

LIVESTOCK INDUSTRY



US ANIMAL PRODUCTION

- Industries in the Animal Production subsector raise or fatten animals for the sale of animals or animal products. The subsector comprises establishments, such as ranches, farms, and feedlots primarily engaged in keeping, grazing, breeding, or feeding animals. These animals are kept for the products they produce or for eventual sale. The animals are generally raised in various environments, from total confinement or captivity to feeding on an open range pasture.
- Animals include cattle, pork, goats, and sheep- poultry is usually viewed separately.





CATTLE INDUSTRY

- According to the USDA Cattle production is the most important agricultural industry in the United States, consistently accounting for the largest share of total cash receipts for agricultural commodities.
- With rich agricultural land resources, the United States has developed a beef industry that is largely separate from its dairy sector.

CATTLE INDUSTRY

- In addition to having the world's largest fed-cattle industry, the United States is also the world's largest consumer of beef—primarily high-value, grain-fed beef.
- The U.S. beef cattle industry is often divided into two production sectors: cow-calf producers and cattle feeding.



CATTLE CYCLE

- The cattle cycle is a process in which the size of the national cattle herd—including all cattle and calves—increases and decreases over time. The cattle cycle averages 8–12 years, from low point to low point, and it is influenced by the combined effects of cattle prices and input costs that drive cow-calf producer profitability; the gestation period for cattle; the time needed for raising calves to market weight; and climate conditions.





COW PRODUCTION

If additional pasture forage is available at weaning, then some calves may be retained for further grazing and growth until the following spring when they would be sold. Throughout the United States, cow-calf operations are located on land not typically suited or needed for crop production. These operations depend on range and pasture forage conditions, which in turn depend on the area's variations of average rainfall and temperature. Beef cows graze on forage from grasslands to maintain themselves and raise a calf with very little, if any, grain input. The cow is maintained on pasture year-round, as is the calf until it is weaned.

COW-CALF OPERATIONS

Cow-calf operations mainly maintain a herd of beef cows for raising calves. Most calves are born in the spring and weaned at 3 to 7 months. Following the weaning stage, calves can move through the value chain in several different ways. Some of the female calves (heifers) and male calves (bulls) may be retained in the herd or sold to another producer.



INTO THE FEEDING SYSTEM

- When calves are weaned, producers must decide if they should retain some heifer and bull calves to replace older cows and bulls or to expand their herds. The remaining bulls are castrated to become steers, and together with the remaining heifers not kept in the herd, are sold into the feeding system for slaughter.



DIFFERENT WAYS TO GROW

- There are different ways for these new steers and heifers for slaughter to grow to market weight. After being weaned, the calves may enter a stocker program, where they will graze on grass for 3 to 4 months before being placed in a feedlot.



DIFFERENT WAYS TO GROW

- Another option is to move calves into a 30- to 60-day preconditioning program. Within this program the calves go through an animal health protocol for deworming, dehorning, and vaccinating so calves can then be started on feed to ensure they are healthy in the next stage of the value chain.





DIFFERENT WAYS TO GROW

- Still another option is for the calves to be backgrounded for 90–120 days, placed in pens or lots and fed dry forage, silage, and grain before entering a feedlot.

FEEDLOTS

- A feedlot is the final stage of cattle production. It provides a confined area for feeding steers and heifers on a ration of grain, silage, hay, and/or protein supplement to produce a carcass that will meet the USDA quality grade Select or better for the slaughter market.





GRADES OF BEEF

The USDA, Agricultural Marketing Service (AMS) grades beef as whole carcasses in two ways: (1) quality grades for tenderness, juiciness, and flavor; and (2) yield grades for denoting the amount of usable lean meat on the carcass. The quality grades are Prime, Choice, and Select. Depending on weight at feedlot placement, feeding conditions, and desired grade, the feeding period can be 90 to 300 days.

