

Beef AI - Innovative Dry-Aging Technology for Beef

Enhancing Food Quality and Production
Efficiency through AI Technology

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Jia-Long Chen

Cooperation with HungKuo Delin University of Technology



Company Profile



• Foundation Background and Timeline

Established in January 2024, our company is at the forefront of the aged beef industry. Our processes adhere to the highest standards of environmental hygiene and safety.

• Introduction to the Core Team

Led by Jia-long Chen, our team comprises experts deeply passionate about the meat industry. Leveraging resources from Derlin University of Technology, we utilize cutting-edge ultrasonic testing technology to monitor meat aging precisely. Our focus is on innovation in meat retail and technology, aiming to elevate the consumer experience with superior aged beef.

Mission and Vision

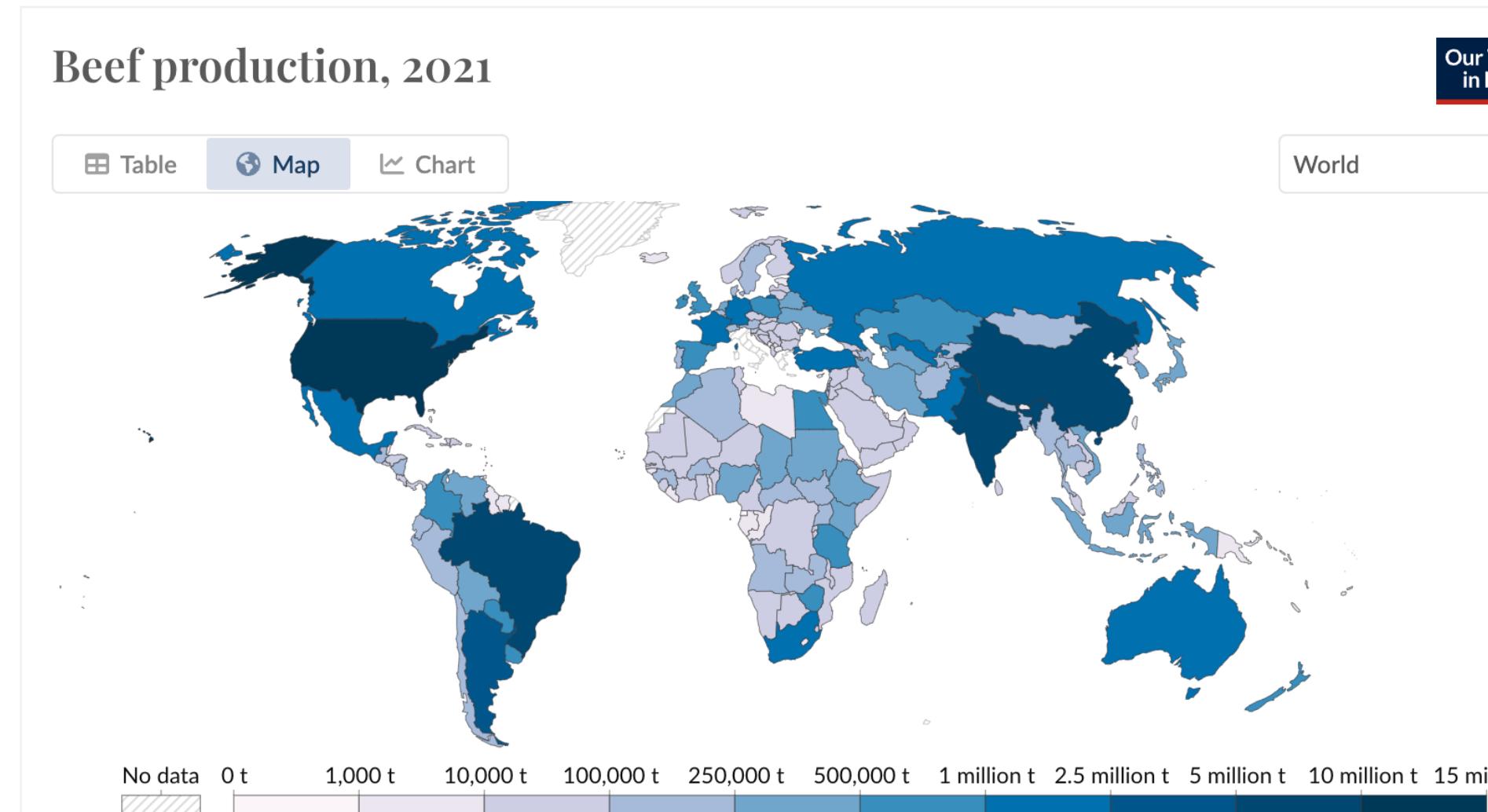


Provide high-quality, cost-effective aged beef through innovative technology and professional dedication. Our vision is to become an internationally influential tech-driven meat company, enhancing the convenience and quality consistency of aged meat products through scientific methods, thereby advancing industry standards.



Global beef market

- Revenue in the Beef & Veal Market is projected to reach US\$7.70bn in 2024.
- Revenue is expected to show an annual growth rate (CAGR 2024-2028) of 13.70%, resulting in a projected market volume of US\$12.87bn by 2028.
