

URANIUM CITY, SASKATCHEWAN COUNTRY FOODS STUDY

The primary objective of the Uranium City country foods study was to complete a comprehensive country food assessment for the residents of Uranium City, in response to questions on the safety of consuming country foods. Working with an Indigenous-owned consulting company, Canada North Environmental Services Ltd. (CanNorth), a two-year study gathering information regarding traditional harvesting and consumption of country foods in the area was completed. Year 1 involved community interviews, while Year 2 was focused on gathering food samples for testing and performing quality assurance on the Year 1 interview results.

Country Foods Study, Uranium City, Saskatchewan, Year 1

Year 1 of the study included interviewing Uranium City residents to determine the type of country food consumed, the amount, and the location of harvest, to gain a better understanding of the utilization and potential implications to human health from consuming country foods gathered in the Uranium City area. The questionnaire was based on a food frequency questionnaire (FFQ) methodology used by CanNorth for the Hatchet Lake Dietary Survey and was modified to include only detailed country food information for the Uranium City area.

In 2010, a total of 115 people in Uranium City and the surrounding area were interviewed, representing approximately 91% of year-round and seasonal residents. At the beginning of each interview, the interviewer ensured community residents that confidentiality for those who participated was an important part of the survey and that any personal information gathered would not be shared without their consent.

Interviewed residents indicated the predominantly harvested and consumed traditional meat included moose, snowshoe hare, beaver, lynx, muskrat, porcupine, and bear. Animals were harvested locally and hunting areas were normally accessed by roads and corridors, such as the Bushell Bay and Eldorado roads and power lines in the area.

Fish were identified as a very important dietary component for the residents of Uranium City. The most commonly consumed fish species include lake trout, lake whitefish, and northern pike. Fish were primarily obtained from Lake Athabasca although other nearby lakes such as Milliken and Donaldson are also fished frequently. Walleye is considered by several as a special treat and are fished primarily at Rogers Lake or the Charlot River. Arctic grayling, burbot, and sucker species were also consumed in small quantities.

Both local and migratory bird species were consumed by the residents of Uranium City. Upland birds such as grouse (spruce, ruffed, and sharp-tailed) and ptarmigan were hunted by a large number of residents and the most common migratory bird species consumed were ducks, followed by Canada geese and swans. The majority of the hunting and gathering activities for birds are located close to easily accessible areas such as roadways, power lines, and nearby ponds and lakes.



Country Foods Study, Uranium City, Saskatchewan, Year 1 Continued

Traditional fruit gathered included bog cranberries, blueberries, strawberries, raspberries, and a number of other berries. Although a large portion of the berries that were picked during the summer months were eaten fresh, a number of residents surveyed also indicated they will often freeze berries (i.e., raspberries, blueberries, cranberries, strawberries, and pincherries) to use in sauces, baking, and jams for consumption during the winter months. Other edible plants (Labrador tea, rhubarb, wild mint, mushrooms, and wild roots) and medicinal plants (spruce gum, pine needles, and balsam and birch bark) are also consumed by residents of Uranium City in small amounts and are often dried and stored for later use or consumption.

Results indicated that traditional country food consumption remained an important part of the diet for residents of Uranium City and the surrounding area.

The information gathered in Year 1 was subsequently used to develop the study design for Year 2 of the Country Foods Study.

Uranium City Country Foods Study Year 2

The primary objective of the Year 2 Uranium City Country Foods Study was to complete a comprehensive sampling program in cooperation with the residents of Uranium City to gain a better understanding of the potential risks associated with consuming country foods.

Seasonal use patterns and harvest locations determined during Year 1 played an important role in the selection of potential sampling areas for Year 2 of the program. In total, three types of wildlife (moose, snowshoe hare, and spruce grouse) and four types of traditional fruit and edible plants (blueberry, bog cranberry, raspberry, and Labrador tea) were selected for sampling in Year 2, and analyzed from three different sampling areas (decommissioned Beaverlodge properties, Uranium City area, and Camsell Portage). The information gathered during Year 2 Uranium City Country Foods Study was used to complete a human health risk evaluation for the Beaverlodge area.

The potential health risks associated with traditional harvesting of country foods from local sources were evaluated based on the sampling and analysis of a variety of country foods in the region collected in 2012. The risk evaluation followed accepted risk assessment frameworks as outlined by regulatory agencies such as Health Canada. The evaluation of food consumption considered exposure of both child and adult residents via ingestion of country and supermarket foods, and compared the exposure to that of typical Canadians who are exposed from consumption of supermarket foods.

Overall, the results indicated that measured values were similar to, or lower than, those found in supermarket foods and that the traditional harvesting of country foods does not present health risks to Uranium City residents.

