

A PRACTITIONER’S GUIDE
TO IOWA MANURE LAWS, MANURE REGULATIONS,
AND MANURE APPLICATION AGREEMENTS

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I. INTRODUCTION

The disposing of livestock waste is an important and integral part of any livestock farming operation.¹ In order to obtain the quality meats found in grocery stores, farmers must necessarily feed the livestock and take care of their wastes.² Livestock waste has been used as a natural fertilizer on Iowa's fields for the last century with little social or legal discussion, but the last decade has seen rising conflict in regards to manure. In general, this conflict has emerged because of two major events. First, Iowa's citizens have become increasingly more aware of potential environmental issues relating to livestock facilities, such as water quality. Second, agriculture has become more technologically advanced and industrialized, resulting in livestock facilities that are now much larger than they were in the last decade. Farmers, with the aid of technology, can also raise more livestock without needing more employees. The economy has forced many livestock producers to either increase the size of their operations or get out of the livestock business. With the increased conflict that results from larger operations, it is important that attorneys and producers alike be aware of the laws regulating livestock manure.

This Note deals almost exclusively in state law. A prudent attorney or producer should also be aware of federal regulations that may affect livestock production.³ The following Note is an examination of the laws surrounding livestock waste, including the new changes to Iowa law following the adoption of House File 2494 by the Iowa General Assembly in 1998. This Note will also examine the requirements for a manure management plan and will make suggestions as to what should be included in a manure application agreement.

1. In the Iowa Code, "farm operation" is defined as "a condition or activity which occurs on a farm in connection with the production of farm products and includes . . . the treatment or disposal of wastes resulting from livestock . . ." IOWA CODE § 352.2(6) (1997).

2. This Note shall adopt the definition of manure as found in the Iowa Code. Manure shall mean "animal excreta or other commonly associated wastes of animals, including, but not limited to, bedding, litter, or feed losses." *Id.* § 455B.161(16). Under Iowa law, manure is not hazardous. *See id.* § 455B.411(3)(b)(1). As defined, "[h]azardous waste" does not include . . . [a]gricultural wastes, including manures and crop residues that are returned to the soil as fertilizers or soil conditioners." *Id.*

3. The United States Environmental Protection Agency (EPA) has proposed regulations that would apply to operations raising hogs, cattle, and poultry. *See* George Anthan, *Tougher Farming Regulation Vowed*, DES MOINES REG., Mar. 7, 1998, at 11S. The proposed program would require facilities "with 1,000 cattle, 2,500 hogs and 10,000 chickens to hold EPA waste management permits." *See id.* For smaller operations, the EPA intends to work with the United States Department of Agriculture (USDA) in "developing manure management and disposal plans for regions and even for individual farms." *Id.* The EPA has also requested that the USDA provide financial and technical assistance to farmers in complying with the regulations. *See id.* Although federal regulations are beyond the scope of this Note, an agricultural attorney should be aware of upcoming and significant changes in this area.

II. IOWA LAW: REGULATION OF MANURE

A. Background Information

Every animal feeding operation, regardless of size, is subject to severe penalties if the waters of the state are polluted by that operation.⁴ However, it must be stated at the outset that Iowa law regulating manure differentiates based on the type of operation.⁵ The three main types of operations are: animal feeding operations, confinement feeding operations, and open feedlots.⁶ The specific rules that an operation must abide by depends on its classification. Therefore, it is important for operators to know how their operations are classified. An animal feeding operation is defined as “a lot, yard, corral, building, or other area in which animals are confined and fed and maintained for 45 days or more in any 12-month period, and all structures used for the storage of manure from animals in the operation.”⁷ A confinement feeding operation includes “an animal feeding operation in which animals are confined to areas which are totally roofed.”⁸ Finally, an open feedlot includes “an unroofed or partially roofed animal feeding operation in which no crop, vegetation, or forage growth or residue cover is maintained during the period that animals are confined in the operation.”⁹ In summary: (1) an animal feeding operation would include both open feedlots and confinement feeding operations; (2) a confinement feeding operation must be totally roofed; and (3) an open feedlot must be at least partially unroofed and does not include pastures.

4. See, e.g., IOWA CODE § 455B.191(7)(d) (1997). It is a violation to operate [A] confinement feeding operation, including a confinement feeding operation structure or anaerobic lagoon which is part of a confinement feeding operation, or a related pollution control device or practice, which causes pollution to the waters of the state, if the pollution was caused intentionally, or caused by a failure to take measures required to abate the pollution which resulted from an act of God.

Id. If a water of the state is polluted, a violator is subject to a penalty of up to \$5000 per day. See *id.* § 455B.191(1). A habitual violator may be assessed a fine of up to \$25,000 per day. See *id.* § 455B.191(7).

5. See IOWA ADMIN. CODE r. 567-65.1 (1997).

6. See *id.*

7. *Id.*

8. *Id.*

9. *Id.*

B. Laws Protecting Iowa's Waters from Manure Application

Iowa law specifically protects the water of the state from manure by prohibiting a livestock operation from polluting any of the state's waters.¹⁰ Iowa Code section 159.27 also directs the Department of Natural Resources (DNR) to "adopt rules relating to the disposal of manure" when that manure is "in close proximity to a designated area."¹¹ This section specifically directs the DNR to protect areas of water that typically are of most concern, including drinking water.¹² A designated area is defined as "a known sinkhole, or a cistern, abandoned well, unplugged agricultural drainage well, agricultural drainage well surface inlet, drinking water well, or lake, or a farm pond or privately owned lake"¹³ Manure may not be applied to cropland that is within two hundred feet of a designated area unless: "the manure is applied by injection or incorporation within twenty-four hours following the application" or "an area of permanent vegetation cover exists" fifty feet around the designated area, and the portion under permanent vegetation is not subject to any manure application.¹⁴

These regulations are enforced by the DNR. The DNR may inspect and evaluate any animal feeding operation in the state to determine if the operation: (1) is discharging manure into a water of the state without minimum manure control; (2) is reasonably expected to be causing pollution of a water of the state; or (3) is reasonably expected to be causing a violation of state water quality standards.¹⁵ If any of these three conditions exists, then the operation must apply for an operation permit, and the DNR will institute "necessary remedial actions to eliminate the conditions" but only after the operation is given written notification that describes the need to correct the condition.¹⁶

If a livestock producer is in need of financial assistance to help protect the state's water, assistance is available through Iowa's incentive program. Iowa Code section 161C.6 establishes an organic nutrient management program that provides financial incentives and assistance for farmers to prevent manure runoff from contaminating any water resources in the state, and to assist farmers in fully utilizing

10. *See id.*

11. IOWA CODE § 159.27 (1997).

12. *See id.*

13. *Id.* A designated area does not include a terrace tile inlet. *See id.*

14. *Id.* § 159.27(1), (2). For additional rules as to separation distances from bodies of water in Iowa, see *infra* Part II.D.

15. *See* IOWA ADMIN. CODE r. 567-65.4(1)(a)-(c) (1997).

16. *Id.* r. 567-65.4(2). The operation that is required to apply for a permit under these circumstances must do so within 90 days of the written notice. *See id.* r. 567-65.5(5). However, the operation may continue operating until such time as when, or if, the permit is denied. *See id.* r. 567-65.5(6).

manure as a source of soil nutrients.¹⁷ The state will contribute approximately fifty percent of a farmer's cost, up to \$7500 per year.¹⁸

Livestock producers and their attorneys should be aware of agriculture's responsibility for protecting the state's waters from possible contamination by manure. Iowa law places a legal responsibility upon producers to take care not to pollute the waters, in addition to the informal stewardship responsibilities that have always come with owning farmland.

C. Minimum Manure Control

Iowa law sets forth a minimum level of manure control by which every operation must abide.¹⁹ First, "manure from an animal feeding operation shall be disposed in a manner which will not cause surface water or groundwater pollution. Disposal in accordance with the provisions of state law . . . shall be deemed as compliance with this requirement."²⁰ Second, additional requirements are placed on confinement feeding operations, in that they must "retain all manure produced by the operation between periods of manure disposal."²¹ Confinement feeding operations

17. See IOWA CODE § 161C.6(2) (1997). Only farmers are eligible for this program. Iowa Code § 161C.6(2)(b) states:

A person shall not be eligible to participate in the program, unless the person is an individual family farmer, an individual actively engaged in farming as provided in section 9H.1, subsection 1, paragraphs 'a' through 'c', or the person is a family farm corporation, family farm limited partnership, a family trust, or a family farm limited liability company, all as defined in section 9H.1.

Id. § 161C.6(2)(b).

18. See *id.* § 161C.6(2)(c), (g). This cost share program will pay the lesser of fifty percent of the "estimated cost of establishing the system" or fifty percent of the actual cost. *Id.* The money from this program may not be used by any person who is "a party to a legal or administrative action, including a contested case proceeding under chapter 17A, which relates to an alleged violation of chapter 455B involving the disposal of livestock waste, until the action is resolved." *Id.* § 161C.6(2)(e). Furthermore, the money from the cost share program may not be used for the payment of a civil penalty or fine, nor may it be used to remedy a contamination that has already occurred. See *id.* § 161C.6(2)(f).

