

AGING VENISON IN WARM WEATHER

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When warm weather is forecast for the normally cool (or cold) gun deer hunting season, questions arise about how long hunters can safely "age" their bagged deers under warmer than usual weather conditions. Below is some perspective on that situation.

Aging is very important to improving the tenderness of beef, and may have a similar beneficial effect in deer. During aging proteolytic enzymes naturally present in the meat breakdown or weaken muscle proteins, making the meat more tender. In beef the greatest improvement in tenderness occurs during the first 7 days after slaughter, but beef is often aged up to 14 days in many of our smaller plants to improve tenderness.

Among meat processors and hunters, some people believe that aging improves venison quality, and others feel that venison does not need to be aged. It is up to the individual to decide for themselves, and this decision may be influenced by the weather conditions they face after the deer is taken.

Aging in a meat plant is done under controlled conditions of 35 to 40°F. In aging venisons at home, hunters are at the mercy of the prevailing outside temperatures. The following guidelines can be offered for aging venison.

1. If the temperature is between 32 and 40°F, deer should be able to be easily aged for 1 week.
2. If the temperature is between 40 and 50°F, aging should be shorted to 3 to 5 days. Since aging involves chemical reactions which go at a faster rate as the temperature gets higher, 4 days of aging at 45°F might be comparable to 7 days at 35°F. If the meat is frozen for a period of time, little aging takes place at this low temperature. Remember, it is the temperature within the muscle which determines how rapidly aging proceeds, not the changing outside air temperature.
3. From a food safety standpoint, lower temperatures are always preferred. Environmental temperatures above 50°F are getting into a higher risk zone. If daytime temperatures get above 50°F for most of the day, and there are not good prospects for cooler weather coming, the deer should probably be processed as soon as possible, or taken to a plant where it can be stored under refrigerated conditions.
4. Unfortunately the storage temperatures this time of year can vary from day to day, and cause a person to wonder how long they should hang the deer. The above advice should help in that decision. Remember that bacteria growth and spoilage are a function of time and temperature. A chilled carcass can withstand a few hours of temperatures around 50°F but maybe not several days of it. Carcasses held as a desirable temperature of under 40°F may develop signs of spoilage if held there too long. Use good common sense, and keep an eye on the carcass for signs of spoilage, and the changing weather conditions.

Here are a few other things to keep in mind:

- undisturbed carcass muscles are virtually sterile, and bacteria growth occurs on the outside of the carcass where contamination has occurred through handling. Careful removal of the viscera and clean-up of the abdominal cavity are important. If the hide remains on the deer, bacteria growth can only occur in the interior of the carcass and other exposed areas. Bacteria need moisture to grow, so as the carcass surface dries out, bacteria growth slows down.
- deer will usually get well chilled during the cool nights, and this will carry over and provide some measure of temperature control during the warmer days. To help prolong the low temperature in the carcass during daytime hours, store the deer on the north side of a building, or in a shed which has windows covered to prevent sunlight from coming in. Check the muscle of the deer with a clean stem thermometer to see what the internal temperature actually is.
- if a deer is to be processed primarily into ground meat and sausage, there is no reason to age. The fresher the meat, the better sausage or ground venison it will make.

Good luck to all the hunters, and let's hope for cool temperatures for the gun season, which allow for much more flexibility in the handling of the venison.