

Recommendations

Of the

Deer Committee

to the

Trustees of Cayuga Heights

Monday, May 21, 2001

Ithaca, NY 14850

Recommendations

In view of widespread concern with deer related problems and clearly indicated desire to reduce their population, the Deer Committee recommends that the Village Trustees adopt **a program of sterilization** to significantly reduce the population of deer in the Village and then to maintain that population over the course of time.

The Deer Committee further recommends that the Village **take advantage of Cornell's present research interest in deer sterilization**. The faculties of the Department of Natural Resources and the College of Veterinary Medicine have offered the Village a unique opportunity for the expedient and effective reduction of the deer population problem. Also the Committee notes the generous anonymous offer of funding for fertility control which will help facilitate deer management.

Finally the Committee encourages the Trustees to modify the **fencing ordinance** to allow those homeowners with serious deer problems to build deer-proof fences.

Background:

The recommendations of the Deer Committee are based on 1) over two and a half years of research with support from the Cornell Cooperative Extension, Cornell's Department of Natural Resources, and the Department of Environmental Conservation, 2) the information gathered at two public meetings, and 3) the results of two Cornell-conducted surveys of opinion in the Village. Our effort has been to make recommendations that reflect the view of the majority of Village residents and not merely the personal views of members of the Committee.

1. Both surveys show that the majority of residents want a significant reduction of the deer population.
2. The committee concludes that concerns over deer related problems as indicated by the survey results are so significant and widespread that action at the Village level is required. Individual actions such as erecting fences, use of retardants and use of deer resistant plant materials, while protecting individual yards, will not significantly reduce plant damage in the Village and will not reduce car-deer accidents.
3. To reduce deer population, the majority of Village residents favor fertility control over lethal means. However, there is a significant minority of residents in favor of lethal means to control deer and approximately a third would allow the shooting of deer on their property. On the other hand, statements made at the January 2001 open meeting show clearly that there are people in the Village and in surrounding communities who strongly oppose lethal means for population control and would aggressively resist the Village if it should pursue lethal means for control.

4. The Committee believes that a large reduction in the deer population is feasible and justified and recommends that the Village adopt a sterilization control program to a) reduce the deer population to a community acceptable level, and b) maintain that level in the future. Sterilization, because it requires a single treatment as opposed to periodic treatments in the case of contraception and contragestaton, has the greatest potential for success. If successful, the program of fertility control suggested here should eventually yield an estimated deer density of 20 to 25 deer per square mile which is a level consistent with village opinion and the goals adopted by other communities. This level should reduce current problems substantially, especially if control is focused on areas of high deer numbers since the fall census results put the population at 74 deer per square mile.

5. While fertility control, be it contraception, sterilization or contragestation, has not been demonstrated to be successful for deer control in an urban or suburban environment, there are several special factors that make the Committee very optimistic about the use of sterilization. The small size of this community, the relatively low deer density and the fact that does remain in relatively small ranges of land, make fertility control a much more feasible method to reduce the herd to acceptable levels. Every method of control will cost money but an offer has been made to financially support the application of fertility control in the Village and it is possible that the DEC would also fund a research program for sterilization. Fertility control methods are in research and development, and the application of fertility controls in the Village will contribute to this development. The method of shooting first to dramatically reduce the population, followed by fertility treatment later makes it much more difficult to capture deer for later treatment since the deer become more wary.

6. Of the three fertility control methods available--contragestation, contraception and sterilization--the Committee strongly recommends sterilization.

- Contragestation is a form of drug-induced abortion. It is unpopular and logistically difficult to implement in wild deer because the drug must be given yearly during a narrow window of time.
- Contraception is also logistically difficult since does must be treated on a regular basis to maintain infertility. Two injections are required before a doe becomes infertile and there must be annual treatment thereafter. This becomes increasingly difficult as deer become much more wary of human presence. The logistical difficulties of contraception were acknowledged at the January, 2001 meeting by Jay Kirkpatrick when he stated that he would need to hire a person for half of the year to track deer so that they could be treated. Another drawback with contraception is that the FDA considers the meat of contracepted does hazardous to eat. Therefore treated does initially must be captured and appropriately tagged and not just treated with a dart. While further treatments can be by dart, NYS requires that each dart be accounted for, further increasing the logistical problems of contraception.

- Sterilization, while it has not received as much study as contraception, has far fewer problems associated with implementation. Only one treatment is required and a doe is infertile for life, unlike contracepted does that will start reproducing as soon as the program is interrupted for any reason. Furthermore, the Village is fortunate to have the present interest of the Department of Natural Resources and two veterinarians from Cornell who are highly experienced with sterilization and who want to implement a sterilization program for the purposes of research. A recent population study -- Hobbs et al.(2000), 'Effects of fertility control on populations of ungulates: general, stage-structured models' (Journal Wildlife Management **64**: 473-491) -- concludes: 'When contraception persists for the lifetime of the animal, models predicted that in most cases, the effort required to regulate a population at a specified density using fertility control will be less than the effort required by culling'. Another advantage is the fact that the consumption of the meat of sterilized deer is considered safe.

7. A large fraction of does will need to be made infertile to reduce herd size, but the required percentage depends on birth, death and migration rates. The Cornell deer population study has found that the deer in the Village are healthy and reproducing at a high rate due to the adequate availability of food. Healthy does generally average two fawns per year, while stressed does have fewer. The Village deer population would grow rapidly and the number of deer requiring treatment would be much higher if this were the only factor. However, the chances of success with fertility control are increased because the mortality rate for Village deer is also very high (38%) due primarily to car-deer collisions on Route 13. Also, we have reason to believe that because of hunting in non-urban regions around the Village (over 5000 deer were killed in Tompkins County in 2000), population density in those regions is lower than in the Village so the overall effect of outward migration will contribute to a reduction of deer in the Village. These latter two factors increase the likelihood of successful deer reduction in the Village through the use of fertility control.