

The Secret Life of Beef: The Quiz!



1) What country consumes the most beef?

- A) China
- B) India
- C) Brazil
- D) The United States

2) What country produces the most beef?

- A) The United States
- B) Brazil
- C) Argentina
- D) China

3) How long does it take for McDonalds to sell 10 pounds of beef around the world?

- A) Less than one second
- B) One minute
- C) Five minutes
- D) Nearly an hour

4) What is the primary source of water pollution in the United States?

- A) Chemical contamination from oil spills, pesticides, etc.
- B) Waste from the meat industry
- C) Waste from the transportation industry
- D) Waste from the energy industry

5) If Americans stopped eating meat just one day a week, it would be the same as removing how many cars from the road?

- A) 500,000
- B) 4 million
- C) 8 million
- D) 20 million



6) What percentage of antibiotics is given to livestock in the US?

- A) 10%
- B) 30%
- C) 50%
- D) 70%

7) How many tons of grains are needed to produce a single ton of beef?

- A) 1 ton
- B) 4 tons
- C) 7 tons
- D) 10 tons

8) How many people could be fed by all the grain that goes into feeding US cattle (US population \approx 310 million)?

- A) 100 million
- B) 310 million
- C) 590 million
- D) 800 million

9) The average pound of beef travels how far from farm-to-fork?

- A) 1,500 miles
- B) 1,000 miles
- C) 2,000 miles
- D) 250 miles

10) How many tons of carbon (per hectare, per year), do the world's rainforests store?

- A) 1
- B) 10
- C) 15
- D) 50



The Secret Life of Beef: The Answers

- 1) **D:** Even though both countries outnumber the United States 3-to-1 in terms of sheer population, neither China nor India can compete with the US in terms of meat consumption. According the 2010 Census the US actually eats more beef than China and India combined, and eats more than all the nations of the European Union put together. If every citizen of the world ate as much beef as the average American, it would take five planet Earths just to sustain the number of cows needed.
- 2) **A:** The answer is still the US, but just barely. The US produced 12,000 metric tons of beef and veal in 2009, about 2,000 more than Brazil. And due to economic conditions it is thought that several South American countries will overtake the US in the coming years. Unfortunately, Brazil's rank of second on this list indicates that much of the Amazon rainforest has been lost due to land being cleared for cattle pastures. These rainforests are home to more species than anywhere else on the planet, and the resulting loss of biodiversity and potential extinctions will have a severe environmental impact.
- 3) **A:** They aren't a Fortune 500 Company for nothing; McDonalds sells over 11 pounds of beef every second. According to the American Journal of Preventative Medicine, McDonalds sells 75 hamburgers every second, with an average weight of 2.4 oz. This staggering number comes out to 11.25 pounds per second.
- 4) **B:** In the wake of the recent oil spills and with all the pollution emitted by the transportation sector, the temptation may be to answer (a) or (c). However waste generated by livestock flows into rivers and is eventually washed out into larger bodies of water. The nutrients in animal waste lead to algal blooms, which decrease the amount of dissolved oxygen in the water. This helps create "dead zones," or areas of ocean where massive amounts of fish die due to the lack of oxygen. This process is thought to be a major contributor to the dead zone in the Gulf of Mexico, which is thought to be 7,000 square miles in size.
- 5) **C:** Believe it or not, the answer is actually eight million cars. If Americans cut their meat consumption by one-seventh, fewer animals would be raised by the livestock industry. The total amount of carbon dioxide and methane produced by raising cattle would be cut by what amounts to eight million American cars. The transportation of the meat, the transportation of the feed for the meat, and other related energy costs mean that the dread climate change gas carbon dioxide is strongly tied to the beef industry.
- 6) **D:** Part of the reason for this is that cows are fed corn so that they grow fatter and meatier. However corn is not a natural part of a cow's diet, meaning they need antibiotics to help break it down. Another drawback of the increased use of these drugs on cattle is that it is wiping out bacteria in cows. While that may seem like a good thing, the few bacteria that remain alive become immune to even our strongest medicines. This creates an effect known as "multiple drug resistance," which leads to stronger, more deadly diseases in humans and cattle alike.
- 7) **C:** 7 tons of grains are needed for the average ton of beef. Except in the cases of free-range cattle, cattle that are allowed to roam free and eat predominantly grasses, most cattle eat corn and beans. In the case of Concentrated Animal Feeding Operations (or CAFOs), cows are housed in overpopulated warehouses and fed until they are fat enough to produce enough meat. Unfortunately this creates a negative net loss, we feed cattle to feed ourselves when in reality we could have almost five times as much energy if we just ate the original grain products.
- 8) **B:** It's another tough "what-if?" to face, but if cows were made to eat only grass than the soy, corn, and other grains could feed an extra 800 million people. Just imagine what that would do for world poverty and starvation statistics. Of course if cattle only ate grass than more land would be needed for grazing, but even cutting the amount of feed (or the number of beef consumed) could put a huge dent in this amount of wasted food.
- 9) **A:** Any idea of where the nearest farm to your house is? The average pound of beef travels approximately 1,500 miles before it gets to a restaurant. This number isn't helped by the fact that the US must import a large quantity of beef to keep up with it's demand, or that fast food restaurant supply themselves from farms that are mostly located in the mid-West United States. Whatever the reason, that's a lot of greenhouse gas emissions that are the direct result of the meat industry.
- 10) **C:** With every bit of forest that is chopped down we lose 15 tons of carbon per hectare. That all goes into the atmosphere, where it helps increase the greenhouse leading to global climate change. The forests (and the oceans) act as a carbon sink, and if we lose that sink the pastureland for cattle, it could be game over for halting the environmental change on Earth.