

Livestock

Raising cattle, sheep, and other domestic animals for meat and other uses

Much of what a person sees while driving through rural Montana east of the Continental Divide is rangeland—unplowed mixed-grass prairie used for grazing livestock, predominantly cattle. Rangelands are generally too arid, rocky, or steep to farm, but their buffalo-grass, western wheatgrass, and other protein-packed native prairie plants are ideal for domestic grazers.

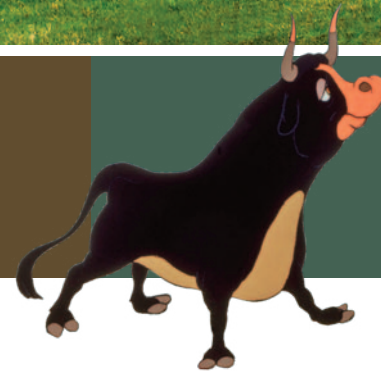
Foremost among those livestock are Montana's roughly 2.2 million beef cattle, the state's top livestock moneymakers. Montana ranks 13th nationwide in cattle numbers. Texas's 13 million head put the Lone Star State at number one.

The next most numerous livestock here are the roughly 225,000 hogs (mostly north-central Montana) and 180,000 sheep. Montana is not



Above: Cowboys round up a herd of black Angus, red Angus, and Charolais cattle near Cleveland, Blaine County. PHOTO BY TODD KLASSY

Left: Loading lambs onto a train car at the Lolo spur, 1937. PUBLIC DOMAIN. KENNETH D. SWAN, U.S. FOREST SERVICE



“Cow” is a generic name for bovines of all ages and genders. But technically, a cow is a female that has borne a calf, while a female that hasn’t given birth is a “heifer.” A castrated young male cow is a “steer.” An intact male is known as a “bull.”

a major hog producer, but the state ranks eighth in the nation for sheep numbers and is among the top 10 for wool production. The Treasure State also has about 15 billion honeybees that produce 7.5 million pounds of honey each year, making it one of the nation's largest producers.

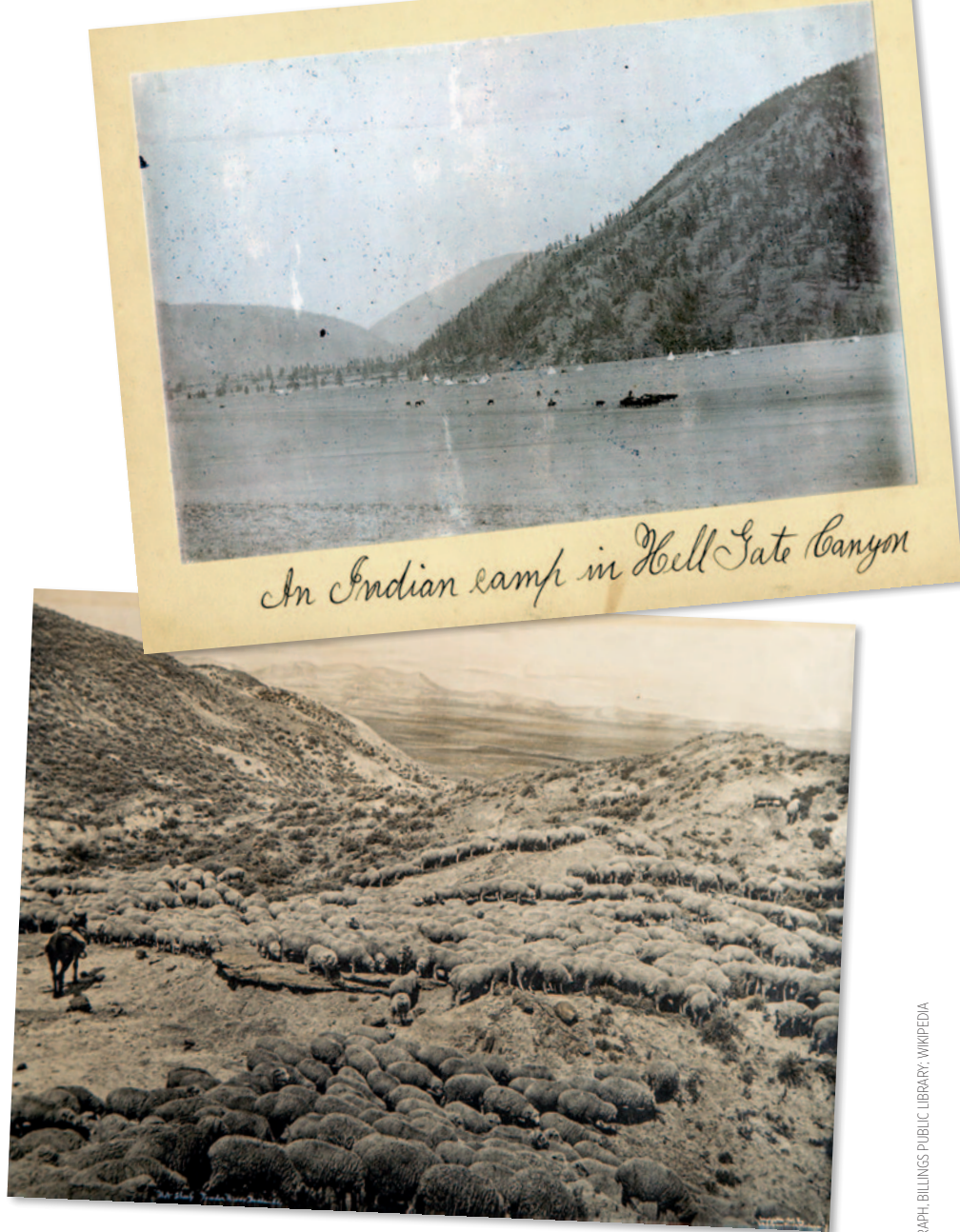
FLUCTUATING CONSUMPTION

Montana's livestock operations began in the early 1860s to provide meat for the growing number of prospectors, miners, and others drawn to newly discovered gold strikes at Bannack, Alder Gulch, and Helena. Over the next few decades, after bison herds were wiped out by market hunters and Indians were forced onto reservations, Montana's rich grasslands were converted to livestock operations.