19. See *id.* § 455B.201. For a clear and complete summary of Iowa law as it relates to livestock, see CHRISTINA L. GAULT & ELTON L. MCAFEE, IOWA FARM BUREAU FED'N & IOWA PORK PRODUCERS ASS'N, IOWA LIVESTOCK ENVIRONMENTAL REGULATIONS (1997). This handbook was additionally sponsored by: Iowa Cattlemen's Association, Iowa Corn Growers Association, Iowa Dairy Products Association, Iowa Poultry Association and Iowa Soybean Association. The handbook is intended by the authors "as education[al] material to assist livestock producers . . . in understanding the effect of various environmental laws on livestock production." *Id.* at verso.

20. IOWA CODE § 455B.201(2) (1997). "State law" in this section refers to chapter 455B, guidelines adopted pursuant to the Iowa Code and section 159.27. See *id.*

21. *Id.* § 455B.201(1).

may not “discharge manure directly into water of the state or into a tile line that discharges directly into water of the state.”²²

Additional explanation of the law’s minimum manure control requirements and guidelines may be found in Chapter 65 of the Iowa Administrative Code.²³ For all animal feeding operations, the minimum level of manure control “shall be the removal of settleable solids from the manure prior to discharge into a water of the state.”²⁴ Further, no direct discharge is allowed into agricultural drainage wells, sinkholes, or publicly owned lakes.²⁵ For all animal feeding operations, manure removed from the facilities must be “land applied in a manner which will not cause surface or groundwater pollution.”²⁶

If an open feedlot is large enough to require a permit, additional standards must be met. Minimum manure control for a *permitted* open feedlot includes “the retention of all manure flows from the feedlot areas and all other manure-contributing areas resulting from the 25-year, 24-hour precipitation event.”²⁷ Open feedlots that comply with appendix A of the Iowa Administrative Code (dealing with manure control alternatives for open feedlots) are deemed to be in compliance with this rule, “unless discharges from the manure control facility cause a violation of state water quality standards.”²⁸

22. *Id.*

23. *See, e.g.*, IOWA ADMIN. CODE r. 567-65.2(1) (1997).

24. *Id.* The settleable solids may be removed “by use of solids-settling basins, terraces, diversions, or other solid-removal methods.” *Id.* r. 567-65.2(1)(a). The removal of settleable solids is obtained when

[T]he velocity of manure flows has been reduced to less than 0.5 foot per second for a minimum of five minutes. Sufficient capacity shall be provided in the solids-settling facilities to store settled solids between periods of manure application and to provide required flow-velocity reduction for manure flow volumes resulting from precipitation events of less intensity than the ten-year, one-hour frequency event. Solids-settling facilities receiving open feedlot runoff shall provide a minimum of 1 square foot of surface area for each 8 cubic feet of runoff per hour resulting from the ten-year, one-hour frequency-precipitation event.

Id. r. 567-65.2(1)(b).

25. *See id.* r. 567-65.2(6).

26. *Id.* r. 567-65.2(7). If the manure is applied according to the rules and guidelines set out in Chapter 56 of the Iowa Administrative Code, the application shall be deemed as being in compliance with the requirement that the application not cause surface or groundwater pollution. *See id.*

27. *Id.* r. 567-65.2(2).

28. *Id.* If a violation of water quality standards takes place, “the department may impose additional manure control requirements upon the feedlot” *Id.* This section also provides that control of manure may be obtained by “use of manure-retention basins, terraces, or other runoff control methods. Diversion of uncontaminated surface drainage prior to contact with feedlot or manure-storage areas may be required. Manure-solids-settling facilities shall precede the manure-retention basins or terraces.” *Id.*

Minimum manure control for *confinement* feeding operations includes the following:

[T]he retention of all manure produced in the confinement enclosures between periods of manure application. In no case shall manure from a confinement feeding operation be discharged directly into a water of the state or into a tile line that discharges to waters of the state. A confinement feeding operation that is required to submit a manure management plan to the department . . . shall not apply manure in excess of the nitrogen use levels necessary to obtain optimum crop yields.²⁹

Confinement operations must have enough capacity to store all manure from the facility between periods of manure application.³⁰ The manure in the storage area must be removed “as necessary to prevent overflow or discharge of manure.”³¹

It is important to recognize that the DNR has the ability to require more stringent or less stringent “minimum manure controls” for all animal feeding operations in addition to the regulations previously discussed. On a case-by-case basis, the DNR may determine that more or less controls are needed.³² The administrative regulations state that “[i]f site topography, operation procedures, experience, or other factors indicate that a greater or lesser level of manure control than that specified . . . is required to provide an adequate level of water pollution control for a specific animal feeding operation, the department may establish different minimum manure control requirements for that operation.”³³

This section has explained the minimum manure control responsibilities which are placed upon a livestock producer via the Iowa Code and Iowa Administrative Code. The minimum responsibilities are just the beginning of what is needed. Most producers will want to take special note of Part II.E.4 of this Note

29. *Id.* r. 567-65.2(3).

30. *See id.* r. 567-65.2(3)(a). The confinement feeding operation must have additional capacity if other sources, besides manure (such as precipitation), can enter the manure storage area. *See id.*

31. *Id.* r. 567-65.2(3)(b). Manure contained in an earthen manure storage structure, including anaerobic lagoons, earthen manure storage basins, or earthen waste slurry storage basins, must maintain a minimum of two feet of freeboard in the structure, “unless a greater level of freeboard is required to maintain the structural integrity of the structure or prevent manure overflow.” *Id.* Manure contained in an unroofed, formed manure storage structure must be removed from the structure “as necessary to maintain a minimum of one foot of freeboard in the structure unless a greater level of freeboard is required to maintain the structural integrity of the structure or prevent manure overflow.” *Id.*

32. *Id.* r. 567-65.2(4).

33. *Id.*

because it is likely that many of the state's "recommendations" may become law in 1999.³⁴

D. Separation Distances³⁵

Many separation distance requirements and manure application requirements depend on the type of structure the manure is stored in prior to application. The main types of manure storage structures include: aerobic structures, anaerobic lagoons, earthen manure storage basins, earthen waste slurry storage basins, runoff control basins, and formed manure storage structures. It is important to understand the differences between these types of structures. An aerobic structure is one that uses air or oxygen and aeration equipment.³⁶ An anaerobic lagoon is a structure that receives manure on a regular basis, and the biological activity is anaerobic, as opposed to aerobic.³⁷ An earthen manure storage basin is an earthen cavity that receives manure on a regular basis and which is completely emptied at least once each year.³⁸ An earthen waste slurry storage basin includes an uncovered earthen

34. See *infra* Part II.E.4.

35. For all separation distances mentioned in this Note, the method for measuring the separation distances may be found in the Iowa Administrative Code regulation 567-65.10 (1997). A simplified explanation for these measurements is that the distances are measured horizontally from the closest point of the objects being measured. However, the rules should be consulted for a more detailed analysis. See generally IOWA ADMIN. CODE r. 567-65.10 (1997) (outlining how these distances are determined).

36. See *id.* r. 567-65.1. An aerobic structure is more specifically defined as: "an animal feeding operation structure other than an egg washwater storage structure which employs bacterial action which is maintained by the utilization of air or oxygen and which includes aeration equipment." *Id.*

37. See *id.* An anaerobic lagoon is defined as:

[A]n impoundment used in conjunction with an animal feeding operation, if the primary function of the impoundment is to store and stabilize organic wastes, the impoundment is designed to receive wastes on a regular basis, and the impoundment's design waste loading rates provide that the predominant biological activity is anaerobic. An anaerobic lagoon does not include any of the following: (1) A confinement feeding operation structure; (2) A runoff control basin which collects and stores only precipitation-induced runoff from an animal feeding operation in which animals are confined to areas which are unroofed or partially roofed and in which no crop, vegetation, or forage growth or residue cover is maintained during the period in which animals are confined in the operation; (3) An anaerobic treatment system which includes collection and treatment facilities for all off gases.

Id.

38. See *id.* More precisely, the term is defined as: "an earthen cavity, either covered or uncovered, which, on a regular basis, receives manure discharges from a

cavity that receives manure on a regular basis but which is completely emptied at least twice each year.³⁹ A formed manure storage structure stores manure, and has walls and a floor made of steel, wood, concrete, concrete block, or other similar materials, that has the structural integrity to hold the pressure of the manure.⁴⁰ A runoff control basin collects and stores runoff from open feedlots.⁴¹

The siting of anaerobic lagoons and earthen waste slurry storage basins is specifically regulated by Iowa law.⁴² For smaller operations⁴³ having anaerobic lagoons, uncovered earthen manure storage basins, or uncovered formed manure storage structures, the minimum separation distance from a residence,⁴⁴ commercial enterprise, religious institution, educational institution, or public use area is 1250 feet.⁴⁵ For smaller operations with covered earthen manure storage basins or covered

confinement feeding operation if accumulated manure from the basin is completely removed at least once each year.” *Id.*

39. *See id.* These structures must be issued a permit. *See id.* The more detailed definition is “an uncovered and exclusively earthen cavity which, on a regular basis, receives manure discharges from a confinement animal feeding operation if accumulated manure from the basin is completely removed at least twice each year and which was issued a permit” *Id.*

40. *See id.*

‘Formed manure storage structure’ means a structure, either covered or uncovered, used to store manure from a confinement feeding operation, which has walls and a floor constructed of concrete, concrete block, wood, steel, or similar materials. Similar materials may include, but are not limited to, plastic, rubber, fiberglass, or other synthetic materials. Materials used in a formed manure storage structure shall have the structural integrity to withstand expected internal and external load pressures.

Id.

