

The National Agricultural
Law Center



University of Arkansas School of Law
NatAgLaw@uark.edu ☎ (479) 575-7646

An Agricultural Law Research Article

**Deer and Management: A Comprehensive
Analysis of Iowa State Hunting Laws and
Regulations**

by

Mindy Larsen Poldberg

Originally published in DRAKE JOURNAL OF AGRICULTURAL LAW
3 DRAKE J. AGRIC. L. 279 (1998)

www.NationalAgLawCenter.org

DEER AND MANAGEMENT: A COMPREHENSIVE ANALYSIS OF IOWA STATE HUNTING LAWS AND REGULATIONS

Mindy Larsen Poldberg

I.	Introduction.....	279
II.	The History and Nature of the Deer Population Problem.....	280
	A. Statistics Available on Current Population Trends	282
	B. Past Attempts to Control the Deer Population	284
	C. Why the Need to Shoot the Deer?.....	285
	1. Compensation for Property Damage	286
	2. Contraception	287
III.	Current State Law—Code Requirements	288
	A. State Ownership of Wildlife	288
	B. Rules and Regulations Regarding the Taking of Iowa Wildlife.....	290
	1. Authority and Management Criteria	290
	2. Licensing and Safety Rules Regulating Hunting.....	291
	3. Penalties Provided for Not Following the Hunting Laws	292
IV.	Protection of Private Property Rights.....	293
V.	New Iowa Regulations for 1997	295
	A. Requirements of a Management Plan	296
	B. Requirements for Obtaining a Depredation Permit or a Deer Shooting Permit	297
VI.	Conclusion	299

I. INTRODUCTION

At dusk in Iowa, it is not uncommon to see a beautiful white tailed deer running through the countryside. As the deer leaps over fences with such grace and poise it truly takes one's breath away to see these magnificent animals up close, looking at a human intruder with a certain mixture of curiosity and reserve. In the white tailed deer, citizens of Iowa have a state treasure that cannot be seen in all areas of the country. However, the deer are not merely beautiful resources of the state of Iowa, but they also cause problems. They cause millions of dollars in crop damages, spread Lyme disease, destroy much of Iowa's natural habitat from

overuse, and cause serious automobile accidents that injure and kill members of the public when the deer run across the roads traveled by motor vehicles.

This Note will discuss the issue of the deer overpopulation problem in the state of Iowa. In particular, it will examine the measures that the Iowa Department of Natural Resources (DNR) is taking to control this problem, and evaluate the effectiveness of these measures. This Note will also discuss other relevant alternatives to the current regulations that could be used to control the growing deer population.

II. THE HISTORY AND NATURE OF THE DEER POPULATION PROBLEM

Iowa's deer have increased in number due to a successful adaptation to their environment and a lack of natural predators. The deer have adapted particularly well to feeding in Iowa's cornfields, and in fact are surviving and reproducing in higher numbers than they would if they were in their natural habitat.¹ With abundant food during Iowa's corn harvest, the deer do not starve in the winter as occurs in many other Midwestern states.² Lastly, Iowa has no large predators feeding on the deer to naturally control the population.³

The United States Department of Agriculture (USDA) estimates that more than half of all United States farmers experience some economic loss from animal damage.⁴ In dollar figures, the total annual loss to agriculture in the United States from wildlife is estimated to exceed \$500 million.⁵ The USDA fully recognizes that animals are not only a resource, but a hazard. Wildlife, in general "is a significant public resource greatly valued by the American people. By its very nature, however, wildlife is a highly dynamic and mobile resource that can damage agricultural and industrial resources, pose risks to human health and safety, and affect other natural resources."⁶

A member of the Maryland Department of Natural Resources summarized the types of damage caused by deer as follows: "Deer cause vehicle accidents,

1. See Allen Farris, Administrator, Iowa Department of Natural Resource, Speech at Drake University Law School, Natural Resources Law (Oct. 10, 1997) (on file with the *Drake Journal of Agricultural Law*). Farris stated that Iowa's deer show an increase in multiple births, and a decrease in fawn fatalities. A yearling doe will produce one healthy, surviving fawn; a two year old doe will produce twins; and a doe three years or older will produce at least twins, and likely to produce healthy triplets. See *id.*

2. See *id.*

3. See *id.*; see also Perry Beeman, *Collisions of Deer, Vehicles are Climbing*, DES MOINES REG., Dec. 1, 1997, at 4M (stating "[o]ther than vehicles, there are no other predators in Iowa").

4. See ANIMAL AND PLANT HEALTH INSPECTION SERVICE, U.S. DEP'T OF AGRIC., FACTSHEET — ANIMAL DAMAGE CONTROL 1 (1995).

5. See *id.*

6. ANIMAL AND PLANT HEALTH INSPECTION SERVICE, U.S. DEP'T OF AGRIC., ANIMAL DAMAGE CONTROL: MISSION AND STRATEGY 2 (1994).

browse in gardens and yards, eat agricultural crops like corn and fruit trees, carry ticks that transmit Lyme disease and, not infrequently, damage property by doing such things as jumping through plate glass windows."⁷

Iowa's deer population poses a large health and safety risk to Iowa's citizens as they drive cars on the roadway. In 1996, a record 12,276 deer were killed by vehicles on Iowa's roadways.⁸ This is up from the average of 10,000 deer killed over the past ten years.⁹ The most recent trends are even more staggering. Some areas of the state of Iowa have reported as much as a 66% increase in automobile-deer collisions over the past five years.¹⁰ Moreover, experts indicate that the number of accidents is actually much higher than reported because drivers tend to report an automobile-deer accident only if a person is hurt.¹¹

The Iowa Department of Transportation (DOT) issued a report tracing the number of unsalvageable¹² deer killed in the state of Iowa from 1987 to 1995.¹³ The report states that during this nine year period, the number of unsalvageable deer struck by automobiles on Iowa's highways has increased from 2752 deer per year to 4740 deer per year.¹⁴ This calculates to an increase of more than 72% over the nine year period. The sharp increase of deer killed by automobile accidents during approximately the past decade is strong evidence of the increasing overpopulation levels of deer. By 1995, a citizen of Iowa was 72% more likely to

7. Pamela D. Andersen, *Managing Deer Management*, 11 SPG NAT. RESOURCES & ENV'T 54, 54 (1997). Deer often jump through plate glass windows in residential neighborhoods, causing much damage to the home. See *Dateline Iowa*, DES MOINES REG., Nov. 30, 1997, at 2B. An Iowa City Animal Control Officer stated that an offending "deer likely charged the window when it saw its reflection. Bucks often confront one another in the search for a mate." *Id.*

