



TECHNICAL DATA SUPPLEMENT FOR FROZEN GROUND BISON AND BISON STEW MEAT (TDS-BIS-2012)

APPROVED

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I. SCOPE

This technical data supplement (TDS) is for use by the United States Department of Agriculture (USDA), Agricultural Marketing Service (AMS), [Commodity Procurement Division](#) for the procurement of frozen ground bison and bison stew meat. For this program, AMS will utilize the Institutional Meat Purchase Specifications (IMPS) descriptions and requirements for ground beef and beef for stewing as specification requirements for the production of ground bison and bison stew meat, respectively.

II. APPLICABLE DOCUMENTS

The following documents will be incorporated as part of this USDA, TDS-BIS-2012:

- Food Safety and Inspection Service (FSIS) Directive 10,010.1 Revision 3.
- IMPS General Requirements, effective June 1996.
- IMPS For Fresh Beef Products, Series 100, effective March 2010.
- IMPS Quality Assurance Provisions, effective June 1997.
- [Grading and Verification Division \(GVD\) Instruction Manual, Series 600 and 700.](#)

III. ORDERING DATA: TO BE SPECIFIED BY THE PURCHASER

(Section in the IMPS 100 Series) For the purpose of this TDS, references to "Ground Beef" (IMPS Item No. 136) and "Beef for Stewing" (IMPS Item No. 135A) are changed to Ground Bison and Bison Stew Meat, respectively.

A. ITEMS

1. GROUND BISON AND BISON STEW MEAT

The ground bison and bison stew meat shall be produced from bison harvested in, and the finished product shall be prepared and handled in, an establishment(s) operating under the Voluntary Exotic Animal Inspection Program of the USDA, Food Safety and Inspection Service (FSIS) [and must comply with the Sanitation Performance Standards provisions of 9 CFR 416.1-416.6.](#)

- a) Ground Bison – Ground bison shall be produced from fresh bison cuts and trimmings [from any portion of the carcass, which yields product that meets the end item requirements for IMPS 136.](#) Frozen, boneless bison (certified to the material requirements) may be used provided it is ground into the final product within 60 days from date of pack.

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- b) Bison Stew Meat – Bison stew meat shall be prepared from fresh bison cuts and trimmings from any portion of the carcass, which yields product that meets the end-item requirements for IMPS Item 135A.

2. MATERIAL

- a) The contractor's production plan must describe a process that includes procedures, records, forms, etc. that demonstrate conformance with the following Checklist of Requirements and have received a satisfactory onsite capability assessment by the GVD.
- b) The contractor will ensure, through their production plan, that the product complies with the MATERIAL section of IMPS Item No. 136 for ground bison, IMPS Item No. 135A for bison stew meat, and the following additional criteria:
 - 1) Domestic Origin – All bison will originate from U.S. produced livestock as defined in this Supplement.
 - 2) Harvest Requirements – Contractor must have documentation and a program in place that verifies the source of raw materials used in each lot of production. All bison will be harvested in facilities that comply with the following additional requirements:
 - (a) Humane Handling – All bison shall be humanely handled in accordance with all applicable FSIS regulations and AMS requirements.
 - (b) Pathogen Intervention – The harvest process must include at least two pathogen intervention steps and must be scientifically validated to achieve a 3 log reduction of enteric pathogens.
 - (c) Carcasses Testing – Routinely test carcasses for Shiga-toxigenic Escherichia coli O157 (including O157:H7 and O157:Non-Motile (NM); herein referred to as E. coli O157:H7) at CCP to verify effectiveness of interventions.
 - (d) Spinal Cord Removal – All spinal cord tissue shall be removed during the harvesting process.
 - (e) Traceability – Boneless bison shall be traceable to sources that comply with the above domestic origin and harvest requirements.
 - 3) Mechanical Separation – Bison meat that is mechanically separated from bone with automatic deboning systems, advanced meat (lean) recovery (AMR) systems, or powered knives will not be allowed.
 - 4) Fresh Chilled Bison – Prior to processing, boneless bison shall be examined for compliance with IMPS Item No. 136 MATERIAL requirements. Product failing this examination will be rejected.