41. *See id.*

42. The separation distances in this Note apply to new construction or expansion only. *See* IOWA CODE § 455B.134(3)(f) (1997). Those operations which were constructed before the livestock bill, House File 2494, in 1998 have been grandfathered exceptions to these requirements. *See id.*

43. Although the debate as to what is a “smaller” operation continues, this Note will consider a smaller operation to be one that is exempt from permit requirements, or less than 1.6 million live weight of beef cattle, or less than 625,000 live animal weight of animals other than beef cattle. *See also* IOWA CODE § 455B.134(3)(f) (1997). The author recognizes that these numbers are arbitrary, and that a hog operation of 650,000 pounds may still be considered to be “small” by some while an operation of 600,000 pounds may seem “large” to others. Note, however, that the Iowa Code uses “small animal feeding operation” in some circumstances to mean “an animal feeding operation which has an animal weight capacity of two hundred thousand pounds or less for animals other than bovine, or four hundred thousand pounds or less for bovine.” *Id.* § 455B.161(19).

44. This applies only to residences “not owned by the owner of the animal feeding operation.” Act of May 21, 1998, ch. 1209, § 16, 1998 Iowa Acts 658, 665 (to be codified at IOWA CODE § 455B.162(1A)).

45. *See id.*, 1998 Iowa Acts at 665. A livestock producer may not expand its anaerobic lagoon or earthen basin closer to a residence not owned by the producer or owner, unless the neighbor specifically signs and records a written agreement, waiving the

formed manure storage structures, the separation distance must be at least 1000 feet.⁴⁶ For the moderate category of operations⁴⁷ having anaerobic lagoons or uncovered earthen manure storage basins, the minimum separation distance is 1875 feet.⁴⁸ For moderate operations having uncovered formed manure storage structures, the minimum separation distance is 1500 feet.⁴⁹ For moderate operations with covered earthen manure storage basins or covered formed manure storage structures, the minimum separation distance must be 1250 feet.⁵⁰ For a larger operation⁵¹ having an anaerobic lagoon or uncovered earthen manure storage basin, the separation distance from a residence, commercial enterprise, religious or educational institution must be 2500 feet.⁵² For uncovered formed manure storage structures, the minimum distance is 2000 feet.⁵³ For covered earthen manure storage basins and covered formed manure storage structures, the minimum is 1875 feet.⁵⁴ Separation distances for public use areas⁵⁵ are treated differently in the Iowa Code. For smaller

separation distances as required under this code section. *See also* IOWA CODE § 455B.134(3)(f) (1997).

46. *See id.*, 1998 Iowa Acts at 665. Confinement buildings and egg washwater storage structures for smaller operations must also be sited at least 1000 feet from a residence, commercial enterprise, religious institution, or educational institution. *See id.*, 1998 Iowa Acts at 665.

47. This Note uses “moderate” to describe the category of operations “having an animal weight capacity of 625,000 or more pounds but less than 1,250,000 pounds for animals other than bovine, or 1,600,000 or more pounds but less than 4,000,000 pounds for bovine.” *Id.*, 1998 Iowa Acts at 665.

48. *See id.*, 1998 Iowa Acts at 665.

49. *See id.*, 1998 Iowa Acts at 665.

50. *See id.*, 1998 Iowa Acts at 665. Moderate confinement buildings must be 1250 feet from residences, commercial enterprises, religious or educational institutions (RCREs). *See id.*, 1998 Iowa Acts at 665. Egg washwater storage structures must have at least 1000 feet of distance. *See id.*, 1998 Iowa Acts at 665.

51. The author considers a “larger” operation to mean one that requires a permit and which has a “capacity of 1,250,000 or more pounds for animals other than bovine, or 4,000,000 or more pounds for bovine.” *See id.*, 1998 Iowa Acts at 665.

52. *See id.*, 1998 Iowa Acts at 665.

53. *See id.*, 1998 Iowa Acts at 665.

54. *See id.*, 1998 Iowa Acts at 665. This distance was increased in 1998 from 1250 feet. *Compare* IOWA CODE § 455B.162(1)(a) (1997), *with* Act of May 21, 1998, ch. 1209, § 16, 1998 Iowa Acts 658, 664. Larger confinement buildings also must be 1850 feet from RCREs, and egg washwater storage structures must be 1500 feet from RCREs. *See id.*, 1998 Iowa Acts at 665.

55. A public use area is defined as “a portion of land . . . with facilities which attract the public to congregate and remain in the area for significant periods of time . . .” *Id.* § 13, 1998 Iowa Acts at 663 (to be codified at IOWA CODE § 455B.161(17)(a)). This definition was also specifically changed in 1998 to include cemeteries within public use areas. *See id.*, 1998 Iowa Acts at 663 (to be codified at IOWA CODE § 455B.161(17)(b)). A cemetery is specifically defined as “a space held for the purpose of permanent burial, entombment, or interment of human remains that is owned or managed by a political

animal feeding operations, the minimum distance must be 1250 feet.⁵⁶ For moderate operations, the minimum for all feeding structures is 1875 feet, and for larger operations, for all structures, the minimum is 2500 feet.⁵⁷

In legislation passed in 1998, the state imposed additional regulations upon livestock producers in regards to bodies of water.⁵⁸ An animal feeding operation structure may not be constructed closer than five hundred feet from a major water source, such as “a surface intake, wellhead, or cistern of an agricultural drainage well or known sinkhole.”⁵⁹ An animal feeding operation structure may not be constructed closer than two hundred feet from a watercourse.⁶⁰ In addition, unformed manure storage structures may not be constructed or expanded *at all* within agricultural drainage well areas.⁶¹ The separation distances for structures do not apply to farm ponds or privately owned lakes,⁶² and do not apply if the manure storage structure is “constructed with a secondary containment barrier” as provided by the DNR.⁶³

Liquid manure may not be applied to land benefiting from a separation distance requirement unless one of the following exceptions apply: (1) the manure is injected or incorporated within twenty-four hours; (2) the person benefiting from the separation distance waives this benefit in writing; (3) the operation is less than 200,000 pounds of animals other than bovine; or (4) if using spray irrigation equipment, a center pivot system is used, the hoses spray downward no more than 9 feet above the soil and no more than 25 pounds per square inch, and if it is never applied within 250 feet from a residence, commercial enterprise, religious or educational institution or public use area.⁶⁴

At one time, separation distances were important only for the siting of livestock operations. This is not the case any longer. The changes in the law in 1998 require that liquid manure also not be applied in the separation distance space, unless a livestock producer can fit into an exception. Therefore, it is especially

subdivision or private entity regulated pursuant to chapter 523I or 566A.” *Id.* § 12, 1998 Iowa Acts at 662-63 (to be codified at IOWA CODE § 455B.161(5A)).

56. *See id.* § 16, 1998 Iowa Acts at 666 (to be codified at IOWA CODE § 455B.162(1B)).

57. *See id.*, 1998 Iowa Acts at 666.

58. *See id.* § 35, 1998 Iowa Acts at 676 (to be codified at IOWA CODE § 455B.204).

59. *Id.*, 1998 Iowa Acts at 676 (to be codified at IOWA CODE § 455B.204(2)(a), (d)).

60. *See id.*, 1998 Iowa Acts at 676 (to be codified at IOWA CODE § 455B.204(2)(c)).

61. *See id.*, 1998 Iowa Acts at 676 (to be codified at IOWA CODE § 455B.204(5)).

62. *See id.*, 1998 Iowa Acts at 676 (to be codified at IOWA CODE § 455B.204(3)(a)).

63. *See id.*, 1998 Iowa Acts at 676 (to be codified at IOWA CODE § 455B.204(3)(b)).

64. *See id.* § 21, 1998 Iowa Acts at 668 (to be codified at IOWA CODE § 455B.165(6)).

important that producers and attorneys are aware of an operation's classification, what type of manure structure the operation has, and the type of public-type areas in the producer's neighborhood that the producer should be concerned about. In many situations, the spreading of manure near a residence or public-type area is now not only unneighborly, it is unlawful.

E. Manure Application

1. *Applicator Certification*

The 1998 livestock bill requires that commercial manure applicators and applicators of manure from confinement feeding operations⁶⁵ become certified before applying manure to any Iowa lands.⁶⁶ The DNR will develop rules that will provide for the education of manure applicators and the testing of the applicators' knowledge.⁶⁷ The DNR will certify manure applicators by providing "standards for the handling, application, and storage of manure, the potential effects of manure upon surface water and groundwater, and procedures to remediate the potential effects on surface water or groundwater."⁶⁸ Persons exempt from the certification include: (1) persons actively engaged in farming who are trading work with another person actively engaged in farming; (2) persons employed by a person actively engaging in farming, whose duties only incidentally include the application of

65. Only applicators for confinement feeding operations of over 200,000 pounds must be certified. *See id.* § 26, 1998 Iowa Acts at 669 (to be codified at IOWA CODE § 455B.200A(1)) (exempting small animal feed operations from the permit requirements); *see also* IOWA CODE § 455B.161(19) (1997) (defining a "small animal feeding operation" as an "operation which has an animal weight capacity of two hundred thousand pounds or less for animals other than bovine . . ."). Not all animal feeding operation applicators require certification, only confinement feeding operations. *See id.* § 33, 1998 Iowa Acts at 674 (to be codified at IOWA CODE § 455B.203A).

66. *See id.* § 33, 1998 Iowa Acts at 674 (to be codified at IOWA CODE § 455B.203A(2)). The livestock bill takes effect January 1, 1999. *See id.* § 53, 1998 Iowa Acts at 681. However, "a person shall not be required to be certified as a commercial manure applicator or a confinement site manure applicator . . . for sixty days following the effective date . . ." *Id.* § 47, 1998 Iowa Acts at 680.