8. See Perry Beeman, *Collisions of Deer, Vehicles are Climbing*, DES MOINES REG., Dec. 1, 1997, at 4M. The automobile to deer accident totals are five times the annual kill twenty years ago. *See id.*

9. See Juli Probasco-Sowers, *Deer Population Above 'Tolerance' Level*, DES MOINES REG., Nov. 30, 1997, at 15A. Furthermore, twenty years ago the number of automobile to deer accidents averaged 3000 per year. *See id.*

10. See Frank Bowers, *Deer Are a Problem; Now What?*, DES MOINES REG., Mar. 28, 1997, at 1M.

11. See Perry Beeman, *Collisions of Deer, Vehicles are Climbing*, DES MOINES REG., Dec. 1, 1997, at 4M.

12. An unsalvageable deer is one that has been struck by an automobile or otherwise found on or near Iowa's road system which could not be salvaged for human consumption in any manner. This report is confined only to statistics on unsalvageable deer. Interview with Larry R. Heintz, Access and Utility Policy Administrator, Iowa Department of Transportation, Maintenance Division, Ames, Iowa.

13. See IOWA DEP'T OF TRANSP., STATEWIDE DEER KILL ANNUAL (UNSAVAGEABLE DEER), REPORT FOR YEARS 1987 TO 1995 (Nov. 1997). For a copy of this report, contact Larry R. Heintz, Access and Utility Policy Administrator, Iowa Department of Transportation, Maintenance Division, Ames, Iowa.

14. *See id.* at 1.

be hurt or injured in an automobile-deer collision than in 1985. Thus, the overpopulation of Iowa's deer has resulted in a serious life and health risk to its citizens.

An overabundance of deer in Iowa affects other natural resources and habitats for other animals in the state. For example, a professor of forestry at Iowa State University was quoted as stating that the deer population in Iowa may destroy wildflowers, tree seedlings, and songbird habitats.¹⁵ Deer generally travel in herds, and trample on and overfeed in their habitat. As the number of deer increase in Iowa, it is likely that much of Iowa's natural vegetative habitats will be damaged or destroyed.

A. Statistics Available on Current Population Trends

A question that would seem most pertinent to any management regime is exactly how many deer exist in the State of Iowa. Yet, the Iowa Department of Natural Resources states that there is "no accurate count of the number of deer in Iowa."¹⁶ Allen Farris, Administrator of the Iowa DNR, Fish and Game Division, has stated that it is impossible to have an actual count of the deer population, but that the DNR has population surveys taken to estimate the trends of the deer population.¹⁷ Trends in the number of deer are established by three separate surveys. First, aerial surveys are conducted in January and February at a time when new snow accumulates to six or more inches.¹⁸ Second, the number of deer that are killed by automobiles is recorded throughout the year by the Iowa Department of Transportation.¹⁹ And third, spotlight surveys²⁰ are conducted by wildlife biologists and conservation officers during the month of April.²¹ Based on the above deer tracking studies, Willy Suchy, an Iowa DNR wildlife biologist, estimates that the state's deer population is currently around 350,000.²²

15. See Larry Stone, *Flora and Fauna at Mercy of Humans*, DES MOINES REG., May 4, 1997, at 4D.

16. Jonathan Roos, *Legislation Piles Up Over Deer Population*, DES MOINES REG., Jan. 29, 1997, at 6M.

17. See Allen Farris, Administrator, Iowa Department of Natural Resource, Speech at Drake University Law School, Natural Resources Law (Oct. 10, 1997).

18. See IOWA DEP'T OF NATURAL RESOURCES, 1997 IOWA DEER HUNTING APPLICATION 19 (1997).

19. See *id.*

20. Spotlight surveys are explained by the DNR as "thirty-mile routes are driven after dark in good deer habitat and spotlights are used to count the number of deer seen in adjacent woodlands and fields." *Id.*

21. See *id.*

22. See Juli Probasco-Sowers, *Deer Population Above 'Tolerance' Level*, DES MOINES REG., Nov. 30, 1997, at 15A.

These surveys and other data have shown that Iowa's deer population has been steadily increasing over the past decade, and cities and counties all over Iowa are feeling the effects. For example, a count by the Polk County Deer Task Force revealed that "the Polk County herd nearly doubled in size between 1996 and 1997,"²³ and could double *again* by the year 2000 if nothing is done to control the deer population.²⁴ In Polk County, concentrations of deer range anywhere from 20 deer per square mile to 198 deer per square mile.²⁵ Also in Polk County, vehicle collisions with deer have increased by 66% in the past five years.²⁶ In order to address this problem, Polk County has established a Deer Task Force in order to monitor the deer and propose solutions.²⁷

One group of Iowa citizens is seriously effected by the increasing number of deer—Iowa's agricultural producers.²⁸ A survey was conducted in November and December of 1996 by Iowa Agricultural Statistics for the Iowa Department of Natural Resources (DNR) to determine the attitudes of farm operators toward deer and other wildlife existing in Iowa.²⁹ The survey, which involved random calls to 1,245 Iowa farmers or agricultural product producers, determined that discontent existed over the increasing numbers of the deer population in the state.³⁰ Of all farmers surveyed, 95% stated that they had deer on the land they farmed,³¹ and about 70% reported damage to their crops caused by deer.³² Row crop farmers

23. Perry Beeman, *Permit Would Take Aim at Deer Count*, DES MOINES REG., Oct. 2, 1997, at 1M.

24. See Andrew Blechman, *Council: No Bow Hunting in W.D.M.*, DES MOINES REG., Sept. 10, 1997.

25. See Frank Bowers, *Deer Are a Problem; Now What?*, DES MOINES REG., Mar. 28, 1997, at 1M.

26. See *id.*

27. See *id.* Persons in Polk County who would like information on the Deer Task Force or who would like to make comments may call (515) 323-6250.

28. This paper will refer to "farmer" and "producer" interchangeably. A farmer or producer is intended to mean any person who cultivates crops such as corn, soybeans, alfalfa, wheat, milo, sorghum or any other grain, and high value crops such as Christmas trees, fruits, vegetables, nurseries or nuts. A farmer or producer also includes those who raise domesticated livestock, such as cattle, swine, sheep, horses, turkeys and chickens.

29. IOWA AGRICULTURAL STATISTICS, IOWA DEP'T OF NATURAL RESOURCES, ATTITUDES OF FARM OPERATORS TOWARDS DEER AND OTHER WILDLIFE 1996 (1997); Larry Stone, *Farmers Oppose Deer Kill-Off*, DES MOINES REG., Feb. 7, 1997, at 1; *Farmers and Deer*, DES MOINES REG., Feb. 7, 1997, at 2M.

