2005 Survey of Deer Hunter Satisfaction and Preferences for Regulation Changes in Minnesota

Executive Summary

This study of 2004 deer hunters was conducted to assess:
- Hunter effort in Minnesota in 2004 including: type of land hunted, hunting methods and locations, and number of years hunting.
- Hunting satisfaction with deer hunting in Minnesota in 2004 and identify activities and experiences that affect hunting satisfaction.
- Minnesota deer hunter support for various regulatory changes that both increase harvest pressure on antlerless deer and might lead to more mature bucks in the deer population.
- Deer hunter preference for regulatory changes when a specific scenario and finite number of regulatory choices are presented to the respondent.
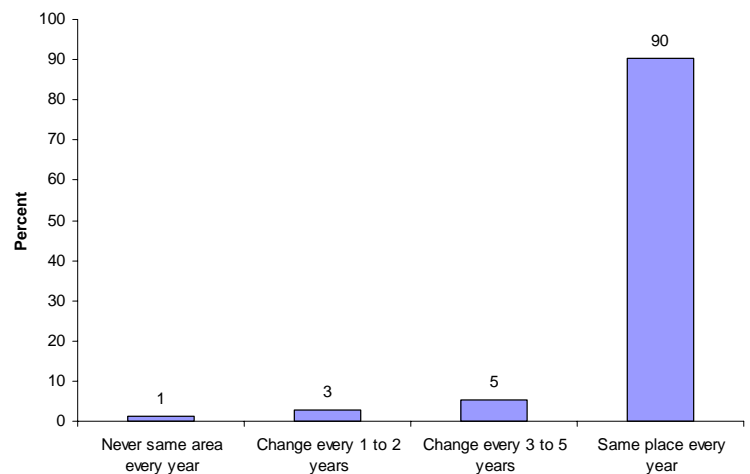
The survey was mailed to 6,000 deer hunters; 3,293 completed surveys were used in the analysis. After adjusting for undeliverable surveys, the adjusted response rate was 59%. Surveys were stratified into 4 geographic locations: northwest, transition, east central, and southeast. The stratified margin of error for this survey was 0.29%. Regional margins of error ranged from 3.3% to 3.5%.

Experience, knowledge, and satisfaction

In total, nearly 99% of those surveyed indicated they participated in the 2004 firearm deer season and hunters had on average, 25 years of experience. A majority of hunters pursued deer on private land and 15% relied exclusively on public land for their deer hunting. The vast majority of people hunt the same location every year (90%) (Figure 1).

Over the last few years, there have been numerous changes to Minnesota's deer program. Deer area boundaries have been restructured, zone boundaries moved, and the drawing for either-sex permits has been largely eliminated (antlerless permits are now available over the counter in most areas). Some wildlife managers have received hunter complaints about a complex deer hunting season that has been created by making too many changes over a short period of time. Despite these concerns regarding confusion, hunters in this survey appeared to have good knowledge of the deer program. Overall, 97% of respondents indicated they had a

Figure 1. Movement patterns of Minnesota deer hunters.

working knowledge of the deer program. Of those, 26% indicated they knew a great deal about the deer program. Additionally, 83% of respondents were satisfied with their ability to understand the deer hunting regulations; conversely, only 10% indicated dissatisfaction.

Finally, hunters appeared satisfied with the outcome of the 2004 season. In total, 76% of respondents indicated they were very satisfied (40%) or slightly satisfied (36%) with their season. Only 13% said they were slightly dissatisfied (9%) or very dissatisfied (4%) (Figure 2).

Figure 2. Satisfaction rates of Minnesota deer hunters, by survey region.

While a majority of hunters indicated they had heard about or seen big bucks in the area they hunted (58%), they were evenly split as to whether they agreed with the statement "I am satisfied with the quality of bucks in the area I hunt" (43% agree and 43% disagree). Additionally, one-half of the respondents indicated disagreement with the statement "I am satisfied with the number of mature bucks" in the area they hunt. These results appear to indicate that, although hunters had seen (or heard about) mature bucks, they were inclined to believe there should be a higher proportion in the total deer population.

Support for alternative deer regulations

Overall, respondents were very supportive of a regulation that would put more harvest pressure on antlerless deer and increase the proportion of antlered bucks in local deer populations. In total, 65% of respondents were supportive of these types of regulations (Figure 3). These results were similar to a 2004 survey conducted in Northwest Minnesota where 60% of respondents supported more antlered bucks.

