

Offal Disposal Methods in North Dakota Meat Processing Plants: Results From a Survey of Meat Processors in North Dakota

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Summary

North Dakota produces 16.35 million pounds of offal annually. A total of 14.5 million pounds is renderable. Beef, pork and bison offal are renderable. Sheep, elk and deer offal are not renderable. Offal production is distributed equally between the east and west halves of the state. However, a sizable difference exists between plants in the north and south. Plants in the northern part of the state produce about 43% of the offal, while plants in the southern part of the state produce 57%.

Introduction

Meat processing is an important industry in North Dakota. One potential problem that smaller processors encounter is the lack of market outlets for offal. The primary objective of this survey was to provide a statewide overview of offal production in North Dakota. Data collected consisted of the following:

- Amounts and types of offal
- Geographic distribution of offal
- Seasonal trends of production
- Current methods of offal disposal

No historical data is available, as a survey of this type has never been attempted in North Dakota. Additional information was collected on storage methods and time offal was stored on the premises. Data on hide values and disposal was collected for information only and does not appear in these results. Cost of offal disposal was also collected.

Materials and Methods

A list of all state-and federally-inspected slaughter plants was obtained from the State Meat Inspection Program of the North Dakota Department of Agriculture. The project consisted of physically visiting each plant and completing an offal production survey.

In 2004, North Dakota had 125 meat plants (custom-exempt, state-inspected or federally-inspected). Eight of these plants do not produce offal, as they mainly are food processors or other related businesses. All 117 plants producing offal provided data for this report.

The one-page survey, which was completed on site with the processors, included the following main categories:

- Slaughter data on cattle, hogs, deer and other animals
- Current offal disposal methods
- Current storage methods
- Frequency of offal pickup and length of time offal is on site
- Current cost of offal disposal
- Current method of hide disposal

All 125 contacts completed the survey. Information was collected for this report, as well as additional data to be used in future cost analysis work.

Results

This report does not provide data from the major hog processor in the state (Cloverdale Foods Inc.), nor does it provide data from the major bison processor in the state (North American Bison Cooperative). These firms were surveyed, but data from those surveys will not be disclosed to protect confidentiality. Table 1 shows pounds per species, with the number of head listed under pounds.

Table 1. Offal production by species.

	Beef	Hogs¹	Sheep	Bison¹	Deer	Elk	Box²
Southeast							
Pounds	3,016,780	360,525	10,370	326,634	532,350	21,000	731,351
Head	5,660	3,135	170	707	10,647	140	
Southwest							
Pounds	3,361,631	376,395	15,860	192,192	173,250	18,300	124,400
Head	6,307	3,273	260	416	3,465	122	
Northeast							
Pounds	2,103,218	258,060	1,464	65,234	237,750	9,450	2,600
Head	3,946	2,244	24	41,007	4,755	63	
Northwest							
Pounds	3,032,770	344,195	0	216,216	338,500	40,350	35,740
Head	5,690	2,993	0	468	6,770	269	
North Dakota							
Pounds	11,514,399	1,339,175	27,694	1,200,276	1,281,850	89,100	894,091
Head	21,603	11,645	454	2,598	25,637	594	

¹ Data from major processors not included to protect confidentiality.

² Renderable material from boxed beef and other products.

The southeast region of the state leads in the production of offal, followed by the southwest, northwest and northeast (Table 2). The southern part of the state produces more offal – 8.49 million pounds vs. 6.46 million pounds, or 57% vs. 43%, of the total offal produced. However, if the state is divided into east and west, the difference in offal production is quite small (7.68 million pounds in the west versus 7.26 million pounds in the east, or 51% vs. 49%).

Table 2. Geographical location of offal¹.

	Processed	Renderable
Southeast	4,999,010	4,435,290
Southwest	4,262,028	4,054,618
Northeast	3,077,776	2,829,112
Northwest	4,007,771	3,628,921
TOTALS	16,346,585	14,947,941

¹ Data from major processors not included to protect confidentiality.

Offal in North Dakota is disposed of in three different ways. It is rendered, deposited in a municipal landfill or deposited in a private landfill (described as anywhere on private property).

North Dakota has only one operational rendering plant, Northwest Rendering in Minot. This plant processes only the porcine offal that Cloverdale Foods produces and takes no other species or outside product.

The balance of the renderable offal is collected and processed in Minnesota. Two companies pick up offal and deliver it to plants in Minnesota. West End Hide and Fur of Jamestown, N.D., serves the

central part of the state and Central Bi-Products of Redwood Falls and Long Prairie, Minn., serves the eastern portion of the state. In plants that Central Bi-Products serves, all products are transported to Redwood Falls or Long Prairie for rendering. The majority of the offal from plants in the western part of the state is placed in landfills.

When the major hog and bison processors are removed from the data set, only 56% of the offal that the remaining 115 plants produce is rendered and 44% is deposited in municipal and private landfills (Table 3). This totals 7.24 million pounds annually.

Table 3. Geographic distribution of offal disposal in North Dakota¹.

Region	Rendered	Municipal landfill	Private landfill
Southeast			
All	4,235,796	472,208	291,006
Renderable	4,235,796	49,004	150,490
Southwest			
All	1,887,421	1,001,173	1,383,434
Renderable	1,887,421	869,153	1,308,044
Northeast			
All	2,713,754	139,258	224,764
Renderable	2,713,754	12,586	102,772
Northwest			
All	280,728	2,508,594	1,218,449
Renderable	280,728	2,360,494	987,699
North Dakota			
All	9,117,699	4,121,233	3,117,653
Renderable	9,117,699	3,291,237	2,549,005
Percent	55.80%	25.20%	19.00%

¹Data from major processors not included to protect confidentiality.

Most small plants in North Dakota lack the volume necessary to be paid for their offal. In nearly all cases, the producers are paying to have the offal disposed of and it is an expense rather than an income source. This puts these plants at a competitive disadvantage with other plants where rendering is more accessible. To expand the meat processing industry in North Dakota, this problem will need to be addressed.