30. See Larry Stone, *Farmers Oppose Deer Kill-Off*, DES MOINES REG., Feb. 7, 1997, at 1.

31. See IOWA AGRICULTURAL STATISTICS, IOWA DEP'T OF NATURAL RESOURCES, ATTITUDES OF FARM OPERATORS TOWARDS DEER AND OTHER WILDLIFE 1996, at 3 (1997).

32. See *id.* These numbers reported for Iowa correspond with the national figures promulgated by the USDA. The USDA reports that more than 50% of all farmers experience economic loss from some type of animal damage. See ANIMAL AND PLANT HEALTH INSPECTION SERVICE, U. S. DEP'T OF AGRIC., FACTSHEET — ANIMAL DAMAGE CONTROL I (1995).

were most concerned with the damage the deer caused to corn.³³ Approximately 65% of all producers surveyed felt that the numbers of deer in the state needed to decrease.³⁴ Twenty-one percent of all producers felt that the amount of damage was unreasonable.³⁵ About 33% of all producers who felt that the damage caused to their crops was unreasonable stated that they had contacted the Iowa DNR for assistance with their deer damage problems.³⁶

B. Past Attempts to Control the Deer Population

In past years, the Iowa Department of Natural Resources has attempted to deal with the deer overpopulation issue by increasing the number of deer-hunting licenses given to in-season hunters. The DNR issued the following numbers of licenses in the past six years:³⁷

<u>YEAR</u>	<u>LICENSES</u>
1991	181,146
1992	183,555
1993	165,493
1994	176,617
1995	179,752
1996	212,060

The number of licenses issued does not directly correlate with the number of deer actually killed. For example, in 1996 approximately 58% of hunters who hunted were able to recover a deer.³⁸

Administrator Allen Farris has stated that the DNR's goal is to establish the optimum number of deer licenses that would result in a balance between what the habitat can support, and what the community, farmers, and motorists feel is

33. See IOWA AGRICULTURAL STATISTICS, IOWA DEP'T OF NATURAL RESOURCES, ATTITUDES OF FARM OPERATORS TOWARDS DEER AND OTHER WILDLIFE 1996, at 3 (1997). The evidence indicates that row crop farmers have had more noticeable damage to corn fields than to soybean or other grain fields. See *id.* High value producers, however, still sustain more damages than other types of producers. See *id.*

34. See *id.*

35. See *id.*

36. See *id.*

37. Jonathan Roos, *Legislation Piles Up Over Deer Population*, DES MOINES REG., Jan. 29, 1997, at 6M.

38. See IOWA DEP'T OF NATURAL RESOURCES, 1997 IOWA DEER HUNTING APPLICATION 20 (1997). Furthermore, of the licenses issued in 1996, only 185,599 hunters actually hunted deer, and 107,615 deer were harvested overall. See *id.*

sufficient.³⁹ The Iowa DNR's goal is not an uncommon one, as explained by Pamela Andersen, assistant attorney general of the Maryland Department of Natural Resources. She states that:

[T]he difficult issue facing natural resource and wildlife managers is not choosing the most biologically sound method of reduction, but finding the most culturally acceptable and affordable method. Biologists calculate and watch two key indices to monitor deer population — biological carrying capacity and cultural carrying capacity. Biological carrying capacity measures how many deer an area can support with sufficient food and living space. Cultural carrying capacity measures the number of deer an area can support without causing too much negative interaction with humans.⁴⁰

Thus, it may be that Iowa's habitat could support the current increase in the deer population, but that Iowa's citizens just will not tolerate any more deer.⁴¹ In order to meet the citizen's demands, the DNR has increased the number of deer hunting licenses issued. Although increasing the number of licenses will eventually decrease the total population, many high concentration areas of deer will not decrease due to the state's inability to control *where* permitted hunters choose to use their licenses. Therefore, additional action is needed to address this problem.

C. *Why the Need to Shoot the Deer?*

When overpopulation occurs, causing danger to citizens, action must be taken to control the deer population. Shooting the deer seems to be the best alternative because few other methods have been effective in controlling the population. Fences are not an adequate remedy, as deer can easily jump fences as high as eight feet.⁴² Also, urban areas are not immune from deer population problems because deer have become accustomed to living among people and are not afraid of them.⁴³ Thus, they damage residential areas, such as ornamental

39. See Allen Farris, Administrator, Iowa Department of Natural Resource, Speech at Drake University Law School, *Natural Resources Law* (Oct. 10, 1997); Larry Stone, *Group Advocates More Deer Hunting*, DES MOINES REG., Feb. 14, 1997, at 15; IOWA CODE § 481A.39 (1997).

40. Pamela D. Andersen, *Managing Deer Management*, 11 SPG NAT. RESOURCES & ENV'T 54, 54 (1997).

41. See Juli Probasco-Sowers, *Deer Population Above 'Tolerance' Level*, DES MOINES REG., Nov. 30, 1997 at 15A (quoting a DNR biologist claiming that "deer numbers are above the 'tolerance' level this year).

42. See Pamela D. Andersen, *Managing Deer Management*, 11 SPG NAT. RESOURCES & ENV'T 54, 54 (1997).

43. See *id.*

plants, fruit trees, lawns and gardens. Deer repellents also have been tried in several areas of the country, but the repellents have been found to be only nominally effective.⁴⁴

1. *Compensation for Property Damage*

Other states have alternative methods of dealing with a deer overpopulation problem. In Wisconsin, for example, a fund has been established to pay for wildlife damage control.⁴⁵ The fund is supplied with monies derived from all special deer licenses and a one dollar surcharge placed on every hunting license.⁴⁶ This fund over a number of years has accrued more than \$3 million.⁴⁷ The fund is used to pay for "fences, technical assistance and claims to farmers who allow hunting and work with wildlife biologists."⁴⁸ Claims to the fund work somewhat like insurance. First, a property owner is not eligible for damage assistance until after \$250 of damage has occurred, much like an insurance deductible.⁴⁹ Further, the damages that Wisconsin will pay is limited, as a property owner may only receive assistance for damages up to \$5000.⁵⁰ The property owner, in order to collect assistance for damages, must "permit hunting of the animals causing the wildlife damage on the land where the wildlife damage occurred and on contiguous land under the same ownership and control."⁵¹

The wildlife bureau chief for the Iowa DNR stated that a plan such as the Wisconsin plan would not work in Iowa because Wisconsin has a larger human population than Iowa.⁵² This means Wisconsin would have far more contributions to the fund than would Iowa. Also, Wisconsin has far fewer producers than Iowa does, resulting in a fewer number of potential Wisconsin persons who could make

44. *See id.* Deer are able to adapt to sound and odor deterrents, and become less afraid of manmade deterrents after a short time. *See id.*

45. *See* WIS. STAT. § 29.598 (1997); Larry Stone, *Solutions Studied for Iowa's Deer*, DES MOINES REG., Feb. 7, 1997, at 2M.

