



Wagyu Society of SA

Private Bag X 7002, Langenhoven Park, 9330

4 Genius Loci Office Park, 6 CP Hoogenhout street, Langenhoven Park, 9301

Tel 051-492 1852 E-mail office@wagyu.org.za http://wagyu.org.za



REPORT ON TRIP TO JAPAN – E DE BRUYN

Visiting the MIJ office at Obihiro University of Agriculture and Veterinary
Medicine

1st February 2020 to 8th February 2020, Obihiro, Japan

The CEO, Dr Michael Bradfield, was invited to visit the MIJ team in Japan. The purpose of the visit was for the MIJ team to upgrade the software on the camera and do a physical check on the camera to make sure that it is still functioning correctly. Due to time restraints and other obligations the CEO was unable to make the trip. I was asked to go in his place since I work directly with the MIJ camera by reviewing the results and training the carcass graders to use the camera. As apart of the invitation to visit the MIJ office my meals and accommodation was paid for by MIJ and my flight ticket was paid for by the Australian Wagyu Association (AWA). I arrived in Obihiro on Sunday 2 February 2020 at 19h25 and departed from Obihiro on Friday 7 February 2020 at 10h15.

Monday, 3 February 2020

The week started on Monday 3 February 2020 after the arrival of Aaron van den Heuvel (from the Australian Wagyu Association) meeting us at the University. The day was mostly spent at the University where discussions were held regarding the software of the MIJ-30 camera. Discussion points were as follows:

1. How the camera calculates the marbling score. At this stage the marbling score is only based on the marbling percentage, i.e. a certain marbling percentage equals a specific score. This equation has been adjusted in December 2019, as the marble score were overestimated. This adjustment was automatically run on our data and lead to changes in some results. That Marble Score equals a specific Marbling percentage range explains why certain images that have more coarse marbling were assigned higher marbling scores than they really should have.
 - It has become clear to the MIJ team that the way the camera currently calculates marbling is questionable. As of March 2020, a new equation will be implemented on the system that allows for the consideration of Marble Fineness and Marble coarseness (i.e. IMF% + Coarseness Index + Finesse Index = MS). This update on the equation will be automatically run on all the data on the system and we will see changes in the assigned Marble Scores.

Rough Example:

DMp	CI	FI	MS
54%	30	70	5
54%	20	80	6
54%	10	90	7

2. Another change that occurred in the software as of 1 January 2020 is the update on the binarization code. Binarization is the way the software locates the marbling in the images. This update has become necessary due to the poor quartering of carcasses in Australia and the software therefore needed to be adapted to improve its ability to identify marbling in the images. The update is only applied to images taken from 1 January 2020 and means that we cannot compare results of images taken before this date to images taken now. MIJ can re-upload specified images for us to compare results of images taken before and after 1 January 2020. However, this process will most likely take a few weeks to complete but can be done at no extra cost.
3. Meat color, fat color and fat depth are measurements that MIJ hope to make available in future. The development of these measurements is a long way of, and they speculate that they may only have something to work with from next year. In the meantime, they have requested that the office make all the files of the images that have been taken available to them via drobox. They think that the South African images will allow them to make faster progress, as South Africa quarter their carcasses better than Australia.
4. We had a look on how to position the camera when images are taken as this has been a recurring issue for the South African image analyses. When taking the images, it is important to keep in mind that irrespective of where the carcass was quartered the rib eye muscle should appear parallel with the rectangle of the camera. At the 5th/6th rib the image must be taken from the spine (PIC 1), and for the 12th/13th rib the image must be taken from the rib (PIC 2).