67. *See id.* § 33, 1998 Iowa Acts at 674 (to be codified at IOWA CODE § 455B.203A(4)). Commercial manure applicators will be required to complete the initial course, and then either take a test each year or attend a three-hour continuing education course each year. *See id.*, 1998 Iowa Acts at 674 (to be codified at IOWA CODE § 455B.203A(3)(a)). Non-commercial manure applicators will be required to complete an initial course, and then either take a test every three years, or take a two-hour instructional course each year. *See id.*, 1998 Iowa Acts at 674 (to be codified at IOWA CODE § 455B.203A(3)(a)). Both classes of applicators may be required to pay a fee for the certification. *See id.*, 1998 Iowa Acts at 675 (to be codified at IOWA CODE § 455B.203A(6)(a)).

68. *Id.*, 1998 Iowa Acts at 674 (to be codified at IOWA CODE § 455B.203A(4)).

manure; (3) persons who apply manure only as an incidental part of a custom farming operation; or (4) as the DNR rules allow.⁶⁹

If taught and administered well, these manure application education courses can be a great asset to producers in that they could learn more about the effects manure has upon Iowa's soil, air, and water. Additionally, this certification program could help to assure the public that manure is being applied correctly and safely. However, if the program does not teach the producers any new useful information, it could be a waste of time and resources. Only time will tell whether this new program will be a great benefit or just a burden.

2. *Spray Irrigation of Manure*

The application of manure by spray irrigation⁷⁰ is heavily regulated under Iowa law. The law states that “[a] person shall not apply manure by spray irrigation equipment, except as provided by rules which shall be adopted by the department”⁷¹

The DNR has adopted rules regarding the spray irrigation of manure that are found in the Iowa Administrative Code.⁷² The first and minimum requirement is that the application of manure by spray irrigation must be applied “in a manner which will not cause surface water or groundwater pollution.”⁷³ The second requirement regarding spray irrigation equipment is that the equipment must be operated so as not to cause runoff of the manure onto property adjoining the land being sprayed.⁷⁴ The third requirement requires that a minimum distance of a hundred feet lies between

69. *See id.*, 1998 Iowa Acts at 675 (to be codified at IOWA CODE § 455B.203A(5)). The DNR will be developing rules in the coming months following the legislative session. *See generally id.* § 34, 1998 Iowa Acts at 675-76 (to be codified at IOWA CODE 455B.203B(1)) (requiring the DNR to adopt manure application rules). There are also certain exceptions for those who are under direct supervision of another person who is certified. *See id.* § 33, 1998 Iowa Acts at 675 (to be codified at IOWA CODE § 455B.203A(5)(a)(2)). Direct supervision means physically present and within sight or hearing distance from the applicator. *See id.*, 1998 Iowa Acts at 675.

70. Spray irrigation equipment is defined in the Iowa Administrative Code as “mechanical equipment used for the aerial application of manure which receives manure from the storage structure during application via hoses or piping and which is a type of equipment which may also be customarily used for artificial application of water to aid the growing of general farm crops.” IOWA ADMIN. CODE r. 567-65.1 (1997).

71. IOWA CODE § 455B.201(4) (1997).

72. *See* IOWA ADMIN. CODE r. 567-65.2(10) (1997).

73. *Id.* If the person applying the manure by spray irrigation equipment follows “the provisions of state law, and the rules and guidelines in [Chapter 65],” they are deemed to be in compliance with the minimum manure control requirement. *Id.*

74. *See id.* r. 567-65.2(10)(b). The application rate and timing of the application are to be taken into consideration in order to prevent runoff. *See id.*

the wetted perimeter⁷⁵ of the manure and the property adjacent to the land being sprayed.⁷⁶

The fourth set of requirements regarding spray irrigation equipment is more complicated. It involves the minimum separation distances from the manure to any residence, commercial enterprise, bona fide religious institution, educational institution or public use area. The minimum distance required depends on the type of operation and its type of manure structure. It is important to note, however, that if the residence, commercial enterprise, bona fide religious institution, educational institution or public use area was established or expanded after the animal feeding operation began using spray irrigation equipment, the separation distances do not apply.⁷⁷

If the manure to be applied comes from an “earthen waste slurry storage basin, earthen manure storage basin, or formed manure storage structure,” then the minimum distance between any of the above uses and the manure must be one thousand feet.⁷⁸ However, if the manure is incorporated into the soil within twenty-four hours, the minimum distance only must be five hundred feet.⁷⁹ Additionally, if the manure is only applied once per calendar year for less than four days during a consecutive week, the minimum distance must only be five hundred feet.⁸⁰

If the manure to be applied comes from the first or second cells of an anaerobic lagoon, then the minimum distance between the above uses and the manure must be 750 feet.⁸¹ If the manure is incorporated within twenty-four hours or if the manure is applied only once per year for less than four days in one consecutive week, the minimum distance only needs to be five hundred feet.⁸² If the manure to be applied comes from the third cell of an anaerobic lagoon or a runoff control basin,⁸³ then the minimum distance from the above uses and the manure must be at least five hundred feet.⁸⁴

The fifth requirement regarding spray irrigation equipment involves the type of equipment used. If the equipment uses “hoses which discharge the manure at a maximum height of 9 feet and in a downward direction, and spray nozzles with a

75. Wetted perimeter is defined in the Iowa Administrative Code as “the outside edge of land where the direct discharge of manure occurs from spray irrigation equipment.” *Id.* r. 567-65.1.

76. *See id.* r. 567-65.2(10)(c). If the wind speed and wind direction or other conditions cause the minimum one hundred feet to be violated, then under no circumstances shall the wetted perimeter exceed the property boundary. *See id.*

77. *See id.* r. 567-65.2(10)(d)(4).

78. *Id.* r. 567-65.2(10)(d)(1)(1).

79. *See id.* r. 567-65.2(10)(d)(2).

80. *See id.* r. 567-65.2(10)(d)(3).

81. *See id.* r. 567-65.2(10)(d)(1)(2).

82. *See id.* r. 567-65.2(10)(d)(2)-(3).

83. Runoff control basin is defined as “an impoundment designed and operated to collect and store runoff from an open feedlot.” *Id.* r. 567-65.1.

84. *See id.* r. 567-65.2(10)(d)(1).

pressure of 25 pounds per square inch or less,” there must be a separation distance of 250 feet from a residence, commercial institution, bona fide religious institution, educational institution, or public use area.⁸⁵

Separation distances for spray irrigation equipment may be waived by the property owner, likely the nearest neighbor, who has the benefit of the separation distance.⁸⁶ The waiver must be in writing and recorded in order for the separation distance requirement to be inapplicable.⁸⁷ Variances to separation distances may also be granted by the DNR under limited circumstances.⁸⁸

Finally, the 1998 livestock bill imposed an additional requirement for producers who use spray irrigation. Spray irrigation that is “restricted” must be diluted before it is applied.⁸⁹ Restricted spray irrigation equipment is equipment that “disperses manure through an orifice at a rate of eighty pounds per square inch or more.”⁹⁰ Rules regarding these changes in the law will be forthcoming from the DNR.⁹¹

3. *Ground Application of Manure: Iowa Code*

Prior to 1998, the Iowa Code had no specific requirements for the application of manure except those applicable to spray irrigation equipment and the requirement that a water of the state may not be polluted. Instead, the manure application rules came only from the Iowa Administrative Code.⁹² The livestock bill adopted in 1998 now requires injection or incorporation of liquid manure from a confinement operation within twenty-four hours if the application is within 750 feet of a residence, commercial enterprise, religious or educational institution, or public use area.⁹³

4. *Administrative Recommendations for Manure Application*

Although most of the regulations in this section are currently only recommendations from the DNR, the new 1998 livestock bill requires that the DNR:

85. *Id.* r. 567-65.2(10)(d)(5).

86. *See id.* r. 567-65.2(10)(e).

87. *See id.*

88. *See id.* r. 567-65.2(10)(f).

89. *See* Act of May 21, 1998, ch. 1209, § 34, 1998 Iowa Acts 658, 676 (to be codified at IOWA CODE § 455B.203B(2)).

90. *See id.* § 22, 1998 Iowa Acts at 669 (to be codified at IOWA CODE § 455B.171(23A)).

91. *See* IOWA CODE § 455A.6(6)(a) (1997) (granting DNR authority to promulgate rules necessary for effective administration of Code sections).

92. *See* IOWA ADMIN. CODE r. 567-65.2 (1997).

93. *See id.* §§ 16, 21, 1998 Iowa Acts at 666, 668 (to be codified at IOWA CODE §§ 455B.162(1D), 455B.165(6)).

[A]dopt rules governing the application of manure originating from an anaerobic lagoon or aerobic structure which is part of a confinement feeding operation. The rules shall establish application rates and practices to minimize groundwater and surface water pollution resulting from application, including pollution caused by runoff or other manure flow resulting from precipitation events. The rules shall establish different application rates and practices based on the water holding capacity of the soil at the time of the application.⁹⁴

Producers and attorneys should expect that many of the following recommendations will become rules over the next year. To date, however, the DNR has adopted the following series of recommended measures.