Some cattle were longhorns driven north from Texas during the free range era, when grazing lands were there for the taking by both cattle and sheep operations. By the early 1900s, Montana had become the nation's top producer of wool, and in many parts of the state sheep dominated the landscape.

With the arrival of thousands of dryland farmers after the second Homestead Act in 1909, sheep ranchers had to reduce the size of their flocks because so much previously accessible land was fenced and deeded. Meanwhile, cattle operations grew, as ranchers bought up large tracts of rangeland in Montana (and nationwide), partly in response to higher beef prices during World Wars I and II.

As America's post-war economy boomed, so did beef consumption. But after peaking in the 1960s and '70s, beef sales began declining in response to changing consumer tastes.



Top: Cattle are herded past an Indian camp in Hell Gate Canyon, just east of Missoula, in the 1890s. By that time, bison had virtually been eliminated from Montana, opening grasslands to domestic livestock. Above: A herd of sheep graze sagebrush prairie in the Powder River region, 1907.

In the mid-1970s, the average American ate roughly 90 pounds of beef each year. That's down to about 55 pounds per person today.

Increased exports to China during the 2010s and advances in beef genetics and feed nutrition have helped the industry, but lingering drought and steep hay, energy, and land prices have forced many Montana ranchers to reduce the size of their herds.

Drought also hurts sheep ranchers, still reeling from the loss of government wool subsidies in the mid-1990s, the boom in synthetic fabrics, and cheaper imported lamb from New Zealand and Australia.

Almost all cattle in the United States, including Montana, are processed in indus-

trial slaughterhouses owned by four multinational corporations that greatly influence the prices paid for beef. Only a small amount of Montana beef returns to Big Sky Country restaurants and grocery stores.

A growing number of Montana cattle and sheep ranchers are trying direct-to-consumer sales, marketing their homegrown meat online and at farmer's markets and local restaurants.

Some locally owned meatpacking facilities operate in Montana, and a few processing cooperatives are in development as more consumers ask for locally grown meat. Some woolgrowers are raising Merino sheep and making their own high-end clothing lines from the strong, soft yarns.

CATTLE

Various cattle breeds raised in Montana originated in Spain, Scotland, England, France, Switzerland, India, and elsewhere and have benefited from cross-breeding to develop desired traits. By far the most numerous are black Angus, a hornless breed. Angus were originally a cross between the smaller Aberdeen Angus from Scotland and the larger Texas longhorn, a Spanish breed with a higher tolerance for drought. Black and closely related red Angus are popular with Montana ranchers due to a thick coat that allows them to survive cold weather, gain weight on less food, and produce well-marbled meat.

The occasional white-faced Angus, known as a baldy, is the offspring of a black Angus and a polled Hereford.

The polled Hereford is another hearty, thick-coated cow common to Montana. Originally from England, this rust-brown, white-faced bovine was bred to be hornless, or "polled," which makes it safer around ranch hands and other cattle. A "registered" polled Hereford has papers from the breed association, just as a purebred golden retriever might be registered with the American Kennel Club.

Other Montana beef cattle breeds are the Charolais, Simmental, and Limousin (all known as European breeds). Occasionally

you'll spot Highland cattle, distinguished by their long horns and thick, shaggy coats. Originally from northern Scotland, Highlands are unfazed by Montana's winter weather.

Cow-calf operations

Almost all cattle ranches in Montana are cow-calf operations, in which a permanent herd of mostly females is maintained to produce calves for sale each year. Every summer, bulls are bred with cows, timed so that calves will be born nine months later, between January and April.

Some ranchers prefer their cows to calve earlier so the young animals have a few more months to put on weight before being sold in October. But that risks cold, wet weather that can kill the newborns. Others prefer to wait for warmer weather, though the delay results in smaller calves come sale time.

When ready to calve, pregnant heifers (female cows that haven't yet borne young) are herded into smaller pastures next to a calving shed. There, out of the elements, ranchers and hired hands help with difficult deliveries that often take place with a heifer's first calf and provide straw beds for newborn calves.

Pregnant cows that have calved previously are often left on their own but checked daily for labor complications.

Newborn calves, after being licked clean



Most Montana ranches are "cow-calf operations" that sell the young cows to feedlots in October.



Black Angus



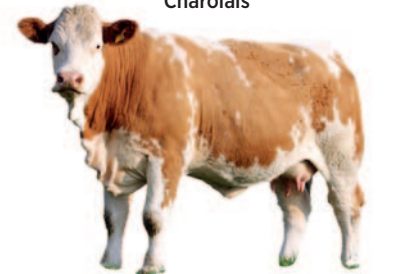
Red Angus



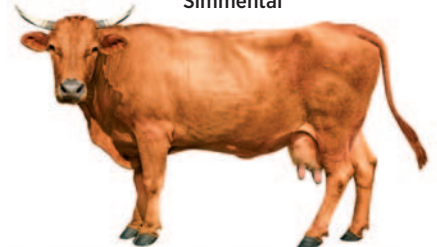
Polled Hereford



Charolais



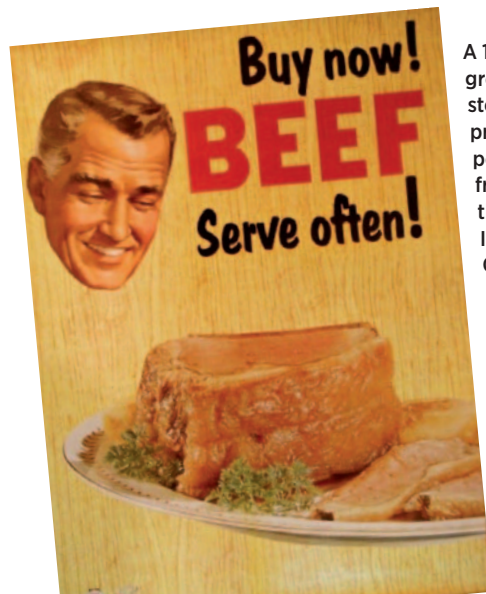
Simmental



Limousin



Highland



A 1970s grocery store promo poster from the Beef Industry Council

FROM TOP: OTTO SCHMIDT PHOTOGRAPHY; UNIVERSITY OF MONTANA MANSFIELD LIBRARY; L.A. HUFFERMAN PHOTOGRAPHY; BILLINGS PUBLIC LIBRARY; WIKIPEDIA; SHUTTERSTOCK

