

Wagyu 101



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What is Wagyu Beef?

- Wagyu means ‘Japanese Cattle’.
- Each prefecture (state) believes its own line of Wagyu is superior.
- In Japan, superior sires (bull) or dams are closely guarded to make sure genetics do not leave their prefecture.



What is Wagyu Beef? (cont.)

- Export of Wagyu genetics was not supported by Japanese cattle breeders.
- Export protocol established in 1960's allowed 4 head of bulls to be exported to U.S. in 1976.
- Because of the protocol, the Japanese government could not stop the exportation of Wagyu genetics, even though they had been referred to as a national treasure by the Japanese government.
- Wagyu genetics entered the U.S. and are now available to sire and produce Wagyu beef.

What is Kobe Beef?

- In Japan, the word Kobe has no meaning other than as a reference to the Kobe region.
 - Region produces significant amount of Japanese beef, much of it is Holstein Wagyu-cross, still large volume of Wagyu produced.
- Japanese beef trade talks about specific genetic lines of Wagyu from various prefectures.

What is Kobe Beef? (cont.)

- Port of Kobe was one of the main ports in Japan that allied soldiers passed through.
- Americans did not know names of various lines of beef, referred to beef as “the beef I ate while I was in Kobe, Japan”.
- In the eyes of the allied soldiers, Japanese beef, regardless of the prefecture, quality, etc., was all Kobe Beef.

What is Kobe Beef? (cont.)

- Consensus quickly developed that when it came to flavor and tenderness, Japanese beef was the best.
- Beef was a luxury of the armed forces and Japan's hospitality industry.
- Just in the last 20 years, Japanese consumers have had the opportunity to participate in eating high-quality Japanese beef.
- It should be noted that the Japanese still consume only 3-5 ounces per serving and the consumption of Wagyu steak and prime rib in Japan, is not often experienced, even in today's society.

Cattle Cycle

- Wagyu genetics are used on ranches as well as with top cow-calf producers throughout the U.S. who participate in Satellite Herd Programs.

- Commercial breeders around the country use Wagyu bulls or semen from bulls that have been certified as acceptable for their program:
 - All herds are on herd health program
 - All cattle raised in humane manner without use of growth promoting hormones
 - Producers agree to maintain principals of satellite sustainable agriculture

Cattle Cycle (cont.)

- Calves are usually contracted at the time of conception and then are given an expected date they will be delivered.
- Cattle need to maintain a minimum quality and be delivered in a healthy form.
- Cattle are then put into a feedlot and fed 100% vegetarian, corn-based diets containing no animal bi-products.
- Feedlots have the capability of certifying all natural diets for the cattle.

Cattle Cycle (cont.)

- Individual animals are given ID numbers that track them back to the ranch.

- Their health is tracked through the process to include:
 - Feed consumption
 - Days on feed
 - Rations
 - All pertinent information in regard to animals' feeding period

- Cannot put quality into Wagyu Beef on short feeding program, standard to the U.S. commercial program, it usually takes an additional 2-4 months, maybe longer.

Raising Calves

- From a commercial cow-calf producer's point of view, the number of pounds produced by a Wagyu calf on a per cow basis is inefficient compared to other Angus-type breeds.
- Takes a premium price being paid for the calves to make the raising of Wagyu beef economically viable.

Beef Production

- It is only with Wagyu genetics that cattle can consistently reach a USDA prime grade and higher.
- Wagyu calves gain weight at a slower rate than commercially bred cattle—takes longer to get Wagyu cattle to the average final commodity harvest weight of 1250 lbs. per head.
- Do not feed cattle to 1700-2000 pounds.
- Every animal should be harvested under 30 months of age—ensures beef will always be at its most tender and fresh state.

