

CONSTITUTION

This organization shall be known as the Ultrasound Guidelines Council (UGC).

Article 1. Mission

To develop and maintain a national governance structure and protocol for 1) annual proficiency testing and certification for field technicians involved in ultrasound scanning of beef cattle for composition traits, 2) annual proficiency testing and certification for lab technicians involved in interpreting images and 3) ongoing validation of interpretation software and hardware systems for use in national cattle evaluation programs.

Article 2. Purpose

This group is responsible for developing, maintaining and governing proficiency testing protocols and standards for beef cattle ultrasound field technician certification, lab technician certification and systems review. The purpose is further described and enforced the Rules and Regulations, Article XII of the Bylaws.

Article 3. Officers, Directors, and Elections

This council shall be composed of 1) four beef breed association representatives which are elected by the US Beef Breeds Council (USBBC), 2) three industry representatives (university, research, semen, meat industry, etc.) involved directly in ultrasound research and national cattle evaluation programs using ultrasound data which are elected by the USBBC, 3) one active field technician elected and approved by the USBBC and 4) one representative from up to three of the accredited centralized ultrasound processing labs that meet the UGC definition for a centralized processing lab. A centralized processing lab is defined as an ultrasound interpretation organization that works with two or more field technicians, serves two or more beef breed organizations, employs two or more laboratory interpretation technicians, and processes 4,000 or more images annually.

Beef breed association representatives will serve four-year terms with the first two years as a sitting director, the third year as Vice-Chair and the fourth year as Chair. One new beef breed association representative will be elected each year to replace the outgoing Chair's director position. A breed representative may serve a maximum of two consecutive four-year terms.

Each industry representative will serve a three-year term with one new member selected each year by the USBBC. An industry representative may serve a maximum of two consecutive three-year terms.

The field technician will serve a four-year term. A field technician may serve a maximum of two consecutive four-year terms.

All director terms begin July 1st and end June 30th the following year.

Schematic diagram below:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
B Rep1	Director	Director	Vice-Chair	Chair			
B Rep2		Director	Director	Vice-Chair	Chair		
B Rep3			Director	Director	Vice-Chair	Chair	
B Rep4				Director	Director	Vice-Chair	Chair
Ind 1		Director	Director	Director			
Ind 2			Director	Director	Director		
Ind 3				Director	Director	Director	
Tech 1	Director	Director	Director	Director			
Lab 1	Director	Director	Director	Director	Director	Director	Director
Lab 2	Director	Director	Director	Director	Director	Director	Director
Lab 3	Director	Director	Director	Director	Director	Director	Director

Article 4. Bylaws

The duties of the Officers and Directors, the duties of the Executive, the time of meetings of said Council, and the regulations that may be necessary and proper for the governing of the same shall be provided by these Bylaws.

Article 5. Executive Director

The Executive Director is the Chief Executive Officer of the UGC. The Executive Director is responsible for carrying out the policies and procedures of the organization at the direction of the UGC Board of Directors. The Executive Director is also responsible for the consistent achievement of the UGC's mission, purpose and financial objectives and is the only compensated employee of the Council.

BYLAWS

ARTICLE I - OFFICES

Section 1. REGISTERED OFFICE AND AGENT

The registered office and registered agent of the Corporation shall be as set forth in the Corporation's Certificate of Formation. The registered office or the registered agent may be changed by resolution of the Board of Directors upon approval from the United States Beef Breeds Council (USBBC), upon making the appropriate filing with the Secretary of State.

Section 2. PRINCIPAL OFFICE

The principal office of the Corporation shall be at Iowa, provided that the Board of Directors, upon approval from the USBBC, shall have the power to change the location of the principal office.

Section 3. OTHER OFFICES

The Corporation may also have other offices at such places, within or without the State of Iowa, as the Board of Directors may designate, or as the business of the Corporation may require or as may be desirable.

ARTICLE II – DIRECTORS

Section 1. BOARD OF DIRECTORS

To the extent not limited or prohibited by law, the Certificate of Formation or these Bylaws, the powers of the Corporation shall be exercised by or under the authority of, and the business and affairs of the Corporation shall be managed under the direction of the United States Beef Breeds Council (USBBC) and the Board of Directors of the Corporation. Directors need not be residents of the State of Iowa or members of the Corporation unless the Certificate of Formation or these Bylaws so require.