of mucus by their mother, usually stand within an hour and begin suckling in less than two hours. Calves drink milk during their first six or seven months, then “wean” (leave their mother) and transition to eating fresh forage.

A bull calf not destined for breeding is castrated and is then called a steer. Neutering makes steers more docile, and the lack of testosterone results in improved meat tenderness and marbling.

When grown, an “intact” (unneutered) male bovine is known as a bull. Bulls, which have much larger shoulders than cows and steers, are solitary and usually seen by themselves in a pasture. Cow-calf operations generally don’t keep bulls because they are an extra hassle to manage.

Forage and fodder

Feeding cattle is the biggest challenge and cost for ranchers.

The most economical way is to turn the animals loose on range or “pasture” (often native rangeland, plowed and planted specifically for livestock) to graze on plants, known as forage. Typically, cattle are turned out in late spring until late summer or early fall, either on private property, Montana State School Trust lands, or lands leased from the U.S. Forest Service or the Bureau of Land Management. Many Montana ranchers have far more leased acres, sometimes called “government land,” than privately owned land.

After crop harvest in August, some cattle are herded onto fields to eat spent grain, standing stubble, and other crop residue. In early fall, cattle are rounded up and the steers are separated from the heifers. Most cattle shipped for processing are steers, because ranches often keep the females to produce more calves.

Steers are generally shipped in fall by truck to feedlots in Nebraska, Kansas, or Colorado, where they are fattened on corn or barley for three to seven months before being sold for slaughter. Some ranchers overwinter their steers then run them on grass the following summer before selling them the next fall.

During winters with little snow, cattle can forage on range or pasture. But usually by January there’s so much snow on the ground that cattle need to be fed fodder—hay, silage, or supplemental food. Silage is harvested and chopped alfalfa, corn, or bar-

ley allowed to ferment and produce sugars and proteins that increase caloric content. Like trainers feeding athletes, ranchers constantly experiment with various types and combinations of winter fodder and supplements to get the right mix of protein and calories at the right time to their cattle.

“Grass-fed” beef means that a cow has grazed on grass for part of its life. Most cattle raised in Montana are grass fed and then shipped to stockyards to be grain finished.

“Grass-finished” generally means the cattle eat only grass and hay their entire lives. This beef is more expensive because it takes longer for a steer to reach ideal processing weight eating only grass and hay. A growing number of consumers are willing to pay the extra cost because they prefer leaner beef and like knowing that grass-fed cattle are typically subjected to less stress and fewer antibiotics because they aren’t trucked to crowded feedlots. However, some “grass-finished” cows are fed hay in feedlots, which can make the terminology confusing and even misleading to consumers. And some livestock scientists maintain that a varied diet that includes some grain is better for cow health than just grass.

Often discussed among both ranchers and chefs is beef marbling—visible fat lacing the red meat. More marbling results

in juicier, moister, and more tender and flavorful beef. USDA beef inspectors consider marbling when assigning quality grades: select (less marbling), choice, or prime (most marbling). Beef graded below select is made into hamburger.

Cool, fresh water is as important for cattle as food. A cow needs 10 to 20 gallons of water each day, depending on the time of year and whether it’s producing milk for calves. Ranchers “water” their cattle in streams, rivers, and small reservoirs called stock ponds, or from troughs and tanks filled by a well or water pumped from streams, rivers, or reservoirs. To prevent their cattle from trampling stream banks, urinating and defecating in streams, and silting trout spawning gravel, a growing number of ranchers are installing water tanks away from riparian areas. Keeping tanks and other water sources clear of ice and full of water in winter is a constant chore.

Moving cattle

The cowboy era romanticized in movie Westerns lasted only a few decades in the late 1800s, but ranches today still need to move cattle from one rangeland or pasture to another and round up livestock for branding or shipment. These days, some cattle “wranglers” ride four-wheelers or side-by-

TODD KLASSY



A herd of red Angus graze in the foothills of the Bear Paws Mountains near Chinook. Like the more numerous black Angus, this hardy, thick-coated breed is prized by ranchers for its well-marbled meat.



A wrangler herds black Angus in winter on a rural road near Toston, Broadwater County.

sides, which are easier to maintain than horses. But because so much terrain is inaccessible to vehicles of any type, many wranglers still move cattle on horseback, often wearing traditional chaps and silk bandanas.

Cattle wranglers are usually accompanied by working dogs, mainly border collies, kelpies, and heeler breeds. Collies and kelpies get out in front of cattle, while heelers nip at cows’ heels to keep them moving. Some cattle dogs are also household pets, but most spend their lives outdoors.

Seedstock operations

Though Montana is not among the top 10 cattle-producing states, it’s number one in the United States for the sale of black Angus bulls and is the nation’s top producer of other quality “seedstock,” or registered breeding cattle.

Cattle breeders, or registered breeders, produce purebred breeding bulls, bull semen, and heifers with desired genetic traits and sell them to cow-calf operations. This “seeds” better genetics with higher-quality, more profitable beef cattle.

Relatively small compared to most cow-calf ranches, breeding operations experiment by mating bulls and cows with different genetic traits to improve characteristics like heat tolerance, growth rates, calving ease, retail beef yield, and fat marbling.