In addition to simply assessing regulation support, seven regulatory alternatives were presented to respondents in order to gauge the level of support for each alternative. The regulations were: 1 – Antler point restrictions, 2 – Earn-A-Buck (where the hunter must take an antlerless deer before they can take a buck, 3 – Early antlerless season, 4 – Prohibit party
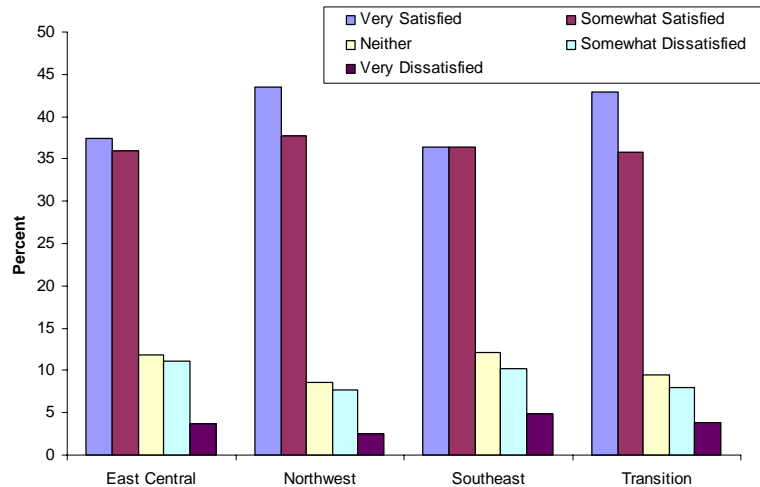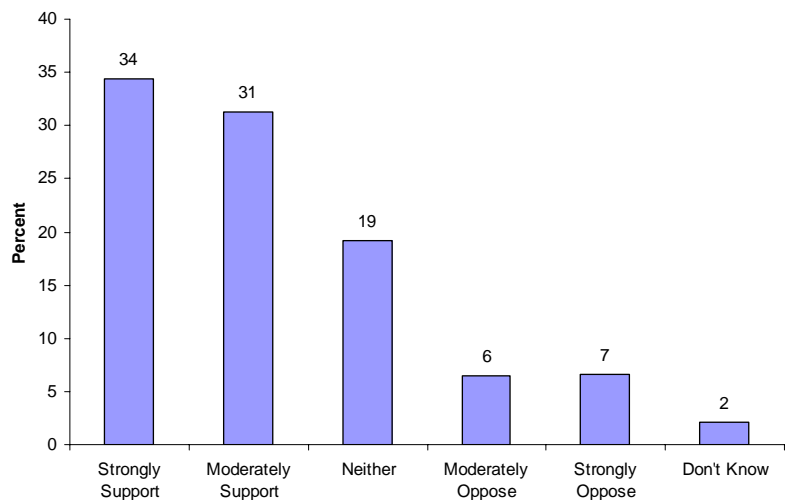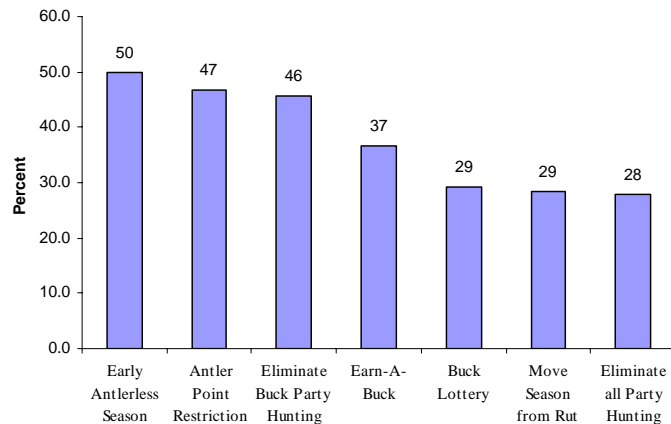
Figure 3. Percent indicating support for regulations that promote more mature bucks.

hunting for all deer, 5 – Prohibit party hunting for bucks only, 6 – Buck license lottery, and 7 – Move the deer season out of the rut. Overall, only the early antlerless season achieved 50% support.   Support for the other options were: antler point restrictions (47%), prohibit buck party hunting (46%), earn-a-buck (37%), buck license lottery and moving the season out of the rut (29%), and prohibit all party hunting (28%) (Figure 4).

For the 65% of respondents who supported regulation changes, we examined which regulatory alternative was most supported. In total, antler-point restrictions (60%), eliminating buck party hunting (55%), and an early antlerless season (52%) were supported by more than one-half of this sub-group. Earn-a-buck (43%), buck license lottery (36%), moving the deer season out of the rut (33%), and eliminating all party hunting (32%) were supported by less than half of the sub-group.

Figure 4. Support for regulation changes among respondents.