3. PROCESSING

- a) Ground Bison – Ground bison meat will be processed in accordance with IMPS and the following additional requirements:
 - 1) Ground Bison Processing – Ground bison will be processed in accordance with the Processing section of IMPS Item No. 136. Frozen, boneless bison (certified to the material requirements) may be used provided it is ground into the final product within 60 days from date of pack.
 - 2) Bone Collector / Extruder System – A bone collector/extruder system must be in operation on the final grind of product.
- b) Bison Stew Meat – Bison stew meat must comply with the following additional requirements:
 - 1) Bison Stew Meat Processing – Bison Stew Meat shall be processed to meet the end item requirements listed within IMPS Item No. 135A.
 - 2) Dicing – The meat shall be either hand-diced or mechanically diced (grinding is not permitted).
 - 3) Handling – To facilitate dicing, meat may be frozen and/or tempered one time only.
 - 4) Shank or Heel Meat – No shank or heel meat is permitted.

4. METAL DETECTION

All products shall be free of metal contaminants. Detection of stainless steel, ferrous, and non-ferrous (e.g., lead, copper, and aluminum) metals is required. The contractor's production plan must identify and describe the equipment, location, detection procedure, sensitivity levels, frequency of equipment validation, and corrective action procedures.

B. GRADE – Not Applicable

C. STATE OF REFRIGERATION

All finished bison products will be frozen, in accordance with FREEZING OPTION 1. Refer to I. MEAT HANDLING, A. STATE OF REFRIGERATION, and B. PRODUCTION, TEMPERATURE AND TIME LIMITATIONS section of the IMPS General Requirements.

D. FAT LIMITATIONS

- 1. Ground Bison – The average fat content shall not exceed 10 percent, and the number of grams of fat per 112 gram serving will be declared in the nutritional facts panel on the package label. The fat content will be certified by AMS in accordance with IMPS QAPs. The 4 individual fat results shall be put into ascending order from the lowest to the highest value for evaluation (e.g., 8.30, 9.79, 10.63, and 11.20). The 4 individual fat test results shall be used to calculate average, median and range. Results not meeting the following requirements shall cause rejection of the lot:

- a) Average – The average of the 4 individual results cannot exceed 10 percent (e.g., average of the 4 test results = 9.98).
- b) Median – The median, which is the average of the middle two test results, cannot deviate from the average of the four individual samples by more than 2.0 percent (e.g., median is equal to the average of 9.79 and 10.63 = 10.21).
- c) Range – The difference between the highest and lowest test results cannot exceed 5 percent (e.g., 11.20 – 8.30 = 2.90).

- 2. Bison Stew Meat – Surface and seam fat will not exceed ¼-inch in thickness at any point.

E. WEIGHT RANGE – Not Applicable

F. NETTING AND TYING – Not Applicable

G. PACKAGING AND PACKING

Refer to II. PACKAGING AND PACKING section of the IMPS General Requirements and the following additional requirements:

- 1. Packaging – All immediate containers (casings or packages) shall function as a tamper evidence indicator to provide added assurance of product integrity through the method of sealing or closure.
 - a) Package Net Weight – Ground bison and bison stew meat shall be packaged as specified within the Contracting Officer's invitation:
 - 1) 110001 Ground Bison 1-pound
 - 2) 100085 Bison Stew Meat 1-pound
 - b) Package Method – Ground bison and bison stew meat shall be packaged using one of the following methods:
 - 1) Mechanical Packaged – Mechanically packaged into tamper-proof commercial casings.
 - 2) Vacuum Packaged – Vacuum packaged in accordance with the IMPS General requirements.
- 2. Packing
 - a) Shipping Container Net Weight
 - 1) Ground Bison – Forty (40) 1-pound packages of ground bison shall be packed into non-perforated shipping containers to a net weight of 40 pounds, without slackfilling or overfilling. Spacers or fillers may not be used to satisfy this requirement.