46. *See* WIS. STAT. § 29.092(14)(a), (c) (1997) (stating that persons who apply for a license to hunt wildlife "shall pay a wildlife damage surcharge of \$1" and that fees "shall be deposited in the conservation fund to be used for the wildlife damage abatement program, [and] the wildlife damage claim program").

47. *See* Larry Stone, *Solutions Studied for Iowa's Deer*, DES MOINES REG., Feb. 7, 1997, at 2M.

48. *Id.*

49. *See* WIS. STAT. § 29.598(7)(b)(3) (1997) (stating that "[n]o person may receive any payment for the first \$250 of each claim for wildlife damage").

50. *See* WIS. STAT. § 29.598(7)(b)(2) (1997) (stating that "[n]o person may receive a payment in excess of the actual amount of the wildlife damage or \$5000, whichever is less").

51. WIS. STAT. § 29.598 (7m)(a) (1997).

52. *See* Larry Stone, *Solutions Studied for Iowa's Deer*, DES MOINES REG., Feb. 7, 1997, at 2M.

claims to the fund.⁵³ Therefore, it is likely that the Wisconsin plan would not be effective in Iowa due to potential under-funding and overuse.

2. *Contraception*

Although contraception for deer may seem like an obvious and humane method of controlling the deer population, this solution is not yet a viable one for Iowa's deer population. Experimental techniques have been developed to control animal reproduction, but none have been approved for use on free ranging animals.⁵⁴ A technique called "immunocontraception" involves "immunizing deer with a drug that prevents conception."⁵⁵ This process has been found to be ineffective, however, in that the process works very slowly; it does not solve the problem of the current population, but merely reduces the number of young born.⁵⁶ "If the deer are already over the biological carrying capacity, immunocontraception will not prevent them from causing damage, starving, or becoming diseased for several years."⁵⁷

Furthermore, immunocontraception is not an especially good idea because it has a negative impact on the gene pool of the deer population. It has been found that contraceptives are more effective on healthy deer, and that "widespread use of immunocontraception may result in the unintended consequence that healthier, inoculated deer will not produce young while the unhealthy deer may reproduce."⁵⁸ The reality of contraception alternatives is that they have not proven to be effective, may have a negative impact on the gene pool, are expensive, and are still considered to be experimental. Therefore, at this point in time contraception is not a viable option for the Iowa DNR.

Because contraceptives are experimental and detrimental to gene pools, many state Departments of Natural Resources, including Iowa's, have wisely resorted to the most effective and least costly alternative: increased hunting of the deer population, with special permits available to high concentration areas. Until a safe and effective means of wildlife contraception is developed, hunting will continue to be the best alternative.

53. *See id.*

54. *See* Larry Stone, *Permits Urged for Polk Deer Hunting*, DES MOINES REG., May 28, 1997, at 3M.

55. Pamela D. Andersen, *Managing Deer Management*, 11 SPG NAT. RESOURCES & ENV'T 54, 54 (1997).

56. *See id.*

57. *Id.*

58. *Id.*

III. CURRENT STATE LAW — CODE REQUIREMENTS

A. State Ownership of Wildlife

The State of Iowa has an important natural resource interest in its white tailed deer population. In fact, the legislature has established that the State has ownership and title to its resources. Iowa Code § 481A.2 states: "The title and ownership of all fish . . . and of all wild game, animals, and birds . . . and all other wildlife, found in the state, whether game or nongame, native or migratory . . . are hereby declared to be in the state" ⁵⁹ The power of a state to exercise dominion and control over its wildlife has been established by this nation's highest court, in *Geer v. Connecticut*. ⁶⁰ The Court quoted the following with approval:

We take it to be the correct doctrine in this country, that the ownership of wild animals, so far as they are capable of ownership, is in the state, not as a proprietor but in its sovereign capacity as the representative and for the benefit of all its people in common. ⁶¹

The extent of the state's ownership interest is limited, in that the state is not liable for damages caused by a deer's actions in the same manner as other private owners of animals. For example, a private citizen who owns a bull that escapes is liable for the damage the bull causes to nearby crops. ⁶² As will be explained, however, the opposite result is reached with animals owned by the state.

The Supreme Court of Iowa has determined that the State is not liable for damages caused by its wildlife. In *Metier v. Cooper Transport Co.*, the court held that the State's ownership interest in the deer did not provide a basis for liability. ⁶³ *Metier* involved a case in which a motorist swerved to avoid a deer that was on the highway and was subsequently struck by an oncoming truck. ⁶⁴ The motorist sued the State, alleging that the State should be liable for the damage caused by the deer,

59. IOWA CODE § 481A.2 (1997).

60. *Geer v. Connecticut*, 161 U.S. 519 (1895).

61. *Id.* at 529; *see also* *Missouri v. Holland*, 252 U.S. 416, 434 (1919) (stating "no doubt it is true that as between a state and its inhabitants, the state may regulate the killing and sale of such birds . . ."). Migratory birds, however, are specifically excepted from the state's control. "Wild birds are not in the possession of anyone; and possession is the beginning of ownership. The whole foundation of the state's rights is the presence within their jurisdiction of birds that yesterday had not arrived, to-morrow may be in another state, and in a week a thousand miles away . . ." *Id.* at 434; Migratory Bird Treaty Act of July 3, 1918, 16 U.S.C. § 703 (1994); *cf.* Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1543 (1994) (attempting to provide a comprehensive system whereby the ecosystems upon which endangered species and threatened species depend may be conserved).

62. *See* IOWA CODE §§ 169C.1-169C.5 (1997).

63. *Metier v. Cooper Transp. Co.*, 378 N.W.2d 907, 914 (Iowa 1985).