- In the Beef & Veal Market, the number of users is expected to amount to 85.5m users by 2028.
- User penetration will be 1.0% in 2024 and is expected to hit 1.2% by 2028.
- The average revenue per user (ARPU) is expected to amount to US\$122.10.





Market Analysis

- **Target Market:** Online retail, point-to-point delivery via convenience stores, and batch sales to brunch venues and bistros. Emphasis on adapting to post-pandemic market shifts and consumer preference for convenience and online services.
- **Competitor Analysis:** Main competitors are high-end steak restaurants. The advantage lies in pricing, testing methods, and the use of ultrasonic technology and AI for quality control.
- **Market Opportunities:** Beyond meat sales, opportunities include meat brokerage, aging bag distribution, ultrasonic technology licensing, third-party testing services, and back-end management apps for B2B clients.



Products and Technologies

• Tradition and Innovation in Dry-Aged Beef

Our process modernizes the traditional dry-aged beef method, integrating aging bags and ultrasonic technology. This approach reduces risks like bacterial contamination, ensuring consistent, high-quality dry-aged beef.

• The core of Beef Ai technology:

Combined Ultrasonic Imaging and AI Technology

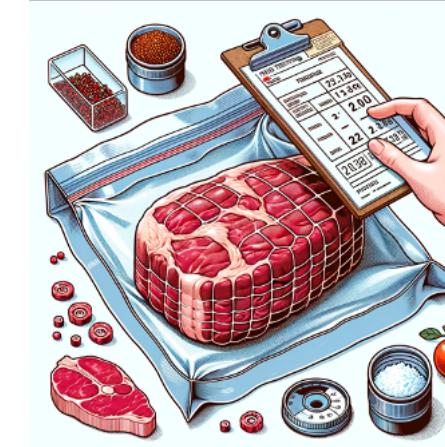
The dry-aging process by Dry-Aging Bags

Our Dry aged beef GPT

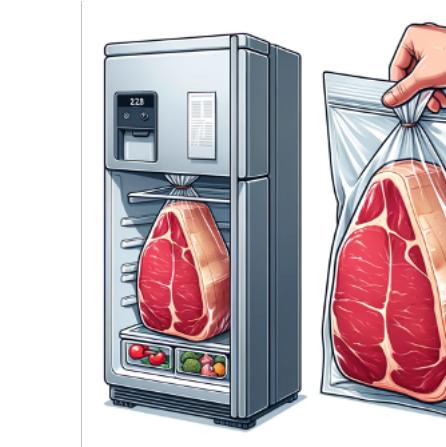
<https://chat.openai.com/g/g-MPgq0c3wb-dry-aged-beef>