Though breeders sell both male and female cattle, bulls are the most valuable. Because one bull can breed 10 to 20 cows per year, quality bulls are expensive. A Montana registered Angus bull sells for an average of \$9,000, compared to \$1,250 for a steer heading to a feedlot. Some registered bulls

that show impressive size and weight gain can sell for \$50,000 or more.

Dairy cattle

For much of the 20th century, western Montana was home to more than 100 dairy operations. Dairy cows thrived on the lush grass that grew in the Flathead, Bitterroot, and Swan valleys and other rain-blessed areas.

Today only about 50 dairy farms remain—many of them part of Hutterite colonies—and only a few dairies (milk processing plants) are still open.

The decline is due to rising costs of fuel and feed and declining milk prices. Dairy farming also requires a lot of labor, which is increasingly harder to find. Though the twice-a-day milking is now done by machines, which use a vacuum to draw milk from each teat, the devices must be hooked up to each cow by hand.

As a result of the economic squeeze, many small and mid-size dairy farms have sold to larger farms, dairy corporations, or housing developers. Though the number of dairy operations has declined, the total amount of milk produced in Montana over the past 20 years has remained stable, due to the cost advantages of larger operations.

Montana is unique among states in requiring that all milk be sold within 12 days of pasteurization, compared to the industry standard of 14 to 21 days. That means that almost all milk sold in Montana is produced by Montana cows and processing plants. It’s not cost-effective to ship milk from California and other top milk-producing states if it’s only available for a week or so in Montana grocery stores.

Branding

A cattle brand is an ownership mark that allows ranchers to differentiate their cows from their neighbors’. It also prevents theft.

Brandings occur throughout Montana in spring. Many are social events where family members and neighboring ranchers help out during the day before sitting down to a supper put on by the host family.

Typically, calves are branded with a red-hot iron that creates a scar on their flank or side shaped in a symbol or letter registered and owned by the rancher. This is the rancher’s proof of ownership.

Not all ranchers brand this way. Some use electronic tags. Others rely on plastic ear tags, though the tags can fall off or be removed and replaced by thieves.

Another option is freeze branding, which uses liquid nitrogen or dry ice to freeze a branding iron before it’s applied to the animal’s hide. Rather than burning the skin, freeze branding alters the pigmentation of hair on the branded area so that it grows back white in the shape of the brand and identifying numbers.

There are more than 53,000 different brands registered with the Montana Department of Livestock.



A cow with a small freeze brand

Historic Montana brand symbols



Most brands include capital letters or numerals, often combined with other symbols such as a slash, circle, half circle, cross, or bar. For instance, a bar over the letter S would be the Bar S brand. A circle around a B would be Circle B. A leaning letter or character is “tumbling.” A letter on its side is “lazy,” so the Lazy J brand is a J on its side. Short curved strokes or wings added at the top of the letter R, for example, make it a Flying R. Short bars at the bottom of a symbol makes it “walking,” and curved lines makes it “running.”

SHEEP

At one time there were more sheep than cattle in Montana, and the state was ranked number one in total number of animals and wool production.

But that was more than 100 years ago. Since then, the cattle trade has far surpassed the sheep industry. Still, Montana remains a major sheep wool and meat producer, ranking eighth in the nation for sheep numbers.

Most Montana sheep are raised east of the Continental Divide and bred to produce, in addition to wool and meat, milk products like feta cheese. Rambouillet, Targhee, polypay, and Merino sheep are raised for both meat and wool. Hampshire and Suffolk sheep are meat breeds that produce fast-growing lambs. Icelandic sheep are famous for their strong wool that is dyed, spun, and knit into thick sweaters.

The sheep year begins in fall when rams with specialized traits are brought in to mate with ewes, a process called “joining.” Five months later, in late winter or early spring, pregnant ewes are brought to lambing sheds where they bear one, two, or occasionally three baby lambs.

The “lamber,” a ranch hand, regularly checks pregnant ewes to make sure they are not having birthing difficulties, assists delivery if necessary, and tries to make sure newborn lambs survive. Ewes and their young are housed in a small pen known as a “jug,”

a small space separate but still near the flock where the mothers and their lambs stay warm and bond for a while before joining the others.

At about 80 days old, lambs are weaned and turned loose on pasture to feed with their mothers until September. Some weaned lambs are given grain or other supplemental feed to help them put on weight faster.

Ranchers keep some female lambs as breeding stock, but the rest, along with the male lambs, are sold to feedlots. There they are fed grain and hay to add weight before being sold for meat. Meat from animals younger than one year is called “lamb,” while that from older sheep is known as “mutton.”

Sheep will eat almost any type of grass or forb (wildflower), as well as weeds such as thistles, leafy spurge, spotted knapweed, and other invasive plants. Some operations lease their sheep to organic farmers, who can’t use herbicides without losing their certification, to graze down weeds.

Sheep bred for wool are sheared in early spring using electric clippers. The back-breaking work of shaving all of a sheep’s wool in one piece takes 3 to 5 minutes, depending on the shearer’s skill. Weighing roughly 8 to 12 pounds apiece, each fleece is then cleaned, combed (“carded”) with wire brushes to separate and straighten the fibers, sorted into piles based on fiber qual-

ity—the finer, the better—then baled for transport to a wool-processing plant to be spun into yarn and dyed. The colored yarn goes to a factory to be woven into sweaters, socks, blankets, upholstery, and carpets.

Oil (lanolin) from the wool is made into lotion. Sheepskin, often referred to as lamb-skin, is the pelt and fleece and is used to make bags and gloves, as well as rugs and car seat coverings.

Because sheep are vulnerable to attacks by coyotes, wolves, and bears, ranchers protect their flocks with 100-plus-pound guardian dogs such as Great Pyrenees, Anatolian shepherds, Maremma, and Akbash. Border collies and Australian shepherds are used to move and hold sheep.

