

# 2010 Zone 3 Deer Season Recommendations

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## Introduction

**The primary objective of the deer management program has been, and will continue to be population management. The Minnesota DNR is committed to managing deer populations within goal ranges that were established through a collaborative public process. Any regulatory changes will be evaluated first on the basis of how they affect total deer numbers. Other metrics, such as satisfaction, opportunity, or changes in sex ratios, while also important, are secondary to our need to manage deer populations.**

Throughout Minnesota, there has been high support for enacting regulations for the benefit of mature bucks; however, there has not been a consensus on which regulation should be adopted. For example, a statewide survey of deer hunters conducted in 2005 indicated that 66% (69% in Zone 3) of hunters supported the concept of enacting regulations for managing for mature bucks. However, no proposed regulation garnered more than 50% support (Figure 1; Fulton et al., 2006). Concurrent with hunter interest to manage for mature bucks is the agency's desire to manage deer populations at goal densities that were established through a public participatory process.

Since 2005, the Minnesota Department of Natural Resources (DNR) has conducted a study regarding deer hunter attitudes and preferences towards various regulatory alternatives. Specific to southeastern Minnesota (Zone 3), surveys were conducted in 2005, 2007, and 2009 that assessed such factors as hunt satisfaction (2005, 2007), preference for alternative regulations (2005, 2009), and forced selection of various regulatory alternatives (2005). In addition, a concurrent study has been conducted since 2005 examining the biological effects of 3 different regulations (early antlerless, antler point restrictions, and earn-a-buck) on deer population dynamics.

Specific to Zone 3, both the 2005 (73%) and 2007 (66%) surveys revealed high overall hunt satisfaction. Each survey suggests that a majority of hunters were satisfied with the number of antlerless deer and total deer numbers, but not the number or quality of mature bucks (Figure 2). Given the consistency between surveys, we believe that while hunters are generally satisfied with total deer numbers and their overall hunt experience, there is an opportunity to increase hunter satisfaction by manipulating the buck component of the deer population.

Preliminary harvest analyses suggest that antlerless harvests are increased by 12%, 15%, and 65-82% for the early antlerless season, antler-point restriction regulation, and the earn-a-buck regulation, respectively. In comparison, buck harvests were reduced 1-3%, 35%, and 50% for the early antlerless season, antler-point restriction regulation, and the earn-a-buck regulation, respectively.

The recommendations presented in this document take into consideration the data we have collected both biologically and socially, data collected in and management experiences from other states, and the opinions of area wildlife staff who deal with on-the-ground issues relative to landowner concerns.

Figure 1. Support for regulations that might benefit mature bucks, 2005.