64. *See id.* at 908.

just as a private owner would be liable, and therefore the State's control and supervision over the deer population under the Iowa Code was a basis for liability.⁶⁵ The Iowa Supreme Court disagreed with the plaintiff motorist, stating: "We are unconvinced that the State's interest in the wild animals of this jurisdiction can be equated with a farmer's interest in his livestock The State's interest more accurately is characterized as an ownership or title in trust, to conserve natural resources for the benefit of all Iowans."⁶⁶ The court reasoned that:

To hold the State liable for all the conduct of its wild animals in every situation would pose intractable problems, and intolerable risks to the ultimate ability of the State to administer its trust. The heritage of wildlife beauty and splendor the State seeks to preserve for future generations might well be lost.⁶⁷

The court then concluded that the State of Iowa had no legal liability for the actions of or the damages caused by its deer.⁶⁸

Yet, the trust or ownership interest that Iowa holds in its deer population does come with responsibilities, as required by state law. Under the Iowa Code, the DNR has a general duty to protect and preserve the wild animals of the state and enforce the laws relating to the animals.⁶⁹ The DNR must also "collect, classify, and preserve all statistics, data, and information as in its opinion tend to promote [the animals], conduct research in improved conservation methods, and disseminate information to residents and non-residents."⁷⁰ The director of the DNR also must submit a report to the Natural Resource Commission every five years, analyzing any options for controlling the deer population in Iowa, as well as prevention of economic damage to private property.⁷¹ The director of the DNR is also required to establish a committee of farmers who will keep the director advised of the level of property damage caused by deer.⁷²

The State of Iowa clearly has an important interest in protecting its deer population. Iowa holds title to its wildlife, in trust, for its citizens, and the DNR has been given the responsibility for monitoring, protecting and controlling the deer

65. See *id.* at 914.

66. *Id.*

67. *Id.*

68. See *id.*

69. See IOWA CODE § 456A.23 (1997).

70. *Id.*

71. See IOWA CODE § 455A.4(j)(3)-(4) (1997).

72. See IOWA CODE § 481A.10A (stating that "[t]he director shall establish a farmer advisory committee for the purpose of providing information to the department regarding crop and tree damage caused by deer, wild turkey, and other predators").

population. However, Iowa's ownership interest is limited and cannot create a cause of action for damages caused by the wildlife.

B. *Rules and Regulations Regarding the Taking of Iowa Wildlife*

1. *Authority and Management Criteria*

If hunting is the answer to the deer overpopulation problem within the State of Iowa, the State must decide if, when, and how much hunting occurs. The Iowa Code clearly and unambiguously regulates the taking of any wildlife within the state. The law states:

It is unlawful for a person to take, pursue, kill, trap or ensnare, buy, sell, possess, transport, or attempt to so take, pursue, kill, trap or ensnare, buy, sell, possess, or transport any game, protected non-game animals, fur-bearing animals or fur or skin of such animals, mussels, frogs, spawn or fish or any part thereof, except upon the terms, conditions, limitations, and restrictions set forth herein, and administrative rules necessary⁷³

Iowa Code § 481A.38 further provides that the commission may "alter, limit, or restrict the methods or means employed and the instruments or equipment used" to take any wild animal.⁷⁴

In order to decide whether increased hunting is needed, the State must determine the extent and need for population reduction. The Code states the Natural Resource Commission is to determine whether or not a biological balance exists in the State of Iowa. It states:

The commission is designated the sole agency to determine the facts as to whether biological balance does or does not exist. The commission shall, by administrative rule, extend, shorten, open or close seasons and set, increase, or reduce catch limits, bag limits, size limits, possession limits, or territorial limitations or further regulate the taking conditions in accordance with sound fish and wildlife principles.⁷⁵

The Code gives additional authority to the commission to establish open seasons and limits for hunting animals and game birds under Iowa Code § 481A.48.⁷⁶

73. IOWA CODE § 481A.38 (1997).

74. IOWA CODE § 481A.38(1) (1997).

75. IOWA CODE § 481A.39 (1997).

76. See IOWA CODE § 481A.48 (1997). This code provision mirrors sections 481A.38 and 481A.39 by stating:

No person, except as otherwise provided by law, shall willfully disturb, pursue, shoot, kill, take or attempt to take or have in possession any of the following

It is clear from the above statutes that the State is the only entity with the authority and ability to address the deer overpopulation issue. Therefore, this Note will examine Iowa's current rules and regulations regarding the hunting of deer.

2. *Licensing and Safety Rules Regulating Hunting*

Before any person may hunt in the State of Iowa, that person must obtain a license from the Department of Natural Resources.⁷⁷ In order to hunt deer, an Iowa resident must have a resident hunting license, a deer hunting license and a wildlife habitat stamp.⁷⁸ Annual fees are paid for each.⁷⁹ A nonresident who wishes to hunt deer in the State of Iowa must "have only a nonresident deer license and a wildlife habitat stamp."⁸⁰ Nonresident hunters must pay a higher fee than an Iowa resident.⁸¹ The number of nonresident licenses issued by the Department of Natural Resources is limited by statute to 5000 licenses.⁸²

The Iowa Code provides for certain safety measures that must be observed before a person is allowed to hunt deer in the state. For example, before a person is allowed to obtain a deer or other hunting license, that person must have completed a hunter safety and ethics education program, whether the applicant is a resident of Iowa or a nonresident.⁸³ In addition, Iowa Code § 481A.122 more

game birds or animals except within the open season established by the commission The seasons, bag limits, possession limits and locality shall be established by the department or commission

Id.

77. See IOWA CODE § 483A.1 (1997). Specifically, this provision states:

[N]o person shall fish, trap, hunt, pursue, catch, kill or take in any manner, or use or have possession of, or sell or transport all or any portion of any wild animal, bird, game or fish, the protection and regulation of which is desirable for the conservation of the resources of the state, without first procuring a license or certificate so to do and the payment of a fee

Id.

78. See IOWA CODE § 483A.8(1) (1997). Special rules apply for minors. See, IOWA CODE §§ 483A.24(7), 483A.27 (1997).

79. See IOWA CODE §§ 483A.1(2), 483A.1(6)(h) (1997). Fees are established as follows: resident hunting license — \$12.50; deer hunting license — \$25.00; and wildlife habitat stamp — \$5.00. See *id.* Note, however, that an owner or tenant of farm land may receive one free license each year, and that this free license is only valid on the farm unit owned or rented by that person. See IOWA CODE §§ 483A.24(1), (2)(b) (1997).

80. IOWA CODE § 483A.8(3) (1997).

81. See IOWA CODE §§ 483A.1(2), 483A.1(6)(h) (1997). Fees for the nonresident licenses are: nonresident deer license — \$110.00; and a wildlife habitat stamp — \$5.00.