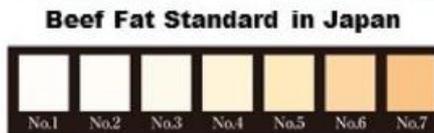
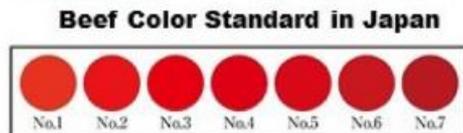
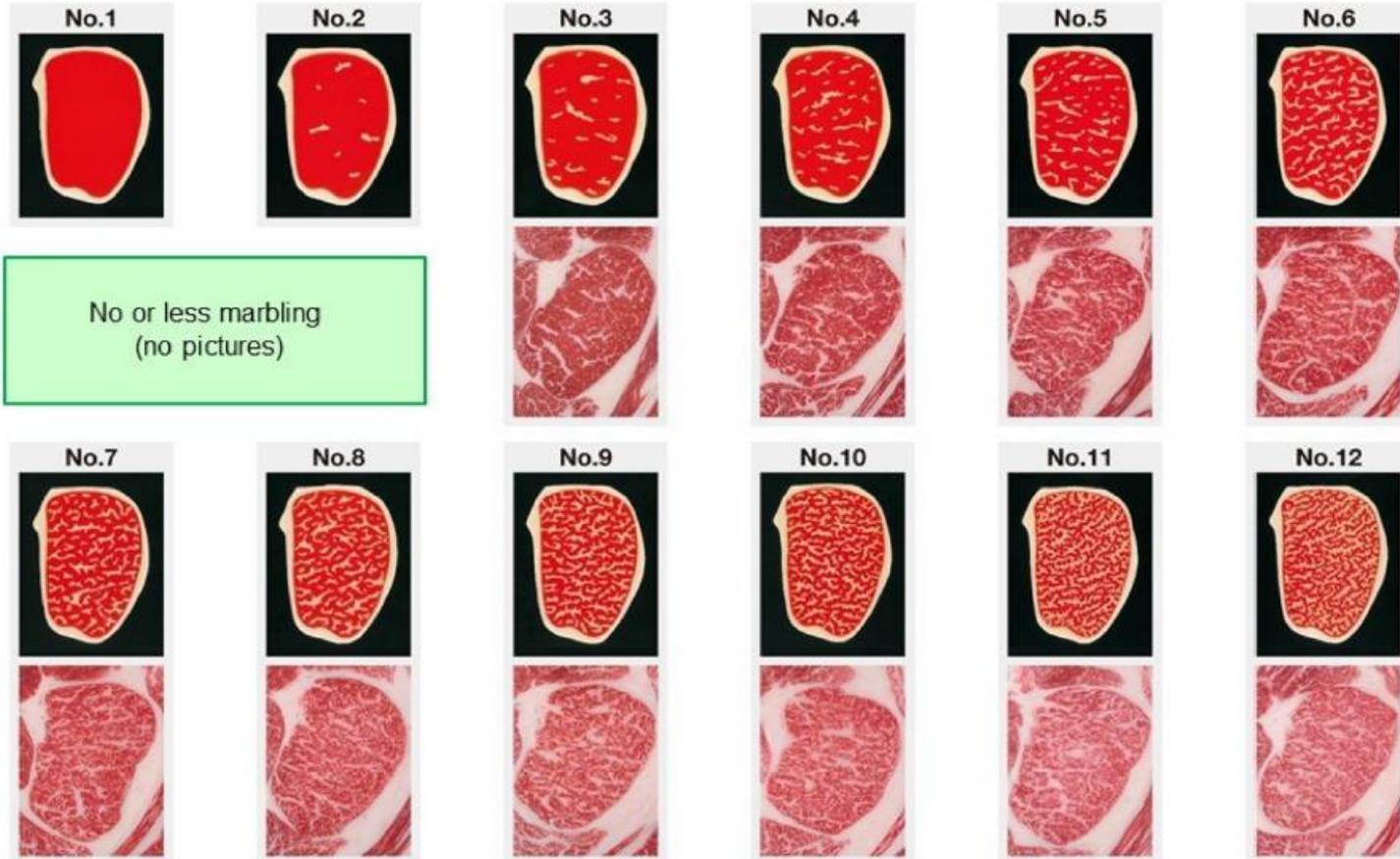


Japanese Grading

- Japanese have 12 grades for marbling, 7 grades for meat color, 7 grades for fat color, and 5 grades for meat texture.
 - Kobe Style grade is made up of BMS 8 or better in marbling which would be a higher grade of marbling than the USDA has in their grading system.
 - Highest grade of USDA prime beef would be somewhere from BMS 5 to 7, using Japanese grading standards.
- In addition, they have a yield grade system with the highest grade being A5 (comparable to USDA yield grade 4 and BMS score of 10 or better in marbling).