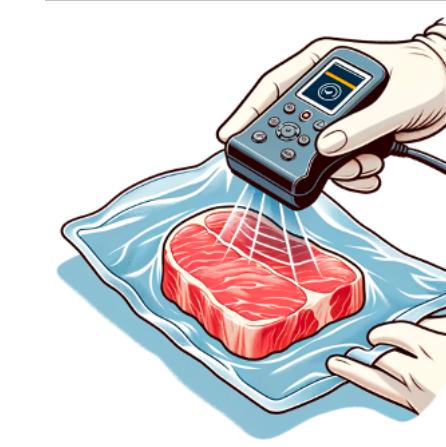
Disinfection



Record Keeping



Refrigerator Aging



Ultrasonic Scanning

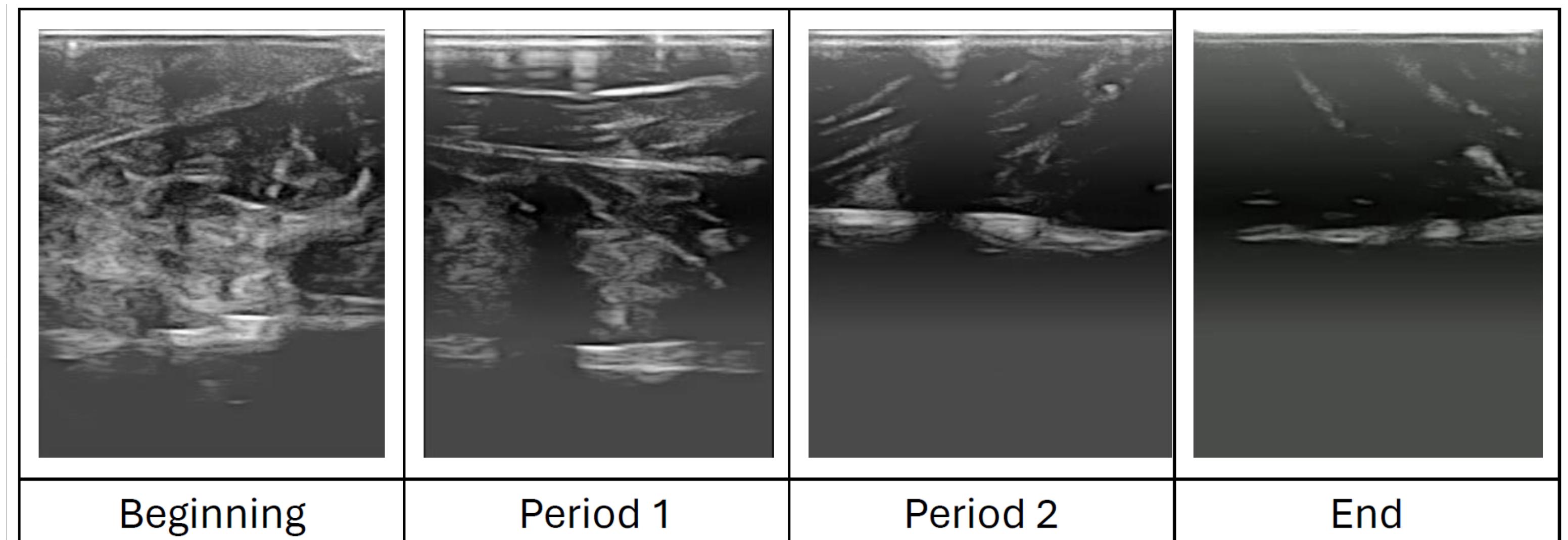


Cutting

Introduction to Ultrasonic Imaging AI Technology



We employ ultrasonic imaging with AI integration to meticulously inspect meat. This technology allows us to monitor minute changes during aging, enabling precise quality control and accurate aging duration predictions.



