

University of Maryland Procedures for Animal Control and Firearm Use on Maryland Agricultural Experiment Station (MAES)-Supported Research and Education Centers

Developed by Animal Damage Control Committee, UM College of Agriculture & Natural Resources

Reviewed by UMD Office of Risk Management, UMD Office of General Counsel, UMD Police Department, AGNR Dean and Director of MAES, AGNR Associate Dean for Research and Associate Director of MAES

Approved on October 18, 2021

Purpose

These procedures describe the need for, and use of, firearms at the University of Maryland's Maryland Agricultural Experiment Station (MAES)-supported Research and Education Centers (RECs) and describes the acceptable practices for use of a firearm in the course and scope of animal control on REC properties.

Background

RECs are a critical part of research infrastructure essential for faculty and student research needed to solve state, national, and global problems related to agriculture and natural resources. Minimizing wildlife damage to research plots is a critical ongoing activity to facilitate the successful execution of research objectives. In addition, REC facilities are used to educate the public about sustainable agriculture and natural resources management practices. Animal control practices are a common component of educational programs and have been the subject of numerous extension publications and resources from across the country.^{1,2,3} Because RECs are demonstration sites to model best practices for sustainable agriculture and forestry, it is important that our RECs provide a model for standard animal control approaches that land managers regularly confront.

As land managers at the RECs, University of Maryland employees work in agricultural environments where they may be confronted with animal interactions where the possession and/or use of firearms may be deemed appropriate. These issues include the protection of human life from diseased animals carrying life-threatening zoonotic diseases (i.e. rabies), the euthanasia of mortally wounded animals on REC properties, the disposition of trapped wildlife, and the use of lethal control to protect sensitive research and demonstration projects from damage by animals. Animal damage in research areas may lead to the irrevocable loss of research plots and specimens in which much funding, labor, and equipment have been invested.

White-tailed deer (*Odocoileus virginianus*) are the single largest source of agricultural damage throughout Maryland and on the REC facilities.⁴ Studies have also found high deer densities to

¹ <https://extension.psu.edu/catalogsearch/result?q=wildlife+damage>

² <https://dnr.cals.cornell.edu/extension-outreach/fish-and-wildlife-biology-and-management/>

³ https://fishwild.vt.edu/ext_outreach/wildlife/wildlife_damage.html

⁴ U.S. Department of Agriculture, National Agricultural Statistics Service. 2012. Maryland Farmers Estimate \$10.0 Million in 2011 Wildlife Related Crop Losses [Press Release]. Retrieved from nass.usda.gov/Statistics_by_State/Maryland/Publications/Wildlife_Damage/mpr04-12Wildlife.pdf

have a deleterious effect on the native flora and fauna of the region.^{5, 6, 7, 8, 9} A 2007 study on deer impacts in agricultural landscapes in Maryland concluded that non-lethal deer management options for cropland are limited and that “lethal deer management appears to be the only viable, cost-effective option at reducing deer damage at this time.”¹⁰ The 2020 Maryland White-Tailed Deer Management Plan developed by the Maryland Department of Natural Resources notes:

“Unfortunately, many agricultural properties in Maryland are either not hunted or are not hunted intensively enough to reduce deer numbers appreciably. It is critical that landowners develop a deer management plan that employs hunters willing to harvest an adequate number of antlerless (i.e., female) deer throughout the deer season in order to reduce deer numbers and crop damage.”¹¹

Non-lethal options to reduce deer damage, which include fencing and repellents, are important tools in an integrated animal damage management plan¹² and are used in varying degrees at different RECs. Ten-foot fencing is an effective tool in retarding deer access; however, deer occasionally enter enclosures and lethal control is often the most humane method of removing trapped deer (wild deer are not easily herded, and can be mortally wounded or cause risk to employees when attempting to herd them out a gate). The efficacy of repellents depends largely on the size and layout of fields, frequency of application, amount of cover available to deer, surrounding habitat, availability of food resources, and deer populations.

Peer Institutions and Applicable Maryland Policies and Programs

The RECs are committed to ensuring safe working environments and compliance with federal and state laws related to the possession and/or discharge of firearms on the RECs.

No University Policy: An analysis was completed in August 2016 by the Senate Campus Affairs Committee regarding “Consideration of a University of Maryland Weapons Policy.” The committee voted unanimously that the University should not develop a policy on the use or

⁵ Alverson, W. S. and D. M. Waller. 1997. Deer populations and the widespread failure of hemlock regeneration in northern forests. Pages 280–285 in W. J. McShea, H. B. Underwood and J. H. Rappole, eds. *The science of overabundance: deer ecology and population management*. Smithsonian Institution Press, Washington D.C.

⁶ Rossell, Jr., C. R., B. Gorsira, and S. Patch. 2005. Effects of white-tailed deer on vegetation structure and woody seedling composition in three forest types on the Piedmont Plateau. *Forest Ecology and Management* 210:415-424.

