

TIPS TO AID CENSUS EFFORTS

For those choosing the **spotlight survey** this year, consider the following hints:

- Spotlight surveys have limited application on small tracts of land or where dense vegetation greatly reduces visibility.
- Spotlight surveys are not designed to observe a total deer population, rather to sample a representative portion of habitat and the number of deer found there.
- Multiple counts (three is recommended) are required on the same route for reliable information.
- Select all-weather roads that go through a variety of habitat types. Avoid roads that frequently wash out or become impassable following heavy rain.
- The transect should sample different habitat types in proportion to number of acres they represent on the property. Avoid roads by feeders or food plots where deer may be concentrated.
- On large tracts, more than one route may be required to adequately sample a ranch.
- Make a map of the route for future reference.
- Visibility readings (distance from the vehicle you could actually see a deer in a straight line perpendicular to the truck) should be taken at 1/10 mile intervals if the total length of the line is less than 12 miles. If the length is 12 miles or greater, visibility readings can be taken at 2/10 mile intervals.
- Visibility readings are needed only on the first survey. Multiple surveys along the exact route do not require retaking visibility readings.
- Visibility estimates may be used for several years unless significant changes in vegetation has occurred along the route.
- Spotlight surveys should be conducted during the months of August, September, and early October.
- Do not conduct surveys during rain, high wind or following significant disturbance along the route during the day of the count.
- Begin all counts one hour after official sunset.
- In thicker areas, drive 5-8 mph. In more open areas, speed may be increased to 10-15 mph. Stop only to identify deer.
- Identify all deer encountered as either bucks, does, fawns, or unidentified. Unless all deer observed in a group can be identified by sex and age-class, record ALL deer as unidentified. Recording only bucks from a group will bias data and reflect a better sex ratio than may be present.
- A good pair of binoculars is imperative during a survey to correctly identify animals.
- Deer observed over 250 yards from the vehicle should not be recorded or counted.
- Pickup trucks with two spotlights and two observers standing or sitting in the bed are recommended. Passenger cars and SUVs offer limited visibility and are often too low to the ground.

For those choosing the **aerial helicopter survey** this year, consider the following hints:

- Begin the survey at daylight or late in the evening for optimum visibility and animal observations. Avoid mid-day surveys unless absolutely necessary.
- Experienced pilots know how to fly game surveys, but some less experienced may need to be reminded to fly low and slow during the entire survey.
- Transects may be required on larger tracts, while complete coverage can be used on mid to smaller tracts.
- Most helicopter companies require a minimum charge to cover basic costs. On small tracts, make certain you understand what the minimum costs are compared to how long the actual survey will take.
- Helicopter costs are based on the size of the machine on a per hour basis. The larger machines cost more than the smaller ones.

- The larger machines can haul more passengers (more eyes in the sky) and therefore, may increase your visibility and overall numbers of animals observed. Care must be taken to not double count animals. Communication among passengers is paramount.
- Smaller machines are more flexible, agile, and responsive than their larger counterparts.
- Observers should be kept constant, if possible, over time to keep the data more consistent.
- Very few people (or video cameras) can take good video footage from a helicopter survey. Vibrations and jerky movements are very hard to overcome with a video camera. Photographs are easier and can be taken quite successfully with a moderate zoom lens and a very fast film speed. Multiple photos need to be taken of each animal so that a select few may turn out well.
- On large tracts, individual pastures may need to be flown individually and treated as individual management units.
- Visibility will decrease along creeks and rivers with tall trees and large canopies. You may need to slow down and give the animals more time to “flush” where they can more easily be seen as they cross openings.
- It is recommended to count only those deer that are within 100 yards from each side of the helicopter. Avoid counting deer as they cross the horizon or are in the far distance.
- As an observer, watch straight out and back over your outside shoulder for deer. Avoid looking straight ahead and directly under the machine. The noise and motion will flush the animals as you pass over them.
- A clipboard, with data sheet secured at both ends, with large and wide data entry columns allows the observer to quickly record the required data with minimal effort. You need to keep your eyes in the brush and not on the data sheet.
- As with any survey, record everything possible—deer, turkey, coyotes, bobcats, stray cattle, feral hogs, javelina, etc. Helicopters are not cheap and the more data you can gather about a piece of property, the better your management will become.
- Be observant to overall range condition, brush community distribution, water distribution, fencing (condition of, needs of, etc.), and terrain while in the air. It will amaze you what you can see and learn from a short helicopter ride.

Data to further supplement either survey method is very easily gathered by one of two methods:

Daylight Observations: this method involves recording deer when and wherever encountered on the property. Record such information as buck, doe, and fawn on each deer that is identifiable. If all deer present in a group are not identifiable, then disregard the entire group. Unidentified deer will not benefit this survey method. This technique is not intended to count deer or give density figures, just ratios such as buck:doe ratio and fawn survival rate. Only good, reliable data needs to be collected so as to not muddy the waters. The daylight observation technique is very simple and can be utilized by everyone on the ranch. Each ranch vehicle should have data sheets on the dashboard and such data recorded daily while performing all the daily ranch chores. Data collection should begin as soon as the buck’s antlers finish growing and the fawns are old enough to be up and traveling with their mothers, this usually means early to mid August. The more observations that are made, the more accurate the data becomes.

Another technique to use is called the **Stand/Feeder Observation**. This technique is a little more involved than the previous mentioned, and the data gathered can be carried further. Simply put, each time a hunter or pre-season observer sits in a deer blind or observes a feeder, have that person identify and record what visits that feeder or blind area. The data sheet has columns to record bucks, does, and fawns similar to the daylight observation data sheet, but it goes a step further. Each buck and doe should be separated into respective age classes of young (yearling), middle, and old (mature). The buck segment should be further broken down into whether or not the yearling (or young) age class has spike or forked antlers. This additional requirement will allow you to determine what percentage of the yearling age class has spike or forked antlers. This can be very valuable information when determining overall herd health and range conditions. The female segment should also be categorized into young and old classifications if possible to indicate overall health of that segment as well. When deer are coming and going under a feeder and/or in or out of a sendero, it may get confusing trying to count the number of different does. A general rule is to use the maximum number of does you can see

at any one time. This isn't usually a problem with bucks because you can usually recognize individuals by their antler characteristics. This technique can be used in early to mid August and can continue until the first signs of the rut begin. This data can be gathered several ways, so make it easy on yourself. One way is to keep a notebook with the required data sheets in each individual hunting blind and require each hunter to record the data daily before exiting the blind. Another way is to have a master list at the camp house or lodge for each hunter to fill out daily upon returning to camp. Either way works fine, but it needs to be done on a daily basis so the observers do not forget or get confused with what they saw and when and where they saw it.

Again, either technique does nothing for density estimates but does volumes for ratios. This data should be gathered as a compliment to the spotlight or helicopter census. This data will be used to "tighten up" any questions or concerns that should arise from either population estimators.

Over time, this data can be charted or graphed and become extremely informative as to not only the history of the herd, but the present health as well.

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