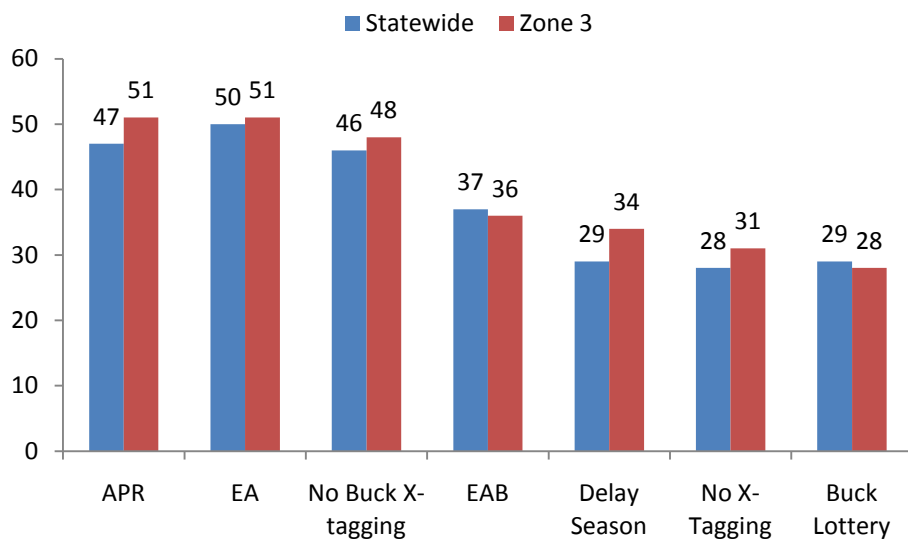
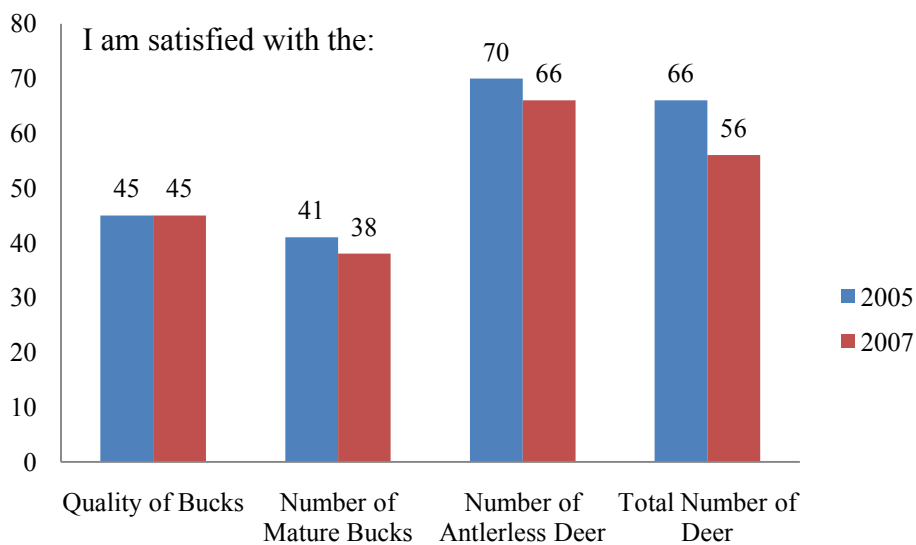


Figure 2. Percent satisfaction among Zone 3 respondents regarding various deer population questions, 2005 and 2007.



## **Summary of Zone 3 Recommendations**

1. Four day, either-sex youth only season over the MEA weekend.
2. Ban on cross-tagging of bucks during all seasons.
3. Implement a 4-point (to one side) antler point restriction regulation throughout all deer areas.
4. Lengthen the 3A season to 9 days as a component of the antler point restriction regulation.

## **Recommended Timeline**

If passed, recommendations 1 and 2 should be implemented through expedited rule but ultimately be adopted as permanent rules. Recommendations 3 and 4 should be implemented through expedited rule for 3 years with a survey of both hunters and landowners conducted at the end of year 3. If support for continuation is apparent after 3 years, we should continue the regulation for a minimum of 3 more years.

## **Rationale and Supporting Data**

### **Recommendation 1 – Youth Season in Zone 3**

There was consensus among the deer management committee for a statewide youth-only season over the MEA weekend. While a more broad discussion needs to occur regarding statewide implementation, at the least the season should be held in Zone 3. During this season, youth license holders would be able to take one either-sex deer of any type. In addition, youth hunters would be allowed to take either-sex deer during the regular deer seasons. They would not have to abide by the antler point restriction; however, adults cannot take and tag bucks for youth hunters.

An early season has been used in Michigan, Missouri, Pennsylvania, and other states, and published literature suggests that providing additional hunting opportunities for youth should be used as a management strategy to recruit and retain young deer hunters. Adopting this season statewide would bring regulatory consistency and allow DNR to better manage deer in areas with low populations, especially since adults would not be allowed to carry a firearm. In areas with early antlerless (EA) hunting (e.g., 346, 349), we would simply hold the EA season over the same time period. For 2010, the EA season is planned to fall over the MEA weekend. Adopting this season would allow us to discontinue providing the youth-only antlerless permit as a harvest incentive, thereby making for more effective population management in permit areas designated as lottery.

