review, issuance and periodic field inspection.
- (e) The clerk shall forward the completed application to the department for determination whether the manufactured fertilizers to be used comply with the provisions of this article.
- (f) The application shall be approved or denied within thirty (30) days by the department and, if approved:
 - (1) A numbered license shall be issued, to expire on the immediately following November 15.
 - (2) A sticker or decal for each vehicle disclosed in the application under subsection (c)(5) shall be issued, which shall immediately be permanently affixed and displayed by the licensee on the driver's side front bumper on each licensed vehicle.
- (g) The township clerk shall maintain a current list of all licensed commercial and institutional applicators.
- (h) A licensee shall notify the department in writing of any changes in the information disclosed in the license application. Additional vehicles shall not be used to apply manufactured fertilizer to turf areas in the township until a sticker or decal for that vehicle has been issued and permanently affixed to the vehicle windshield as provided in subsection (f)(2).

(Ord. No. C-310, § 1(7), 4-15-91; Ord. No. C-310-D, § 1, 5-5-03)

Sec. 14.5-18. Regulation of licensed applicator.

- (a) The business name of a commercial applicator shall be prominently displayed on all company vehicles in order to assist in monitoring and enforcement of this article.
- (b) The director, or the director's designate, shall be authorized to periodically inspect the property on which manufactured fertilizer has been applied by a licensed applicator.
- (c) If a commercial applicator is authorized under section 14.5-14(5)(b), of this article, to apply a manufactured fertilizer containing phosphorous onto a turf area, the commercial applicator shall test such area for the purpose of determining the amount of phosphorous, if any, is needed by such particular turf area, and shall secure the results of such test. The application of phosphorus to such turf area shall not be any greater than demonstrated by such test results. For the duration of time in which there is reliance upon such test, records of such testing shall be maintained by the licensed applicator in the vehicle used to make applications of

manufactured fertilizer containing phosphorous to the turf areas in question, and shall be subject to review by township officials upon request. In addition, a copy of such records shall be filed with the township clerk on July 1 and December 1 each year, including the following for each property:

- (1) The address.
- (2) The date of testing(s) during the reporting period.
- (3) The entity performing the test, and the test results.
- (4) The dates and quantities of phosphorous applied during the reporting period.

(Ord. No. C-310, § 1(8), 4-15-91; Ord. No. C-310-A, § 1, 5-17-99; Ord. No. C-310-B, § 1, 5-21-01; Ord. No. C-310-C, § 1, 9-24-01)

Sec. 14.5-19. Inspection and license revocation.

- (a) Should a commercial or institutional applicator be found to be in violation of this article, the township board, following notice and an opportunity of the licensee to be heard, shall have the right to revoke a license for a period of up to one (1) year. If a commercial or institutional applicator is found to be in violation of this article on more than one (1) occasion in any one (1) calendar year, the township board shall revoke the license of such applicator for a period of not less than one (1) calendar year but not more than five (5) calendar years.
- (b) Should a commercial or institutional applicator be found to be in violation of this article, the township board, following notice and an opportunity of the licensee to be heard, shall have the right to revoke a license for a period of up to one (1) year. If a commercial or institutional applicator is found to be in violation of this article on more than one (1) occasion in any one (1) calendar year, the township board shall revoke the license of such applicator for a period of not less than one (1) calendar year but not more than five (5) calendar years.

(Ord. No. C-310, § 1(9), 4-15-91; Ord. No. C-310-A, § 2, 5-17-99)

Sec. 14.5-20. Appeal.

Any applicator aggrieved by a determination made by the department or director under this article shall have a right to appeal such determination to the township supervisor, provided a written request for such appeal must be submitted to the supervisor within fourteen (14) days following the determination from which an appeal is intended. Upon the submission of the written request for appeal, the township supervisor shall provide the aggrieved person an opportunity to be heard and shall consider any other relevant evidence and make an expeditious determination on the appeal.

(Ord. No. C-310, § 1(10), 4-15-91)

Sec. 14.5-21. Calculations for proper application.

In order to determine permitted rates under this article, the following calculations reference the proper application levels per one thousand (1,000) square feet of lawn area:

(1) Methodology for determining the greatest amount (in pounds per one thousand (1,000) square feet) of manufactured fertilizer allowable in accordance with this article:

a. The three-number ratio given on the manufactured fertilizer bag represents the percent ratio for nitrogen, phosphorus and potassium for any given manufactured fertilizer weight.

Example: 29-3-4 means 29% nitrogen, 3% phosphorus, and 4% potassium.

NOTE: The third number may be disregarded, since potassium is not regulated by the section.

b. To determine the maximum amount (in pounds per one thousand (1,000) square feet) of applied manufactured fertilizer allowed annually, divide 3.5 (the maximum amount of nitrogen allowed) by the first number in the ratio (percent nitrogen) and then multiply by 100.