The DNR states that nitrogen application from “all sources” should not exceed the amount necessary “to obtain optimum crop yields for the crop being grown.”⁹⁵ The manure applicator will need to take into consideration nitrogen from sources such as commercial fertilizers, legumes and manure.⁹⁶ The stated purpose for this recommendation is to minimize the nitrogen’s potential groundwater leaching or its runoff into surface waters.⁹⁷ The same basic recommendation also applies for phosphorous, in that manure should only be applied “at rates equivalent to crop uptake when soil tests indicate adequate phosphorous levels.”⁹⁸

The DNR also recommends that, whenever possible, manure should not be applied to frozen or snow-covered crop land.⁹⁹ If manure must be applied to frozen or snow-covered cropland, then the manure application must be limited to areas where land slopes are less than four percent or adequate soil erosion control practices exist.¹⁰⁰

If the land to which the manure is being applied is subject to flooding more than once every ten years, then it is recommended that the manure be incorporated into the soil after the application, and also recommended that the manure not be spread on the area subject to flooding while the ground is snow-covered or frozen.¹⁰¹ If the manure is to be applied to an area that has more than a ten percent slope, then adequate soil erosion practices should exist, *and* the manure should be incorporated when possible.¹⁰² The last of the recommendations is that if the land to which manure is to be applied is within two hundred feet of a stream and draining into a

94. *Id.* § 34, 1998 Iowa Acts at 675-76 (to be codified at IOWA CODE § 455B.203B(1)).

95. IOWA ADMIN. CODE r. 567-65.2(11)(a) (1997).

96. *See id.*

97. *See id.*

98. *Id.* r. 567-65.2(11)(b).

99. *See id.* r. 567-65.2(11)(c).

100. *See id.* Adequate erosion control practices is defined to include “terraces, conservation tillage, cover crops, contour farming or similar practices.” *Id.*

101. *See id.* r. 567-65.2(11)(d).

102. *See id.* r. 567-65.2(11)(f).

stream (or surface intake of tile line), then the manure should be injected or incorporated, *and* adequate erosion controls should exist.¹⁰³

As mentioned previously, although the Iowa Administrative Code classifies these rules as “recommendations” for manure application, a producer should take special note of this section because it is possible that many of these recommendations will become law or, at the least, will be used to decide whether a farmer is using generally accepted management practices.

F. Manure Management Plans

Manure management plans (MMPs) are creatures of the 1990s and came into existence after concerns began to arise over the proper application of manure onto crop land. The first legal requirement for an MMP came from House File 519, a 1995 farm bill.¹⁰⁴ The general purpose of an MMP is to ensure that the livestock producer has enough land or has arranged to apply on others’ lands to safely spread the manure upon crop land.¹⁰⁵ Additionally, the plans are intended to encourage livestock producers to calculate the amount of natural fertilizer going into the soil, so that the producer applies less commercial fertilizer to the soil.¹⁰⁶ The following section will explore the requirements for MMPs as required by law.

Because the law in this area has changed so recently, it must be pointed out that the administrative regulations have not yet been written for the 1998 livestock bill. This section is written with the assumption that the old regulations will continue to be in effect, with changes made only where there is a conflict with the new Iowa Code provisions.

1. Plans Required for Operations Larger than 200,000 Pounds

The Iowa Code now requires that all owners of confinement feeding operations that are greater than 200,000 pounds to submit a manure management plan to the DNR.¹⁰⁷ This requirement exists for all confinement feeding operations constructed after May 31, 1985, and applies whether or not the operation is required

103. See *id.* r. 567-65.2(11)(e).

104. See Act of May 31, 1995, ch. 195, 1995 Iowa Acts 497.

105. See *generally id.* § 25, 1995 Iowa Acts at 508-09 (outlining the requirements for an MMP).

106. See *generally id.*, 1995 Iowa Acts at 508-09 (outlining the requirements for an MMP).

107. See Act of May 21, 1998, ch. 1209, § 30, 1998 Iowa Acts 658, 673 (to be codified at IOWA CODE § 455B.203(1)). Prior to 1998, only confinement feeding operations greater than 200,000 pounds which required a permit under Iowa law were required to submit a manure management plan. See IOWA CODE § 455B.203(1) (1997); see also IOWA ADMIN. CODE r. 567-65.16 (1997).

to obtain a permit.¹⁰⁸ This is a significant change from pre-1998 manure management plan (MMP) requirements. Iowa law requires that an MMP be submitted to the DNR at the same time a permit application is submitted.¹⁰⁹ Manure may not be removed from a manure storage structure until the DNR approves the confinement operation's MMP.¹¹⁰ An MMP must include the following:

- (1) calculations determining the land area required for manure application;¹¹¹
- (2) manure nutrient levels;¹¹²
- (3) “[m]anure application methods, timing of manure application, and the location of the manure application”;¹¹³
- (4) if the manure is to be applied on land not owned by the permit applicant, the application must include a copy of the written agreement with the landowner;¹¹⁴
- (5) estimates of annual manure volume and animal production;¹¹⁵
- (6) methods of preventing or diminishing soil loss and the potential for surface water pollution;¹¹⁶

108. *See id.* § 30, 1998 Iowa Acts at 673 (to be codified at IOWA CODE § 455B.203(1)(a)).

109. *See* IOWA ADMIN. CODE r. 567-65.16.

110. *See id.* § 30, 1998 Iowa Acts at 673 (to be codified at IOWA CODE § 455B.203(1)). This is a significant requirement since this new law applies retroactively to all operations constructed after May 31, 1985. *See id.*, 1998 Iowa Acts at 673. After January 1, 1999, owners will not be able to spread manure until the approval is received or until an exception is granted by the DNR. *See generally id.* § 53, 1998 Iowa Acts at 681 (making the application restrictions applicable on January 1, 1999).

111. *See* IOWA CODE § 455B.203(2)(a) (1997). Iowa law specifically requires that the calculation be “based on nitrogen use levels in order to obtain optimum crop yields according to a crop schedule specified in the plan, and according to requirements adopted by the department after receiving recommendations from the animal agriculture consulting organization provided for in 1995 Iowa Acts, chapter 195, section 37.” *Id.* A detailed explanation of how the land area required for manure application is calculated. *See* IOWA ADMIN. CODE r. 567-65.16(4) (1997). The calculation for the total nitrogen available from the confinement feeding operation is detailed in Iowa Administrative Code regulation 567-65.16(5). The calculation from crop usage rates may be found in Iowa Administrative Code regulation 567-65.16(6).

112. *See* IOWA CODE § 455B.203(2)(b) (1997). The Code states that the manure nutrient levels may be “determined by either manure testing or accepted standard manure nutrient values.” *Id.*

113. *Id.* § 455B.203(2)(c). For descriptions of the methods of manure application and timing, see IOWA ADMIN. CODE r. 567-65.16(7) (1997). For descriptions of what is required to satisfy the “location” requirement, see IOWA ADMIN. CODE r. 567-65.16(8) (1997).

114. *See* IOWA CODE § 455B.203(2)(d) (1997); *see also* IOWA ADMIN. CODE r. 567-65.16 (1997).

115. *See* IOWA CODE § 455B.203(2)(e) (1997). For a more detailed description of the animal production and manure volume, see IOWA ADMIN. CODE r. 567-65.16(9).

(7) methods of preventing odors, if spray irrigation equipment is used.¹¹⁷

Confinement feeding operations required to obtain a construction permit must not apply manure in an amount greater than that which will cause the nitrogen level calculations to exceed the levels required for optimum crop yields.¹¹⁸ The nitrogen levels shall take into consideration all sources of nitrogen, including manure, commercial fertilizers, and legumes.¹¹⁹ The levels may be established by actual soil testing samples, by the tables found in Chapter 65 of the Iowa Administrative Code, or from “other credible sources.”¹²⁰

An operator of a confinement feeding operation will be assessed a penalty if that operator fails to submit an MMP.¹²¹ Further, operators are subject to penalties if they submit an MMP, but fail to comply with the terms of the plan.¹²² MMPs are

116. See IOWA CODE § 455B.203(2)(f) (1997); see also IOWA ADMIN. CODE r. 567-65.16(10).

The manure management plan shall include an identification of the methods, structures or practices that will be used to prevent or diminish soil loss and potential surface water pollution during the application of manure. The manure management plan shall include a summary or copy of the conservation plan for the cropland where manure from the animal feeding operation will be applied if the manure will be applied on highly erodible cropland. The conservation plan shall be the conservation plan approved by the local soil and water conservation district or its equivalent. The summary of the conservation plan shall identify the methods, structures or practices that are contained in the conservation plan. The manure management plan may include additional information such as whether the manure will be injected or incorporated or the type of manure storage structure.

Id.

117. See IOWA CODE § 455B.203(2)(g) (1997).

118. See IOWA ADMIN. CODE r. 567-65.16(1) (1997).

119. See *id.*

120. *Id.*

Other credible sources include, but are not limited to Iowa State University, the United States Department of Agriculture, a registered professional engineer, or an individual certified as a crop consultant under the American Registry of Certified Professionals in Agronomy, Crops, and Soils (ARCPACS) program, the Certified Crop Consultants (CCA) program, or the Registry of Environmental and Agricultural Professionals (REAP) program.

Id.

121. See IOWA CODE § 455B.191(7)(e) (1997). An operator of a confinement feeding operation is subject to a penalty of up to \$5000 per day for each day a violation continues. See *id.* § 455B.191(1). A violation may occur by “failing to submit a manure management plan as required pursuant to section 455B.203, or operating a confinement feeding operation without having a manure management plan approved by the department.” *Id.* § 455B.191(7)(e).