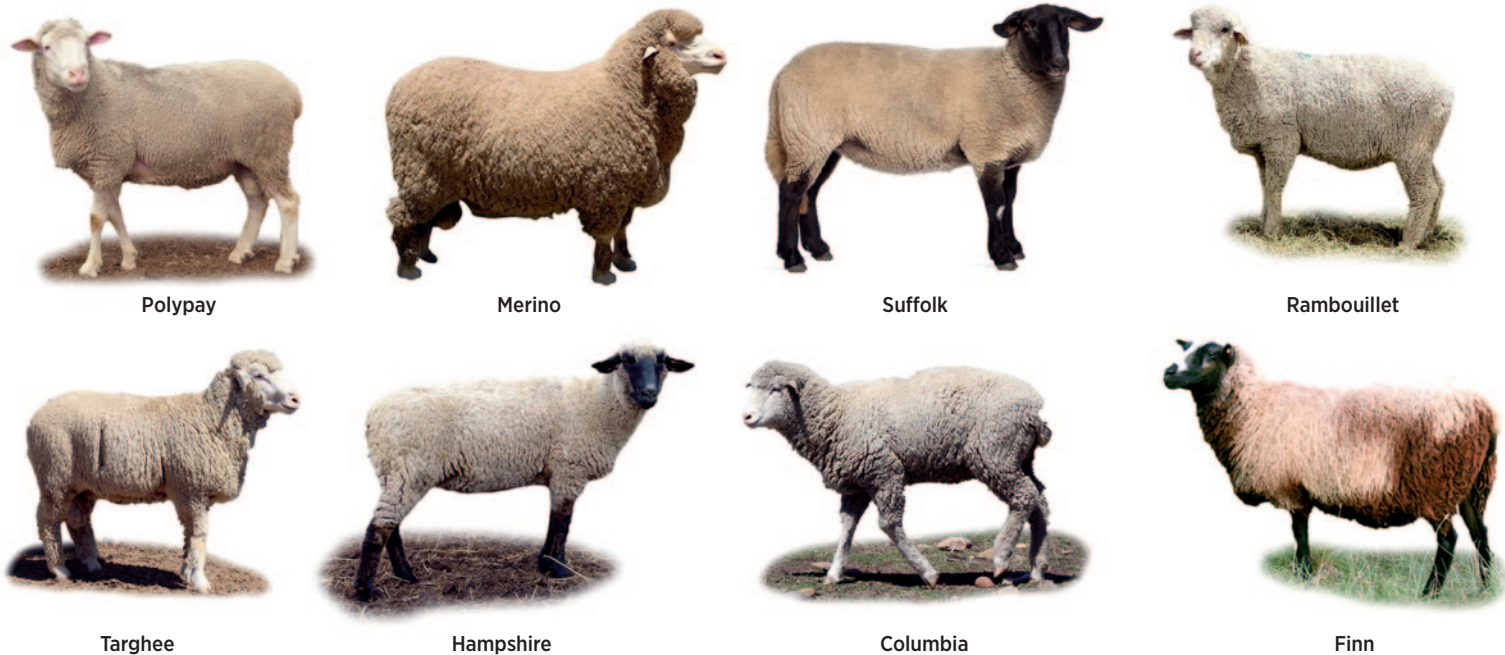
HOGS

Montana has roughly 225,000 hogs, putting it at roughly 23rd among states. The nation’s top hog producer is Iowa, with 23.5 million.

Hogs are raised for meat and by-products including heart valve replacements for humans and insulin for people with diabetes.

Most of Montana’s roughly 300 hog farms are small operations averaging about 50 hogs. Only a few dozen farms have more than 2,000 hogs. This differs from much of the industry elsewhere in the United States, where the trend has been fewer and larger operations that, while efficient, create severe air and water pollution.

SHUTTERSTOCK



Polypay

Merino

Suffolk

Rambouillet

Targhee

Hampshire

Columbia

Finn



A split rail fence on BLM land. Cattle may be here soon.

“Idle” land

Much land in rural Montana seems vacant, with no visible crops or livestock. Some is range-land owned and managed by the federal Bureau of Land Management or Bureau of Reclamation and leased to livestock producers, who have already grazed cattle there when you drive by or will do so later. Other seemingly abandoned lands are “fallow” fields—croplands plowed but then not planted for a year or two so the land can “rest.” This lets organic matter break down and enhance the soil while giving it time to retain moisture.



Auctioneers watch for bids at Holden Herefords near Valier.

Auction houses

Auction houses, or sales barns, are where cattle are bought and sold. Buyers include ranchers and feedlot operations. Increasingly, online sales systems allow people to buy and sell cattle by computer or cell phone, but many still prefer to see the animals in person.

Held weekly or every other week across the state, cattle auctions typically involve sellers bringing their cattle to designated corrals, where potential buyers can inspect the animals. Most auction houses also sell sheep and horses.



Billings Livestock & Public Auction Yards preparing for a horse sale.



Abandoned farmstead in northeastern Montana

Unoccupied farmsteads

The number of farms and ranches in Montana peaked more than a century ago, and people have been moving away ever since. The apex came during the second homestead era, with 58,000 farms and ranches in 1920. Today fewer than half that—27,000—remain.

The many abandoned farmsteads you drive past, often marked by densely planted windbreaks or old wind pumps visible from miles away, are signs of how hard it was and continues to be to make a living farming or ranching. Because profit margins are so slim, operators either had to “get big or get out,” and far more failed than “proved up.” These days, when Farmer Johnson retires and sells the land to Farmer Smith, that’s one less active farm in the county and one more abandoned homestead.

Most homestead buildings were pulled down and the land converted to crop fields. Some buildings still stand, unoccupied, with caved-in wooden sheds and glassless windows. A few even contain a satellite dish, indicating just how recently occupants moved away, maybe to be closer to town for medical facilities or a second job.

CLOCKWISE FROM TOP LEFT: SHUTTERSTOCK; PAUL QUENEAU; BLP; ERIK PETERSEN



FWP and livestock producers



Because FWP is responsible for conserving and managing large carnivores, the department works with ranchers to find ways to reduce livestock depredation. FWP wolf and bear specialists put up electric fencing, install fladry (flagging) around cattle and sheep corrals, participate in range rider programs, and help remove livestock carcasses that can attract predators.