82. See IOWA CODE § 483A.8(3) (1997).

83. See IOWA CODE § 483A.27 (1997); IOWA CODE § 483A.8(3) (1997). Persons born before January 1, 1967 are exempt from the hunter safety and ethics requirements. See IOWA CODE § 483A.27(1) (1997).

specifically provides that "a person shall not hunt deer with firearms unless the person is at the time wearing one or more of the following articles of visible, external apparel . . . the color of which shall be solid blaze orange."⁸⁴

3. *Penalties Provided for Not Following the Hunting Laws*

Because Iowa has many laws and regulations regarding deer hunting, it is important for any hunter, including producers, to know the law before shooting any deer in the State. The Iowa Code has specific provisions outlining the punishments for taking a wild animal without a proper license. The following section will examine those laws that apply to hunting in general, with specific attention paid to deer hunting. First of all, Iowa Code § 481A.32 states that:

Whoever shall take, catch, kill, injure, destroy, have in possession, buy, sell, ship, or transport any . . . game, or animals . . . in violation of the provisions of this chapter or the administrative rules of the commission or whoever shall use any device . . . the use of which is prohibited by this chapter, or use the same at a time, place, or in a manner or for a purpose prohibited, or do any other act in violation of the provisions of this chapter or of administrative rules of the commission for which no other punishment is provided, is guilty of a simple misdemeanor and shall be assessed a minimum fine of ten dollars for each offense. Each . . . animal unlawfully caught, taken, killed, injured, destroyed, possessed, bought, sold, or shipped shall be a separate offense.⁸⁵

Furthermore, the same code provision provides that a person who shoots a deer with a prohibited weapon is "subject to a fine of one hundred dollars for each offense committed while taking the animal with the prohibited weapon."⁸⁶ Section 481A.32 is not the only law providing penalties for the taking of wildlife. Section 481A.130 states that "a person convicted of unlawfully selling, taking, catching, killing, injuring, destroying, or having in possession any animal, shall reimburse the state . . . for each deer, one thousand five hundred dollars."⁸⁷ In addition, fines of one hundred dollars are given for killing a deer in violation of Iowa Code § 481A.38, relating to the taking of any game.⁸⁸

84. IOWA CODE § 481A.122 (1997).

85. IOWA CODE § 481A.32 (1997).

86. *Id.* The Iowa Code regulates the use of guns while hunting as follows: "No person shall use a swivel gun, nor any other firearm, except such as is commonly shot from the shoulder or hand in the hunting, killing or pursuit of game, and no such gun shall be larger than number 10 gauge." IOWA CODE § 483A.37 (1997).

87. IOWA CODE § 481A.130 (1997).

88. *See* IOWA CODE § 805.8(5)(f)(1) (1997).

In conclusion, taking a deer without a proper license to do so is not a minimal offense. A hunter is subject to a *minimum* fine of \$1610 for each deer taken, and an additional \$100 for each time a shot was fired from a weapon not allowed by law.⁸⁹ Therefore any hunter in the State of Iowa, including a producer attempting to take a deer that is damaging the producer's private property, should follow all of the available options for acquiring a valid permit before shooting a white tailed deer.

IV. PROTECTION OF PRIVATE PROPERTY RIGHTS

As noted in Section II *supra*, the deer within Iowa are damaging private property, especially agricultural crops in the state. Many Iowa producers and landowners feel that they should simply be able to kill an offending animal. As Iowa Code § 481A.38 makes clear, no person may kill a deer except as provided by law.⁹⁰ A limited exception for private property owners may exist, however, based on a constitutional right to protect property.

In *State v. Ward*, a private property owner was charged with killing a deer in violation of a statute making it unlawful and criminal for any person other than the owner to kill any deer.⁹¹ He was tried and found guilty at the trial court level, but the verdict was reversed by the Supreme Court of Iowa based on the defendant's plea of reasonable self defense.⁹² The court held that a person has a constitutional right in the State of Iowa to defend person *and property*.⁹³ Further, "if in this case it was reasonably necessary for the defendant to kill the deer in question in order to prevent substantial injury to his property, such fact, we have no doubt, would afford justification for the killing."⁹⁴ In so holding the court emphasized the fact that the deer was actually "engaged in the destruction of the defendant's property" and that its ruling did not apply to killings which were preventative or in retaliation for past damage.⁹⁵

The right to kill a deer or other wildlife in defense of person or property has been established in a number of states, in addition to Iowa.⁹⁶ In jurisdictions where a state constitutional provision provides for the right to acquire, possess and protect property, it is well established that the right exists to kill a wild animal to

89. See IOWA CODE §§ 481A.32, 481A.38, 481A.130 (1997).

90. See IOWA CODE § 481A.38 (1997).

91. See *State v. Ward*, 152 N.W. 501, 501 (Iowa 1915).

92. See *id.* at 501.

93. See *id.* at 502 (relying on IOWA CONST. art. I, § 1).

94. *Id.*

95. *Id.*

96. See J. C. Vance, Annotation, *Right to Kill Game in Defense of Person or Property*, 93 A.L.R.2d 1366, 1368 (1964).

protect that property.⁹⁷ Furthermore, if such a state attempted to pass a statute stating that a person did not have this right to protect property, the state statute would be held unconstitutional.⁹⁸ This does not mean that a landowner can shoot an offending animal at will. Some possible limitations on this right to protect one's property exist. For example, one state statute, which required a property owner to obtain a permit before exercising his constitutional right to protect his property, was found to be a valid restraint on a person's constitutional right.⁹⁹

Even if no statute exists limiting a person's right to protect one's property, this right is not without limits. As mentioned in *State v. Ward*, the use of force must be reasonably necessary for the protection of one's property.¹⁰⁰ This requirement of reasonableness has been held necessary in several other states, as well as in Iowa.¹⁰¹ Some states require that all other legal remedies must be exhausted before a person may kill a wild animal.¹⁰² However, no case specifically stating a requirement to exhaust remedies exists in the State of Iowa.

In conclusion, a right to protect one's private property certainly exists in the State of Iowa, as guaranteed by the Iowa Constitution. However, this constitutional right is not absolute. The particular offending animal must be "caught in the act" of destroying one's property, and the act of killing the offending animal must be reasonable in light of the amount of damage that it is causing. Because many states have held that a person must exhaust all legal

97. See, e.g., *State v. Rathbone*, 100 P.2d 86 (Mont. 1940) (holding that the defense of legal justification was proper and constitutionally guaranteed when used to prevent a wild elk from destroying private property); *Aldrich v. Wright*, 53 N.H. 398 (1873) (holding that a constitutionally guaranteed right to defend and protect property applied to the killing of a mink out of season); *Commonwealth v. Bloom*, 21 Pa. D. & C.2d 139 (1959) (reversing a conviction for killing a deer that was destroying a lawn and plantings on personal property due to the state's constitutional right to acquire, possess, and protect property).

98. See *State v. Brinkman*, 33 Ohio Law Abs. 362 (1941) (stating that the statute protecting wild game was in conflict with the fundamental right of every landowner to defend his property, and that if this right were to be abrogated by the state statute, that statute would be unconstitutional and void).