### **Recommendation 2 – Eliminate buck cross-tagging in Zone 3**

Cross-tagging is broadly defined as allowing individuals to shoot and tag deer for each other. Regulations that allow people to shoot and tag deer for other individuals are rare at the national level. In fact, the vast majority of states prohibit it and Minnesota has the most broad and loosely interpreted regulation of any state that does allow the practice. Specifically, this

recommendation addresses ending the practice of buck cross-tagging in Zone 3. Our intent is to allow continuation of cross-tagging antlerless deer because this may serve as a population management tool. The intent of ending buck cross-tagging is not to break up the hunting group or force successful hunters out of the field. Rather, it is intended to reduce harvest pressure on bucks by no longer allowing people to harvest bucks for each other.

The 2005 survey revealed 48% support in Zone 3 for eliminating buck cross-tagging (Figure 1); whereas, the 2009 survey achieved 50% support. In addition, a companion survey completed by the Minnesota Deer Hunters Association noted 49% support among their members (see <http://www.mndeerhunters.com/images/results.pdf>). We are also hearing little local opposition from the hunting public regarding limiting people to only tagging their own buck. The DNR deer management committee (including law enforcement members) has recommended that if buck cross-tagging were eliminated, it should be a statewide regulation. We believe that a statewide regulation may not be as supported in other areas; thus, the change is recommended for Zone 3 only. Based on our survey data, we anticipate that the buck harvest may decline up to 10% if cross-tagging of bucks is eliminated.

### **Recommendation 3 – Antler Point Restriction (APR) in Zone 3**

We recommend a 4-point APR regulation be adopted in Zone 3 for a period of 6 years. After 3 years, we would re-evaluate the regulation to determine if it should be continued for a minimum of 3 additional years.

This APR proposal will not fundamentally change the deer management system in Minnesota as the primary goal of the deer program is population management. This recommendation should be viewed as a secondary objective that is related to buck management. As it does represent a shift from traditional deer management strategies, a more detailed explanation is warranted. The deer management system that was enacted in the mid 1970's has served DNR well and continues to be relevant. However, it was designed as a population growth tool that allowed for unlimited buck hunting opportunity during the rut while retrofitting population management by issuing antlerless permits. Changes instituted since 2003 have placed more of an emphasis on population management through liberalized antlerless deer harvest; however, the buck hunting tradition continues as harvest data indicates 45% of hunters do not shoot antlerless deer, despite the availability of half-priced antlerless permits. Add to that is a growing interest from the hunting public for increased opportunity at taking a mature buck. On the negative side, a shift in management strategy has the potential of alienating the individuals who are opposed to protecting bucks and landowners who may not see deer hunters as allies (e.g., not helping landowners alleviate population problems as they are only interested in mature bucks). There is also a belief among some that leasing will increase and larger blocks of land will act as refugia, thereby exacerbating problems to adjacent landowners. Such problems currently exist in the southeast and if APR regulations are to be implemented, a larger communication strategy must be developed.

## ***Quality vs. Trophy Deer Management***

An APR regulation should be viewed as a strategy that incorporates a buck component into the overall deer management program. Loosely, it employs the principles and philosophy of Quality Deer Management (QDM). While we do not endorse a management style of any one individual or interest group, the philosophy has been defined by a national group, the Quality Deer Management Association (QDMA):

*Quality Deer Management (QDM) is a management philosophy/practice that unites landowners, hunters, and managers in a common goal of producing biologically and socially balanced deer herds within existing environmental, social, and legal constraints. This approach typically involves the protection of young bucks (yearlings and some 2.5 year-olds) combined with an adequate harvest of female deer to maintain a healthy population in balance with existing habitat conditions and landowner desires. This level of deer management involves the production of quality deer (bucks, does, and fawns), quality habitat, quality hunting experiences, and, most importantly, quality hunters.*

