



Mobile Slaughter Units: Regulatory Overview for Oklahoma (Non-Poultry)

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Rodney B. Holcomb

Extension Specialist for Food Industry Economics

Courtney Bir

Extension Specialist for Farm Management and Ag Finance

JJ Jones

Area Extension Specialist for Ag Economics

Kayla Van Ruler

Undergraduate Research Assistant

Cassie Sawatzky

Former Undergraduate Research Assistant

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Introduction

In 2020, during the early months of the COVID-19 pandemic, supply chain disruptions resulted in meat shortages in retail grocery stores. This, in turn, sparked a concern about the availability of red meat and poultry among US consumers and resulted in a sharp increase in demand for meat products. Large slaughter facilities were hobbled by the lack of available labor, and even before the pandemic small slaughter plants had slaughter dates scheduled out for several months. As a result, a renewed interest was established for an age-old slaughter option: mobile, on-farm slaughter units. The Oklahoma Department of Agriculture, Food, and Forestry (ODAFF) and the OSU Food & Agricultural Products Center (FAPC) were inundated with calls about the potential for mobile slaughter in Oklahoma. Some of the commonly asked questions were:

- What are the basic regulatory requirements for a mobile slaughter unit operating in Oklahoma?
- What are the equipment and personnel requirements?
- Can meat generated from mobile slaughter be marketed through retail and foodservice channels?

This fact sheet provides answers to these questions and addresses some of the basic requirements and considerations for operating a mobile slaughter unit in Oklahoma. It should be noted that for this Fact Sheet “mobile” means road-ready. Also, “slaughter” should be distinguished from “carcass breakdown” and “processing.” While this Fact Sheet briefly addresses

these issues in a mobile unit, mobile slaughter units most often perform only the slaughter service at the farm. They will then transport the carcass to a fixed facility with all the necessary equipment, refrigeration space, and personnel to break down the carcass into processed and packaged meat products.

Basic Regulatory Requirements

Custom Exempt vs. Inspected Slaughter

Before explaining the regulations for mobile slaughter, it is important to understand the four different types of slaughter operations in Oklahoma. They are:

- Custom Exempt: Custom exempt slaughter is the process of slaughtering an animal with the expressed intent of returning the meat to the animal’s owner. In essence, it’s the owner’s animal going in, and the owner’s meat coming out. Because it is a “custom exempt” slaughter, neither the animal nor the meat have been subjected to inspection. As a result, the meat is labeled as “Not For Sale” and cannot be sold to individuals, restaurants or retail stores. An example of a custom exempt slaughter is when one or more people buy a steer from a rancher and have the rancher deliver the animal to a local packing plant for slaughter/processing. The resulting meat is owned by the buyers, who purchased the live animal from the rancher and had “their” animal processed into “their” meat. This meat is not for sale.
- State inspected: Some states, but not all, have a state meat inspection program. State programs must meet/exceed USDA Food Safety Inspection Service (FSIS) standards, but even so the current laws do not allow state inspected meat to be sold in market channels outside of the state. Oklahoma is one such state, and inspection is overseen by ODAFF’s Food Safety Division. State inspected slaughter plants have an ODAFF inspector on site, who inspects both the live animal and the carcass

to ensure the meat will qualify for marketing in the human food chain. State inspected meat can be sold in any retail establishment or foodservice establishment in Oklahoma.

- Federally inspected: Federally inspected meat represents most of the meat one will find in grocery stores and restaurants, and the USDA establishment number is always listed on the product's label. Federal establishments have an onsite USDA FSIS inspector who inspects both the live animal and the carcasses to ensure the safety of the meat products for human consumption. Meat from federally inspected processing activities can be sold anywhere in the US and potentially exported.
- TA plants: This inspected slaughter option is essentially a hybrid between a state- and federal-inspected slaughter plant. "TA" represents the Talmadge-Aiken Act, which created a partnership agreement under which small plants can have a USDA plant number but inspection for the plant is contracted to ODAFF. The inspector is thereby an ODAFF employee, not a USDA employee. However, the meat from that plant can be marketed outside of Oklahoma.

Mobile slaughter operations must comply with the regulations for one of these types of slaughter, and a majority operate as custom exempt entities.

Oklahoma Mobile Farm Slaughter Regulations

ODAFF, and ultimately Oklahoma's State Board of Agriculture, i.e., "the Board," issues permits for approved units. Sections 35:37-3-6 through 35:37-3-14 of Oklahoma's Administrative Code represent the definitive source for Oklahoma mobile farm slaughter regulations. The "35" represents Title 35 (ODAFF), "37" is the Chapter (Food Safety), "3" is for Subchapter 3 (Meat Inspection), and the last numbers – "6" through "14" – represent the specific Sections of this Title/Chapter/Subchapter. For simplicity, every following reference to a Section will mention only the last number. For example, Section 6 (i.e., Section 35:37-3-6) simply consists of definitions for "approved cleaning agents," "easily cleanable," "farm slaughter," "mobile farm slaughter establishment," and "sanitize."