Ultrasound device from ASUS



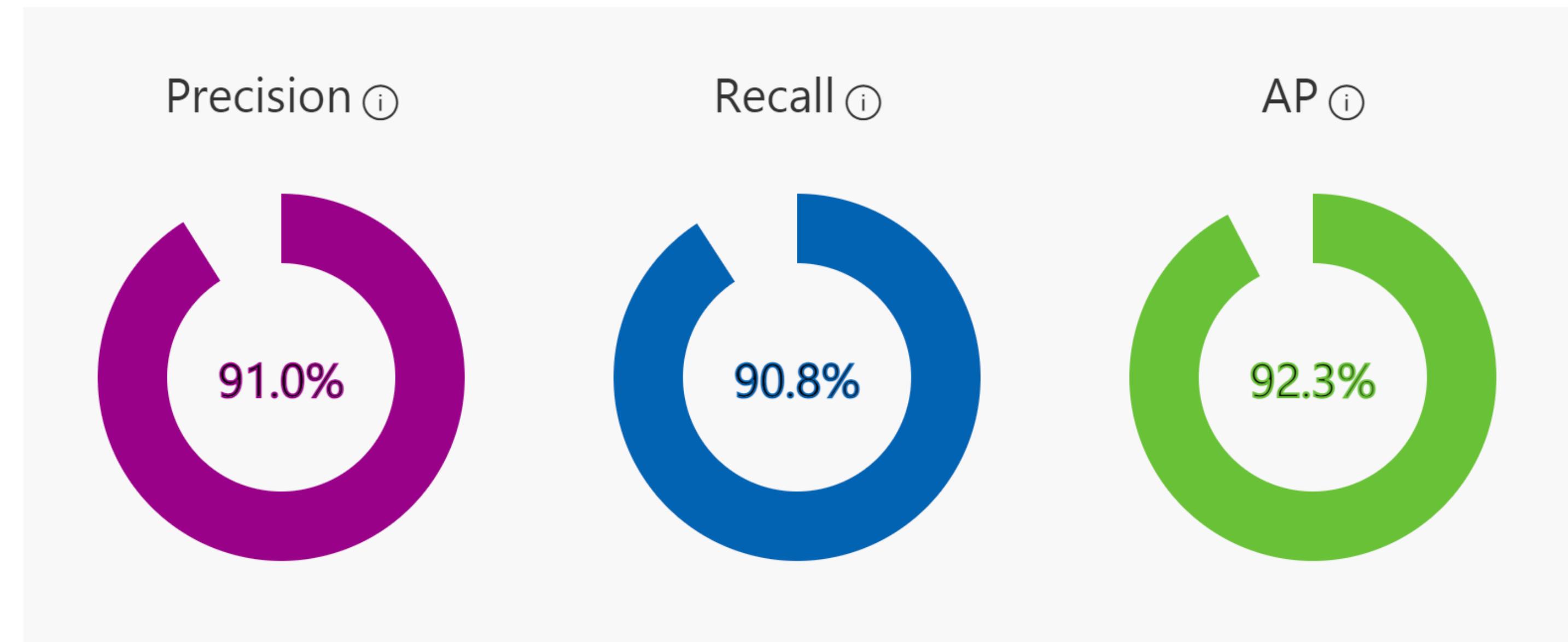
Ultrasound image analysis

Microsoft Azure

- **Data Handling:** Collect and preprocess beef aging ultrasound images.
- **AI Training:** Develop models to identify beef aging stages and scan quality.
- **Analysis and Assessment:** Use the model to determine beef aging stages and quality.
- **Azure's Role:** Leverage Azure for processing and analyzing extensive imaging data.

Iteration 1

Finished training on 2024/1/18 下午4:36:01 using General [A2] domain
Iteration id: bbf21591-9c9c-4f00-aaf5-18e652bef833
Classification type: Multiclass (Single tag per image)
Published as: Iteration1



Streamlined Summary of Collaboration with OpenAI and Business Application

- **Integration of OpenAI's GPT Technology:**

- Applied GPT technology for process planning, market analysis, recipe development, and aging methods.
- Enabled comprehensive business model development and refinement.

- **AI in Food Quality Control and Production:**

- Utilized AI for data analysis and pattern recognition in quality control.
- Enhanced aged beef quality and optimized production for efficiency and consistency.

- **Data Analysis for Quality and Efficiency:**

- Analyzed production data to accurately predict aging cycles and optimize storage conditions.
- Improved quality and flavor of aged beef products.

- **Expected Outcomes of the Collaboration:**

- Aims to transform business processes into a replicable model.
- Seeks to inspire innovation and methodological advancements.
- Recognizes the need for human resources in maintaining department operations post-development.



Product Pricing Strategy and Sales Strategies



Pricing Strategy:

- Focus on U.S. beef: ribeye (\$100/kg), filet mignon (\$150/kg), short ribs (\$200/kg).
- Pre-order discount: 25% off.
- Detailed pricing available in separate documents.

Sales Channels and Strategies:

- **Social media** (Instagram, Facebook) and order forms.
- Targeting coffee shops, GYM, and retail outlets.
- **B2B distribution** via 7-11 delivery services.
- Mid-phase expansion to include partnerships with

Meat Brokers and Aging Bag distributors.

