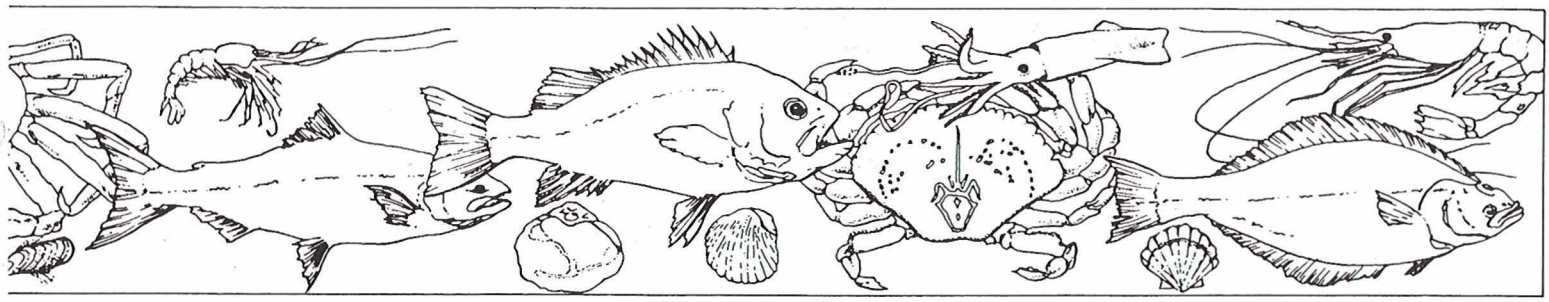
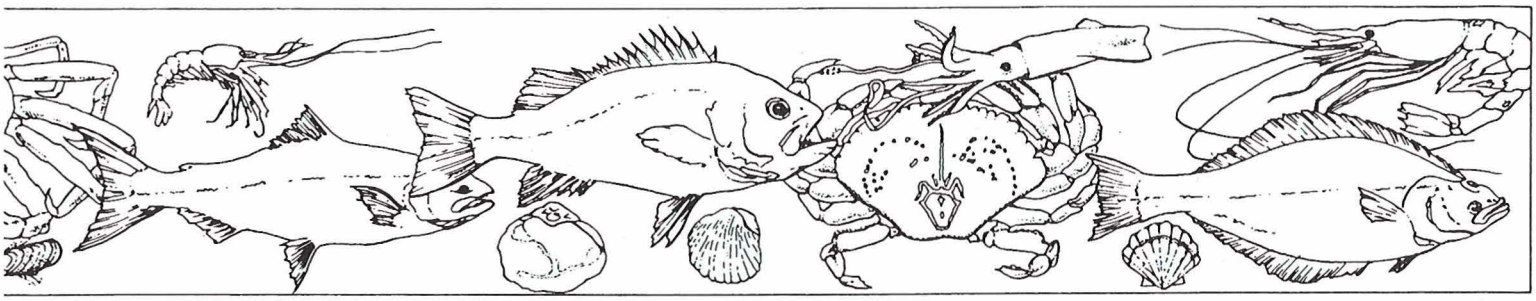
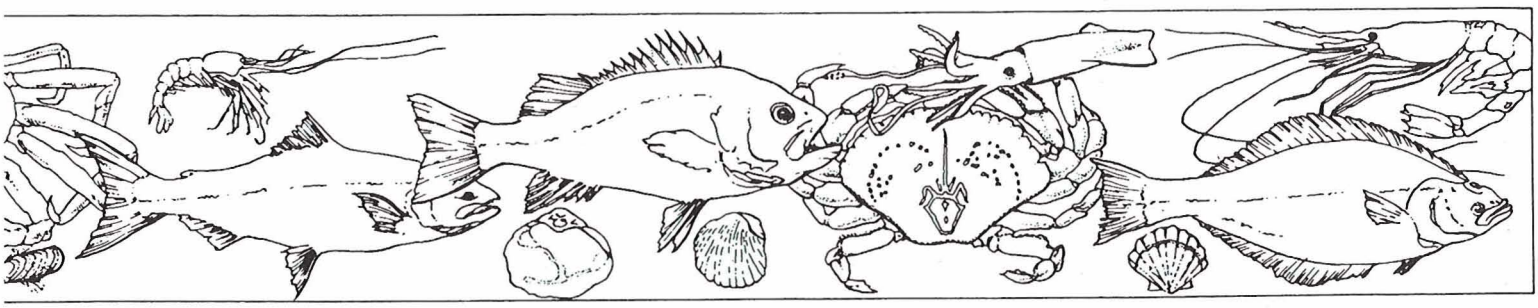
Alaska Seafood
MARKETING INSTITUTE