Japanese Grading (cont.)

Beef Marbling Standard in Japan



Public interest incorporated association

Japan Meat Grading Association

Japanese Grading (cont.)

- Each time you increase the grade by one point you increase the marbling by ~5%.
- The difference in eating quality between a BMS 5 and 8 is usually not noticeable to the consumer.
- Carcasses graded 8 and above in Japan are not normally put into steak form but rather in small 3-5 ounce portions.
- A typical Japanese method of preparing highly marbled Wagyu beef is to put it in boiling water and then dip it in peanut or soy sauce.

Eating Quality

- Tenderness and marbling traits of cattle come from different genes that have been identified as being associated with how much marbling is created and others have been identified as affecting tenderness.
- In Angus-type cattle, marbling and tenderness genes are not necessarily possessed by the same animal (could have highly-marbled Angus-type cow that is not tender).

Eating Quality (cont.)

- Flavor research from the University of Melbourne, Australia¹
 - Striploins from Angus grass-fed yearlings (5.2–9.9% intramuscular fat), Angus grain-finished steers (10.2–14.9% IM fat), and Wagyu grass-fed heifers (7.8–17.5% IM fat) were evaluated.
 - Tenderness and juiciness increased with the marbling level.
 - Unsaturated fatty acids with potential health benefits (vaccenic, oleic, and rumenic acids) increased with the level of marbling.

¹Frank et al. J. Agric. Food Chem. (2016)

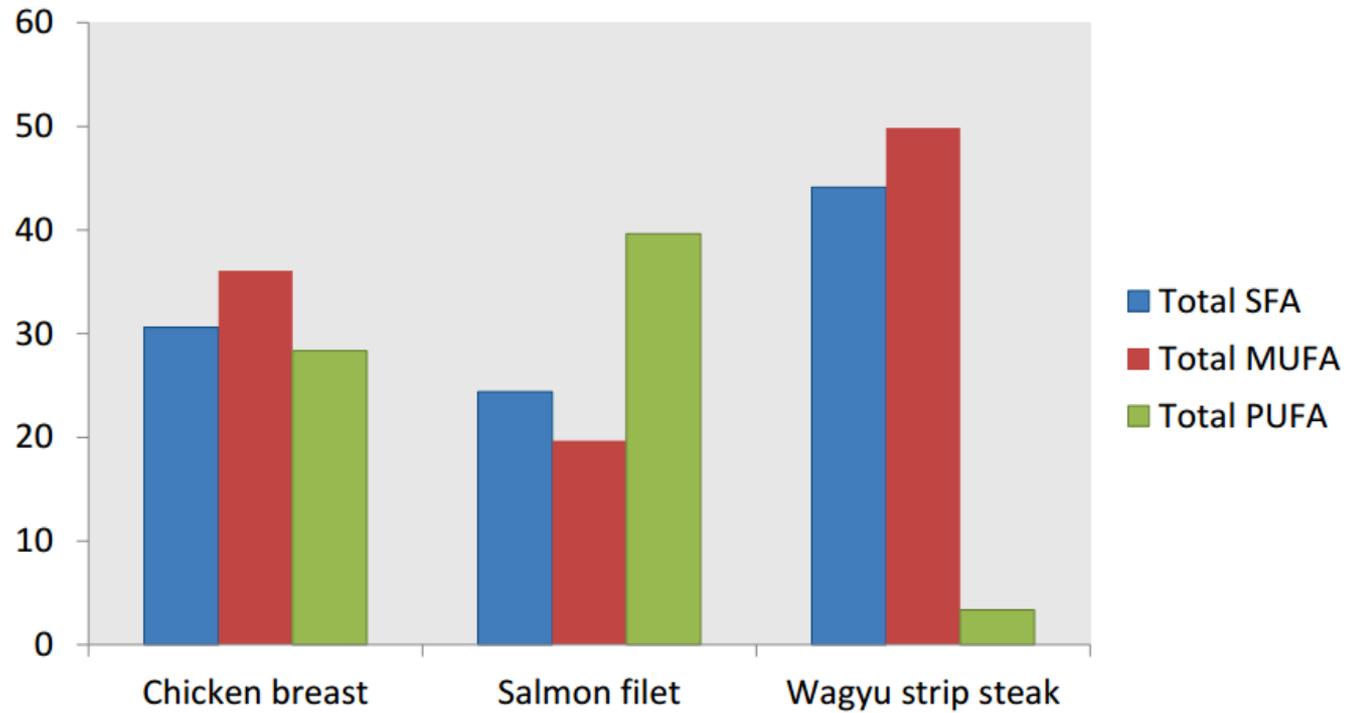
Eating Quality (cont.)