122. See *id.* § 455B.203(6). This provision states: “[a] person submitting a manure management plan who is found in violation of the terms and conditions of the plan

only required to be submitted to the DNR once, at the time of the permitting process.¹²³ However, if an operator is classified as a habitual violator, that operator must submit a manure management plan to the DNR each year, that must be approved by the DNR.¹²⁴ All confinement operations required by law to submit an MMP must “maintain records sufficient to demonstrate compliance with the manure management plan” at all times.¹²⁵

The DNR has limited inspection rights under the Iowa law. The operation’s records are only subject to disclosure if: (1) the records are needed in an action or administrative proceeding;¹²⁶ (2) a subpoena or court order requires disclosure;¹²⁷ or (3) the permit holder waives its confidentiality protection.¹²⁸ If the DNR has satisfied one of the three requirements above, it may inspect the confinement feeding operation’s records.¹²⁹

Although the MMP requirements may be a paperwork burden for livestock producers, the benefits that will come from them are as follows: (1) the livestock producer will have an opportunity to find out the actual amount of nutrients being applied to soils; (2) the livestock producer may spend less money on commercial fertilizers; (3) the potential for runoff from over-application will be minimized; (4) the parties will work out written agreements regarding manure application firmly establishing each parties’ rights and obligations; and (5) the DNR will have more accurate records as to the amount of manure that is being applied to Iowa farmland. One potential issue regarding the submission of all of these plans is whether the DNR has sufficient staff and resources to regulate animal feeding operations;¹³⁰ however, this issue will have to be resolved in appropriations.

2. *Smaller Operations—Plans Required Starting in 1999*

shall not be subject to an enforcement action other than assessment of a civil penalty pursuant to section 455B.191.” *Id.*

123. *See id.* § 455B.203(1).

124. *See id.* § 455B.203(3).

125. Act of May 21, 1998, ch. 1209, § 31, 1998 Iowa Acts 658, 674 (to be codified at IOWA CODE § 455B.203(4)); *see also* IOWA CODE § 455B.203(4) (1997).

126. *See* IOWA CODE § 455B.203(4)(b) (1997). Any hearings regarding these records are closed. *See id.*

127. *See id.* § 455B.203(4)(c).

128. *See id.* § 455B.203(4)(a).

129. *See id.* § 455B.203(4). Iowa law also states that the DNR “shall regularly inspect a confinement feeding operation if the operation or a person holding a controlling interest in the operation is classified as a habitual violator.” *Id.* § 455B.203(5). The habitual violator must pay the costs of the inspections. *See id.*

130. *See* Act of May 27, 1997, ch. 213, § 5(5)(a)(2), 1997 Iowa Acts 734, 737. The Environmental Protection Division of the DNR received the following allocation: “at least \$424,600 and 9.00 FTEs shall be used to support the regulation of animal feeding operations.” *Id.*, 1997 Iowa Acts at 737.

Prior to the 1998 legislation, smaller confinement operations, between 200,000 and 625,000 pounds, may not have had to complete an MMP. Under the old administrative regulations, owners of confinement feeding operations that (1) stored its non-dry manure in a formed manure storage structure, (2) began after September 1995, and (3) had an animal weight capacity of less than the permit requirement but more than 200,000 pounds of animal weight capacity had to provide a manure management plan to the department.¹³¹

As mentioned in Part II.F, now all confinement operations of 200,000 pounds or more must submit MMPs that must be approved by the DNR.¹³² The requirements for MMPs for smaller operations mirror that of the larger operations, even to the extent that a copy of land application agreements must be included.¹³³ The plan also must include general information about the operation because the permitting process is not taking place and the enforcing authority needs the information.¹³⁴ The smaller operation owner is required to keep the manure management plan current and must maintain records that can prove compliance with the plan.¹³⁵ Otherwise, the same general rules apply for all operations.¹³⁶

MMPs have been and will continue to become an important part of a livestock producer's business. Most producers now must comply with the content requirements for creating a plan and also must keep the plan current from year to year. These plans will soon become routine for most producers following them and for many attorneys who will draft them.

III. POTENTIAL LIABILITIES FROM MANURE APPLICATION

Operators who raise livestock, and spread manure upon the ground are potentially liable for nuisance actions. Iowa law defines a nuisance as “[w]hatever is injurious to health, indecent, or unreasonably offensive to the senses, or an obstruction to the free use of property, so as essentially to unreasonably interfere

131. See IOWA ADMIN. CODE r. 567-65.18(1) (1997). The manure management plan must be provided to the department sixty days prior to the first land application of manure from the formed structure. See *id.* This requirement for a plan exempts manure stored in an exclusively dry form. See *id.*

132. See Act of May 21, 1998, ch. 1209, § 30, 1998 Iowa Acts 658, 673 (to be codified at IOWA CODE § 455B.203(1)).

133. See *id.*, 1998 Iowa Acts at 673. Prior to 1999, confinement operations under 200,000 pounds did not have to provide copies of manure application agreements. See IOWA ADMIN. CODE r. 567-65.18(2).

134. See IOWA ADMIN. CODE r. 567-65.18(2) (1997). The plan must include the owner's name, address, telephone number, the location of the operation, the animal weight capacity, the land area required for application, the total nitrogen available, the optimum crop yield, the crop usage rate, the manure application methods, the timing of application, the location of manure application, and the application rate. See *id.*

135. See *id.* r. 567-65.18(4).

136. See *id.* r. 567-65.18(3).

with the comfortable enjoyment of life or property”¹³⁷ However, the Iowa farmer has several protections from nuisance actions under Iowa law.¹³⁸

A. *Potential Liabilities for Manure Application as Shown By Iowa Case Law*

Several legal liabilities could result from the ownership of manure, the application of manure and the land on which the manure is applied. In *Weber v. IMT Insurance Company*,¹³⁹ Weber, the operator of a hog operation, was sued by a neighbor whose sweet corn crop was allegedly damaged by the smell of the manure which was hauled on the road adjacent to the sweet corn field.¹⁴⁰ The manure from Weber’s spreaders had dropped manure onto the road, and the tires of the manure spreader had tracked manure onto the road.¹⁴¹ The neighbors sued for nuisance, alleging that odor from the manure left on the road “contaminated his sweet corn crop and made the corn unmarketable.”¹⁴² Although this case was actually a battle as to whether Weber or his insurance company was required to defend the lawsuit,¹⁴³ this case is a good example of the liabilities that can arise from the application of manure.¹⁴⁴

In *Michael v. Michael*,¹⁴⁵ the issue was whether manure applied to land one-fourth of a mile from defendants’ residence constituted a nuisance.¹⁴⁶ The defendants applied manure slurry from its hog operation on farm fields owned by the defendant, and the plaintiffs claimed that the manure slurry caused offensive odors, which lasted up to a week.¹⁴⁷ However, the defendants applied the manure over a number of days and thus, the smell allegedly lasted up to twenty days.¹⁴⁸ The court found that at times a nuisance did exist and thus enjoined the defendants from spreading the manure slurry from April 1 to December 1 of each year unless the

137. IOWA CODE § 657.1 (1997). Under Iowa law, animal feeding operations and the spreading of manure are *not* deemed to be nuisances per se or nuisance in fact. *See id.* § 657.2 (stating objects or conditions that are deemed nuisances under Iowa law).

138. *See id.* § 657.11.

139. *Weber v. IMT Ins. Co.*, 462 N.W.2d 283 (Iowa 1990).

140. *See id.* at 284.

141. *See id.*

142. *Id.*

143. *See id.* at 285.

144. *See id.* at 283. The *Weber* court ultimately held that the Webers did not intend or expect property damage to occur from the transport of their manure, and therefore, the Webers’ umbrella policy provided coverage. *See id.* at 289. IMT thus had a duty to defend the Webers under the umbrella policy. *See id.*

145. *Michael v. Michael*, 461 N.W.2d 334 (Iowa 1990).

146. *See id.* at 334-35.

147. *See id.* at 335.

148. *See id.*

manure was incorporated into the soil “on the same date the material [was] spread.”¹⁴⁹

In *Valasek v. Baer*,¹⁵⁰ a livestock operator spreading manure was sued for nuisance by his neighbors.¹⁵¹ Defendant maintained a hog operation with three buildings, two of which had slurry pits under them.¹⁵² Defendant would empty the pits “several times per year” and apply the manure to his farmland as fertilizer.¹⁵³ The court held the manure application a nuisance and enjoined the defendant from spreading manure near the plaintiff’s residence.¹⁵⁴

Nuisance cases such as these have occurred all over the agricultural community. In response to these types of nuisance cases, during the 1990s the Iowa legislature has passed several laws protecting livestock operations.

B. Nuisance Protection for Manure Application

Prior to the case of *Bormann v. Board of Supervisors*,¹⁵⁵ it was clear that Iowa’s agricultural producers had limited statutory nuisance protections as found in Chapters 352 and 657 of the Iowa Code.¹⁵⁶ Prior to *Bormann*, all fifty states had at least one type of right-to-farm law providing some form of nuisance protection for farming activities.¹⁵⁷ In general, the right-to-farm laws do not provide an absolute defense.¹⁵⁸ For example, some states require that the farming operation be first in

149. *Id.* The April 1 to December 1 ban was applied because the prevailing winds are from the south (towards their residence) during these months. *See id.* This case is quite controversial, as the DNR regulations suggest that manure not be spread on frozen or snow-covered ground. *See* IOWA ADMIN. CODE r. 567-65.2(11)(c) (1997) (stating “[m]anure application on frozen or snow-covered cropland should be avoided where possible.”). In Iowa, the land tends to be frozen from December 1 to March 31.

