DISTRIBUTION OF VENISON TO HUMANITARIAN ORGANIZATIONS IN THE USA AND CANADA

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ABSTRACT.—Hunter organizations throughout the United States provide donations of wild game meat to food banks, shelters, and other humanitarian organizations. These programs provide the needy with a source of low cost, high quality protein. To understand the scale of the programs operating around the country, we conducted a survey of each of the hunter donation programs to determine the amount of venison and other game donated annually. We attempted to identify and question every venison donation program in the country. Survey participants (n = 103) were identified from program websites and by other program participants if no website existed. Surveys were sent to participants via e-mail, and non-responses were contacted by phone to increase response rates. Venison donation programs operate in all 50 states and in at least four Canadian provinces. Figures for the total pounds donated in the 2007/2008 hunting season were received for 74% (n=75) of programs. They reported providing an average of 34,943 lb (SD=96,028) of hunted game meat annually. The meat donated to all responding programs totaled 2,655,730 lb, which provided approximately 10,623,000 meals annually. Many of the programs reported starting only within the last two years and expressed their hope to increase their donations of game meat in the future. Other studies in this conference show that consumers of game meat hunted with lead bullets or shot, which would include beneficiaries of game meat donations, may be at risk of lead exposure. *Received 16 May 2008, accepted 29 July 2008.*

AVERY, D., AND R. T. WATSON. 2009. Distribution of venison to humanitarian organizations in the USA and Canada. *In* R. T. Watson, M. Fuller, M. Pokras, and W. G. Hunt (Eds.). Ingestion of Lead from Spent Ammunition: Implications for Wildlife and Humans. The Peregrine Fund, Boise, Idaho, USA. DOI 10.4080/ilsa.2009.0114

Key words: Donation, humanitarian organization, hunter, lead ingestion, venison.

THE US DEPARTMENT OF AGRICULTURE estimated that 11% of all USA households are food insecure at some time during the year, and 4% experience very low food security (Nord et al. 2007). Between 3.5 million and 6.1 million adults, and 211,000 to 467,000 children, are hungry at some time during the year. Emergency food assistance from food pantries, churches, or food banks is sought by 2.8% of all USA households annually. Part of this need for food is met by hunter organizations which provide donations of wild game meat to food banks, shelters, and other humanitarian organizations. Game meat donation programs provide the needy with a source of low cost, high quality protein which they suggest would not otherwise be received due to the high cost of beef and other meat.

METHODS

We conducted a survey of hunter donation programs in North America to determine the amount of venison and other game donated annually. We attempted to identify and question every program. Programs were identified from websites and by

other program participants if no website existed. Surveys were sent to all programs via e-mail, and non-responses were contacted by phone to increase response rates. Information for many organizations was obtained from a national coordinator rather than the specific chapter.

Our original survey consisted of 10 questions, including two about where donations are distributed and the number of women and children receiving game meat. The survey was subsequently revised to exclude this information due to the lack of response. Most food banks, shelters, or other organizations receive the game meat as a general food donation. The hunter donation programs are typically not affiliated with the food banks, so they are not able to provide details of the recipients. Many donation programs supply multiple sources which would make the collection of this information difficult. Additionally, many food banks or shelters do not keep statistics on recipient age or gender since they serve anyone in need.

RESULTS

Summary statistics describing the scope of game meat donation programs in North America are provided in Table 1. Of the states that responded to our survey (n=46) 34 had more than one game meat donation program run by different organizations. Most programs served a few cities or counties (n=57), but some provided a statewide service (n=15). The earliest program began in 1990 and the number of programs has increased steadily since then. Responding programs (35% of the total contacted) reported donating 2.24 million lb (1.02 million kg) of meat, estimated to provide almost 9 million meals in the 2007/08 hunting season. Extrapolation to all 212 known programs suggests that about 25 million meals were provided in the 2007/08 season from donated game meat. The high variance in donation amounts between responding programs produced a 95% confidence interval of this estimate from 6.6 to 44 million meals, the lower limit of which is known to be false because just 35% of programs reported providing at least 9 million meals. Most programs (72%) donated less than 500 lb of meat, while a few (11%) donated over 50,000 lb and one, the Hunters Helping the Hungry sponsored by West Virginia Division of Natural Resources Wildlife Resources Section, donated 588,937 lb of meat in the 2007/08 hunting season, its sixteenth.

DISCUSSION

Hunter donation programs make a substantial contribution to providing food to the needy through humanitarian organizations. The large variance in the amount of meat donated by game meat donation programs makes extrapolation from the responding sample to all known programs imprecise but estimates ranged from a minimum known of 9 million meals to a maximum 95% confidence limit of 44 million meals, with a mean of 25 million meals. Other studies show that consumers of game meat hunted with lead shot or with lead bullets fired from high-powered rifles are at some risk of lead exposure (Johansen et al. 2004, 2006, Tsuji et al. 2008, Verbrugge et al. 2009, Cornatzer et al. 2009, Hunt et al. 2009). Beneficiaries of donated game meat share this risk, and may be at higher risk if they subsist on this source of protein. Hunting method (e.g., rifle, shotgun, bow), ammunition preferences (e.g., lead, non-lead), and variables associated with butchering (e.g., care, skill, cross contamination with other hunters' deer) are additional factors likely to affect the level of risk to lead exposure from hunted game meat. Some of these factors vary somewhat predictably by region (e.g., prevalence of high-powered rifles for deer hunting in western states), while others vary unpredictably between individual hunters and butchers. Without a detailed understanding of these variables, it is impossible to reliably predict the specific risks of lead exposure in donated game meat to all beneficiaries. Women and children are at a higher risk of health effects from lead exposure (Canfield 2003, Kosnett 2009) and the mean annual estimate of 25 million meals of donated meat implies a substantial national rate of lead exposure among children, the group at greatest risk. Game meat donation programs can avoid the risk of lead exposure in the beneficiaries of these worthy humanitarian programs by accepting meat only from hunters who use non-lead ammunition and bow-hunters.

Table 1. Descriptive statistics of game meat donation programs surveyed in the 2007/08 hunting season.

Meat donation programs		212 programs
USA states and Canadian provinces with donation programs		46 USA states 4 Canadian provinces
Number and proportion of programs that responded to our survey		75 (35%)
Amount of game meat donated by responding programs:	Imperial units (as reported)	Metric units
Range =	40 to 588,937 lb	18 to 267,138 kg
Mean =	29,890 lb	13,558 kg
Standard Deviation =	96,028 lb	43,558 kg
Median =	2,200 lb	998 kg
Sum of game meat donated by responding programs =	2,241,730 lb	1,016,830 kg
Estimated number of meals provided by responding programs, assuming one pound of meat makes four meals		8,967,000 meals
Extrapolated number of meals provided by all 212 programs in North America in the 2007/08 hunting season (±95% CI)		25,347,000 (±18,735,700) meals (= ca. 6.6 to 44 million meals)

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