Section 2. NUMBER AND ELECTION OF DIRECTORS

The number of directors shall be no less than seven (7) nor more than fifteen (15) provided that the number may be increased or decreased from time to time by an amendment to these Bylaws or resolution adopted by the USBBC, provided that the number of directors may not be decreased to fewer than seven (7).

Section 3. REMOVAL

A director may be removed from office, with or without cause, by the USBBC who is entitled to elect, designate, or appoint the director. If the director was elected to office, removal requires an affirmative vote equal to the vote necessary to elect the director.

Section 4. RESIGNATION

A director may resign by providing written notice of such resignation to the Board of Directors. The resignation shall be effective upon the date of receipt of the notice of resignation or the date specified in such notice. Acceptance of the resignation shall not be required to make the resignation effective.

Section 5. VACANCY OF DIRECTORS

Any vacancy occurring in the Board of Directors shall be filled by the affirmative vote of a majority of the members of the USBBC. A director elected to fill a vacancy shall be elected for the unexpired term of the previous director.

Section 6. ANNUAL MEETING OF DIRECTORS

The annual meeting of the Board of Directors shall be held at a date and time to be set by the Board of Directors, at which they shall transact such other business as shall come before the meeting. The time and place of the annual meeting of the Board of Directors may be changed by resolution of the Board of Directors.

Failure to hold the annual meeting at the designated time shall not work as a dissolution of the Corporation. In the event the Board of Directors fails to call the annual meeting at the designated time, any Director may make demand that such meeting be held within a reasonable time, such demand to be made in writing by registered mail directed to any officer of the Corporation. If the annual meeting of the Board of Directors is not called within sixty (60) days following such demand, any Director may compel the holding of such annual meeting by legal action directed against the Board of Directors, and all of the extraordinary writs of common law and of courts of equity shall be available to such Director to compel the holding of such annual meeting.

Section 7. REGULAR MEETING OF DIRECTORS

Regular meetings of the Board of Directors may be held with or without notice at such time and place as may be from time to time determined by the Board of Directors. The Board of Directors shall be authorized to meet by telephone conference or through other electronic communications media so long as all the members can simultaneously hear each other and participate during the meeting. At least one meeting per year must be held in-person.

Unless members indicate otherwise to the Executive Director or his/her designee, all communication required in these Bylaws, including meeting notices and election ballots, may be sent electronically. As deemed necessary by the Chair, action by the Board may be taken by electronic messaging.

Section 8. SPECIAL MEETINGS OF DIRECTORS

The Chair shall call a special meeting of the Board of Directors whenever requested to do so by the Executive Director or by two (2) or more directors. Such special meeting shall be held at the date and time specified in the notice of meeting.

Section 9. PLACE OF DIRECTORS' MEETINGS

All meetings of the Board of Directors shall be held either at the principal office of the Corporation or at such other place, either within or without the State of Iowa, as shall be specified in the notice of meeting or executed waiver of notice.

Section 10. NOTICE OF SPECIAL DIRECTORS' MEETINGS

Notice of any meeting of the Board of Directors shall be given at least seven (7) days previous thereto by written notice delivered personally or sent by mail or e-mail to each Director at that Director's address as shown by the records of the Corporation. If mailed, such notice shall be

deemed to be delivered when deposited in the United States mail in a sealed envelope so addressed, the postage thereon prepaid. Any Director may waive notice of any meeting. The attendance of a Director at any meeting shall constitute a waiver of notice of such meeting except where a Director attends a meeting for the express purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened.

Section 11. QUORUM AND VOTING OF DIRECTORS

A quorum for the transaction of business by the Board of Directors shall be ½ of the number of directors or 7 (seven), whichever is less. The act of the majority of the director's present in person or by proxy at a meeting at which a quorum is present shall be the act of the Board of Directors, unless the act of a greater number is required by law or the Certificate of Formation. A director may vote in person or by proxy executed in writing by the director. No proxy shall be valid after three months from the date of its execution. Each proxy shall be revocable unless expressly provided therein to be irrevocable, and unless otherwise made irrevocable by law.