Hunter choice scenarios

This portion of the survey was not designed to gauge hunter support on an issue; rather, it was designed to elucidate a rank-ordered preference for management alternatives in response to a specific scenario. As noted previously, while most hunters would support antlerless regulations and would prefer to see more mature bucks in the deer population, there is no majority opinion on how to achieve that preference. Consequently, we developed 5 scenarios and asked hunters to rank their preferences for regulation change. The scenarios were:

1. The deer population is stable and within population goals.
2. The deer population is currently 25% above the management goal.
3. The deer population is currently 50% above the management goal.
4. The deer population is stable or below the population goal and the harvest rate on 1½ year-old bucks is high.
5. Antler point restriction regulations are currently being used by several states to encourage antlerless harvest and protect 1½-year-old bucks.

There were 7 choices in each scenario and hunters were randomly presented 3 of those choices and asked to rank them as 1, 2, or 3. Choices were designed so they would be representative of regulations that might be adopted for that scenario. For example, earn-a-buck regulations have the potential to decrease deer populations; therefore earn-a-buck was not a choice in the scenarios where the deer population was stable and/or within goal range. Also, the choice of moving the deer season out of the rut was not presented in the scenarios where the deer population was 25% or 50% above goal density because that regulation likely would not lower deer populations appreciably. Conversely, moving the season was presented as a choice when

the scenario suggested the deer population was within goal levels and the desire was to manage for more mature bucks. A mean score approaching 1 would be a preferred regulation, while a mean approaching 3 would be least preferred.

Consolidation of choices

Overall, hunters indicated a clear preference for going hunting, even though they may not agree with changing regulations. In our sample, the option of not hunting in an area if regulations were adopted consistently ranked below all other options. The early antlerless season ranked highest (mean = 1.63), followed by antler point restrictions (mean = 1.76), earn-a-buck (mean = 1.77), move the deer season (mean = 1.80), continue to hunt despite objecting to regulations (mean = 2.00), buck license lottery (mean = 2.20), and will not hunt in the area if regulations are implemented (mean = 2.63).

Scenario 1 – Deer population within goal levels and antlerless permits are available over the counter

In total, we observed distinct trends in that hunters seemed willing to accept regulation changes so long as they were able to continue hunting every year. In this scenario, the least restrictive antler point regulation ranked highest, followed by moving the season out of the rut and then the most restrictive antler point regulation. Buck license lotteries and changing hunting locations if regulations were enacted ranked very low overall. Consequently, in this scenario, it appeared hunters would be accepting of some regulation change so long as they were able to pursue bucks every year. When faced with the choice of a buck license lottery, which would mean a hunter would not obtain an annual buck license annually; hunters tended to rank this option lower than the others.

Overall, the regulatory options were ranked as follows:
1. Antler point restriction to protect 50% of the yearling buck population and no buck party hunting (mean = 1.68).
2. Antler point restriction to protect 75% of the yearling buck population and party hunting legal (mean = 1.76).
3. Move the deer season out of the rut (mean = 1.82).
4. Antler point restriction to protect 75% of the yearling buck population and no buck party hunting (mean = 1.87).
5. Buck license lottery, party hunting legal, fewer buck licenses (mean = 2.11).
6. Buck license lottery, party hunting not legal, more buck licenses (mean = 2.16).
7. Would not hunt the area if the regulations were changed (mean = 2.57).

Scenario 2 – Deer population is 25% above goal level and needs to be reduced within 5 years

In total, hunters generally ranked their choices from the least intrusive (early antlerless season) to the most restrictive (buck license lottery). The option of changing hunting location again ranked consistently low and the motivational trends appeared similar to scenario 1 in that hunters want the option of pursuing bucks every year. They may be forced to take a certain type of buck

(antler point restriction) or take a doe first (earn-a-buck) but they seem to want the ability to at least have a chance to take a buck.

Overall, the regulatory options were ranked as follows:
1. Early antlerless season (mean = 1.65).
2. Antler point restriction to protect 50% of the yearling buck population and no buck party hunting (mean = 1.79).
3. Antler point restriction to protect 75% of the yearling buck population and party hunting legal (mean = 1.81).
3. Earn-a-buck (mean = 1.81).
5. Buck license lottery, party hunting not legal, more buck licenses (mean = 2.14).
6. Buck license lottery, party hunting legal, fewer buck licenses (mean = 2.20).
7. Would not hunt the area if the regulations were changed (mean = 2.61).

Scenario 3 – Deer population is 50% above goal level and needs to be reduced within 5 years

In total, hunters again ranked the early antlerless season highest, however; they were more inclined to choose the regulatory packages that might lead to more dramatic deer population reductions as compared to scenario 2. For example, in scenario 2, a less restrictive antler point regulation ranked higher than earn-a-buck while in scenario 3, earn-a-buck ranked higher than all regulations besides the early antlerless season. Once again, the option of not being able to pursue bucks annually and moving hunt location ranked lowest overall. With the exception of the early antlerless season (it would result in the least hunting pattern change), these results indicate hunters had the ability to discern which regulations may have the largest effect and ranked them accordingly.

