



Location, Location, Location

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According to a well-known real estate industry adage, the 3 most important factors influencing the value of a property are 1) Location, 2) Location, and 3) Location. If asked about the 3 most important factors influencing the productivity and antler size of deer on their property, it seems many land owners and managers are likely to answer 1) Genetics, 2) Genetics, and 3) Genetics. Research findings and a recent trip to Northern Mexico suggest the realtor's mantra has application to deer management.

A property's location has 2 primary impacts on deer management. First, the location sets the baseline for the deer herd's potential productivity. Second, the location and related attributes provide bounds on the type of management activities that are feasible and likely to be successful.

Why Location Matters to Deer

A demonstration of the importance of location on a broad scale was provided by Mississippi State University scientists Bronson Strickland and Steve Demarais who used harvest records from over 200,000 deer to investigate the effect of location on a deer's body and antler size in Mississippi. The effects were dramatic. The rich soils along the Mississippi River produced mature deer with large body and antler size, whereas body size of bucks and does and antler size of bucks along the infertile Gulf Coast were 25% smaller. In addition, bucks achieved peak antler size by 4 years of age in the best region and at 5+ years of age in the least fertile region. So, realistic expectations of a landowner need to be related to where the property is located.

Similar differences in body size can be found in areas much smaller than an entire state. In fact, soil fertility and plant communities that differ within a county can have dramatic influences on deer productivity. Kory Gann is a PhD student at the Caesar Kleberg Wildlife Research Institute who is using a helicopter to catch deer at random on several properties of the East Wildlife Foundation in South Texas. Two of Kory's studies sites in Jim Hogg County are separated by 25 miles. There is no supplemental feeding, habitat management, or deer harvest on the properties, nor are there deer-proof fences between the two sites. At this scale, genetic interchange is expected to occur naturally through yearling buck dispersal and other deer movements.

Body weights of mature does and bucks differ between the two areas by 12 and 13 pounds, respectively. Boone and Crockett antler size of mature bucks on the eastern ranch averages 115 points, whereas on the more productive western ranch, antler size averages 129 points. Clearly location makes a dramatic difference in these two essentially adjacent deer herds.

Why Location Matters to Management

The importance of location in deer management became clear recently while visiting several ranches in northern Mexico. The location of each ranch had a direct impact on management options that were viable for the property. One ranch 20 miles from the Rio Grande River had red sands reminiscent of those near Catarina, with the same diverse brush communities and potential for stunning forb growth after precipitation. However, the red sands made it nearly impossible to maintain surface water, so the landowner had invested in a far-reaching system to distribute water to troughs throughout the property. A nearby landowner had tight, rocky soils on a hilly landscape prone to heavy runoff. This landowner had little problem maintaining ponds and tanks in the drainages, but water infiltration after rainfall was poor, prompting investment in shallow ditches contouring the hillsides to capture water.



In hilly areas with compacted soil, contouring can help improve water infiltration and reduce

runoff (top photo), whereas in areas with sandy soil, water infiltrates the soil so fast that surface water is scarce and troughs may be needed to provide drinking water (bottom photo).

Further from the river was a property on which cotton had been grown several decades ago when irrigation water from a nearby reservoir was plentiful. The tight soils held water and ponds of various sizes were spread throughout the property. The agricultural history meant that brush diversity was low, limiting the foods available to deer, especially during dry periods. One stop on the ranch was at an area that had not been plowed and, as expected, brush diversity was high. Abundant saladillo, a plant that grows on saline soils, suggested years of irrigation had altered the soil chemistry, lowering its fertility.

Still further west was a ranch on which creosote was common, a failsafe indicator of the Chihuahuan Desert. Recent rains had caused a dramatic flush in vegetation, but deer harvest rates on the property suggested such conditions were not the norm.

The properties varied dramatically in size from a couple thousand to tens of thousands of acres. Differences in property size influenced the intensity of management that was feasible, ranging from intensive habitat management, feeding programs, and controlled breeding on the smaller properties, to low intensity, extensive management of water and deer harvest on the larger properties.

The lesson from this tour of northern Mexico was that management actions were dictated by the location and size of each property. Habitat manipulations made sense on some, but would be a waste of resources on others. Strategies to provide water varied with soil type and the availability and quality of well water. Intensive, high cost activities were feasible on small, but not on large, properties.



Intensive management, such as building sites where water and several types of supplemental feed can be offered, is more feasible on small properties than large ranches.

The Upshot

The location of your deer hunting lease or property has a huge influence on your management alternatives and hunting experience. If you are looking for a place to hunt, choose carefully. If you already have property or have little choice in where you hunt, set your expectations accordingly. You are bound for disappointment if you hunt an area with low soil fertility but

expect to see bucks that rival the largest in the state. Conversely, if your deer are moderate size, but large and productive given your location, you should be proud of your accomplishment. Finally, recognize that deer are a product of the location and altering the genetic composition of the herd will only be beneficial to the extent that those deer can express their potential in the area where they live.