Department biologists also work with ranchers to reduce contact between cattle and elk and the bison that exit Yellowstone National Park some winters. Both wildlife species can carry brucellosis, a disease that causes cows to abort.

Fisheries biologists work with ranchers to find ways to keep cattle away from riparian (streamside) areas, where livestock can damage vegetation, trample banks, increase siltation, and foul the water.

FWP staff also coordinate with wool growers to keep bighorns and domestic sheep apart so that pneumonia is not transmitted between herds and flocks.

Installing fladry to scare away wolves from a western Montana cattle ranch.

The hog reproductive process begins when a gilt (a female hog that has not given birth) is artificially inseminated with semen from a boar (uncastrated male) with desired characteristics, such as fast weight gain.

Pigs commonly farrow (give birth) to litters of 8 to 12 piglets in a small enclosure called a farrowing crate. This allows the 300-pound female to move—barely, in some industrial operations, and a fair bit on smaller farms—but not roll onto her tiny piglets, which weigh just 2.5 pounds at birth. A sow (a female that has borne young at least once) will produce two litters each year.

Piglets are weaned, or separated from their mother, at age three weeks in industrial operations but allowed to suckle up to six weeks on smaller farms. The baby pigs are then taken to a weaning barn and fed high-protein food. Pigs grow quickly, and after just six months, a pig weighs about 265 pounds and is shipped to a processing facility for slaughter.

Smaller operations often raise their pigs “from farrow to finish,” meaning from birth to butcher, and sell whole and half hogs as well as specialty cuts directly to customers.

Male pigs not kept for breeding are castrated at about two weeks old. This reduces aggression and prevents the “barrows” from developing “boar taint”—a stench in the meat found in intact adult males.

Hogs mainly eat feed made of grains mixed with mineral and vitamin supplements. Because Montana produces so much wheat and barley, those grains are favored by the larger operations here. Smaller farms often

pasture their hogs, feed them table scraps, and provide organic and other special feed.

The most popular swine breeds raised in Montana are Hampshire, Duroc, Yorkshire, Landrace, white China, Poland China, spotted, and Berkshire. These breeds are often crossbred to provide the best traits from each, but some farmers specialize in selling pork from purebred “heritage” hogs raised for their distinctive flavor.

HORSES

Horses have been part of people’s lives here since the 1700s. Indians adapted horses brought from Spain via Mexico for carrying tepees and food, hunting buffalo, and riding into combat. Homesteaders used them for pulling plows and for transportation, and wranglers rode horses to move cattle.

Some of today’s ranchers still raise horses along with their cattle and sheep. Native American ranchers have long preferred raising horses over cattle, and today you will see large herds on any reservation.

Roughly 130,000 horses are registered with breed associations in Montana, and thousands more are unregistered.

Breeds in Montana include quarter horses, appaloosas, Arabians, paints, Morgans, thoroughbreds, Tennessee walkers, miniature horses, Norwegian fjords, mustangs, warmbloods, Shetland ponies, Andalusians, paso finos, and draft breeds like Percherons, Clydesdales, and Belgians.

Quarter horses are a favorite with ranchers because they are easier to maneuver

when moving cattle and learn cow behavior quickly. They’re also raced competitively, usually at shorter distances—often a quarter-mile, thus the name. Paint horses are prized for their even temperament. Draft horses are used for pulling equipment or other heavy loads. Thoroughbreds are bred for jumping and racing over longer distances, like the 1.25 miles run at the Kentucky Derby.

Most horses these days are kept as companion animals or used only for day riding, carrying camping gear into the backcountry, or packing out an elk from the mountains. But some ranchers still use horse teams to pull hay wagons in the winter to feed cattle or ride horses to gather and move cattle between pastures.

Domestic horses eat grass most of the year and are fed hay, grain, and pellets in winter. They also require a lot of water, drinking about 10 gallons each day in summer.

The two parts of a horse requiring the most care are its hooves and teeth. Most horses get their hooves trimmed and a new set of horseshoes every few months to protect the hooves from hard surfaces. Horses wear down their teeth by chewing feed from side to side rather than up and down. This can create sharp points that make it hard for a horse to eat. A veterinarian uses a large file called a “float” to smooth the points. 🐾

SHUTTERSTOCK

Opposite page: Three cowboys ride quarter horses out to a corral at the base of Bird Tail Butte to begin herding cattle in Cascade County.



Hutterite colonies

Hutterites are German-speaking farmers and ranchers. Like the Amish and Mennonites, with whom they share similar origins, they are Anabaptist Christians, meaning they believe their members should not be baptized until they can freely choose to do so as adults. Hutterites live and work communally, share possessions, and follow strict religious commitments.

Their colonies are usually visible from miles away as a large collection of tall steel sheds and grain bins.

Named after Jakob Hutter, their 16th-century founder, Hutterites have suffered persecution for much of their history. Originating in Tyrol, Austria, they sought refuge in Moravia, Romania, and Ukraine. In the 1870s they came to the United States to escape conscription into the Russian army, which was contrary to their pacifist beliefs. In this country they were persecuted during World War I for the same reason, and many fled to Canada’s prairie provinces. Starting in the 1930s, families moved back south into the Dakotas and Montana. Today the Treasure State is home to roughly 50 of the 450 colonies in the United States and Canada. Montana Hutterites frequently travel to Canada to visit friends and relatives, and cross-border marriages are common.

Each colony typically consists of 10 to 20 families, around 60 to 150 people, living in modest apartments. When the colony’s population nears the upper limit and its leadership determines that branching off is economically and spiritually necessary, additional land is purchased and some members volunteer to establish a new “daughter” colony.

Hutterites do not shun modern technology but often limit some uses. For instance, they widely use cell phones for business and social purposes but not TV or, in some colonies, the internet.