Section 7 explains the permit application process to be a state-approved mobile slaughter operation. A person or group wanting to operate a mobile farm slaughter unit must apply for a permit and provide (a) operator name, (b) telephone number, and (c) address of the operator's principal place of business. When a permit is issued, the permit number must be prominently displayed on both sides of the mobile unit using numbers that are a minimum of 3 inches in height and of contrasting colors to the rest of the unit. These permits are renewed annually. Any person slaughtering more than 10 head of livestock per year on the farm or in the field, whether for personal use or as a service to other livestock owners, is considered a mobile farm slaughter establishment and is subject to all laws pertaining to mobile establishments.

Section 8 clearly states that violating any portion of Section 7 "may subject the owner and/or operator of a mobile farm slaughter establishment to revocation or suspension" of the permit. Section 9 additionally states that the permit may be "temporarily suspended or modified" to prevent a potential threat to the livestock industry resulting from a declared animal disease outbreak. Furthermore, each carcass or part thereof must be tagged with the owner's name to ensure identity preservation, along with the mobile unit's permit number or name (Section 10).

The current requirements for mobile units are clearly defined. However, there are certain "grandfather" conditions to be met by older units that have been in continuous operation since before the current requirements were enacted (Section 11). Specifically, new mobile slaughter units must be constructed and equipped as follows:

- Units must "have a van-type body enclosing and covering the unit, excluding the driver's cab and hoist, with surfaces constructed from non-rusting metal or other materials that are non-rusting and amenable to proper and adequate cleaning." The use of wood is discouraged, except for "internal framing or spacing materials between double non-wooden walls." All units must be built to "prevent the entry of contaminants (dirt, dust, insects, etc.) and to allow the exterior and interior to be easily cleanable and sanitized."
- All materials used to construct a mobile slaughter unit must be approved by the Board. The following text comes verbatim from Section 11 and defines acceptable unit construction materials:
- It shall have a metal interior lining, with the junctions of facing surfaces to be smoothly welded or soldered (or rolled and soldered) and spatter removed. All interior corners shall be rounded for ease of cleaning. Caulking compounds shall not be substituted for welding or soldering. The interior facing surfaces shall not be painted except for rail hangers. The minimum metal gauges for interior facing surfaces are 14 gauge for aluminum, 16 gauge for sheet metal, and 17 gauge for stainless steel. Fiberglass, or fiberglass reinforced resin or aluminum alloys are permitted upon being approved by the Board. Insulation shall be non-absorbent.
- Minimum interior dimensions, excluding space for tanks and other mounted equipment, are: a height of 6 feet, a length of 6 feet, and a width of 4 feet for one center hanging rail or 6 feet for a double hanging rail.
- Units must have metal hoists with a minimum 11.5-ton lift capacity, and the ability to lift carcasses a minimum of 12 inches off the ground for bleeding and evisceration. Hoists must be positioned so that the carcass does not contact the truck/trailer body and be equipped with a metal beef spreader.
- Units must have enough USDA-approved sterilizing agents on hand to sterilize "all knives, cleavers,

- saws, hooks and pans used in slaughter operation.”
- Units must have rust-resistant water tanks and at least one hose with a nozzle for washing carcasses. Units must have a minimum of 10 gallons of potable (i.e., drinking quality) water per head of harvested livestock to match the capacity of the unit (e.g., 5 head capacity = minimum 50 gallons of potable water). Water pressure must be a minimum of 60 pounds per square inch before and during slaughter operations.
- All hooks, trolleys, and spreaders used by the unit must be constructed of non-rusting materials. Unless otherwise specified, this means all equipment must be “fabricated from metal or other approved material.”

Sanitation is of utmost importance to ensure food safety. Section 12 states that mobile units must be “maintained in a clean and sanitary condition” and that “soap and clean toweling shall be provided for washing of hands, tools, and equipment.” Other specific requirements of this section are as follows, verbatim:

- (1) The interior and exterior of the truck, trailer, or other vehicle shall be cleaned and sanitized before and after each day's operation.
- (2) The tools (knives, cleavers, saws, hooks, etc.) and equipment (pans, trolleys, spreaders, etc.) shall be cleaned and sanitized before, after, and as necessary during, the slaughter operation. In addition, they shall be sterilized if contaminated by viscera contents, abscesses, or foreign material during the slaughter operation.
- (3) Hooks, trolleys, and spreaders used in dressing carcasses shall additionally have a coat of edible mineral oil applied to them after cleaning.