Overall, the regulatory options were ranked as follows:
1. Early antlerless season (mean = 1.61).
2. Earn-a-buck (mean = 1.78).
3. Antler point restriction to protect 75% of the yearling buck population and party hunting legal (mean = 1.79).
4. Antler point restriction to protect 50% of the yearling buck population and no buck party hunting (mean = 1.80).
5. Buck license lottery, party hunting not legal, more buck licenses (mean = 2.16)
6. Buck license lottery, party hunting legal, fewer buck licenses (mean = 2.17).
7. Would not hunt the area if the regulations were changed (mean = 2.71).

Scenario 4 – Population at or below goal, high buck harvest rates, limited antlerless permits

The choices in this scenario ranged from moving the deer season out of the rut to limiting the number of buck licenses that would be allocated. Earn-a-buck and early antlerless seasons were not offered as choices because the scenario did not involve lowering deer densities. Overall, hunters displayed a clear interest in having buck hunting opportunity every year as the lottery option ranked lowest again. In this scenario, an antler point restriction that allowed youth hunters to kill any buck ranked highest, followed by an antler point restriction that allowed party hunting, an antler point restriction that did not allow party hunting bucks, moving the deer

season out of the rut, deer license lotteries, and finally moving to a new area if regulations were adopted.

Overall, the regulatory options were ranked as follows:
1. Antler point restriction to protect 75% of the yearling buck population, party hunting legal, youth can take any buck (mean = 1.70).
2. Antler point restriction to protect 75% of the yearling buck population, party hunting legal, youth must abide by regulation (mean = 1.72).
3. Antler point restriction to protect 50% of the yearling buck population, no buck party hunting, youth must abide by regulation (mean = 1.76).
4. Move the deer season out of the rut (mean = 1.79).
5. All licenses lottery (buck and antlerless), party hunting legal (mean = 2.23).
6. All licenses lottery (buck and antlerless), party hunting not legal (mean = 2.32).
7. Would not hunt the area if the regulations were changed (mean = 2.71).

Scenario 5 – Various antler point restriction regulations

Overall, hunters displayed a preference for a regulatory package that allowed youth hunters to shoot any buck and preference was most strong for a regulation that protected 75% of the yearling buck population but still allowed party hunting (mean = 1.70). Regulations that were increasingly restrictive and did not provide for the youth any deer option were least preferred. In fact, the choice of 'not liking antler point regulations but would hunt anyway' ranked higher than the most restrictive antler point regulation (protect 75%, no party hunting, youth abide). As in the other 4 scenarios, the option of changing hunt location if regulations were adopted ranked lowest (mean = 2.67).

Overall, the antler point restriction regulation options were ranked as follows:
1. Protect 75% of the yearling buck population, party hunting legal, youth can take any deer (mean = 1.70).
2. Protect 50% of the yearling buck population, buck party hunting not legal, youth can take any deer (mean = 1.85).
3. Protect 50% of the yearling buck population, buck party hunting not legal, youth must abide by the regulation (mean = 1.86).
4. Protect 75% of the yearling buck population, party hunting legal, youth must abide by the regulation (mean = 1.89).
5. Opposed to antler point restriction regulations but would still hunt the area (mean = 2.00).
6. Protect 75% of the yearling buck population, buck party hunting not legal, youth must abide by the regulation (mean = 2.02).
7. Would not hunt the area if the regulations were changed (mean = 2.67).

Summary

When faced with the choice of hunting under less than desirable regulations or not hunting in their traditional areas, Minnesota deer hunters will choose to hunt. Our results indicated a high fidelity to traditional hunting locations (90%) and unwillingness to move, even if they disagreed

with the regulations (mean = 2.63/3.00). Which regulations they chose, however; depended on the scenario and an individual's perception of its effectiveness. For example, when faced with scenarios that called for a 25% and 50% reduction in the deer populations, respondents were more likely to choose more liberal regulations under the 50% scenario (earn-a-buck vs. antler point restrictions).

There were 2 additional points that stood out in this survey. First, moving the deer season out of the rut has been noted by some individuals and organizations, as an acceptable and 'easy' change that would lead to more mature bucks. However, in the choice portion of this study, it was clear that respondents believed moving the deer season was less attractive than antler point restrictions. Indeed, when asked if they supported or opposed moving the season, the regulation garnered less support (28%) than a buck license lottery (29%), which ranked lowest in all the choice scenarios.

Finally, respondents clearly wanted an opportunity to hunt bucks every year. In all cases, the buck license lottery choice ranked lower than all other regulatory alternatives. The only choice that ranked lower than a buck license lottery was moving to another hunting location if the regulations were implemented. It seems apparent that if a buck license lottery were implemented, DNR would experience at best dissention among a majority of hunters and at worst, a movement of hunters to other areas of the state.