150. *Valasek v. Baer*, 401 N.W.2d 33 (Iowa 1987).

151. *See id.* at 33.

152. *See id.* at 34.

153. *Id.*

154. *See id.* at 36. The court did not find the defendant’s arguments convincing: that the nature of the neighborhood was rural and agricultural; that the defendant plowed or chiseled the manure under, in accordance with acceptable farming practices, in order to keep the odor down; and that the defendant would have to drive one-fourth of a mile farther to spread the manure on other ground. *See id.* at 35. Also, “the fact that defendant’s hog operation was a lawful business and was being carried on in accordance with accepted standards does not impact on the finding of a nuisance.” *Id.* It is important to note that this case was decided before Iowa Code § 657.11 was enacted. Section 657.11 states that if a person has received all permits required and practices generally accepted management practices, an animal feeding operation is not a public or private nuisance. *See* IOWA CODE § 657.11 (1997).

155. *Bormann v. Board of Supervisors*, 584 N.W.2d 309 (Iowa 1998).

156. *See infra* Part III.B.1-2.

157. *See* NEIL D. HAMILTON, DRAKE UNIV. AGRIC. LAW CTR., A LIVESTOCK PRODUCER’S LEGAL GUIDE TO: NUISANCE, LAND USE CONTROL, AND ENVIRONMENTAL LAW 24 (1992).

158. *See id.* at 22.

time in order for the protection to apply.¹⁵⁹ The *Bormann* decision was the first case to declare a right-to-farm law unconstitutional.¹⁶⁰

In *Bormann*, several landowners applied to the Kossuth County Board of Supervisors to be designated as an agricultural area.¹⁶¹ The Board eventually granted the application for the 960-acre agricultural area.¹⁶² The Bormanns challenged the Board's decision, arguing that Iowa Code section 352.11 was unconstitutional.¹⁶³

The issue of the case was "whether a statutory immunity from nuisance suits results in a taking of private property for public use without just compensation in violation of federal and Iowa constitutional provisions."¹⁶⁴ The Bormanns did not allege that any nuisance was created by the agricultural area; rather, the case only challenged the constitutionality of the statute.¹⁶⁵ Therefore, the court did not find any damages in this case because the neighbors did not seek compensation.¹⁶⁶ The court instead found section 352.11(a)(1) invalid and unconstitutional.¹⁶⁷

The court found that this case involved a private, not a public nuisance.¹⁶⁸ A private nuisance involves a civil wrong based on a disturbance by one citizen toward another citizen.¹⁶⁹ In contrast, a public nuisance is an interference with the rights of a community at large.¹⁷⁰ The court found that there was a constitutionally protected private property interest at stake.¹⁷¹ The "property interest at stake here is that of an easement, which is an interest in land."¹⁷² The court found that the right to maintain a nuisance lawsuit is an easement.¹⁷³

[T]he nuisance immunity provision in section 352.11(1)(a) creates an easement in the property affected by the nuisance (the servient tenement) in favor of the applicants' land (the dominant tenement). This is because the immunity allows the applicants to do acts on their own land which, were it not for the easement, would constitute a nuisance. For example, in their farming operations the applicants would be allowed to generate 'offensive smells' on their property which

159. *See id.* at 21-61.

160. *See id.* at 43 (stating that as of 1992, no right-to-farm law had been found an unconstitutional taking of property).

161. *See Bormann v. Board of Supervisors*, 584 N.W.2d 309, 311 (Iowa 1998).

162. *See id.* at 312.

163. *See id.* at 311-12.

164. *Id.* at 311.

165. *See id.* at 313.

166. *See id.* at 321.

167. *See id.* at 321-22.

168. *See id.* at 314.

169. *See id.*

170. *See id.*

171. *See id.* at 315.

172. *Id.*

173. *See id.* at 316.

without the easement would permit affected property owners to sue the applicants for nuisances.¹⁷⁴

The court found that an easement is a property interest which is subject to the just compensation requirements of the Fifth Amendment of the United States and Iowa Constitution.¹⁷⁵

The court found that the easement granted by the Board of Supervisors resulted in a taking of property without just compensation.¹⁷⁶ In order to reach this conclusion, the court cited *Lucas v. South Carolina Coastal Commission*.¹⁷⁷ Under *Lucas*, there are two categories of state action that must be compensated without further inquiry into further factors which may support the state's action: (1) permanent physical invasion of another's property, and (2) denial of all economically beneficial or productive use of property.¹⁷⁸ The Iowa Supreme court expanded the first prong of the *Lucas* test to find that a physical taking or touching is not necessary for a taking to occur.¹⁷⁹ Thus, the court found that there was a "permanent physical invasion of the property,"¹⁸⁰ and that "[t]o constitute a per se taking, the government need not physically invade the surface of the land."¹⁸¹

The court used strong language, and specifically stated that "this is not a close case" and that the statute was "plainly—we think flagrantly—unconstitutional."¹⁸² The court made this decision with full knowledge that the "political and economic fallout from [its] holding will be substantial."¹⁸³

Thus, in summary: (1) the Board's approval of the agricultural area triggered the nuisance "immunity" of section 352.11(1); (2) the nuisance "immunity" provision is a property right because it creates, in effect, an easement in the neighbors' properties for the benefit of the farmers; (3) the easement would entitle the farmers to do acts on their property, which, were it not for the easement, would constitute a nuisance; (4) the nuisance "immunity" is a taking of the neighbors' private property without payment of just compensation in violation of the federal and state constitutions; (5) in enacting section 352.11(1), the legislature exceeded its authority; (6) section 352.11(1) is unconstitutional without force or effect.

The effects of this case could be broad sweeping, in that it could affect farmers large and small, livestock or grain. All farmers who currently are a part of an agricultural area in the State of Iowa no longer have a nuisance defense previously afforded to them by section 352.11(1)(a).

174. *Id.* (citations omitted).

175. *See id.*

176. *See id.* at 321.

177. *See id.* at 316 (citing *Lucas v. South Carolina Coastal Comm'n*, 505 U.S. 1003 (1992)).

178. *See id.* (citing *Lucas v. South Carolina Coastal Comm'n*, 505 U.S. 1003 (1992)).

179. *See id.* at 321.

180. *Id.* at 316.

181. *Id.* at 317.

182. *Id.* at 322.

183. *Id.*

1. *Iowa Code Chapter 352.*

The *Bormann* decision declared the nuisance protection found in section 352.11 unconstitutional, as it effected a taking of neighbors' private property.¹⁸⁴ However, this section will describe the state of law prior to that decision because agricultural nuisance protections are still a part of many states' right-to-farm laws.

If the land on which manure was to be applied was within an agricultural area, certain protections existed for the livestock operator. Chapter 352 allowed for owners of farmland to petition its county board of supervisors to create an agricultural area.¹⁸⁵ After an agricultural area had been created, "[a] farm or farm operation located in an agricultural area shall not be found to be a nuisance regardless of the established date of operation or expansion of the agricultural activities of the farm or farm operation."¹⁸⁶ However, if the farm operation was in violation of state or federal law, or the operator was negligent, the protection did not apply.¹⁸⁷

The spreading of manure was specifically protected within Chapter 352.¹⁸⁸ Farm operations were protected, and a farm operation was and is defined as "a condition or activity which occurs on a farm in connection with the production of farm products and includes but is not limited to the raising, harvesting, drying, or storage of crops; the care or feeding of livestock; the handling or transportation of crops or livestock; *the treatment or disposal of wastes resulting from livestock . . .*"¹⁸⁹ Therefore, if an agricultural area existed on the land in which manure was applied, based on the language of the statute, a landowner could have sued an operator applying manure only if a violation of state or federal law had occurred, or if the operator was negligent.¹⁹⁰

2. *Iowa Code § 657.11*

The *Bormann* decision could very well affect the nuisance protection found in section 657.11. However, this section will describe the protections found in section 657.11 as they exist in the Code at the present time.

184. *See id.* at 321-22.

185. *See IOWA CODE* § 352.6 (1997).

186. *Id.* § 352.11(a).

187. *See id.* § 352.11(b).

188. *See id.* § 352.11(a).

189. *Id.* § 352.2(6) (emphasis added).

190. *See Iowa Op. Att'y Gen. No. 94-5-9*, at 3 (1994). The Iowa Attorney General concluded that where an agricultural area exists, "a private landowner could file a nuisance action only where negligence or violation of a federal statute or regulation or state statute or rule is alleged." *Id.*

The Iowa legislature enacted section 657.11 with the following purpose in mind:

[T]o protect animal agricultural producers who manage their operations according to state and federal requirements from the costs of defending nuisance suits, which negatively impact Iowa's competitive economic position and discourage persons from entering into animal agricultural production. This section is to promote the expansion of animal agriculture in this state by protecting persons engaged in the care and feeding of animals.¹⁹¹

This law states that an animal feeding operation shall not be found to be a public or private nuisance, or to be interfering with "another person's comfortable use and enjoyment of the person's property" unless an injury is found to be proximately caused by (1) the failure to comply with state or federal law, (2) the animal feeding operation unreasonably and for substantial periods of time interferes with the person's comfortable use and enjoyment of the property, (3) and the animal feeding operation "failed to use existing prudent generally accepted management practices reasonable for the operation."¹⁹² Although these new standards have yet to be interpreted, it appears as though they protect farming operations applying manure to the land as long as they comply with all laws and all reasonable farming customs.¹⁹³ This protection exists without regard to the established date of operation or expansion of an animal feeding operation.¹⁹⁴

3. *Nuisance Defense Conclusions*

While the *Bormann* case only invalidated the nuisance defense found in Iowa's agricultural area law, this case could have far-reaching implications. The

191. IOWA CODE § 657.11(1) (1997).

192. Act of May 21, 1998, ch. 1209, § 38, 1998 Iowa Acts 658, 678 (to be codified at IOWA CODE § 657.11(2)(b)(2)). The protections in section 657.11 also apply to those operators who are not required by law to obtain a permit. *See id.*, 1998 Iowa Acts at 678 (to be codified at IOWA CODE § 657.11(5)). The protection is *not applicable* for chronic violators, as defined by Iowa Code 657.11(4). *See id.* § 39, 1998 Iowa Acts at 678 (to be codified at IOWA CODE § 657.11(4)).