⁷ Averill K.M., D. A. Mortensen, E. A. H. Smithwick, S. Kalisz, W. J. McShea, N. A. Bourg, J. D. Parker, A. A. Royo, M. D. Abrams, D. K. Apsley, B. Blossey, D. H. Boucher, K. L. Caraher, A. DiTommaso, S. E. Johnson, R. Masson, and V. A. Nuzzo. 2017. A regional assessment of white-tailed deer effects on plant invasion. *AoB Plants* 10(1):plx047.

⁸ Knapp, W.M. and R. Wiegand. 2014. Orchid (Orchidaceae) decline in the Catoctin Mountains, Frederick County, Maryland as documented by a long-term dataset. *Biodiversity and Conservation* 23:1965-1976.

⁹ Bates, S., D. Dawson, and A. Royle. 2005. Vegetation characteristics and breeding bird densities at Catoctin Mountain Park and the Frederick City Watershed. National Park Service, Center for Urban Ecology, Washington D.C.

¹⁰ Stewart, C. M., W. J. McShea, and B. P. Piccolo. 2007. The impact of white-tailed deer on agricultural landscapes in 3 national historical parks in Maryland. *Journal of Wildlife Management* 71(5):1525-1530.

¹¹ Maryland White-Tailed Deer Management Plan: 2020-2034. Maryland Department of Natural Resources.

¹² Kays, 2003. *Managing Deer Damage in Maryland*. Bulletin 354. Maryland Cooperative Extension.

possession of weapons at the University, but instead should follow the appropriate state laws related to these issues.¹³

Government-Managed Hunts: Managed hunts open to outside personnel to reduce deer densities have been successfully used on county and local government properties, military bases, federal wildlife refuges, other federal properties, and on numerous state-owned park and natural resource areas in Maryland.¹⁴ This includes an established firearm hunting program at the USDA Beltsville Agricultural Research Center, which owns the land that is managed by the Central Maryland Research and Education Center – Beltsville.

Peer Institutions: In the development of these procedures, we have reviewed approaches by peer institutions including the University of California, Cornell University, Penn State University, and Virginia Tech. These institutions permit the use of firearms under various arrangements and recognize the unique arrangements, circumstances, and ecosystems of particular properties and allow individual RECs to develop operationally specific guidelines. The variety of details and exceptions found within peer institution policies suggests that the policies reflect the specific culture and needs of each institution.

We have also reviewed materials from the Maryland Department of Natural Resources and the U.S. Department of Agriculture Wildlife Services to understand best practices and recommendations at the state and federal level for wildlife management.

Employees Performing Job-Related Animal Control With Firearms on RECs

REC Directors and the REC Facility/Farm/Program Managers may designate in writing personnel at the REC facility to use firearms to achieve animal control needs and may use their discretion in adding a job component in an employee's job description specifying that lethal control of depredating animals is a part of the employee's job responsibility. This designation should specify whether the employees will be using personally-owned firearms, university owned firearms, or both. Persons conducting animal control shall follow all federal, state, and local laws including obtaining appropriate permits and following applicable hunting laws as specified in the Guide to Hunting and Trapping in Maryland, regulations related to hunting, trapping, and wildlife damage control found in the Code of Maryland Regulations (Title 08.03 – Wildlife). Personnel designated to use firearms shall complete an annual safety training conducted by a certified hunter safety instructor or appropriate professional. The training will review safety aspects of firearm use and include a shooter qualification test.

Firearm Use & Responsibilities: Employees may use University-owned or personally-owned firearm(s) in the implementation of their duties. If a personally-owned firearm is used in direct connection with authorized job duties, such as euthanasia of sick or diseased animals or pest management, then it is the employee's responsibility to properly maintain the firearm in compliance with all laws and regulations, as well as in accordance with best practices for firearm ownership and maintenance. With written approval in place, the personally-owned firearm may

¹³https://www.senate.umd.edu/sites/default/files/resources/MeetingMaterials/09072016/CAC_Weapons_Policy_15-16-11.pdf

¹⁴ Maryland White-Tailed Deer Management Plan: 2020-2034. Maryland Department of Natural Resources.

be stored with University-owned firearms under the same provisions as University-owned firearms (see Firearm Storage section, below). If a personally-owned firearm is stored with University-owned firearms, the employee must store the firearm with a document delineating ownership and with the written designation of the REC Director to use a personally-owned firearm.

University employees must maintain a written or electronic log of job-related uses of any firearm. This log shall be maintained and available for review by the REC Director and Farm/Facility/Program Manager at any time.