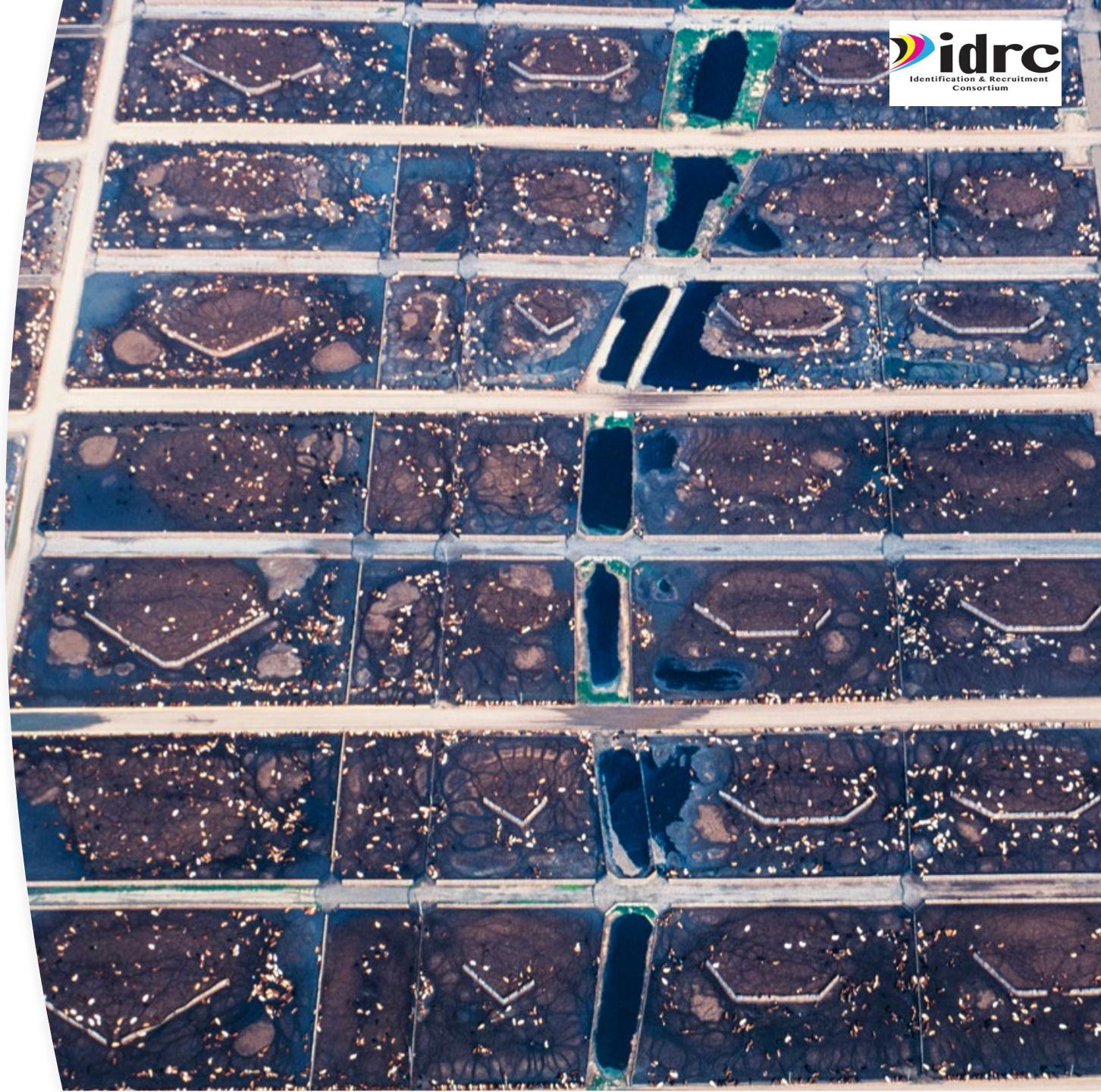
AVERAGE GAINS

- Average gain is from 2.5–4 pounds per day on about 6 pounds of dry-matter feed per 1 pound of gain. Although most of a calf's nutrients come from grass until it is weaned, feedlot rations are generally 70–90 percent grain and protein concentrates.



CATTLE FEEDING OPERATIONS

- Cattle feeding operations are concentrated in the Great Plains region and they are also located in parts of the Corn Belt, Southwest, and Pacific Northwest regions. Feedlots with less than 1,000-head capacity make up most of U.S. feedlot operations, but they market a relatively small share of the fed cattle.