99. See *State v. Webber*, 736 P.2d 220 (Or. Ct. App. 1987) (convicting a rancher of killing a deer when he did so to protect his hay feeders, and finding that the rancher should have obtained a permit to kill the deer).

100. See *State v. Ward*, 152 N.W. 501, 502 (Iowa 1915); J. C. Vance, Annotation, *Right to Kill Game in Defense of Person or Property*, 93 A.L.R.2d 1366, 1374 (1964).

101. See, e.g., *State v. Rathbone*, 100 P.2d 86 (Mont. 1940) (stating that the use of force need be reasonably necessary to protect one's property); *Cross v. State*, 370 P.2d 371, 378 (Wyo. 1962) (finding that in order to kill wild game it must be reasonably necessary to do so).

102. See J. C. Vance, Annotation, *Right to Kill Game in Defense of Person or Property*, 93 A.L.R.2d 1366, 1374-75 (1964) (summarizing that "[i]t has been ruled in some cases that before a plea of justification for killing a protected wild animal may be asserted and heard it must be shown that all other remedies provided by law were first exhausted by the person doing the killing"); see also *United States v. Darst*, 726 F. Supp. 286, 288 (D. Kan. 1989) (holding that a landowner should have sought the assistance of a governmental official before he killed a protected great horned owl).

remedies before killing a wild animal, a property owner in the State of Iowa should explore other legal avenues first. For example, a producer should contact the DNR and attempt to get a special shooting permit, as explained in Part V of this Note, before asserting a right to protect the property.¹⁰³

V. NEW IOWA REGULATIONS FOR 1997

Citizen complaints to the Iowa DNR regarding deer damage and automobile-deer collisions, and surveys taken by the DNR, resulted in new regulations effective for the 1997 hunting season. The DNR specifically addresses the deer overpopulation problem in the State of Iowa, and has proposed the solution discussed in this section. The new Iowa regulations, found in the Iowa Administrative Code section 571-106.11, address the need to provide additional hunting in certain areas of high concentration.¹⁰⁴ The following section will explore the content of the new regulations and evaluate their adequacy.

In September of 1997, the Natural Resource Commission approved new deer hunting rules that became effective on October 27, 1997.¹⁰⁵ These rules are specifically intended to implement Iowa Code §§ 481A.38, 481A.39, and 481A.48.¹⁰⁶ The new rules regulate two general areas of deer hunting as follows: (1) the elimination of shooting hours;¹⁰⁷ and (2) provisions for row crop and high-value crop producers to obtain additional out of season shooting permits.¹⁰⁸ This Note will concentrate on the provisions allowing additional hunting in high concentration areas. The producer of the crops need not be the owner of the crop land in order to qualify for a depredation permit. The regulation clearly states that the "producer may be the landowner or a tenant, whoever has cropping rights to the land."¹⁰⁹ This provision ensures that the hundreds of Iowa producers who do not own, but instead lease or rent the land that they farm may be able to protect their commodities.¹¹⁰

The overall goal of the new regulations is to "reduce damage below excessive levels within a specific time period through a combination of producer-

103. See *infra* Part V.

104. See IOWA ADMIN. CODE r. 571-106.11 (1997).

105. See IOWA ADMIN. CODE r. 571-106.11 (1997).

106. See *id.*; see *supra* Part III(B).

107. See IOWA ADMIN. CODE r. 571-106.11(1) (1997).

108. See IOWA ADMIN. CODE r. 571-106.11(4)(b)(3) (1997).

109. IOWA ADMIN. CODE r. 571-106.11(2)(a) (1997).

110. This is not a change from the Code's past practice. For example, tenants of land have been able to take advantage of free hunting permits in the place of an owner of the land for protection of their harvest. See IOWA CODE §§ 483A.1(2), 483A.24(b) (1997).

initiated preventive measures and the issuance of deer depredation permits.”¹¹¹ Therefore, a producer simply may not obtain a permit to shoot deer causing damage, but rather must first attempt to mitigate the damages through the establishment of a management plan.

A. Requirements of a Management Plan

If a producer suspects that he or she is suffering a significant loss to a crop, the producer may request that the wildlife bureau examine the crops to determine eligibility.¹¹² The wildlife bureau then will send a field employee to “inspect and identify the type and amount of crop damage sustained” from the deer.¹¹³ The field employee then will make a determination of whether the damage is excessive or not excessive.¹¹⁴ By definition, excessive damage occurs when: (1) crop losses are more than \$1500 in one growing season; (2) a crop loss of \$1500 is likely if preventative action is not taken; or (3) crop losses have been documented as greater than \$1500 in previous years.¹¹⁵

If the DNR field employee finds that the damage is not excessive, the producer will not be issued a depredation permit, but instead technical advice will be given to the producer to try to help reduce or prevent damage in the future.¹¹⁶ If the damage is excessive, and the producer agrees to participate in a depredation management plan, a written plan will be developed by the field employee and the producer.¹¹⁷ The depredation plans will vary depending on the type of crop to be protected. For example, producers of typical agricultural crops in Iowa, such as corn, soybeans, hay, and oats, may be required to first install preventative measures on their farms.¹¹⁸ Preventative measures may include “harassment of deer with pyrotechnics and cannons, guard dogs, temporary fencing, allowing more hunters, increasing the take of antlerless deer, and other measures that may prove effective.”¹¹⁹ Producers of high-value horticultural crops, such as Christmas trees, fruits, vegetables, nurseries, and nuts, must consider all of the measures that the row-crop farmers do, but also must consider whether permanent fencing is necessary.¹²⁰

111. IOWA ADMIN. CODE r. 571-106.11(3)(a) (1997).

112. See IOWA ADMIN. CODE r. 571-106.11(3) (1997).

113. *Id.*

114. See *id.*

115. See IOWA ADMIN. CODE r. 571-106.11(2)(b) (1997).

116. See IOWA ADMIN. CODE r. 571-106.11(3) (1997).

117. See *id.*

118. See IOWA ADMIN. CODE r. 571-106.11(3)(a)(1) (1997).

119. *Id.* Pyrotechnics are fireworks or similar displays. See WEBSTER'S NINTH NEW COLLEGIATE DICTIONARY 961 (9th ed. 1986).

120. See IOWA ADMIN. CODE r. 571-106.11(3)(a)(2) (1997).

These depredation management plans are not short-term solutions, but are intended to provide for long-term damage control. The management plans generally will be three-year plans that are monitored annually by the DNR to determine the success rate of the plan.¹²¹ The producer must implement the measures outlined in the plan, or depredation permits will not be issued.¹²²

The requirement of a management plan is certainly a positive step toward decreasing the frustration of farmers while increasing the likelihood of the protection of the harvest. Also, it explores more humane alternatives before shooting of the deer is allowed. However, it remains to be seen whether any of the DNR's suggested preventive measures will be effective.