The conditions for slaughtering and transporting carcasses (Section 13) can be summarized as follows:

- Carcasses can only be transported while hanging and free from contact with the unit's floor. If the unit contains hanging carcasses and the intent is to slaughter more animals, the hanging carcasses must be contained in an enclosed area separate from where the slaughter of additional livestock occurs in the unit.
- Meat by-products should be transported in approved cleaned and sanitary containers with lids.
- Inedible offal may also be transported in the unit in clean and sanitary containers, but offal cannot be transported in the area of the unit where slaughter takes place. Additionally, inedible offal (excluding hides) must be disposed of through an approved rendering operation.
- No “suspect animal” (i.e., sick/injured) can be slaughtered without the approval of an ODAFF-approved, licensed veterinarian.

Section 14 simply concludes the regulations by stating that a “mobile farm slaughtering establishment owner or operator will make their establishment available for inspection by any authorized Department employee upon request.”

Humane Animal Handling and Slaughter

As previously stated, mobile slaughter must meet one of the standards for inspected or custom exempt slaughter. For inspected slaughter, USDA-FSIS requires that a slaughter operation provide an ante-mortem pen or holding facility for live animals at rest and in motion. Specifications and costs for such pens are not addressed in this report, but they are required. It is possible that livestock producers may be able to provide these pens, but it may also be necessary for the mobile unit to own and set up temporary holding facilities at farm locations.

USDA-FSIS also has requirements for humane approaches to animal slaughter, with suggestions for stunning and bleeding areas that minimize animal stress and the probabilities for accidental injury when unloading or herding animals to/from holding pens. FSIS recommendations for slaughter/bleeding areas include a sloped concrete ramp with the ability to drain into fields, over a gravel bed, or some other land application (but not draining into a waterway) to prevent blood and water from creating a pool of standing, unsanitary water at the slaughter site. Besides the potential for sanitation problems and pathogen contamination, carcass bleeding and washing over bare dirt also creates the potential for a mobile unit to get stuck in the resulting mud.

Equipment and Personnel Requirements

Truck and Trailer

The greatest capital outlays for a mobile slaughter business are for a fully-equipped trailer and the truck to haul it from site to site. Trailers can be designed and constructed by (or for) users, and Oklahoma has some examples of such units. However, The Niche Meat Processor Assistance Network maintains a website of commonly used (but not a complete list) mobile unit manufacturers with a history of supplying USDA-approved mobile trailers. The site, <https://www.nichemeatprocessing.org/who-builds-mobile-slaughter-units/>, is not an endorsement of any manufacturer, but includes some of the most notable manufacturers/marketers:

- Friesla – Based in Everson, WA, Friesla is well known for its modular meat processing plants but also sells mobile slaughter units. As of this Fact Sheet's completion, Friesla had outsourced its trailer unit construction to TriVan.
- TriVan – Located in Ferndale, WA, TriVan has been the source for many mobile units used throughout the country. TriVan has been often used as the example or design model for proposed mobile trailer units.
- Featherlite – Often thought of as a manufacturer for car, horse and livestock trailers, this Cresco, IA-based company also makes customized mobile slaughter trailers.

Costs for trailers range by the size and carcass-handling capacity of the trailer, and by the level of carcass breakdown and packaging equipment/space within the unit. Variances in materials costs can also result in

large price differences for trailers. Trailer weights can easily exceed 20,000 pounds, not including any water supplies or carcasses to be transported in the unit.

Because of the trailer weight, a one-ton truck or larger is necessary to transport the unit. In many cases, a semi-truck may be the most appropriate way to move these heavy trailers. Prices for trucks will vary by size and their age/condition. A good, used truck may be a way to save tens of thousands of dollars in upfront capital investment.

Slaughter/Processing Equipment

Regardless of the size and nature of the slaughter operation, some basic operating equipment will be required: bolt gun, knives, cleavers, saws, hooks, pans, metal mesh aprons and gloves, hard hats, safety glasses, rubber boots and other activity-specific items used by the slaughter crew. However, the mobile unit itself will also have to have a basic set of operational equipment and utility connections. Depending on the size and scale of the mobile operation, the basic equipment list can include:

- Restrainer or “knock box,”
- Blood collection tank,
- Evisceration cart/tank,
- Hoist of appropriate capacity for regulatory compliance,
- Rail system for hanging carcasses,
- Installed cooler spaces for carcasses and inedible offal (separately),
- Hide puller or skinning cradle,
- Potable water storage,
- Water heater,
- Sinks and hoses for washing carcasses and cleaning hands/equipment,
- Plumbing and drainage for water used in slaughter and for cleaning,
- Waterproof electrical connections,
- Materials to ensure smooth sidewalls, covered edges, and sealed floors for washdown and pathogen control.