Section 12. COMPENSATION

Directors, as such, shall not receive any stated salary for their services, but by resolution of the Board of Directors a fixed sum and expenses of attendance, if any, may be allowed for attendance at any meeting of the Board or Directors. A director shall not be precluded from serving the Corporation in any other capacity and receiving compensation for such services.

ARTICLE III - OFFICERS AND DIRECTORS

Section 1. This council shall be composed of 1) four beef breed association representatives which are elected by the US Beef Breeds Council (USBBC), 2) three industry representatives (university, research, semen, meat industry, etc.) involved directly in ultrasound research and national cattle evaluation programs using ultrasound data which are elected by the USBBC, 3) one active field technician elected and approved by the USBBC and 4) one representative from up to three of the accredited centralized ultrasound processing labs that meet the UGC definition for a centralized processing lab. A centralized processing lab is defined as an ultrasound interpretation organization that works with two or more field technicians, serves two or more beef breed organizations, employs two or more laboratory interpretation technicians, and processes 4,000 or more images annually.

Section 2. Beef breed organization representatives will serve four-year terms with the first two years as a sitting director, the third year as Vice-Chair and the fourth year as Chair. One new beef breed organization representative will be elected each year to replace the outgoing Chair's director position. A breed representative may serve a maximum of two consecutive four-year terms. Each industry representative will serve a three-year term with one new member being selected each year by the USBBC. An industry representative may serve a maximum of two consecutive three-year terms. Each field technician will serve a four-year term. A field technician may serve a maximum of two consecutive four-year terms.

Section 3. Any officer elected or appointed may be removed by the Board of Directors whenever in their judgment the best interests of the Corporation will be served thereby. The removal of an

officer shall be without prejudice to the contract rights, if any, of the officer so removed. Election or appointment of an officer or agent shall not of itself create contract rights. A vacancy in any office because of death, resignation, removal, disqualification or otherwise, may be filled by the Board of Directors, with approval from the USBBC, for the unexpired portion of the term.

Section 4. Each officer shall have, subject to these Bylaws, in addition to the duties and powers specifically set forth herein, such powers and duties as are commonly incident to that office and such duties and powers as the Board of Directors shall from time to time designate. All officers shall perform their duties subject to the directions and under the supervision of the Board of Directors. The Chair may secure the fidelity of any and all officers by bond or otherwise. All officers and agents of the Corporation, as between themselves and the Corporation, shall have such authority and perform such duties in the management of the Corporation as may be provided in these Bylaws, or as may be determined by resolution of the Board of Directors not inconsistent with these Bylaws.

In the discharge of a duty imposed or power conferred on an officer of a Corporation, the officer may in good faith and with ordinary care rely on information, opinions, reports, or statements, including financial statements and other financial data, concerning the Corporation or another person, that were prepared or presented by: (1) one or more other officers or employees of the Corporation, including members of the Board of Directors; or (2) legal counsel, public accountants, or other persons as to matters the officer reasonably believes are within the person's professional or expert competence. An officer is not relying on good faith within the meaning of this section if the officer has knowledge concerning the matter in question that makes reliance otherwise permitted by this subsection unwarranted.

ARTICLE IV – EXECUTIVE DIRECTOR

Section 1. The Executive Director (ED) shall generate communications to directors, technicians, breed associations, laboratories and trade partners via periodic newsletters and other appropriate communication.

Section 2. The Executive Director or their agent will attend and assist with all field and laboratory certification exercises.

Section 3. The Executive Director will work closely with the officers and other Directors to prepare meeting agendas and any necessary reports for the United States Beef Breeds Council. The Executive Director will be responsible for compiling and distributing information from certification exercises, systems review committee results and other meetings.

Section 4. The Executive Director will work closely with the Board to develop and maintain sound financial practices for the UGC and in the preparation of a yearly budget, operate within the budget guidelines, and ensure that adequate funds are available for the UGC to carry out its work. The Executive Director, along with the Board and USBBC, will assist with long term financial planning to maintain the economic strength of the UGC. The Executive Director will operate within the annual budget.