B. Requirements for Obtaining a Depredation Permit or a Deer Shooting Permit

Producers of agricultural crops and producers of horticultural crops may be eligible for depredation permits.¹²³ Depredation permits are not intended to be permanent solutions to the deer overpopulation problem, rather, the permits are only issued "to temporarily reduce deer numbers until long-term preventive measures become effective."¹²⁴ Two types of depredation permits may be issued after a management plan is established—a deer depredation license or a deer shooting permit.¹²⁵ Deer depredation licenses may be issued to a producer of a crop. The producer then is allowed to designate any hunter to the DNR as having permission to purchase a license for their land. The permit will be sold to the designated hunter as long as that hunter complies with all applicable hunting regulations, pays for the license, and only hunts in the area allowed by the depredation license.¹²⁶ One individual may obtain up to two depredation licenses if given permission by the producer.¹²⁷ Depredation licenses are sold in groups of five licenses, and the number of licenses allowed on a producer's land will depend on the need as documented by the management plan.¹²⁸ A depredation license may only be used to shoot an antlerless deer.¹²⁹ The killing of an antlerless, younger deer has a greater chance of reducing the deer herd numbers than would the killing

121. See IOWA ADMIN. CODE r. 571-106.11(3)(b) (1997).

122. See IOWA ADMIN. CODE r. 571-106.11(3)(b)(3) (1997).

123. See IOWA ADMIN. CODE r. 571-106.11(4)(a) (1997).

124. IOWA ADMIN. CODE r. 571-106.11(3)(a)(3) (1997).

125. See IOWA ADMIN. CODE r. 571-106.11(4)(a)-(b) (1997).

126. See IOWA ADMIN. CODE r. 571-106.11(4)(a), 106.11(4)(a)(6) (1997).

127. See IOWA ADMIN. CODE r. 571-106.11(4)(a)(2) (1997).

128. See IOWA ADMIN. CODE r. 571-106.11(4)(a)(1) (1997).

129. See IOWA ADMIN. CODE r. 571-106.11(4)(a)(4) (1997).

of an antlered, older deer.¹³⁰ A hunter who kills a deer under the depredation license program may keep any deer legally tagged with the depredation license.¹³¹ The depredation license must be used during the regular deer season, or as allowed by the specific license.¹³²

Another alternative to a depredation license under the new 1997 regulations is a deer shooting permit. A deer shooting permit may be obtained by producers of high-value horticultural crops and other agricultural producers only if damage cannot be controlled by hunting during the regular hunting seasons.¹³³ These permits are issued directly to the producer, or designee approved by the DNR, who may shoot as many deer as needed, up to the number specified on the permit.¹³⁴ Thus, a benefit of the deer shooting permit is that the producer himself may guard his crop and shoot any offending deer, instead of merely allowing each hunter to shoot one deer as allowed by the depredation permit. Deer shooting permits are available to producers of regular agricultural crops from September 1 through October 31 of each year, while the permits are available to producers of high-value horticultural crops from August 1 through March 31.¹³⁵

Deer shooting permits and depredation licenses are not general licenses to slaughter the deer population. First, the number of deer to be killed will be specified on the permit, and the number is such as to fulfill the goals of the management plan.¹³⁶ Second, the licenses are valid only on the land where damage is occurring, or the property immediately adjacent to where the damage is occurring.¹³⁷ Third, the deer killed with these licenses are to be used for consumption only.¹³⁸ No producer may keep more than two deer, and if a deer cannot be consumed by the producer or the hunter, it must be offered to the public, with charitable organizations having the first opportunity to claim the deer.¹³⁹ Therefore, it is not inhumane to handle the deer population in this way, but a necessary form of population control.

The depredation license and shooting permit guidelines propose to eliminate the problem of deer in high concentration areas. By issuing permits in the high

130. See Allen Farris, Administrator, Iowa Department of Natural Resource, Speech at Drake University Law School, Natural Resources Law (Oct. 10, 1997). A younger deer will live longer and produce more offspring in its life span than an older deer will. The older deer have already passed their reproductive prime, and thus are less likely to have a big effect on the population trend. See *id.*

131. See IOWA ADMIN. CODE r. 571-106.11(4)(a)(5) (1997).

132. See IOWA ADMIN. CODE r. 571-106.11(4) (1997).

133. See IOWA ADMIN. CODE r. 571-106.11(4)(b) (1997).

134. See IOWA ADMIN. CODE r. 571-106.11(4)(b)(2) (1997).

135. See IOWA ADMIN. CODE r. 571-106.11(4)(b)(3) (1997).

136. See IOWA ADMIN. CODE r. 571-106.11 (1997).

137. See IOWA ADMIN. CODE r. 571-106.11(4)(c) (1997).

138. See IOWA ADMIN. CODE r. 571-106.11(5) (1997).

139. See *id.*

concentration areas, a producer of crops will experience less damage to crops. Maybe more importantly, by eliminating many of the deer in high concentration areas, the chance of an automobile-deer collision also will decrease. Therefore, if the new 1997 regulations are given time to work and citizens take advantage of these regulations, the issuing of shooting and deprecation permits may solve, or at least reduce the concentration of Iowa's deer population,¹⁴⁰ and in doing so, will protect the health, safety and welfare of its citizens and their environment.

VI. CONCLUSION

With the population trends of the white tailed deer are greatly increasing in the State of Iowa, it is obvious that measures need to be taken to control the deer population. Regulations recently put into force by the Iowa Department of Natural Resources in October of 1997 are a great start to reduce the damage to person and property that these creatures are causing. After analyzing the current state law and comparing the Iowa Department of Natural Resources' proposals with other viable options, the Iowa DNR, with the help of public participation, has done a good job of assessing the current problem. By continually increasing the numbers of deer hunting permits issued, and by granting shooting and deprecation permits to property owners with high concentrations of deer, the DNR can cheaply and efficiently manage Iowa's deer population. If the new measures work as intended, the deer population may be on its way to a reasonable level within the next few years. With the population under control, motorists and property owners statewide will be safer, property damages will be minimized, and the ecosystem balance may be restored.

140. See Juli Probasco-Sowers, *Deer Population Above 'Tolerance' Level*, DES MOINES REG., Nov. 30, 1997, at 15A. This article quotes Willy Suchy, a DNR wildlife biologist as stating that the "numbers of deer will fall back into the tolerable range after this year's and next year's deer hunting seasons." *Id.*