*A successful QDM program requires an increased knowledge of deer biology and active participation in management. This level of involvement extends the role of the hunter from mere consumer to manager. The progression from education to understanding, and finally, to respect; bestows an ethical obligation upon the hunter to practice sound deer management. Consequently, to an increasing number of landowners and hunters, QDM is a desirable alternative to traditional management, which allows the harvest of any legal buck and few, if any, does.*

*QDM guidelines are formulated according to property-specific objectives, goals, and limitations. Participating hunters enjoy both the tangible and intangible benefits of this approach. Pleasure can be derived from each hunting experience, regardless if a shot is fired. What is important is the chance to interact with a well-managed deer herd that is in balance with its habitat. A side benefit is the knowledge that mature bucks are present in the herd - something lacking on many areas under traditional deer management. When a quality buck is taken on a QDM area, the pride can be shared by all property hunters because it was they who produced it by allowing it to reach the older age classes which are necessary for large bodies and antlers.*

Often confused with QDM is the concept of Trophy Deer Management (TDM). Under TDM, the focus is on harvesting bucks in much older age classes (5.5+). Large tracts of land (as measured in thousands of acres) are required for this management style, access is severely restricted, and deer populations are often maintained at high levels using supplemental feeding. Ideally, populations would be kept low to maximize buck nutrition; however, this is often not the case as suitable hunter densities are not achieved to manage the antlerless component of the harvest. To our knowledge, the only state that employs TDM is Texas, which has a long history of leasing and managing private land tracts that far exceed sizes that are available in Minnesota. It should be made clear that we do not view QDM principles the same as TDM; in fact, we do not support TDM as a management style. Conversely, the principals of QDM, if implemented correctly, should align with the goals of a successful deer management program. The QDMA statements regarding working with hunters and landowners to develop goals and strategies that involve both biology and social dimensions are indeed compelling.

### ***Survey and Harvest Data***

In 2005, 51% of southeast survey respondents supported an APR regulation. In 2009, support ranged between 47 – 49%, depending on how the question was asked. Additionally, 14% of respondents indicated that they did not support or oppose the regulation, which indicated they will hunt under the APR if adopted. Between survey years, all percentages fell within the margin of error and should be viewed as roughly half of southeast hunters support APR regulations and that percentage has not changed in 5 years. In prior public meetings (e.g., 2009 Wildlife Roundtable, Rochester deer meeting), indications have been made that if support was more than 40%, DNR would give serious consideration to adopting the regulation. Based on Minnesota DNR data and management experiences from Missouri and Pennsylvania, we can expect increases in both satisfaction and support once the regulation becomes normalized (people come to expect it). For example, in 2004 APR's were implemented in 29 Missouri counties as a test (Hansen and Heatherly 2004). In 2008, the number of counties was increased to 65 principally because of public support (Hansen 2008).

As part of the alternative deer management research project, we have been working check station in Zone 3 since 2005. For the purposes of this report, we will use 2005-2008 data because the 2009 information is not yet available. Overall, we conclude that a 4-point antler restriction will reduce total buck harvest by approximately 30%. To arrive at that number, we used the percent of yearlings bucks in the harvest (40%) and the average percentage of yearling bucks that would not meet the minimum APR (75%). Using 2008 harvest data as a basis, we came up with the following harvest estimate table:

2008 Buck Harvest	Percent Yearling	Percent <4pt	Cross-tagging saved	Total Harvest	Bucks Saved
7,530	0.40	0.75	113	5,158	2,259

In year 1, some of the declines in buck harvest would be offset by increases in antlerless harvest. Our estimated (based on our data and Missouri) is that antlerless harvest would increase approximately 15% from the antlerless harvest that would have occurred without APRs. However, starting in year 2, we will realize increased buck harvest as compared to year 1 and also subsequent increases in the proportion of mature bucks in the total harvest. Missouri documented increases of 16-32% and we should expect similar numbers. Thus, the trade-off is yearling bucks in year 1 as compared to slightly increased antlerless harvest and a higher proportion of mature bucks in subsequent years. Grund (2009) recently compiled a review of APR regulations in Minnesota, Missouri, and Pennsylvania. The document addresses such issues as buck harvest rates, illegal mortality, and hunter attitudes.

