

Topic: Whitetail Deer Management

Title: **Filling the Nutritional Gap – The Secret of Sanctuary’s Big Bucks**

Purpose: The purpose of this education session is to discuss whitetail herd management and getting maximum nutrition into your deer herd. Everything from starting a supplemental feeding program, selecting a top feed, what to look for in a good food plot blend and measuring the outcome of the feeding program will be presented.

Learning Objectives:

1. Why nutrition is important.
 - Impact on antler growth
 - Doe productivity
2. Latest developments in deer nutrition.
 - Trace Minerals
 - Protein Nutrition - levels, sources, Purina Mills AntlerMax™ Technology
 - Water-resistant pellets – Purina Mills WaterShield™ Technology
3. Deer feed.
 - How feeds are formulated
 - Evaluating feed
 - Deer feeding myths
 - New manufacturing technology
4. Starting a feeding program.
5. Food Plots-Feed or both
6. Improved nutrition and intensive deer management-
The Sanctuary Success Story
 - Record Book History
 - Natural Environment
 - Census
 - Harvest Data
 - Ages of Deer
 - Live Weights
 - Liver Analysis
 - Shed Antler Program
 - Deer Kills

Presentation Description:

During the past quarter century, there has been a significant improvement in the management of whitetail herds. Age and genetics remain crucial to producing top whitetails. But the quickest and perhaps the biggest impact you can have on your deer is by “filling the nutritional gap”, which is the difference between the nutrition bucks need to reach their genetic potential for antler growth and the limited nutrition they get from Mother Nature.

This seminar will blend the importance of supplemental nutrition programs with other proven herd management techniques to produce monster whitetails. Dr. Dick Stockmar will discuss harvest data along with important data gathering techniques from an intensely managed herd at The Sanctuary. Dr. Larry Varner will discuss the impact of nutrition, including Purina Mills AntlerMax[®] Protein Technology, AntlerMax[®] Mineral Technology and food plots, along with their effects on antler growth and doe productivity. Emphasis will be placed on how you can incorporate these techniques to grow the biggest bucks.

Presenters:

Richard A. Stockmar, Ph.D., Sanctuary, Inc.
Larry Varner, Ph.D., Purina Mills, LLC

Overview:**Filling the Nutritional Gap – The Secret of Sanctuary’s Big Bucks**

The answer to the quest for producing super bucks was definitively answered by the classical studies of Franz Vogt in the 1920s and 1930s. Vogt treated deer and their nutrition as a physiochemical system, showing how to produce stags and bucks with antlers exceeding the largest recorded heads taken throughout Europe without using genetic selection. He explicitly avoided breeding for large antlers, because his aim was to maximize the existing genetic potential for large antler and body size.” A conclusion from his study was that natural and agricultural forages were far too low in the nutrients required to maximize body size and antler growth. Vogt resorted to supplementing the agricultural and natural forages.

Today, we recognize the potential for assisting nature in enabling deer to grow into healthy adults. With a basic understanding of the digestion, feeding behavior, life cycles and nutritional needs, you can take an active role in promoting the growth of healthy does capable of producing future generations we all can enjoy, and bigger bucks supporting impressive antlers.

Deer are related to other ruminant cud-chewing animals such as cattle and sheep. For this reason, it was once believed that deer could be raised and maintained on hay and grain. But unlike cattle or sheep which are grazers, deer have a smaller stomach compared to their body size. The smaller stomach not only affects the type of food a deer eats, but the frequency of feeding as well.

In general, all deer prefer high-protein, energy-rich plants like browse, leafy plants and acorns over more fibrous grasses. But as opportunistic feeders, they will make do with what is available, changing diets as plant availability and quality change with the season of the year. This digestive adaptability is one reason deer survive as well as they do. But it takes a few weeks for changes to take place. So, deer adapted to a winter diet of highly fibrous food can actually be harmed by well-meaning sportsmen or landowners who put out corn or hay to get them through the winter.

Deer nutrition is affected by physiological needs. Bucks have different nutritional needs at different times – for instance, protein demand is high during antler growth and energy demand is high during the rut. A doe's nutritional demands are highest during the last third of her pregnancy to just before weaning. And fawns, who triple their birth weight in the first three months, are most demanding in the first six months of life. Each stage of the life cycle is influenced by nutrition.

Nutrition is one of the major factors affecting the health and productivity of deer. Providing deer with a consistent diet which meets their seasonal physiological needs increases the nutritional level of the herd and allows each deer to reach its genetic potential. A well-planned supplemental feeding program can lower fawn mortality, decrease post-rut mortality in males and encourage the growth of bigger bucks with superior antlers. Supplemental feeding can also compensate for variations in nutrient value and availability of natural range and forage. Deer experience less stress when they are provided with a good quality diet **year-round**, especially during high demand times such as pregnancy, nursing and antler growth.

Over the past 50 years, Purina Mills Research has developed the Purina[®] Supplemental Feeding System, which is proven to greatly impact both doe and buck body weights and buck antler development. Increasing the body weight of does results in increased fawn body weights, which in turn increases their chance of survival. And since antler development is directly proportional to body weight, Purina[®] supplemental feeding becomes even more important. By providing sufficient high-quality protein during the early critical stages of antler development and a balance of essential minerals and protein during the latter stage of antler development, you can have significant impact on the size of the antler, its shape, beam circumference, length, width and mass as measured by Safari Club. Proper supplemental feeding through the rut and winter months is also very important. Deer need appropriate levels of protein, vitamins, minerals and energy to get through this extremely stressful time of year.

Food plots are also a great way to provide additional nutrition for deer. They normally provide better nutrition than natural forage, reduce browse stress on native vegetation and provide a strong source of roughage for deer necessary for optimal digestion.

Similarly to Vogt's experimental facilities, Sanctuary has been a proving ground for the Purina[®] Supplemental Feeding System. The results have been similar in that Sanctuary dominates the current SCI record book for both typical and non-typical whitetail deer. Seventy of the top 100 typical bucks and 25 of the top 50 non-typical bucks come from the ranch. Like Vogt, Sanctuary has produced these impressive results without introducing outside genetics. The Sanctuary has never bought or sold deer. Sanctuary does not utilize breed pens. The incredible harvest records are the result of two and a half decades of intensive management of a native Michigan deer herd

using the nutrition and age model from Vogt's basic research. All deer are born and spend their entire life in a wild environment.

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