- 2) Bison Stew Meat – **Forty (40) 1-pound packages** of bison stew meat shall be packed into non-perforated shipping containers to a net weight of 40 pounds, without slackfilling or overfilling. Spacers or fillers may not be used to satisfy this requirement.
- b) Style and Size of Container – Only one style and size of shipping containers may be used in any one-delivery unit.
- c) Commingling – Commingling of ground bison and bison stew meat in the same shipping container will not be allowed.
3. Closure – Shipping containers will be closed by strapping, taping, or gluing. When strapping is used, the initial closure (usually the bottom of container) shall be secured by the gluing or taping method.
4. Marking of Containers* – Immediate and shipping containers will be labeled to include all information required by FSIS regulations. In addition, each immediate and shipping container must have the following markings:
 - a) Immediate Container – Each immediate container (package) will have the following information included on commercially labeled packages:
 - 1) Name of Product.
 - 2) Safe Handling Instructions.
 - 3) "Best-if-used-by" Date – A date that is 180 calendar days from the date of production.
 - 4) Traceability Code – A code that is traceable to production lot and date.
 - 5) Nutrition Fact Panel – Include fat declaration for number of grams of fat per **112** gram (ready-to-cook) serving.
 - 6) FSIS Establishment Number **and any other FSIS required markings**.
 - b) Shipping container – The following markings will be included on the shipping containers:
 - 1) Appendix A – Shipping containers will be marked in accordance with Appendix A. However, contractors may vary the placement of the required information shown in Appendix A. Additional markings (e.g., company bar codes, logos, etc.), that are consistent with all other commercial labels may be included.
 - 2) Traceability Code – A code that is traceable to production lot and date.
 - 3) Nutrition Fact Panel – Include fat declaration for number of grams of fat per **112** gram (ready-to-cook) serving.

- 4) The appropriate product code listed in the table below for each of the items.

<u>Item</u>	<u>Material Number</u>
Ground Bison, Frozen – 1-pound	110001
Bison Stew Meat, Frozen – 1-pound	100085

- 5) Name of Product.
- 6) USDA Shield (at least 2 inches high and appearing on the top of the container or on the principle display panel).
- 7) Purchase Order Number.
- 8) Ingredient declaration (including single ingredient products).
- 9) An allergen statement in a format which complies with the Food Allergen Labeling and Consumer Protection Act (FALCPA) for any product which contains milk, eggs, fish, crustacean shellfish, tree nuts, peanuts, soy, or wheat; e.g. Allergen: This product contains _____.

*All primary and shipping container labeling illustrations must be provided within the production plan.

5. Palletized Unit Loads – Required, see IMPS General Requirements.

H. USDA CERTIFICATION

1. Product Will Be Certified By USDA, AMS, **GVD** – AMS agents will perform examinations in accordance with IMPS General Requirements, IMPS QAPS, and **GVD** Instructions and as specified below:
 - a) Product Examinations
 - 1) Ground Bison – Product examination for excellent condition and detailed item description requirements will be in accordance with QAPS. In TABLE 100 I, delete defect numbers 218 and 219 in their entirety and replace with the following defects:

218 Presence of any portion of the popliteal, prescapular, or prefemoral lymph glands or any other exposed lymph glands measuring 1.0 inch or more in one dimension and 0.5 inch in a second dimension.

219 Presence of non-carcass components or fat from the thoracic, lumbar, pelvic, cod, and /or udder areas of the carcass measuring 2.0 square inches or more and 0.5 inch or more in depth at any point.

Delete defect 294 in its entirety. Insert the following note at the bottom of the table:

Note: The presence of any non-meat components not listed as defects above (e.g., spinal cord, organ tissue, foreign materials, etc.) shall cause rejection of the product by AMS.

- 2) Bison Stew Meat – Refer to LOT ACCEPTANCE CRITERIA section for diced items within QAPS. In TABLE 100 H, delete defect numbers 218 in its entirety. Replace defect number 218 with the following defect:

218 Presence of any portion of the popliteal, prescapular, or prefemoral lymph glands or any other exposed lymph glands measuring 1.0 inch or more in one dimension and 0.5 inch in a second dimension.