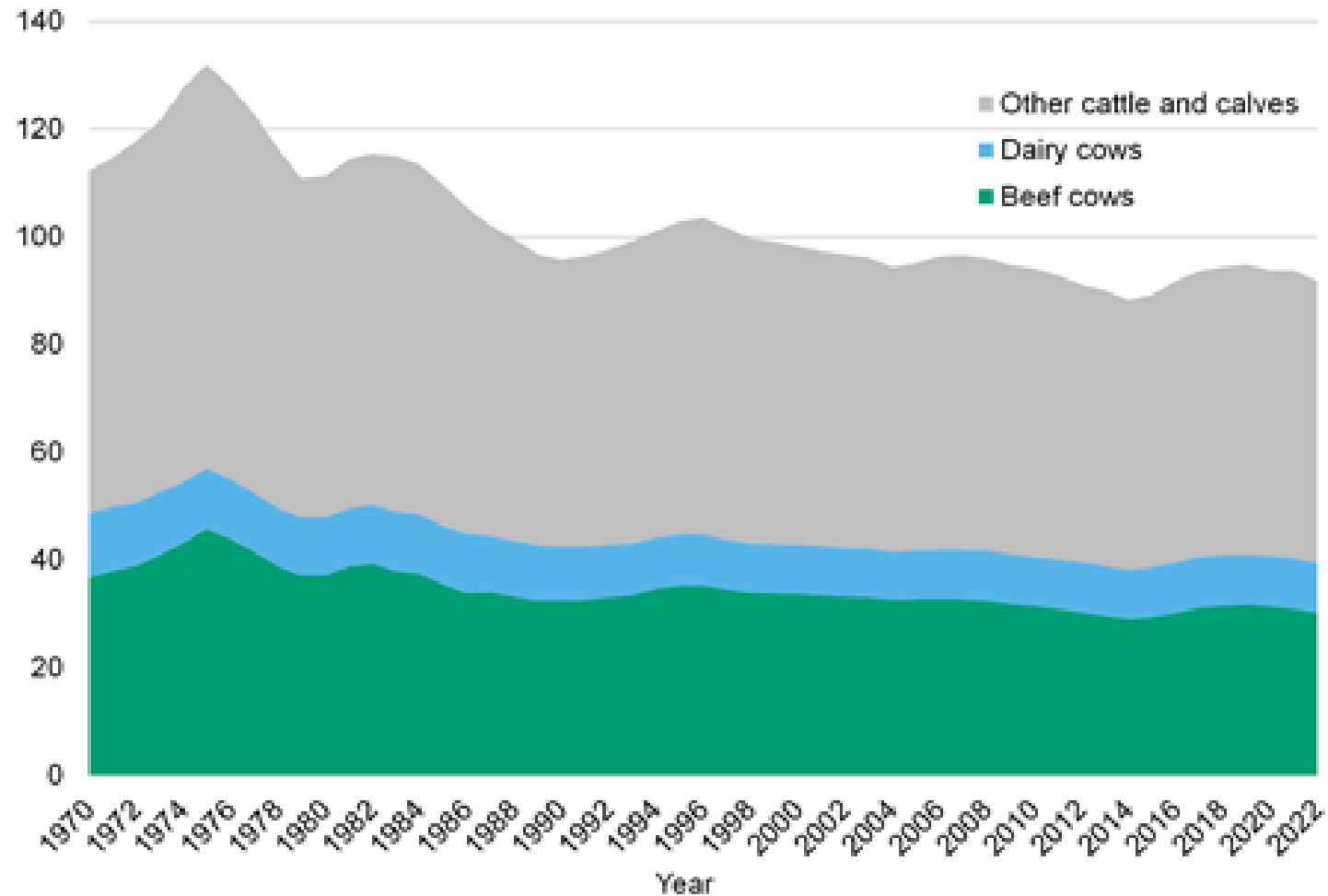


CATTLE FEEDING OPERATIONS

- Although feedlots with 1,000-head-or-greater capacity are less than 5 percent of total feedlots, they market 80–85 percent of fed cattle. Feedlots with a capacity of 32,000 head or more market around 40 percent of fed cattle. The industry continues to shift toward a small number of very large, specialized feedlots focused on raising a high-quality cattle for a particular market, such as markets requiring cattle not treated with hormones and not fed beta agonists. USDA, NASS provides monthly Cattle on Feed reports.