- Wagyu fat melts at a lower temperature and conducts heat and highly marbled beef has less moisture as a percentage of total volume.
- Wagyu products cook faster than Angus-type USDA Choice or Prime and also have different flavor profiles than Angus-type beef—flavor is more like that of sweet butter.

Nutritional Benefits

➤ Research from Texas A&M University, Dept. of Animal Science¹

Total saturated, monounsaturated, and polyunsaturated fatty acids (percent of total lipid)

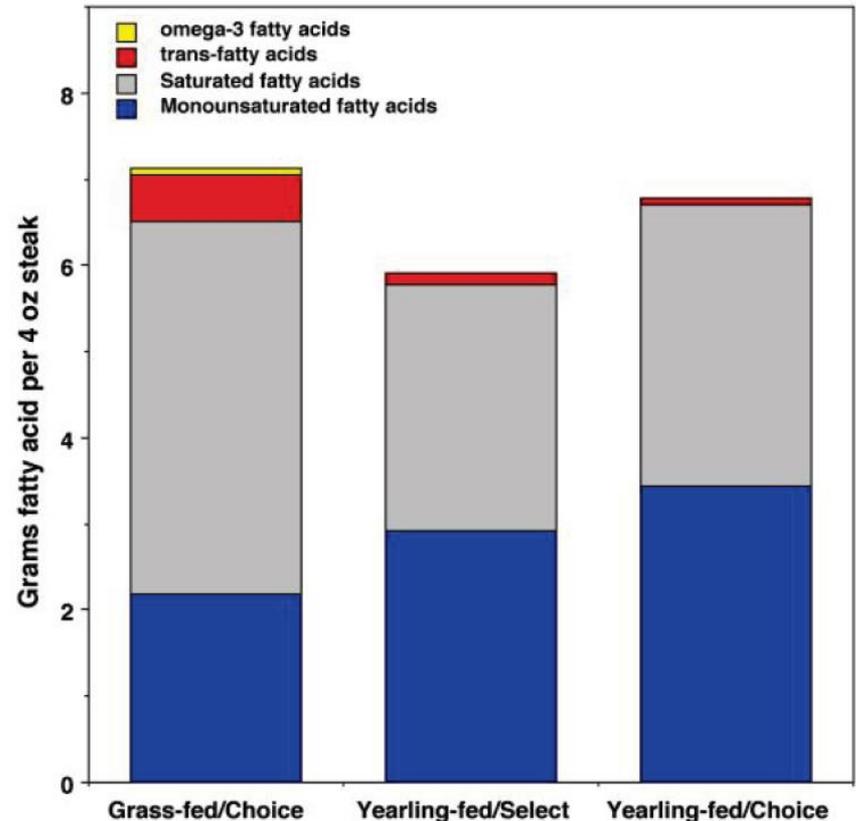


¹Smith, S. B. (2016). Long-Term Study of Fatty Acid Composition of Wagyu Beef

Nutritional Benefits (cont.)

