

# FROM CALF TO KITCHEN: THE JOURNEY OF A BEEF COW

The demand for beef and the increased automation of the packing plants has accelerated the life of a typical beef cow. Today, a cow typically is slaughtered between the age of 14 and 20 months.

Graphic by DAVE EAMES and MIKE MCGRAW

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## THE ISSUE: GROWTH HORMONES

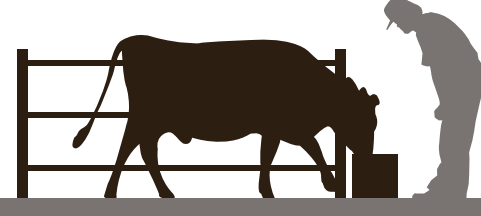
Growth hormones, antibiotics and a diet of corn or other grains quickly fatten cattle for market. Today, it takes as little as 12 or 14 months to grow a beef cow to slaughter weight. That's about half the time it used to take.



**1** A calf is born on a ranch in eastern Kansas. The calf will usually spend the first six months of its life in a pasture, eating grass.



**2** Six months later, the calf is weaned and moved to a pen. The now 600-pound calf will spend the next couple of months learning to eat from a trough and tasting corn. This step is called backgrounding.



## THE ISSUE: MILES OF MANURE

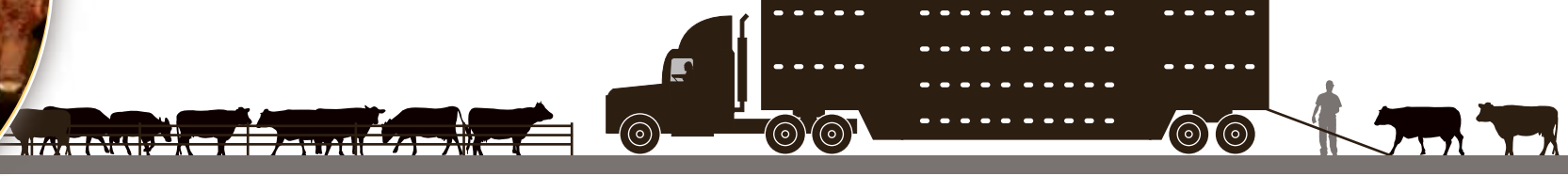
Huge cattle feedlots, scattered mostly in the middle of the country, produce city-sized waste issues. Cow manure is collected in lagoons and spread on agricultural fields.



**5** The cows are transitioned to a daily diet of mostly corn and alfalfa. They are often treated with hormones and antibiotics at this stage.

**4** At the feedlot, the cow joins thousands of others in enclosed pens.

**3** At a year old, the cow is moved from the backgrounding pen to a feedlot. The cow is loaded onto a cattle hauler.



**7** Cattle are herded through a serpentine chute toward the knocking box, where a worker using a pneumatic gun shoots a steel bolt into the skull, rendering the animal unconscious.

**8** Next, a shackler attaches a chain around the animal's back leg and hoists it up to a conveyor rail.

**9** The animal moves down the rail to a sticker who cuts the neck, draining its blood.

**10** The animal, now dead, then makes contact with an electrical line used to improve tenderness.

## THE ISSUE: MORE THAN JUST MEAT

Parts of the cow are used in a variety of products such as animal feed, soap, clothing, cosmetics and pharmaceuticals.



**6** By now, the cow has grown to 1,200-1,400 pounds and is ready for slaughter. The cattle are taken to a packing plant, where they are herded into holding pens designed to keep them calm.



**14** A hide pulling machine helps skin the animal. The fresh carcass moves down the line.

**13** The de-hiding process begins. The feet and head are removed. A worker cuts the hide along the belly.

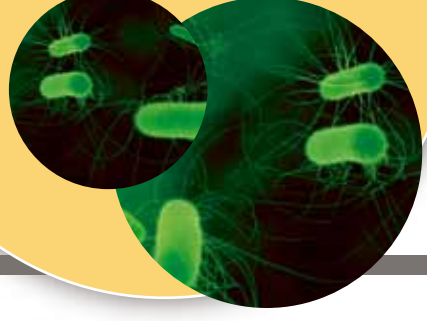
**12** During a critical step, a worker removes the animal's bung, attempting to avoid spreading contamination.

**11** A high pressure washer rinses the carcass of dirt and manure.



## THE ISSUE: FECAL CONTAMINATION

Experts agree that E. coli generally originates at larger slaughter plants, where pathogen-laden manure can be a big problem.



**15** A USDA inspector examines the carcass, looking for signs of pathogens and BSE (bovine spongiform encephalopathy). If contamination is found, the carcass is cleaned or removed.

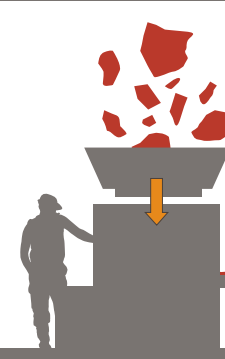
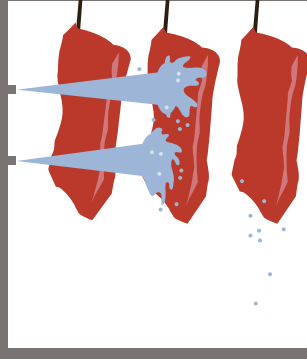
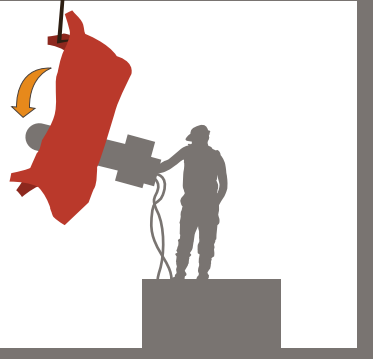
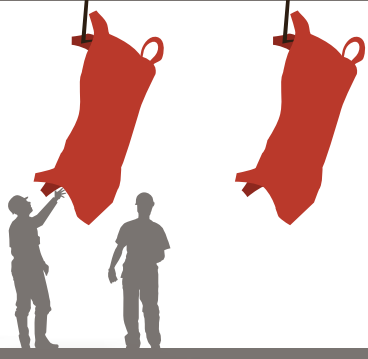
**16** A large saw is used to split the carcass through the center of the backbone. The tail and the spinal cord are removed.

**17** Just 15 minutes after they are stunned, the split carcasses are washed and left to dry.

**18** Meanwhile, beef trim from other carcasses is prepared for ground beef production.

## THE ISSUE: DIVERSE GROUND BEEF

Hamburger is ground at packing plants and other processors. In order to reach just the right fat content, meat from different cattle, and sometimes from multiple countries, is mixed together.



## THE ISSUE: COOKING CAUTION

The USDA advises consumers to cook all steaks to an internal temperature of at least 145 degrees.



**21** Whether it's ribs, steaks or burgers, the beef is ready for your tailgate at Arrowhead Stadium.

**20** Finally, the carcasses are broken into primal cuts, including steaks and roasts. The fresh beef is vacuum-packed, or boxed for sale to wholesalers, retailers, hotels and restaurants in the U.S. and around the world.

**19** The carcasses are sent to a larger cooler room, where they are typically aged for two days. Carcasses from cattle 20 months old and younger are marked for export to Japan, because of their food laws. This is because older cattler are more prone to have BSE problems, which the Japanese are concerned with.