PIC 1



PIC 2



Tuesday, 4 February 2020

We visited a Wagyu Farm, Kosmos Farm. The Farmer, Tomotako Ando, was a gracious host that eagerly shared his operational set up. The farm is in Shimizu, Hokkaido that is most known for their dairy operation. Ando's father started the farm over 30 years ago for raising and rearing Holstein bull calves for meat. Later Brown Swiss bull calves were also introduced and raised on the farm. The products produced from the farm include corned beef, meat miso (a fermented paste created from soybean) and steaks. In the last 2 years Ando decided to look at Wagyu (Japanese Black) as a more profitable operation of meat production. I gave him our Certified Wagyu Beef pamphlet and explained a bit about South Africa. He

indicated that he would appreciate an opportunity to come and speak to our producers at a conference to share more of his story and learn more about South Africa. Together with his veterinarian, Dr Kazuo Akiyama, we were taken on a tour of their facilities. During the tour they gave more specific details on their operations:

- The Japanese black animals are bred to get a marble score of 4 or more, which is easier to obtain with a modified ration.
- The ration of the Wagyu animals is specifically formulated for increased marbling
 - Before 6 months of age the calves are fed a ration that consists of 60% protein and 72 TDN (total digestible nutrients) for growth.
 - After 6 months of age the ration is changed to 12% protein and 74 TDN for higher energy in order to obtain higher marbling.
 - The rations consist of 60% grain/concentrate and 30% haylage
- The current market age is 28-30 months and is mostly female animals.
- His operation is structured in a such a way that he will be able to sell 6 Wagyu bulls for slaughter per month. He does this so that he will be able to create a specific product that he can sell directly to consumers and that is easily manageable
 - They will be slaughtered at 28 months of age
 - He only raises bulls as slaughter animals
 - The weight of the animals is 700-800kg at slaughter
 - He dehorn at 1 month of age, castrate at 4 months
- Currently he is making use of a more intensive system for raising his Wagyu, he is looking into switching over to a more extensive operation and keeping the bulls for 40 months. The reason for wanting to keep the animals longer is that the meat of older animals is tastier, and he will be able to get a higher price for his product.
 - In an extensive system he plans to have the animals grazing until 12 months, there after a vitamin control will be introduced that mainly consists of fat-soluble vitamins (specifically vitamin A)
- The grading system in Japan is based only on the look of the carcass. However, Ando would like to include taste and is thinking of bypassing the Japanese grading system by selling directly to buyers on taste of the meat. This also works well with his current business model.
- He also produces F1 Wagyu crosses with Holstein females and Wagyu Bulls
 - The females are bred at 13-15 months of age, when they reached a desired live weight of 300-350kg
 - The progeny is kept for 30 months
 - Ando has a contract with a processing facility that is specific for the slaughter of his F1 Wagyu's.
 - They weigh 700-800kg at slaughter.
 - Traditionally an animal is ready for slaughter when the animal looks square from the side.



Wagyu Society of SA

Private Bag X 7002, Langenhoven Park, 9330

4 Genius Loci Office Park, 6 CP Hoogenhout street, Langenhoven Park, 9301

Tel 051-492 1852 E-mail office@wagyu.org.za http://wagyu.org.za



代表取締役

安藤 智孝 Tomotaka Ando

有限会社コスモス

〒089-0357 北海道 上川郡 清水町 御影南 5 線 51 番地 7

TEL : 0156-63-3330 / 090-3599-0575

FAX : 0156-63-3340

E-mail : kosmosfarm@gmail.com

URL : kosmosfarm.com



AKIYAMA FARM ANIMAL CLINIC

KAZUO AKIYAMA, D.V.M., Ph.D.

Phone: 0156-25-4411

Fax : 0156-25-4411

e-mail : kazubou@jasmine.ocn.ne.jp

Mobile Phone: 090-4875-3830

1-3-2. Shimoaikappu.
Ashoro-cho. Ashoro-gun.
Hokkaido. 089-3707. Japan

Wednesday, 5 February 2020.

We spent the day at the University working with the MIJ team being trained on the software of the camera. We looked at how the new software is uploaded to the camera. The changes in software included a reduction in the number of output files from 4 to 2 (.jpg and .png.). For the software upgrade the camera also received 2 new USBs to which the files are written and that is used to upload the images to the web. We also received a flash drive with the new software on. We also had another discussion regarding some of the concerns we had:

1. We have been experiencing some difficulties with scanning barcodes at the abattoirs. To resolve this issue MIJ exchanged our barcode reader for a newer model that is more sensitive. They also included an option in the software that limits the number of characters read from the barcodes. For South Africa this option is turned off as the number of characters in the barcodes vary between abattoirs.
2. I showed the MIJ team the online function of the Masterbeef app. I specifically showed them the ability to crop on the Masterbeef app. They indicated that this is not a function they will be pursuing. This is because they have been accredited in Australia and part of the accreditation only allows for a limited number edit per batch of images.
 - When comparing the MIJ to the Masterbeef app, it was found that the Masterbeef app overestimated the marble score of the images. However, the correlation from the app was linear indicating that it gives consistent results.
3. According to MIJ they have high accuracy for marbling fineness and eye muscle area (although the accuracy for eye muscle area is more difficult to calculate).