Although the focus of this Fact Sheet is slaughter-only mobile units, there are examples of mobile units designed for additional carcass breakdown and packaged product processing. If the unit is intended to perform more than slaughter activities, equipment requirements will also include items commonly found in a brick-and-mortar meat processing facility. Additional equipment items may include:

- Stainless steel cutting tables,
- Band saw,
- Meat grinders and mixers,
- Scales (both carcass scales and table-top scales for final products),
- Packing equipment (small-scale vacuum, plastic/paper, etc.).

Costs for all of these necessary items vary upon availability and forecasted demand. For example, during and immediately following the COVID-19 pandemic the time between ordering and receiving certain pieces of meat processing equipment extended from next-day

delivery to weeks or even months of backorder waiting. The FAPC may be able to help operators find certain pieces of equipment or identify equipment suppliers with whom they can work to meet the operation’s needs.

Personnel Needs

Assuming the mobile unit performs only slaughter services (no carcass breakdown), the number of employees needed to operate the unit is minimal. The basic personnel for providing on-farm slaughter services are:

- Truck driver – Because of the size of the mobile units, it will probably be necessary to employ a driver with a Commercial Drivers License (CDL) to move the unit from site to site.
- Butchers – The number of butchers will vary by the size/capacity of the mobile unit and the intended number of livestock to be slaughtered per day. Two or three butchers may be required to handle multiple head of livestock per day and ensure humane, efficient, and sanitary slaughter operations.
- Inspector – If the meat from slaughter operations is intended for marketing through retail/foodservice channels, the livestock and carcasses must be inspected by a state or federal inspector. While the inspector is not an employee of the mobile slaughter entity, the inspector would have to be onsite for pre- and post-mortem livestock examination. For part-time operations, which are common for mobile units, neither state nor USDA inspectors will be provided at the agency’s expense. Thus, part-time operations are required to pay an hourly rate to have the inspector on site, wherever that site may be on a given day.

Note that this short list of necessary employees does not address the personnel needs of the fixed facility where carcasses will be delivered for carcass breakdown, further processing, and final product packaging.

Marketing Options for Meat Generated from Mobile Slaughter

As previously stated, the primary use of mobile slaughter units is for custom exempt slaughter. Custom exempt slaughter is a service provided to the owner of the livestock, and the meat generated from custom exempt slaughter is not intended for sale to the public. However, if a mobile unit has a grant of inspection and an onsite inspector for all slaughter operations, and if breakdown/processing takes place in an inspected fixed facility, it is possible for the resulting meat products to be sold “by the cut.”

Selling meat by the cut or as further processed food products requires additional licenses and permits. For example, holding or storing meat in a location other than the slaughter/processing establishment requires certifications and licenses for that holding facility. Contact the local county health department to understand the local requirements. Selling meat from a location other than the slaughter/processing establishment, and/or delivering meat to a customer, requires a Certificate of Registration for Distributors, Meat Brokers and Public Warehousemen from ODAFF. These regulatory require-

ments must be met to sell cuts of meat and even further processed meat products through retail grocery stores, restaurants, farmers markets, food cooperatives, and on-farm stores.

Summary and Conclusions

Mobile slaughter units are a legally viable option for the on-farm slaughter of livestock in Oklahoma. However, costs and operational logistics often hinder the economic feasibility of a mobile unit operation. There are tradeoffs between mobility and efficiency, and a mobile unit does not operate as efficiently as a stationary facility that can accommodate livestock slaughter, carcass breakdown, and further processing (e.g., grinding, curing, smoking, etc.) activities. The costs of buying and maintaining a specialized mobile unit, fuel expenses, insurance, and potential inspection fees may exceed the price livestock owners are willing to pay for on-farm slaughter. The logistics of on-site parking, utility access, animal holding facilities, and waste removal from each farm/ranch represent additional challenges.

The FAPC maintains a website with answers to questions often raised by beginning meat marketers, <https://food.okstate.edu/expertise/new-meat-processors.html>. For more information about mobile unit regulations, contact the ODAFF Food Safety Division or see the resources at their website: <https://ag.ok.gov/divisions/food-safety/>.

Resources

Niche Meat Processors Assistance Network – Mobile Plant Overview. <https://www.nichemeatprocessing.org/mobile-unit-overview/>. Accessed April 14, 2022.

Oklahoma Department of Agriculture, Food and Forestry. Title 35, Chapter 37. <https://ag.ok.gov/wp-content/uploads/2020/11/FOOD-SAFETY-RULE-TITLE-35-CHAP-37-SUB-3-MEAT-INSPECTION.pdf>. Accessed April 14, 2022.

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