Section 5. The Executive Director shall be the only paid employee of the Corporation and will perform such other duties as may be assigned by the Board.

Section 6. The Executive Director shall promptly deliver and transfer to their successor all moneys, books, manuscripts, vouchers, communications, images and data files, and all other property and papers belonging to the Corporation.

ARTICLE V - CHAIR

Section 1. The Chair shall preside at all meetings of this Corporation promoting order and decorum as befits a professional organization.

Section 2. He or she shall have no vote except on questions where the votes are equally divided.

Section 3. The Chair shall keep on file all official documents relating to the Corporation that may come into his/her care and turn them over to the incoming Chair or Executive Director at the conclusion of his/her term.

Section 4. The Chair shall have previously served on the Board of Directors for a minimum of one year prior to becoming Chair.

ARTICLE VI – Vice Chair

Section 1. The Vice Chair shall assist the Chair and preside at all meetings and assume all functions of the Chair in the latter's absence.

Section 2. If there is a vacancy in the office of Chair, the Vice Chair shall immediately assume the duties of Chair. The Vice Chair shall be entitled to serve a full term as Chair after assuming the office of Chair due to a vacancy.

ARTICLE VII - COMMITTEES

Section 1. It shall be the power of the Chair to appoint special committees and/or task forces on an annual basis as the Corporation's needs arise. It shall be the power of the Chair to sunset committees and/or task forces that have fulfilled their mission to the Corporation.

Section 2. Annually the Chair will re-appoint all standing committee chairs. Each committee chair may serve no more than two consecutive years as the chair of the committee.

ARTICLE VIII - FEES

Section 1. Each participating group that benefits from the activities of UGC will pay an annual fee of \$250.00 to the UGC. These groups include participating beef breed associations and each centralized processing facility. These fees are due on September 1 of each calendar year.

Section 2. In addition, breed associations and centralized processing laboratories will pay \$0.10 for each animal received (breed associations) or interpreted (labs). This includes all beef animals sent to a breed association, regardless of being registered or commercial, from July 1st of the previous year to June 30th of the current year. This fee structure is subject to revision by UGC.

Section 3. Field and laboratory technicians will be assessed a nominal registration fee to attend and participate in the UGC technician certification process. This fee will be set jointly by the UGC and the hosting institution or organization.

Section 4. Funds will be used to reimburse UGC Board members for all travel expenses associated with UGC activities, pay for web site maintenance, mailings, expenses associated with the annual meeting, out-of-pocket expenses (non-overhead) associated with the UGC at the host institution.

Section 5. The UGC will maintain an appropriate organizational structure that will allow for accepting fees and paying UGC activity expenses in accordance with relevant federal, state and IRS statutes.

ARTICLE IX – INDEMNIFICATION AND INSURANCE

Section 1. The Corporation shall have the full power to indemnify and advance or reimburse expenses pursuant to the provisions of the Iowa Business Organizations Code to any person entitled to indemnification under the provisions of the Iowa Business Organizations Code.

Section 2. The Corporation may purchase and maintain insurance or another arrangement on behalf of any person who is or was a member, director, officer, employee, or agent of the Corporation or who is or was serving at the request of the Corporation as a director, officer, partner, venturer, proprietor, trustee, employee, agent, or similar functionary of another foreign or domestic corporation, employee benefit plan, other enterprise, or other entity, against any liability asserted against him or her and incurred by him or her in such a capacity or arising out of his or her status as such a person, whether or not the Corporation would have the power to indemnify him or her against that liability. Without limiting the power of the Corporation to procure or maintain any kind of insurance or other arrangement, the Corporation may, for the benefit of persons indemnified by the Corporation, (1) create a trust fund; (2) establish any form of self-insurance; (3) secure its indemnity obligation by grant of a security interest or other lien on the assets of the Corporation; or (4) establish a letter of credit, guaranty, or surety arrangement. The insurance or other arrangement may be procured, maintained, or established within the Corporation or with any insurer or other person deemed appropriate by the Board of Directors regardless of whether all or part of the stock or other securities of the insurer or other person are owned in whole or part by the Corporation. In the absence of fraud, the judgment of the Board of Directors as to the terms and conditions of the insurance or other arrangement and the identity of the insurer or other person participating in an arrangement shall be conclusive and the insurance or arrangement shall not be voidable and shall not subject the directors approving the insurance or arrangement to liability, on any ground, regardless of whether directors participating in the approval are beneficiaries of the insurance or arrangement.