- Online ordering facilitated with pricing forms and social media promotions.

Dry Age Beef Order Form

BEEF AI	Dry-Aged Beef Short Ribs	
21~25Days	500元/100g	Quantity <input type="text"/> Piece
40Days	600元/100g	Quantity <input type="text"/> Piece
60Days	650元/100g	Quantity <input type="text"/> Piece
Dry-Aged Beef Tenderloin		
21~25Days	300元/100g (Regular)	Quantity <input type="text"/> Piece
40Days	400元/100g (Regular)	Quantity <input type="text"/> Piece
60Days	450元/100g (Regular)	Quantity <input type="text"/> Piece
21~25Days	400元/100g (NO Sinew)	Quantity <input type="text"/> Piece
40Days	450元/100g (NO Sinew)	Quantity <input type="text"/> Piece
60Days	500元/100g (NO Sinew)	Quantity <input type="text"/> Piece
※Notes※		
1. For products aged 40 days and 60 days, availability is subject to stock. In case of insufficient stock, we will contact you via the email you provided. You can then choose to modify your order to 21-25 days or convert it into a pre-order.		
2. Beef AI will contact you within a week of your order being placed. If the contact information provided is incorrect, please contact our official account (link below). For customers who do not update their information or do not respond to our contacts, Beef AI will cancel your order 15 days from the date the order was placed. Thank you very much for your cooperation.		
3. For any product-related questions, please scan the QR code below and click on the official social media link to inquire.		
Purchaser Information		
● Customer Name :	<input type="text"/>	
● Customer Email :	<input type="text"/>	
● Payment Method:	<input type="checkbox"/> Bank Transfer	
<input type="checkbox"/> Other Methods : _____		

Beef AI Related Website Link

Potential Revenue



- **Financial Projection:** Current sales of 250kg meat products expected to generate a minimum of \$170,000 annually. Targeting an increase in annual revenue to \$500,000 in three years with strategic investments.
- **Investment and Scaling:** Seeking additional investment to scale operations and enhance technology, aiming to grow business and market share.
- **Future Expansion Goals:** Plans to extend ultrasonic testing technology to global mature meat restaurants, meat merchants, and international culinary schools. Introduction of systematic management processes and access to management spreadsheets for improved operational insight.

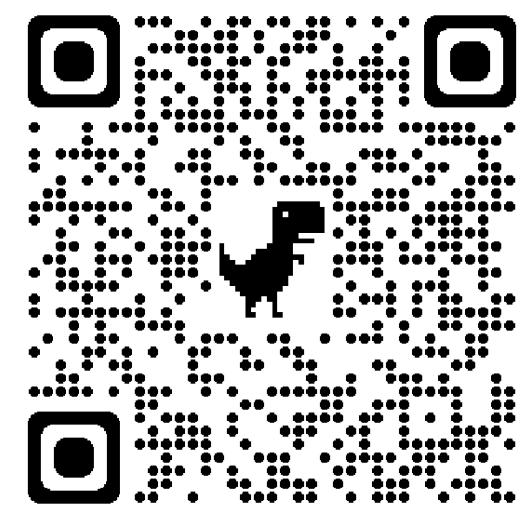
Conclusion and Contact Information

- **Key Points:** Revolutionizing Traditional Beef Aging with Technology for Efficient and Safe Meat Maturation.
- **Further Dialogue:** Seeking Collaboration for Tech Promotion and System Enhancement, including AI Analysis and Recipe Development.
- **Contact Information:**

linkedin: <https://www.linkedin.com/in/jia-long-chen-49b46389/>

E-mail: beefai2024@gmail.com

Github: <https://github.com/Beef-AI/Ultrasound-Dry-Age-Beef>



One-liner

"Beef AI, pioneering a new era of dry-aged beef with cutting-edge ultrasonic imaging AI technology, enhancing quality and redefining the aged meat industry."

Appendix

Disinfection and Packaging Process

- Wipe the surface of the meat with a paper towel
- Disinfect with a sodium hypochlorite solution
- Place the meat into an aging bag and vacuum seal
- Label the meat with its weight and date





Beef aging and store

3-7°C, Humidity 85%, 4-6 weeks