Hutterites dress in distinctive but conservative clothes of sturdy fabric, which they make themselves. This reflects an acceptance of traditional gender roles, modesty, communal identity, and separation from the ever-changing fashions of the world. Men generally wear black trousers held up by suspenders and black wide-shouldered jackets over a button-down long-sleeve shirt. Women favor a capelike jumper over a blouse and a cap or other head covering. Unlike the uniformly plain dress of the Amish, the clothing of Hutterite women can be brightly patterned. Colorful eyeglasses are also a way that some colony members, especially young women, express their personality.



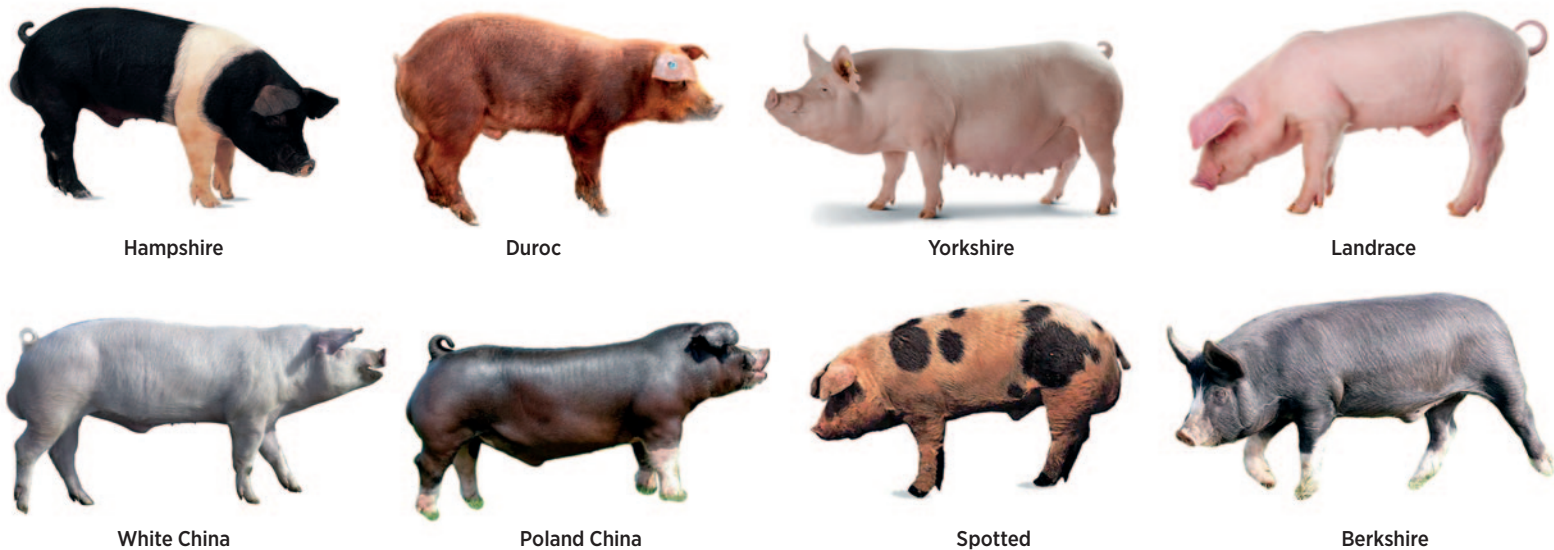
Above: Martinsdale Hutterite Colony in Wheatland County, which once had the state’s largest wind farm. Below: Hutterite women pose for a photo.



Among themselves, Hutterites speak a distinct dialect of German known as Hutterite German, or Hutterisch. In their religious exercises, they use a classic Lutheran German, and in relations with the outside world they speak English.

Hutterites favor diversified agricultural operations. A single colony will often grow wheat, barley, and alfalfa; raise cattle, sheep, hogs, chickens, ducks, turkeys, and geese; and sell milk, eggs, vegetables, and honey.

Montana’s colonies contribute significantly to the state’s economy. Like all property owners, Hutterites pay state property taxes and state and federal corporation income taxes and excise taxes.





Hex signs and barn quilts

In Meagher County, the Bitterroot Valley, and a few other areas, you might spot hex signs or barn quilts adorning fences and farm buildings. Hex signs, of Pennsylvania Dutch origin, consist of a star motif inside a circle. Barn quilts, an Americana folk-art staple, are simple geometric quilting patterns painted on wood.

Both colorful displays are meant to beautify farms and ranches, pay homage to the owners' Dutch or German heritage, or both.

Quilt patterns on a ranch near White Sulphur Springs.

Beehive boxes

It's common to see several dozen wooden boxes—usually white but occasionally painted different colors—stacked in a field, sometimes surrounded by a solar-powered electric fence to deter bears. These are beehive boxes, and a grouping of them is known as an apiary or bee yard, usually located in fields near flowering crops or native plants.

Inside are European honeybees, a non-native insect introduced to North America by English settlers in the late 1600s. European honeybees pollinate alfalfa, vegetable crops, and native forbs, flying from one plant to another carrying dust-like pollen on their bodies. They also produce honey and beeswax.

Hundreds of Montana's native insect species, including native bees, also are important for crop pollination.

Inside the beehive boxes are vertical frames on which bees construct their honeycombs of wax, secreted from glands on their body. Bees produce honey from plant nectar and store it in the hexagonal cells of the honeycombs.

Montana is a major beekeeping state, with roughly 650 registered beekeepers statewide who manage 280,000 registered colonies spread across about 6,600 locations. In addition to using bees for honey production and local crop pollination, most beekeepers "rent" their apiaries to other states' farmers for pollination. Roughly 90 percent of Montana's honey bees are trucked to California each year to pollinate almond and citrus trees, and some go to Washington, Oregon, and Idaho to pollinate apple, cherry, and other fruits. before being returned in the winter.

Some landowners raise their own bees, but most apiaries are owned by beekeepers who get permission to set up the bee boxes.