### ***Deer Management Alternatives***

With 2 exceptions, deer populations in Zone 3 are currently at or near population goals. The primary exceptions are deer area 344, which is still below goal and deer areas 346 and 349, which are significantly above goal. In 346/349 these populations appear to be trending down; however, they will likely not be within goal ranges for 5 more years. Therefore, new strategies should be developed to increase the rate of decline towards goal. Computer modeling suggests that implementing an early antlerless season and APRs may effectively reduce the deer density to goal and that earn-a-buck (EAB) will not be recommended in those permit areas for 2010 (Tables 1 and 2).

As indicated previously, DNR has been testing the social and biological responses of various regulations since 2005. Based on our research results, the regulation that would most quickly reduce the population is EAB. Over the course of 5 years, we have enjoyed high hunter success and intention to participate in future hunts. Biologically, EAB also has the most dramatic effect on deer populations and would trend populations towards goal in the shortest amount of time. However, given the negative publicity of this regulation in Wisconsin, the potential exists to ripple into Minnesota and we would be ill-served to implement EAB in 2010 even if modeling suggests it would be necessary. Consequently, the ‘next best’ alternative should be explored for the immediate future. Thus, we recommend using an APR regulation and early antlerless (EA) season. Under this scenario, we can expect approximately a 25% higher harvest than what we would expect with just designating the permit area as intensive. In our view, the EA/APR regulatory package should be sufficient to lower 346/349 to goal levels in a year or two; however, close attention should be paid to the effectiveness and EAB should be strongly considered as the next logical step if necessary.

Table 1. Spring deer densities based on computer simulation and fall harvest data for permit area 346.

Year	Spring Density	Harvest			
		Adult Male	Adult Female	Fawn Male	Fawn Female
2007	22.8	1375	1479	413	361
2008	21.7	1141	1271	352	337
2009	21.5	1166	1301	380	303
2010	20.2	766 <sup>a</sup>	1553 <sup>a</sup>	439 <sup>a</sup>	307 <sup>a</sup>
2011	18.6 <sup>a</sup>				

<sup>a</sup> Projected

Table 2. Spring deer densities based on computer simulation and fall harvest data for permit area 349.

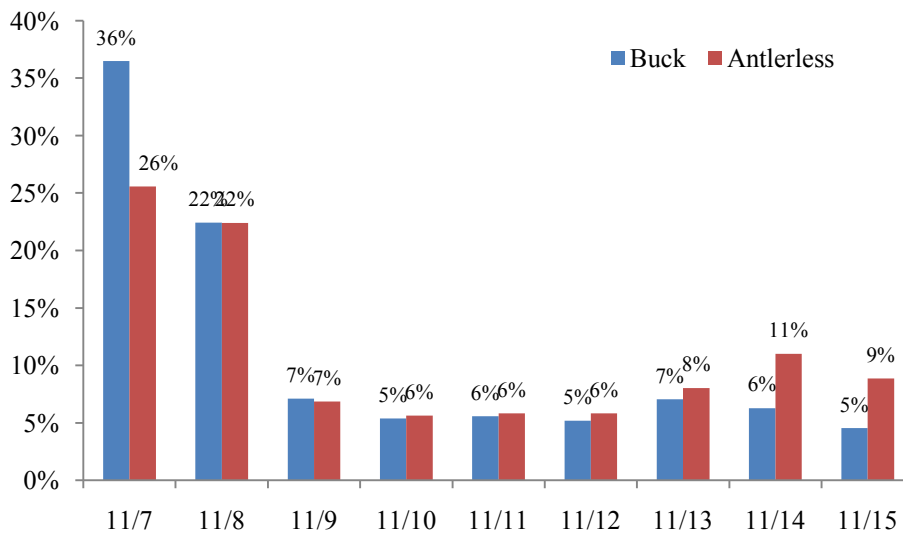
Year	Spring Density	Harvest			
		Adult Male	Adult Female	Fawn Male	Fawn Female
2007	21.4	1707	2046	488	492
2008	21.4	1484	1827	508	520
2009	19.9	1542	1891	404	408
2010	19.0	1025 <sup>a</sup>	2210 <sup>a</sup>	537 <sup>a</sup>	544 <sup>a</sup>