Delete defect 194 in its entirety. Insert the following note at the bottom of the table:

Note: The presence of any non-meat components not listed as defects above (e.g., spinal cord, organ tissue, foreign materials, etc.) shall cause rejection of the product by AMS.

- b) Condition of Container – Condition of containers will be examined as follows:
- 1) Production Container Examination – At time of production, randomly scan shipping containers to ensure defective containers are corrected and replaced.
 - 2) Shipping Container Examination – Final examination of condition of shipping containers will be limited to scanning (without destructive sampling) the delivery unit for defects which may have occurred during handling and storage (e.g., crushed, torn, dirty, stained, etc.). All defective containers must be replaced or corrected.
- c) Net Weight – Net weight will be in accordance with the QAPS only.
- d) Fat Content Analysis – Fat content analysis will be in accordance with the QAPS and FAT LIMITATIONS section of this specification.
- e) Traceability Code – Stamping (sealing) of shipping containers by the AMS agent is not required. The AMS agent will ensure that each primary and shipping container has a traceability code that is traceable to a production lot and date.
- f) Temperature Examinations – Temperature will be examined using Freezing Option 1.

2. Lot Size and Purchase Unit:
 - a) Lot Size – For finished product, the lot size will not exceed the amount specified by the purchaser as a purchase unit.
 - b) Purchase Unit Size – The purchase unit size for ground bison and bison stew meat is 40,000 pounds net weight (1,000 shipping containers) plus the amount for use in making box fills at the time of laboratory sample withdrawal.
3. The AMS Agent Will:
 - a) Certify and Issue Certificate – Certify and issue an official certificate indicating the status of each lot as required by GVD Instructions.
 - b) Supervise Loading and Sealing – Supervise the loading and sealing of each truck. All products must be delivered to AMS designated destinations under seal using tamper proof, tamper resistant, serially numbered, high security seals that meet the American Society for Testing and Materials Standard F 1157-04 as required under the AMS Master Solicitation.
4. Official Certificates Shall Include:
 - a) Purchase Order Number and Purchase Order line item number.
 - b) Sales Order Number and Sales Order Item number.
 - c) Name of product.
 - d) Applicable material number.
 - e) Production lot number(s) and the date each lot was produced.
 - f) Count of shipping containers and total projected net weight in each production lot.
 - g) Total projected net weights per delivery unit.
 - h) Identity of conveyance (numbers and letters, seals, license, etc.) as applicable.
 - i) Destination(s).
 - j) Sample average fat content analysis of each production lot for ground bison only (calculated to 2 decimal places, e.g., 8.25).

I. MICROBIOLOGICAL REQUIREMENTS FOR GROUND BISON

1. Boneless Bison for Grinding
 - a) Lot – A lot shall consist of a single combo sized bin of approximately 2,000 pounds of boneless bison produced within a day, between “cleanup to cleanup” and that is from a single harvester or from a single processor.