Figure 1. Cattle and cow inventories 1970–2022

Million head

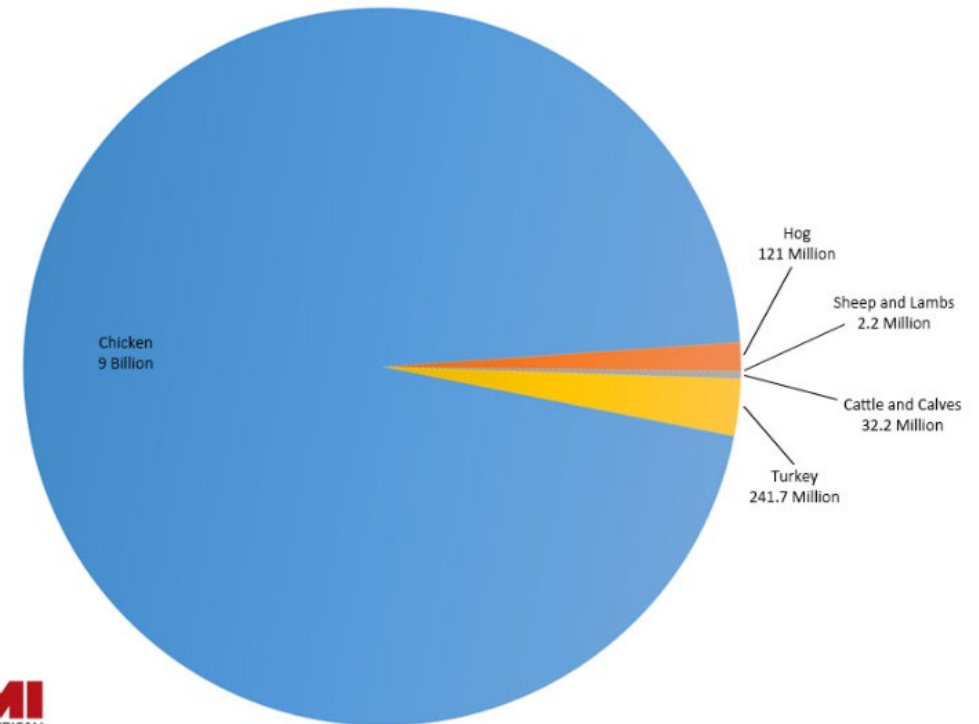


Source: USDA, Economic Research Service calculations using USDA, National Agricultural Statistics Service, Cattle report.

4 MAJOR TYPES OF LIVESTOCK

- The USDA classifies pork, veal, beef, and lamb (mutton) as livestock, and all livestock as red meat. Poultry and fish are not included in the category.

The U.S. Meat and Poultry Industry Processed:





U.S. Pork Exports

The U.S. produces 11% of the world's pork. In 2022, U.S. pork exports surpassed \$7.7 billion in value. In total, more than 2.5 million metric tons of pork was exported to other markets.

Source: USDA Foreign Agricultural Service

<https://porkcheckoff.org/markets/us-pork-exports/>

IOWA IS THE number one pork producing state in the U.S. and the top state for pork exports. Nearly one-third of the nation's hogs are raised in Iowa. Each year, Iowa farmers produce approximately 33 million slaughter hogs.

TOP LIVESTOCK AND POULTRY SLAUGHTERING STATES

Cattle - Nebraska, Kansas,
Texas, Colorado,
California, Wisconsin,
Washington,
Pennsylvania

Hog - Iowa, Minnesota,
Illinois, Indiana,
Missouri, Oklahoma,
Pennsylvania

Chicken - Georgia, Arkansas,
Alabama

Turkey - Minnesota, North
Carolina, Arkansas



HOG PRODUCERS

- The United States is the world's third-largest producer and consumer of pork and pork products. In recent years, the United States has been either the world's largest or second largest exporter of pork and pork products, with exports averaging over 20 percent of commercial pork production in most years. Currently, U.S. hog operations are heavily concentrated in the Midwest and in eastern North Carolina.





HOG PRODUCTION

Hogs are produced in three types of specialized enterprises:

- **Farrow-to-finish** operations raise hogs from birth to slaughter weight, about 240-270 pounds.
- **Feeder pig producers** raise pigs from birth to about 10-60 pounds, then generally sell them for finishing.
- **Feeder pig finishers** buy feeder pigs and grow them to slaughter weight.