Top right: Beehive boxes in the Highwood Mountains, Chouteau County. Right: A beekeeper pulls a frame filled with honey out of a beehive box.



Fencing

Most rural fences exist to mark property boundaries and prevent livestock from going where they shouldn't.

By far the most common fencing is five-strand barbed (sometimes called "bob") wire. It's relatively easy and cheap to install, and it does a good job of containing cattle.

Invented in the late 1800s, barbed-wire fencing transformed Montana and other western states from lands of open range to demarcated private properties, ending the era of long-distance cattle drives romanticized in Western movies and novels.

Barbed-wire consists of two lines of galvanized wire pulled tight around regularly spaced barbs. It's sold in rolls, and the wire is strung on posts spaced 8 to 10 feet apart. Metal posts are pounded into the ground with a heavy iron two-handled "post driver," while wood posts require holes drilled by a backhoe with an auger attachment.



Barbed-wire



Woven-wire



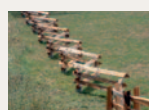
Post and rail



Split rail



Buck and rail



Worm

Another type of wire fence is **woven-wire** or sheep fence, constructed of both horizontal and vertical wires to create a grid of 8-inch squares. It's designed to contain sheep, which can slip under or through barbed-wire fence. The Montana Department of Transportation also installs 8-foot-tall woven-wire fencing along portions of highways to keep wildlife off the road or funnel animals toward safer crossings.

Wooden fences are more expensive and labor-intensive than wire. The most common types are

- **post and rail:** two vertical rails between posts dug into ground;
- **split rail:** made of rough-hewn timber logs split lengthwise into rails that rest in holes in the posts;
- **worm** (also called zigzag and snake): used in especially rocky or wet soil where post holes aren't feasible. The zigzag structure keeps the rails from toppling over; and
- **buck and rail** (jackleg): a series of two poles in an "x" pattern (the buck) onto which are hammered rails running parallel to the ground.

Bluebird boxes

Bluebird boxes can be seen nailed to wooden fence posts across western and central Montana. Many were built and installed by the Ronan-based Mountain Bluebird Trails.

Montana is home to three bluebird species: mountain, western, and eastern. Numbers of all three declined in Montana following the invasion of starlings and English sparrows from Europe, which muscled the native birds from their homes. Declines increased as people removed dead trees—bluebirds nest in the cavities—to build homes or to "beautify" the countryside.

In the mid-1970s, concerned Montanans formed Mountain Bluebird Trails, a group that has built and maintained thousands of nesting boxes that have produced several hundred thousand bluebirds. Many other boxes are put up by conservation-minded landowners who love seeing bluebirds.



Frame and wheels from an old farm wagon near Clyde Park.

Old farm machinery

Farmers often keep old tractors, plows, rakes, trucks, and other farm machinery around for parts or as reminders of when their parents or grandparents used the rudimentary machinery. The old devices are often a source of pride, like a hunter hanging Grandpa's old Winchester model 94 over the mantel, or a knitter displaying Great Aunt June's antique spinning wheel.

License plates

Montana vehicles display a dizzying number of different license plates. A few bits of information to help drivers "read" those metal rectangles:

Numbers: Standard Montana passenger plates include a number followed by random letters. The numbers correspond to counties and are roughly based on the population during the 1930 census. For instance, 1 is Silver Bow County, which was not the most populous county at the time but had the most political clout. Here is a full list of Montana counties and corresponding license plate numbers.

Code	County	County Seat	Code	County	County Seat
1	Silver Bow	Butte	29	Rosebud	Forsyth
2	Cascade	Great Falls	30	Deer Lodge	Anaconda
3	Yellowstone	Billings	31	Teton	Choteau
4	Missoula	Missoula	32	Stillwater	Columbus
5	Lewis and Clark	Helena	33	Treasure	Hysham
6	Gallatin	Bozeman	34	Sheridan	Plentywood
7	Flathead	Kalispell	35	Sanders	Thompson Falls
8	Fergus	Lewistown	36	Judith Basin	Stanford
9	Powder River	Broadus	37	Daniels	Scobey
10	Carbon	Red Lodge	38	Glacier	Cut Bank
11	Phillips	Malta	39	Fallon	Baker
12	Hill	Havre	40	Sweet Grass	Big Timber
13	Ravalli	Hamilton	41	McCone	Circle
14	Custer	Miles City	42	Carter	Ekalaka
15	Lake	Polson	43	Broadwater	Townsend
16	Dawson	Glendive	44	Wheatland	Harlowton
17	Roosevelt	Wolf Point	45	Prairie	Terry
18	Beaverhead	Dillon	46	Granite	Phillipsburg
19	Chouteau	Fort Benton	47	Meagher	White Sulphur Springs
20	Valley	Glasgow	48	Liberty	Chester
21	Toole	Shelby	49	Park	Livingston
22	Big Horn	Hardin	50	Garfield	Jordan
23	Musselshell	Roundup	51	Jefferson	Boulder
24	Blaine	Chinook	52	Wibaux	Wibaux
25	Madison	Virginia City	53	Golden Valley	Ryegate
26	Pondera	Conrad	54	Mineral	Superior
27	Richland	Sidney	55	Petroleum	Winnett
28	Powell	Deer Lodge	56	Lincoln	Libby

Standard plates: Montana offers several standard plates. The most current, first issued in 2010 (right), features a white state outline, numbers, and letters on a blue background. Drivers can also request any of the older styles shown here:



Sponsored plates: Montana offers roughly 235 different specialty plates sponsored by nonprofit organizations. Every two years, plates that are not generating money are removed from the lineup and a few new ones are added. The plates generate more than \$5 million for nonprofits each year.



FROM TOP: LIKE DURAN; CRAIG & LIZ LARCOM; SHUTTERSTOCK; FENCE PHOTOS; SHUTTERSTOCK; SHUTTERSTOCK; AUGUSTINE DURAN; LICENSE PLATE PHOTOS; WIKIMEDIA; COMMONS