- b) Microbial Testing – All lots of fresh chilled boneless bison must be tested for all microbes listed in Appendix B. All samples will be sent to the AMS designated laboratory (ADL).
- 1) Sample Preparation and Handling - The ADL will be responsible for supplying sampling procedures for sample selection, preparation, and submission. The laboratory shall require suppliers to submit a sample submission form as an official record with each sample. The laboratory will also be responsible for supplying shipping supplies (including sampling bags and shipping materials) to each supplier. Suppliers' [production plan](#) will include and describe sample collection and preparation procedures provided by the AMS accredited laboratory.
 - 2) Sample Selection
 - (i) For Bison Manufacturing Trimmings – The composite sample will be selected as described within FSIS Directive 10,010.1 Revision 3 (N-60 Sections 8, 9 and NOTE).
 - (ii) The composite sample shall [consist of exactly seventy \(70\) pieces of trim from seventy \(70\) different pieces of bison product and shall weigh 400-425 grams.](#)
 - (iii) When boneless bison has been exposed to any anti-microbial treatment, no sample units shall be selected for at least 15 minutes after such treatment.
 - 3) Testing and Results
 - (i) The microbiological testing for all microbes will be in accordance with the [applicable AMS-approved testing methodologies.](#)
 - (ii) Notification for presence of pathogens and exceeding critical limit criteria – When presence of *E. coli* O157:H7 or *Salmonella* is presumptive positive or confirmed positive or any critical limit is exceeded for indicator microbes, the ADL will immediately notify FSIS ([pathogens only](#)) and the [Contracting Officers Technical Representative \(COTR\).](#)
 - (iii) The ADL will record results on spreadsheets for each Microbial Testing performed on each approximately 2,000 pound lot.
 - (iv) Any lot that tests positive for *E. coli* O157:H7 or *Salmonella* or exceeds the critical limit criteria for indicator microbes set forth in Appendix B cannot be used to produce ground bison or any other product purchased by USDA.

- (v) Any lot subjected to microbial analysis by FSIS or other regulatory authority that results in a positive finding for *E. coli* O157:H7 or *Salmonella* or exceeds the critical limit criteria for indicator microbes set forth in Appendix B cannot be used to produce ground bison or any other product purchased by USDA.

2. Ground Bison Microbial Requirements

- a) Lot – For the purpose of microbiological testing, a lot is defined as the amount of finished ground bison product produced **within a day**, between “cleanup to cleanup” which must be further divided into sub-lots not to exceed 10,000 pounds.
- b) Microbiological Testing – All lots of ground bison will be tested for all microbes listed in Appendix B after final grinding and before freezing. All samples will be sent to the ADL.
 - 1) Sample Preparation and Handling – The ADL will be responsible for supplying sampling procedures for sample selection, preparation, and submission. The laboratory shall require suppliers to submit a sample submission form as an official record with each sample. The laboratory will also be responsible for supplying shipping supplies (including sampling bags and shipping materials), to each supplier. Suppliers’ **production plan** will include and describe sample collection and preparation procedures provided by the AMS accredited laboratory.
 - 2) Sample Selection – Production processes of ground bison will be subject to the following sampling strategy:
 - (i) Sub-lot Microbial Testing – For every **sub-lot**, an original and reserve sample of approximately **400** grams will be prepared from **four (4)** individual sample units (approximately **100** grams each) of finished ground bison, **randomly selected throughout each 10,000 pounds of production**. The sample units shall be blended to produce a composite sample that represents each sub-lot. This sample shall be submitted to the ADL for analysis. The reserve sample will be held for testing in case **COTR** deems it necessary. The contractor will describe, in their **production plan**, the approach taken for documenting the amount of ground bison produced for each sub-lot, as well as the method to be used to maintain the identity and traceability of each sub-lot. No more than 10,000 pounds shall be produced during each sub-lot, **except for the last sub-lot produced in the lot may exceed the 10,000 pound limitation by five (5) percent**.
 - 3) Testing and Results – The sample from each sub-lot will be analyzed by the ADL for all microbes listed in Appendix B.
 - (i) The microbiological testing for all microbes will be in accordance with **AMS-approved testing methodologies**.

- (ii) Any sub-lot that tests positive for *E. coli* O157:H7, *Salmonella*, or any critical limit criteria for indicator microbes set forth in Appendix B that is exceeded will result in that sub-lot and adjoining sub-lots (one preceding and one following within “clean up to clean up”) being ineligible for this program or any other USDA purchase program. Additionally, any sub-lot subjected to microbial analysis by FSIS or other regulatory authority that results in a positive finding for *E. coli* O157:H7 or *Salmonella* or exceeds the critical limit criteria for indicator microbes set forth in Appendix B will result in that sub-lot and adjoining sub-lots being ineligible for this program or any other USDA purchase program. Other sub-lots produced within that lot unit will be deemed ineligible for this program unless the contractor can demonstrate a scientific or other data-supported basis for defining the sub-lot(s) relative to test results and why ground bison produced from same source material that resulted in the ineligible determination should not be considered affected by the test results.
- (iii) Notification for presence of pathogens or when critical limit is exceeded – When presence of *E. coli* O157:H7 or *Salmonella* is presumptive positive or confirmed positive; any critical limit is exceeded for indicator microbes:
- The ADL will immediately notify FSIS (pathogens only) and the COTR.
 - Confirmed Pathogen – The contractor shall conduct a cause and effect analysis to determine the appropriate corrective action necessary to eliminate the probable cause.
 - The ground bison associated with the positive pathogen test results or critical limit is exceeded results will be ineligible for any USDA purchase program.
- (iv) The ADL will record results on spreadsheets for each test performed on each sub-lot.

