The Effectiveness of Antler Restrictions in Quality Deer Management

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Outline

Traditional Deer Management
Introduction to Quality Deer Management (QDM)

QDM in Tennessee
Antler restrictions
Limitations of antler restrictions
Using body characteristics to age bucks
Managing buck harvest with cameras

Traditional Harvest Management

Traditional deer management
• Harvest bucks, protect does
• Increases the population

Deer densities have reached social carrying capacity in many places.
Doe harvest can control population growth.
What is QDM?

Management philosophy
Goal: Balanced, healthy herd within social and biological carrying capacity
- Improve sex ratio
- Improve age structure
- Improve hunting experience
Hunters, landowners, and managers all involved

What is QDM?

Liberal doe harvest:
- Improves sex ratio
- Reduces pressure on habitat
Limit buck harvest to mature deer
- Improves age structure
- Improves sex ratio
- Improve habitat
- Natural browse
- Food Plots

What is QDM?

QDM is not trophy management!
No “cull bucks”, only young or mature bucks
Larger antlers are not the goal, but often a side effect
QDM in Tennessee
• In 1998, TN buck limit from 11 to 2, later raised back to 3, but no state antler regs
• Quota permits for does, then Unit L established - 3 does / day
• Certain WMAs establish antler restrictions 2003 (point counts with spread restrictions)

Mature Buck Harvests, Statewide
From 2007 Big Game Harvest Report, TWRA

Statewide Deer Harvest
From 2007 Big Game Harvest Report, TWRA
Limiting the Buck Harvest

Harvest Restrictions
- Lower buck limit (2 – 3 vs. 11)
- Antler restrictions
  - Point counts (minimum 8 points)
  - Points and spread (4 on a side and outside ears)
  - Boone and Crockett gross score
  - Other antler characteristics

Antler Restrictions

Antler size depends on
- Age
- Genetics
- Nutrition
Antler size by age class is highly variable, but increases (generally) with age
Some antler characteristics correlate better with age

Data from Shaw 2007
Effect of Antler Restrictions

Age structure of buck harvest at Catoosa WMA 1986-2007, Morgan, Scott, and Fentress Co., TN

Data from Shaw 2007

Limitations

- Often not restrictive enough (Mississippi)
- "Top end" younger deer may be harvested
- Odd or broken antlers result in "illegal" mature deer
- Buck Fever!! and ground shrinkage

The solution? Use body characteristics as well as antlers.

Aging by body characteristics

Neck thickness and jaw line
Back and belly
Muscle tone
Trail Cameras
Preseason camera scouting and census
• ID bucks by antlers
• Relative age by body
• Age mature bucks before the hunt, not through the scope
• Estimate doe numbers and set harvest goals

Conclusions
Antler restrictions protect young bucks.
Antler size is regional, manage likewise.
Use body cues to help determine age.
Liberal doe tags allow hunters to choose QDM.
Trigger control is the key!

Online Resources
Quality Deer Management – Guidelines for Implementation
www.utextension.utk.edu/publications/pbfile9/pb1643.pdf
Quality Deer Management Assoc.
www.qdma.org
Tennessee Wildlife Resources Agency
www.tnwildlife.org