Mule Deer Movement and Crop Use in the Texas Panhandle


Mule deer are an important game species in Texas, and many private landowners manage their wildlife habitat with mule deer in mind. However, mule deer behavior is not well-understood in the Texas Panhandle. The region is fragmented by row-crop agricultural fields, and mule deer are often observed using crops to supplement their natural diet. We sought to determine which crops mule deer prefer, and whether crop growth stages dictate deer movements made to access crops.

We used Global Positioning System (GPS) radio collars to track the movement of adult mule deer at 2 study sites in the Texas Panhandle. Mule deer at the Rolling Plains site were collared for 2 years, and deer at the Canadian River Breaks site are currently collared for the second year. The GPS collars recorded a location for each deer every 2 hours. We used radio telemetry to locate collared deer during the data collection period. During this time, we also monitored crop growth stages in both study areas.

We used the location data from the collars along with the crop growth information to determine the crop types and growth stages that mule deer prefer. Winter wheat was used most by collared deer, particularly during the tillering and stem elongation growth stages. Cotton was also used minimally in the early leaf development stage. These results suggest that mule deer favor certain crop types and growth stages, and landowners or hunters seeking to manage mule deer habitat should account for these factors in their management plans.