J. PRODUCT ASSURANCE

1. WARRANTY AND COMPLAINT RESOLUTION

- a) Warranty – The contractor will guarantee that the product complies with all specification requirements, production plan declarations, and provisions set forth in the program announcement.
- b) Complaint Resolution – Customer complaint resolution procedures will be included in the production plan. These procedures will include: a point of contact, investigation steps, intent to cooperate with AMS, and product replacement or monetary compensation. The procedures will be used to resolve product complaints from recipient agencies or AMS.

2. NON-CONFORMING PRODUCT

The contractor must include a plan to ensure that non-conforming product is not delivered under USDA contracts. The plan must address 1) control and segregation of non-conforming product, 2) removal of any USDA markings, and 3) disposition of non-conforming product, including vendor notification in writing to the **COTR** of final disposition (e.g., diverted to cooked product or destroyed).

APPENDIX A

SHIPPING CONTAINER MARKINGS: COMMERCIALY LABELED SHIPPING CONTAINERS SHALL INCLUDE THE INFORMATION SHOWN BELOW. MANUFACTURER'S NAME AND ADDRESS SHALL APPEAR. THE NUTRITION FACTS PANEL, USDA SYMBOL, AND DONATED STATEMENT SHALL BE BLACK, FLAT, WATERFAST, AND NONSMEARING. THE USDA SYMBOL SHALL BE AT LEAST 2.0 INCHES HIGH. ALL OTHER PRINTING OR STENCILING SHALL BE OF A SIZE AND CONTRASTING COLOR TO STAND OUT PROMINENTLY AND COMPLY WITH THE USDA-FSIS REGULATIONS OR STATE REGULATIONS.

PERISHABLE FROZEN - STORE AT 0°F (-17.8°C) OR Boxes must include Safe Handling instructions in accordance with FSIS Mandatory Safe Handling Statements on Labeling of Raw Meat and Poultry.   Manufacturer's Name and Address (here or on principle display panel)		
Product Name Material Number _____ Purchase Order No. KEEP FROZEN	DATE PACKED LOT# _____ BOX _____	

NOTES: DATE PACKED SHALL BE THE MONTH, DAY, AND YEAR OF PACKING.

SERIAL **PURCHASE ORDER NUMBER** WILL BE FURNISHED BY USDA.
LOT NO. AND BOX NO. MAY BE PLACED ON THE SAME LINE OR AS SHOWN ABOVE.
BOX NUMBERS SHALL BE SEQUENTIAL.

PER 9 CFR 317.4 & 317.5, PRIOR APPROVED LABELS NEED NOT BE RESUBMITTED. CONTRACTORS THAT DO NOT HAVE APPROVED LABELS ON FILE MUST SUBMIT LABELS IN SKETCH FORM ONLY TO THE APPROPRIATE USDA, FSIS, OR STATE AGENCY.

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APPENDIX B

AMS MICROBIAL REQUIREMENTS FOR BONELESS & GROUND BISON	
Microbial Test	Critical Limits
Standard Plate Count	100,000 cfu / gram
Total Coliforms	1,000 cfu / gram
<i>E. coli</i>	500 cfu / gram
<i>Salmonella</i>	Positive (+) result / 25 grams
<i>E. coli</i> O157:H7	Positive (+) result / 325 grams

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