ARTICLE X – MISCELLANEOUS

Section 1. Whenever any notice is required to be given to any member or director of the Corporation under the provisions of the Iowa Business Organizations Code, the Certificate of Formation, or these Bylaws a waiver thereof in writing signed by the person or persons entitled to such notice, whether before or after the time stated therein, shall be equivalent to the giving of such notice.

Section 2. The Corporation may adopt a corporate seal in such form as the Board of Directors may determine. The Corporation shall not be required to use the corporate seal and the lack of the corporate seal shall not affect an otherwise valid contract or other instrument executed by the Corporation.

Section 3. The Board of Directors may authorize any officer or officers, agent or agents of the Corporation, in addition to the officers so authorized by these Bylaws, to enter into any contract or execute and deliver any instrument in the name of and on behalf of the Corporation, and such authority may be general or confined to specific instances.

Section 4. All checks, drafts or other instruments for payment of money or notes of the Corporation shall be signed by such officer or officers or such other person or persons as shall be determined from time to time by resolution of the Board of Directors.

Section 5. All funds of the Corporation shall be deposited from time to time to the credit of the Corporation in such banks, trust companies, or other depositories as the Board of Directors may select.

Section 6. The Board of Directors may accept on behalf of the Corporation any contribution, gift, bequest or devise for the general purposes or for any special purpose of the Corporation.

Section 7. The Corporation shall keep correct and complete books and records of account and shall keep minutes of the proceedings of the Board of Directors, and committees and shall keep at the registered office or principal office in this State a record of the names and addresses of its members. A Director of the Corporation, on written demand stating the purpose of the demand, has the right to examine and copy, in person or by agent, accountant, or attorney, at any reasonable time, for any proper purpose, the books and records of the Corporation relevant to that purpose, at the expense of the member.

Section 8. The Corporation shall maintain current true and accurate financial records with full and correct entries made with respect to all financial transactions of the Corporation, including all income and expenditures, in accordance with generally accepted accounting practices. All records, books, and annual reports (if required by law) of the financial activity of the Corporation shall be kept at the registered office or principal office of the Corporation in this state for at least three years after the closing of each fiscal year and shall be available to the public for inspection and copying there during normal business hours. The Corporation may charge for the reasonable expense of preparing a copy of a record or report.

Section 9. The fiscal year of the Corporation shall be as determined by the Board of Directors, established as January 1st thru December 31st.

Section 10. If anyone or more of the provisions of these Bylaws, or the applicability of any such provision to a specific situation, shall be held invalid or unenforceable, such provision shall be modified to the minimum extent necessary to make it or its application valid and enforceable, and the validity and enforceability of all other provisions of these Bylaws and all other applications of any such provision shall not be affected thereby.

ARTICLE XI – AMENDMENTS TO THE CONSTITUTION AND/OR BYLAWS

Section 1. An amendment to the Constitution and/or By Laws of the Ultrasound Guidelines Council may be proposed at any business meeting for presentation to the United States Beef Breeds Council (USBBC).

Section 2. A copy of the proposed amendment shall be sent to each member of the USBBC electronically or by mail at a minimum of 30 days prior to the next regular meeting for its consideration.

Section 3. If approved by the USBBC and with three-fourths (75%) or more of the director's present vote in the affirmative, it shall become an amendment and shall be so recorded.

ARTICLE XII – RULES & REGULATIONS

Section 1. Field Certification – Effective March 11, 2019, Field Certification will include 40 head scanned one time, with at least 75% of the cattle being harvested at the conclusion of the event (within 7 days). At least 2 reference technicians would be utilized, at least 1 of those scanning with technology and equipment that can be interpreted by all labs. Technicians must also achieve at least 70% on a written exam, taken at the conclusion of the live animal scanning.