➤ Grass feeding increases saturated and trans- fats in beef steaks in Angus steers.¹

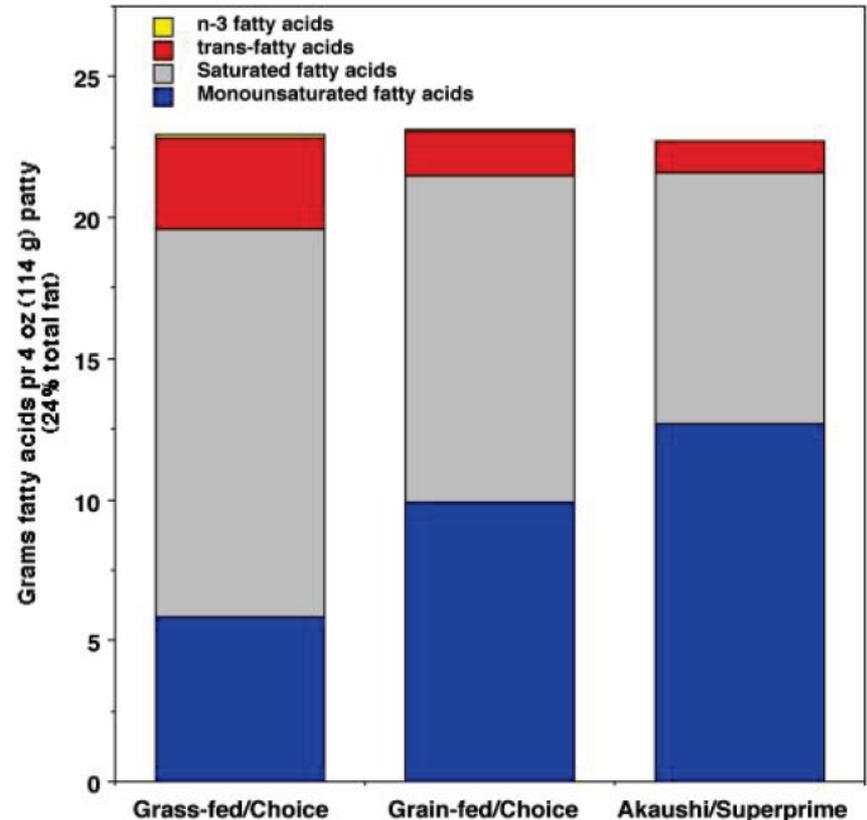
- Grain feeding increases oleic acid in beef from Angus steers.
- Grass feeding increases saturated and trans-fatty acids.
- Grass feeding provides very little omega-3 fatty acids in beef.



¹Smith, S. B. (2016). Long-Term Study of Fatty Acid Composition of Wagyu Beef

Nutritional Benefits (cont.)

- Grass feeding increases saturated and trans- fats in ground beef from Angus steers.¹
 - Ground beef from grass-fed Angus beef has twice as much trans-fatty acids as beef from grain-fed Angus steers.
 - Grass feeding also increases saturated fatty acids.
 - Ground beef from Red Wagyu steers contains the most oleic acid and least saturated and trans-fatty acids.



¹Smith, S. B. (2016). Long-Term Study of Fatty Acid Composition of Wagyu Beef

Where do we go from here?

- Wagyu beef *may* be the true answer to grass-fed beef.¹
 - Grass feeding will increase omega-3 fatty acids (great for perception).
 - Grass-fed full blood Wagyu beef should contain more oleic acid than beef from grass-fed, full blood black Angus steers.

¹Smith, S. B. (2016). Long-Term Study of Fatty Acid Composition of Wagyu Beef

Wagyu Program

- What sets Wagyu producers apart:
 - All cattle are DNA and AWA certified to be of Wagyu genetics
 - Hormone and antibiotic residue free
 - Raised in a humane way
 - Cow-calf producers have committed to sustainable agriculture
 - Fed on vegetarian diets only
 - Cattle are selected for processing based upon number of days on feed, animals condition, and producing quality finished product
 - No electric stimulation used on carcasses to increase tenderness
 - All cattle grass started and grain finished
 - Process at a state-of-the-art plant with highest internal controls
 - Each carcass graded using Japanese BMS Standard

Thank You!



ROSEWOOD RANCHES
TEXAS WAGYU BEEF