CONFINEMENT PRODUCTION

- Most hog producers use some type of confinement production, with specialized, environmentally modified facilities. Confinement production allows year-round production by protecting hogs from seasonal weather changes, disease exposure, and predators. Manure collected from hog operations is typically spread as fertilizer on nearby cropland.



HOG CYCLE

- The biological hog cycle is longer than that of broilers, but shorter than for cattle. (The economic hog cycle refers to the peaks and valleys in hog inventories over time, while the biological hog cycle refers to the biological time lags involved in hog production.) A sow can produce an average of slightly more than two litters per year, each consisting of an average of nearly nine pigs. Production of hogs has consisted of five different phases: farrow-to-wean, feeder pig or nursery, finishing, breeding stock, and farrow-to-finish.



BIRTH TO BREEDING

- It takes about 32 weeks, from birth to breeding age, before a gilt (a female hog that has not *farrowed*—that is, given birth) is ready to reproduce. The reproduction process begins with the mating of a gilt capable of conception and a boar (male hog) or by artificially inseminating the gilt with semen from a desired boar. Once the gilt has been bred successfully, she will farrow an average of at least 10 piglets (young pigs) in approximately 16 weeks. A sow (adult female hog that has farrowed at least once) can be bred again shortly after pigs from the previous litter are weaned.



STAGES

In a farrow-to-finish operation, 22-26 weeks (starting at birth) are required to grow a pig to slaughter weight. Sows nurse their piglets for an average of 3 weeks before they are weaned (separated from the sow). This is the farrow-to-wean phase of hog production. Weighing about 10 pounds, the weaned pigs are either moved on to the next phase of production (known as wean-to-feeder pig) or they are shipped directly to finishing operations.



STAGES

Pigs in the wean-to-feeder pig phase are fed rations varying in protein content until they reach an average weight of about 40 pounds. From the feeder pig stage, the animals enter a finishing/feeding stage and remain there until they reach a desired slaughter weight of about 280 pounds. Operations of this type are known as the feeder pig-to-finish phase, or simply the finishing phase.



CHANGES TO THE INDUSTRY

- The U.S. hog industry has undergone significant structural changes in the last 40 years, the most important of which has been the rapid shift to fewer and larger operations. Since 1990, the number of farms with hogs has declined by more than 70 percent, as individual enterprises have grown larger. U.S. hog operations tend to be heavily concentrated in the Midwest—Iowa and southern Minnesota particularly—and in eastern North Carolina, but hog operations are also found in Oklahoma and in Texas.

CHANGES TO THE INDUSTRY

- Large operations that specialize in a single phase of production have replaced farrow-to-finish operations that performed all phases of production. The use of production contracts has increased. Structural changes have coincided with efficiency gains and lower production costs. Most of the productivity gains are attributable to increases in the scale of production and technological innovation.

JOBS WITHIN THE INDUSTRY BEFORE SLAUGHTER

Common qualifying jobs:

- Herdsmen
- Cowboy
- General Farm Hand
- Branding
- Castrating or Banding
- AI tech (beef cattle)
- Feeder
- Caretaker (various roles such as sorting animals, cleaning pens, providing vaccinations, etc.)
- Young stock care (calves, lambs, piglets)



TIPS TO REMEMBER WHEN RECRUITING WITH THIS INDUSTRY

- Biosecurity is important on many farms (especially with the pork industry).
- Facilities can look different based on location, type of operation, and species that are being raised.
- It is important to learn as much about each industry in your area to be able to ask informed questions to farm managers.



HOW TO FIND THIS INDUSTRY IN YOUR STATE

- Various certifications for farmers in the livestock industry are available through USDA and the Ag Extension Program.
<https://www.nifa.usda.gov/land-grant-colleges-and-universities-partner-website-directory>
- Using USDA census data under the Cattle and Calves; Hogs and Pigs; and Sheep, Goats, Wool, Mohair and Milk Sections to follow what counties in your state are the top producers. You can subscribe to your states reports.
- [https://www.nass.usda.gov/Publications/Subscribe to State Reports/index.php](https://www.nass.usda.gov/Publications/Subscribe%20to%20State%20Reports/index.php)