### Recommendation 4 – Lengthen 3A to 9 days as a component of the APR

We believe the data may support lengthening the 3A season to 9 days if an antler point restriction is adopted. To clarify, we only support lengthening this season if it is done in conjunction with the APR regulation. In looking at 2009 buck harvest rates (where APR regulations were in effect for the second weekend), it appears lengthening the season would partially offset the loss of buck opportunity. The second weekend in 2009 accounted for 11% of total buck, and 20% of total antlerless harvest, respectively (Figure 3). Consequently, given the ‘savings’ of yearling bucks with an APR, the increased number of days may increase total antlerless harvest. In other words, we may only take 400 bucks the last weekend; whereas, up to 1,000 antlerless deer would be taken (based on calculation from 2009 harvest).

Figure 3. Percentage of buck and antlerless harvest in Zone 3A, 2009.



### Communication

Given the depredation problems and declines in landowner tolerance in deer areas 346/349, a significant educational component must be included if APR regulations are adopted in southeastern Minnesota. The issues that must be addressed include:

1. Landowners believe that deer hunters are no longer an ally. This belief is problematic and must be addressed, regardless of programmatic change.
2. Modifying regulations to include a buck management component is *not* trophy deer management. The basic principles of QDM, while they include buck management, are

consistent with DNR's desire to work with landowners to solve deer over-abundance problems.

Possible strategies to address these issues include:

1. Develop a landowner deer management program that is user friendly for the landowner to use, the hunter to hunt under, and for the agency to administer. It is very obvious that the existing depredation program alone cannot manage localized deer populations and solve these landowner issues. Ideally, this would be completed by a dedicated employee who would start out as a temporary position in DNR. The person would report to the big game program leader and be the liaison between private landowners, hunters, and DNR.
2. Send a clear message to landowners that DNR is committing to helping to alleviate their depredation problems no matter what regulation is implemented. For example, we could prepare literature that is easily accessible and highlights the deer hunter as the deer manager. That information could be disseminated through DNR, county extension, farm service agencies, orchard growers, and other agricultural organizations.
3. Organized focused meetings in 346/349 between landowners and DNR staff to determine the underlying problems of managing deer populations on private land. Then, use the University of Minnesota to help organize a focus group to ascertain the underlying issues among landowners.
4. Based on meetings and focus groups, develop a random survey for distribution to landowners that addresses those and other issues. There are several qualitative researchers who could assist with the project and we could attempt to find funding to support a student.
5. Staff should work as mediators between private citizens/organized groups and landowners to help solve deer population problems. Regulatory alternatives that range from doing nothing to antler point restrictions are rendered irrelevant if hunters do not have access to private lands.
6. Continue the liberalization of damage permits in areas with chronic depredation problems. This should help alleviate problems in those areas where large tracts of private land are not hunted (as compared to lightly hunted).
7. Illustrate to the public the differences between integrating a buck management component in population goals and trophy deer management. Information is currently available that at least the principles of QDM have relevance both in terms of deer management and landowner relations. Individuals should attempt to make the distinction, not intertwine the two terms, and clearly articulate the differences to both hunters and landowners.

## Literature Cited

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