Example: $3.5 \div 29 = 0.121$

$0.121 \times 100 = 12.1$ pounds

Next divide 0.7 (the maximum amount of phosphorus allowed) by the second number in the ratio (percent phosphorus) and multiply by 100.

Example: $0.7 \div 3 = 0.23$

$0.23 \times 100 = 23$ pounds

c. Compare the number of pounds as determined from the percent nitrogen with the number of pounds as determined by the percent phosphorus. The smaller weight represents the maximum amount of manufactured fertilizer that shall be used.

Example: The sample problem above gave 12.1 pounds and 23 pounds as the maximum quantities of manufactured fertilizer. Using 12.1 pounds of manufactured fertilizer ensures that neither phosphorus nor nitrogen will exceed the allowable annual application rates as described in this article. If 23 pounds were used, the amount of nitrogen would exceed its limit of 3.5 pounds per one thousand (1,000) square feet of turf area.

- d. To convert the maximum allowable pounds per one thousand (1,000) square feet per year into the maximum allowable pounds per one thousand (1,000) square feet per application, divide the pounds per year by the number of applications per year.

Example: 12.1 pounds per year divided by 5 applications = 2.4 pounds per 1,000 square feet per application.

Examples of Manufactured Fertilizers Selections:

Annual Application (lbs. per 1000 sq. ft.)		Possible Fertilizer Analysis	Maximum Amount of Fertilizer Allowed*
N (Nitrogen)	P (Phosphorus)		(lbs. per 1000 sq. ft.)
3.5	0.7	35-7-X	10
3.5	0.3	35-3-X	10
3.4	0.3	35-3-X	10
3.3	0.4	30-4-X	11
3.5	0.4	29-3-X	12
3.4	0.5	28-4-X	12
3.4	0.4	28-3-X	12

*Numbers are rounded to the highest whole numbers permissible by this article.
X-Does not apply to this section.

- (2) Methodology for determining how many square feet of turf can be covered by a given bag of manufactured fertilizer:

- a. To determine the total pounds of nitrogen in a given bag of manufactured fertilizer, multiply the percent ratio of nitrogen (the first number) by the total bag weight. Then divide by 100.

Example: If you have a 12-pound bag of manufactured fertilizer with a 28-4-x ratio, the equation would be as follows:

28 multiplied by 12 = 336

336 divided by 100 = 3.36 or rounded 3.4 total pounds of nitrogen

- b. To determine the total number of square feet that can be treated by the nitrogen in the given bag of manufactured fertilizer, divide the total pounds of nitrogen by 3.5 (the maximum amount of nitrogen allowed). Then multiply by 1000.

Example: 3.4 divided by 3.5 = 0.97

0.97 multiplied by 1000 = 970 square feet can be treated by nitrogen

- c. To determine the total pounds of phosphorus in a given bag of manufactured fertilizer, multiply the percent ratio of phosphorus (the second number) by the total bag weight. Then divide by 100.

Example: 4 multiplied by 12 = 48
48 divided by 100 = 0.48 or rounded 0.5 total pounds of phosphorus

- d. To determine the total number of square feet which can be treated by the phosphorus in the given bag of manufactured fertilizer, divide the total pounds of phosphorus by 0.7 (the maximum amount of nitrogen allowed). Then multiply by 1000.

Example: 0.5 divided by 0.7 = 0.71
0.71 multiplied by 1000 = 710 square feet can be treated by phosphorus

- e. Compare the total square feet that can be treated by the nitrogen and the total square feet that can be treated by the phosphorus. The larger number of square feet represents the amount of square feet to be covered by the bag of manufactured fertilizer. This ensures that neither the phosphorus nor the nitrogen will exceed the limits outlined in this article.

Example: If you apply the manufactured fertilizer to 970 square feet, both the nitrogen and phosphorus fall within their minimum limits of application. However, if you apply manufactured fertilizer to only 710 square feet, then the nitrogen is not being applied to a large enough area (970 square feet). Therefore, the nitrogen exceeds the limits specified in this article.

(Ord. No. C-310, § 1(Appendix A), 4-15-91; Ord. No. C-310-E, § 1, 4-19-04)

Sec. 14.5-22. Penalties for violation.

- (a) A person or business found to have violated a provision of this article II, of this chapter 14.5, shall be responsible for a municipal civil infraction.
- (b) Each provision violated, and each day on which a violation is found to have occurred, shall constitute a separate offense.
- (c) The penalty for a first violation, of this article II, shall be the payment of one hundred dollars (\$100.00), and the penalty for a second and each subsequent violation within any two (2) year period shall be the payment of two hundred dollars (\$200.00).
- (d) Nothing in this section shall preclude the township from seeking any other and further relief in law or equity in any court.

(Ord. No. C-310-B, § 1, 5-21-01; Ord. No. C-310-C, § 1, 9-24-01)