Thursday, 6 February 2020

On Thursday 6 February we spent the day in Sapporo, which is about 3 hours' drive from Obihiro. Here we visited with two meat processing and exporting companies.

1. Kitaichi Meat Co. Ltd

- They process about 7-8 tons of meat in 10 hours on average
- They have capacity to grow about 50% more than their current standing
- They employ about 70 staff members at the facility we visited and about 60 staff members at their byproduct facility
- There is no exporter from South Africa and currently they don't process any South African products.
- They mostly purchase products from trading companies
- The smallest product size they produce is 500g
- Price/kg vary and is dependent on product
- They also process seafood but at a different facility.
- The facility that we visited processed beef, lamb and pork.
- They select product from the importer inventory and make use of multiple importers
- They have a minimum quality standard that needs to be met. The importers have the guidelines on the minimum standard. They also require constant supply.
- Their business plan currently expects more growth through extra value-added product sale increase s up to 10 mil AUD by 2025.



President & CEO

Kenichi Tamura

KITAICHI MEAT Co., Ltd

2-25, Higashikariki 6-2, Higashi-ku, Sapporo 007-0826 Japan
TEL 81-11-783-7111 FAX 81-11-783-7268
Mobile 81-80-5587-6880
Email: k-tamura@kitaichimeat.com
URL: <http://www.kitaichimeat.com>

2. Izumi Holdings Inc.

- They have 5 companies that trade in food
- Their focus is to supply to their domestic market in wholesale.
- Currently they sell to about 10 00 restaurants with their product
- They also export to other Asian countries.
 - 50% Domestic & 50% Imported products
 - 60% frozen product & 40% chilled product
- They buy in frozen product and have their own chill/freeze facilities.
- Place order for specific cuts from importers, they don't buy whole carcasses.
- They import mostly for USA as the price and product meets the company's specifications



Wagyu Society of SA

Private Bag X 7002, Langenhoven Park, 9330

4 Genius Loci Office Park, 6 CP Hoogenhout street, Langenhoven Park, 9301

Tel 051-492 1852 E-mail office@wagyu.org.za http://wagyu.org.za



- Australian Wagyu can be imported to the premium market in Japan. They see the Australian Wagyu as good enough to be able to compete against the Japanese Wagyu in the market.
- USA imports will mostly be for the commodity market.
- They have companies on which they can test the market for imports
- They can purchase whole carcasses if they can get consistent supply.
 - Purchasing of whole carcasses vs portioned carcasses are handled case-by-case
- Supply to 1 500 restaurants. Beef is the smallest part of their business, but they have capacity for growth.
- They can purchase directly from breeders or through trading companies.
- All product come in by ship, minimum requirement of 1 container (this is product dependent, and is also handled case-by-case)
- They don't export Wagyu to South East Asia due low volumes
 - Export 10% of their product
 - 90% of product distributed domestically

tsunmi Hoqiguda Juc

tsunmi
Jcsiqent

After explaining the CWB program to both companies, they seemed quite interested in Wagyu produced in South Africa. However, they will not negotiate until FMD has been completely resolved. They were impressed by the minimum quality standard that CWB is trying to implement for South Africa. Both companies also confirmed that they have never been approached by a South African company for any South African meat products that they import.

Conclusion

Overall the general impression that I got from this trip is that MIJ is trying to improve the accuracy of the results the camera can already generate. However, measurements that have been promised to be available in future will not soon be accessible. From the office I will set up the drop box account for the images that have already been taken to help speed up their process in supplying these measurements. In conclusion I believe that the trip was a success in understanding the software of the MIJ camera which will be used in future training sessions of graders that will use the both the MIJ-30 camera as well as the Masterbeef app.