Firearm Storage: Firearms shall be stored unloaded and in a locked location at each facility with keys possessed only by those individuals designated by the REC Director and the Facility/Farm Manager. Ammunition shall be stored in a separate location. A sign-out sheet should be posted inside the locked cabinet and employees must sign out firearms (both personally- and University-owned) when used and sign them back in after use, upon return to the locked location. Additional rules can be stipulated by each REC Director and Facility/Farm/Program Manager. Some employees live on University REC property. These employees provide a rapid response to emergencies that may require the use of a firearm (e.g. rabid animals, injured wildlife or livestock requiring euthanasia, exigent wildlife damage, etc.). Employees living on University property shall store firearms in a locked location in accordance with state, local, and federal laws.

If a personally-owned firearm is used for University duties but not stored with University-owned firearms, the firearm owner must maintain the firearm unloaded, covered and in a locked vehicle. While transporting the firearm in a vehicle, federal regulations (27 CFR § 478.38) require the firearm be unloaded, and neither the firearm nor any ammunition being transported is readily accessible or is directly accessible from the passenger compartment of such transporting vehicle. In the case of transporting a firearm in a vehicle without a compartment separate from the driver's compartment federal regulations require the firearm or ammunition shall be contained in a locked container other than the glove compartment or console.

Recreational Hunting

The number of deer that need to be removed from certain properties may exceed the ability for employees with job-related animal control responsibilities at a particular location to achieve. For example, between the 1990 and 2020, the Central Maryland Research and Education Center at Clarksville utilized a group of hunters to remove approximately 100 deer/year to maintain densities at acceptable levels, with a high of 177 deer removed in 2016. In these cases, REC Directors and Facility/Farm/Program Managers may expand the use of Deer Management Permits and recreational hunting opportunities to additional personnel.

Recreational hunting on a University of Maryland REC is a privilege, not a right. Hunting can be an effective means of population control of deer and other wildlife as well as an opportunity to make positive impacts in the community about responsible resource stewardship. Informed and educated hunters equipped with science-based information surrounding hunting practices can benefit the conservation of wildlife at the RECs and beyond.

Only licensed hunters who currently have the demonstrated hunter safety training and/or experience, and abide by applicable state and federal hunting regulations will be permitted to hunt on a University REC. Hunters are responsible for a) knowing and following the law while hunting b) for maintaining their equipment and shooting proficiency, and c) taking only ethical shots to ensure a clean kill, and d) shooting only when people are a safe distance away. Hunting privileges may be revoked temporarily or permanently by the REC Director/Farm/Facility managers for violations of established procedures.

REC Directors and the REC Facility/Farm/Program Managers may designate individuals to assist with population control via recreational hunting. This may include employees at the REC, employees at other RECs, other University employees or personnel, defined adult family members, and unaffiliated personnel. REC Directors and the REC Facility/Farm/Program Managers shall establish local written procedures for creating fair and conflict-of-interest free hunting privileges for designated hunters. These procedures shall include application submission, authorization criteria, and authorization period. Employees engaged in recreational hunting that are not part of job-related wildlife damage control responsibilities should conduct recreational hunting outside of their working hours or take leave while hunting.

Safety is paramount and REC Directors and REC Facility/Farm/Program Managers shall consider the maturity and responsibility of individuals granted permission to hunt, as well as develop appropriate rules to facilitate the harvest of female deer to reduce populations. REC Directors and managers are encouraged to consult with University of Maryland Extension personnel, with expertise in wildlife management, in the development of application criteria and safety briefings (below).

For those approved to hunt, REC Directors and REC Facility/Farm/Program Managers shall:

1. Conduct an annual safety briefing applicable for their location that reviews any safety zones, specified shooting directions, tree stand requirements, hunting hours, signage requirements, parking, method of take (archery, shotgun, muzzleloader, rifle), locations of residences, the “10 commandments of firearm safety,”¹⁵ and, if using an elevated stand, the Maryland Department of Natural Resources’ “Tree Stand Safety Tips”¹⁶;
2. Have each hunter annually sign a waiver of liability and release form in a format approved by the University’s Office of Risk Management;
3. Maintain a list of approved individuals who are authorized to hunt that year;
4. Submit the list of approved individuals who are authorized to hunt that year to the Maryland Agricultural Experiment Station (MAES) office before the start of the hunting season; and
5. Maintain a sign-in and sign-out form for hunters.

REC Directors and REC Facility/Farm/Program Managers may implement additional requirements as needed to ensure the safety and responsibility of individuals who are hunting at

¹⁵ https://www.hunter-ed.com/muzzleloader/studyGuide/The-Ten-Commandments-of-Firearm-Safety/222099_88820/

¹⁶ https://dnr.maryland.gov/nrp/Pages/treestand_tips.aspx

the REC as well as maintenance of Facility/Farm roads and equipment. RECs shall establish local procedures regarding permission of employees or outside hunters to sight-in firearms on site.