Effective December 22nd, 2020, Field Technicians must receive a 'Pass' rating by majority vote of the UGC Board (lab representatives do not vote) on two consecutive in-person UGC Field Certifications. A 'Pass' rating allows a field technician to submit images to any UGC-approved lab for a period of two years. After 2 consecutive 'Pass' ratings, a technician could qualify for Absentia certification, a process where image quality is evaluated without the requirement to attend an in-person certification. Regardless of image quality or volume submitted, all technicians that switch to a new/different ultrasound technology must attend the next in-person Field Certification event prior to the expiration of their current UGC Field Certification status. Images from the new/different technology may be submitted for genetic evaluation in the interim prior to the next certification event.

Absentia Certification requirements: technicians must scan at least 3,000 animals lifetime, submitted to a breed association for genetic evaluation. At least 250 head must be scanned annually for each of the 2 years since the last in-person certification. The following image quality standards must be met or exceeded across all labs where images are submitted:

Image Type	Percent Acceptable	Percent Rejected
RIB	93.4%	0.6%
IMF	94.5%	0.5%
RUMP	98.9%	0.1%

Application for Absentia certification is \$200 and must be submitted by August 31st, or a \$50 late fee will apply. Technicians must also participate in continuing education opportunities during the period of their certification. Any technician that fails to meet the requirements of Absentia certification must attend an in-person UGC Field Certification event prior to the expiration of their certification and receive a ‘Pass’ rating.

After successful completion of Absentia certification, a technician must return to an in-person UGC Field Certification to ensure their proficiency in image collection and equipment/technology accuracy. A technician’s equipment must be re-evaluated by UGC at least every 4 years once Absentia status is achieved.

Host Institutions – An entity wishing to host a UGC Field Certification must submit a bid to the UGC Executive Director by December 31st to be considered for the following year. The institution must have access to market weight cattle and make efforts to include as much carcass variation as possible. They must secure a location capable of collecting individual carcass data. Samples ½” thick of the ribeye facing must be removed from the plant for analysis of Intramuscular Fat (IMF). Bids will be reviewed by the UGC Board in the spring of each year, and host institutions will be notified. The UGC Board will determine annually if more than one Field Certification event is necessary.

Section 2. Lab Certification – Effective November 15, 2018, technicians that utilize UGC-Approved software for submitting carcass ultrasound data to breed associations for genetic evaluation must receive a ‘Pass’ rating by majority vote from the UGC Board (Lab representatives do not vote). Lab Certification must be completed successfully every two years regardless of experience level. Lab technicians must certify on every technology (i.e. machine platform) they plan to interpret. Unique Lab Certification is NOT required for frame grabbers or specific image capture software packages. Lab Certification is granted upon receiving a ‘Pass’ rating and expires on December 31st of the second year.

Section 3. Software Certification – Effective September 13, 2021, all UGC Certified Systems (i.e. every unique combination of technology, machine setting, and frame grabber) must be approved by the Systems Review Committee. Additionally, software must meet or exceed the minimum standards described below through an ongoing 3-year rolling average, updated annually by the Executive Director. Data from the most recent UGC Field Certification events from the previous three years must be included prior to the analysis. Only data from technicians receiving a ‘Pass’ rating will be included in the analysis. Technologies would not be subject to evaluation until at least 5 sets of data are analyzed from at least 2 separate certifications (at least 2 sets of cattle). Any lab that falls below the minimum standards will have 90 days to correct any error or bias on Ribeye Area and Fat measurements. On Intramuscular Fat (IMF), new model updates should be submitted to the Systems Review Committee for approval. UGC will only endorse software systems that meet these minimum standards. The Systems Review Committee

will review the minimum standards on an annual basis, making any recommendations to the full UGC Board. The minimum standards adopted are enclosed below.

0.75	0.75	0.60	0.80	1.00	0.10	1.60	0.10	1.30	0.10	1.90	0.10
r REA	r FT	r IMF	r Rmp	Bias REA	Bias FT	Bias IMF	Bias Rump	SEP REA	SEP FT	SEP IMF	SEP Rump

Adopted by the Board of Directors on December 30th, 2021.



Chair