193. *See id.* § 38, 1998 Iowa Acts at 678 (to be codified at IOWA CODE § 657.11(4)); *see also* IOWA CODE § 657.11(5) (1997). Section § 657.11(5) states:

The rebuttable presumption [created by this section] includes, but is not limited to, a defense for actions arising out of the care and feeding of animals; the handling or transportation of animals; the treatment or disposal of manure resulting from animals; the transportation and application of animal manure; and the creation of noise, odor, dust, or fumes arising from an animal feeding operation.

Id. § 657.11(5).

194. *See id.* § 38, 1998 Iowa Acts at 678 (to be codified at IOWA CODE § 657.11(5)).

agricultural nuisance defenses found in Chapter 657 and Chapter 172D of the Iowa Code could now be in jeopardy as well. In future cases the Iowa Supreme Court could expand its ruling to invalidate all agricultural nuisance defenses, not just the defense found in the agricultural area statute.

Without the statutory nuisance defense, Iowa's law reverts to the common law.¹⁹⁵ In common law nuisance cases, a court would consider all of the factors of each case, such as: priority in time; social utility of the conduct; locality and flavor of the neighborhood; the nature of the injury (mere annoyance versus a damage to property); whether a person knew about the farming operation before coming to the area, among other factors.¹⁹⁶

The Iowa Supreme Court ruling is the first of its kind in the nation; if other agricultural states follow Iowa's lead, this ruling could have consequences to all forms of agriculture on a national scale.

IV. MANURE APPLICATION AGREEMENTS

The use of a written manure application agreement may have been unusual ten years ago, but today it is an expected occurrence between operators and landowners. Manure application agreements are becoming much more prevalent for two reasons. First, written manure application agreements, as part of an MMP that must be submitted to the DNR, are required for operations larger than 200,000 pounds.¹⁹⁷ If an operator does not own enough land to spread all of the manure produced, the plan requires that a copy of a written agreement allowing for the application of manure on another person's land.¹⁹⁸ This is a significant and new requirement for operations greater than 200,000 pounds but less than 625,000 pounds. This new requirement, starting in 1999, will cause many producers to negotiate with their neighbors over written terms, instead of just an oral year-to-year agreement. Second, many operators and landowners alike fear legal problems linked to the spreading of manure, such as nuisance lawsuits, or DNR penalties for possible environmental violations linked to the manure application.

The Iowa State University Extension Service states that "[d]ue to the potential legal, agronomic, and economic consequences, all operators of livestock operations that require additional land for manure application and landowners

195. See *Helmcamp v. Clark Ready Mix Co.*, 214 N.W.2d 126, 129 (Iowa 1974).

196. See generally *id.* (defining the test for determining a nuisance).

197. See *id.* § 30, 1998 Iowa Acts at 673 (to be codified at IOWA CODE § 455B.203(1)).

198. See *id.* § 21, 1998 Iowa Acts at 668 (to be codified at IOWA CODE § 455B.165(6)(b)).

accepting the manure should have a written agreement.”¹⁹⁹ Therefore, this section will explain what manure application agreements are and what they do.

Manure application agreements are most often defined as “written contractual agreements used when a livestock operation requires land in addition to the land owned or rented by the livestock operation to apply manure.”²⁰⁰ Both parties benefit from a manure application agreement, in that the operator of the animal feeding operation is in need of a place to apply the manure, and the land owner will receive the benefit of the organic nutrients contained in manure, which will decrease or supplant the amount of commercial fertilizers needed for that land.²⁰¹ Although “[m]anure application agreements are often referred to as leases, easements, or licenses,” the contents of the document will determine the status of the agreement rather than its actual title.²⁰² Manure application agreements are different from farm leases because the contract is for the right “to use the land for manure application only and the owner of the land retains the use of the land for all other purposes.”²⁰³ A drafter should be wary of using the term “lease” for manure application agreements because farm leases are subject to specific statutory requirements under the Iowa Code.²⁰⁴ The main difference between an easement and a license, in terms of a manure application agreement, is that an easement would continue after the parties sell or gift the property, while a license would be a personal agreement between the two parties, and thus would not continue after the parties sell or gift the property.²⁰⁵ If the parties intend the agreement to continue, the written agreement should state so specifically.²⁰⁶ A secondary difference between an easement and a license is that if the agreement is breached, the remedy for an easement is specific performance of the agreement, while the remedy for a license would likely be monetary damages.²⁰⁷

The parties to the manure application must include the owner of the animal feeding operation and the owner of the land where the manure is to be applied.²⁰⁸ A tenant on the land where the manure is to be applied may not enter into an agreement for the application of manure, unless the tenant’s farm lease specifically allows for

199. JOHN BAKER ET AL., IOWA STATE UNIV. EXTENSION, MANURE APPLICATION AGREEMENTS I (1996).

200. *Id.*

201. *See* IOWA PORK PRODUCERS ASS’N, MANURE APPLICATION AGREEMENT I (1997).

202. *Id.* at 2.

203. *Id.*

204. *See, e.g.*, IOWA CODE §§ 562.1-.11 (1997) (regulating notice and termination of farm leases). *See also* IOWA PORK PRODUCERS ASS’N, *supra* note 201, at 2.

205. *See* IOWA CODE §§ 562.1-.11 (1997).

206. *See id.*

207. *See id.*

208. *See* BAKER ET AL., *supra* note 199, at 1. Note also that for situations where tenants will perform all or part of the agreement, it is “advisable for the agreement to be between all of the parties.” IOWA PORK PRODUCERS ASS’N, *supra* note 201, at 2.

this authority.²⁰⁹ However, if a landlord enters into a manure application agreement, the landlord must ensure that the terms are consistent with the farm lease and notify the tenant of the manure application arrangement.²¹⁰

The terms of each individual contract should vary, based on specific needs of the parties. However, a list of provisions that should be included in every manure application agreement includes:

- (1) all parties to the agreement;
- (2) where the manure will come from;
- (3) where the manure will be applied;
- (4) who will supply the manure;
- (5) who will apply the manure;
- (6) length of the agreement;
- (7) ability to terminate and procedures for termination;
- (8) timing of the application;
- (9) method of manure application;
- (10) who will obtain all permits as required by law, and who is responsible for continued compliance with all laws;
- (11) levels of manure to be applied;
- (12) who will determine the level of soil nutrients;
- (13) whether (and amount) either party will be paid;
- (14) allocation of liability between the parties for lawsuits, penalties, etc.²¹¹

Manure application agreements are legally binding contracts and should not be entered into lightly. It is important for a livestock operator to consider the following factors before negotiating the terms of an agreement: (1) a guarantee that the manure is stored, removed, and applied in compliance with Iowa and federal laws; (2) a consideration of the cost of removing and applying the manure; (3) an evaluation of the value of the manure as fertilizer; (4) the potential nuisance liability from manure application.²¹² In addition, a landowner should consider the following factors before negotiating the terms of an agreement: (1) the soil nutrient levels; (2) the nutrient supplied by the manure; (3) the crop nutrient requirements; (4) the cost

209. See IOWA PORK PRODUCERS ASS'N, *supra* note 201, at 2.

210. See *id.*

Furthermore, the lease between the landlord and crop tenant should address the terms of the manure application agreement which will be performed by the landlord or tenant. In addition, the lease should provide what payment, if any, is due to the landlord from the tenant for the nutrient value of the manure.

Id.

211. See *id.* at 2-8; BAKER ET AL., *supra* note 199, at 1-5.

212. See IOWA PORK PRODUCERS ASS'N, *supra* note 201, at 1.

of commercial fertilizers compared to using manure; and (5) the possibility of soil compaction or erosion after manure application.²¹³

V. CONCLUSION

The law regulating manure and its application is changing every year. In 1999, agricultural law attorneys will likely need to spend much time drafting manure management plans as well as manure application agreements.

Some producers might greet the 1998 changes with great reserve because no one likes to increase the number of rules one has to live by. However, most of the changes that have resulted from the 1998 livestock bill are ones which producers can live with and which actually will benefit not only society, but all agriculture in the long run. As Iowa continues to keep a close eye upon animal feeding operations, the public will feel more and more at ease with larger livestock operations. The manure management plan requirements, while cumbersome, will give producers a chance to fully evaluate the benefits of the natural fertilizers they are applying to cropland. The manure applicator certification requirements have the potential to be a great educational tool. Separation distances are always controversial, but their effect is to assure neighbors that their home enjoyment rights are being protected. The 1998 livestock bill is a good compromise, one for which both producers and all Iowans should be pleased.

213. *See id.*