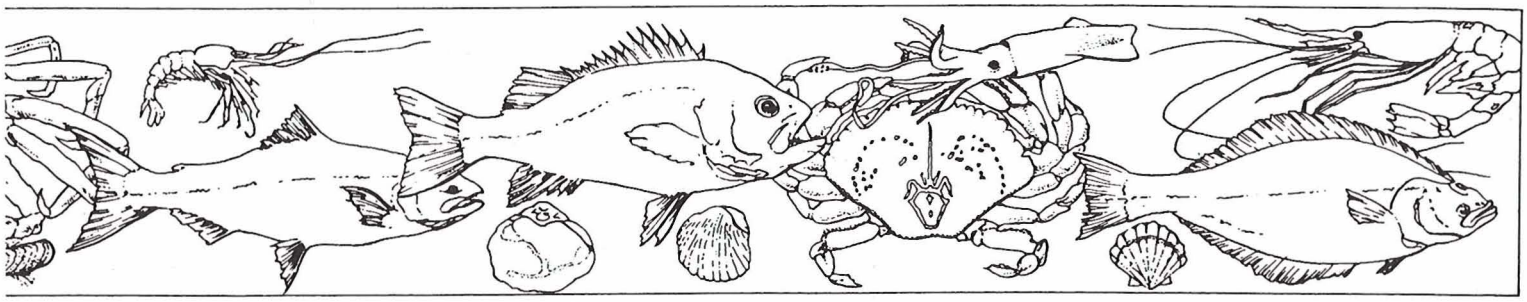


Premium Quality Specifications





Snow Crab



Alaska Seafood Marketing Institute

Recommended Statewide Premium Quality Specifications For Snow Crab

Part I: Definitions

Section 1: Species

Frozen Alaska Snow Crab meat is the processed flesh of any of those species of crustacean listed below:

A. *Chinocetes opilio*
B. *Chinocetes bairdi*
C. *Chinocetes tanneri*

Section 2: Components

A. **Body Meat (Shoulder)**: The body meat will consist of the meat from beneath the body cavity, which consists of a bundle of medium length, homogeneous, longitudinal fibers of white meat capped by a membrane swirl at the base and encompassing a small yellowish or light brown area at the opposite end. The body meat is confined within a yellow, pink and red tinted membrane but is not usually extracted in whole segments.

B. **Merus**: The largest segment of the walking legs, the meat of which consists of homogeneous, longitudinal fibers of white meat confined within a thin, red-orange tinted membrane having a small concentration of membrane at each end.

C. **Carpus/Propodus**: The segments of the walking legs located at the distal end of the merus, the meat of which consists of homogeneous, longitudinal fibers of white meat enclosed in a slightly tough, reddish tinted membrane, but not including the dactylus tip.

D. **Dactylus**: The tip of the walking leg and the movable portions of the claw pincers.

E. **Claw Arms**: The nonwalking appendages supporting the pincers, consisting of a series of short segments, similar to the legs, but of smaller size. The meat is generally more firm and dry than the corresponding leg meat.

F. **Claw Pincers**: The propodus and dactylus segments connected to the claw arm, consisting of short, vertical, homogeneous coarse fibers generally having a light red tinted surface on the dorsal side.

G.. **Whole Pieces**: The extracted segments of meat from the legs, claws and body, not split or broken, and which retain a minimum of 50 percent of the carotenoid membrane intact.

H. **Whole Merus Meat**: The extracted merus section of the walking leg which may or may not be trimmed of the knob end, retaining a minimum of 75 percent of the dorsal carotenoid layer, and shall not be split or broken.

I. **Red Meat**: The extracted merus, carpus, propodus, and claw arm covered by a carotenoid membrane.

J. **White Meat**: Body meat, whole or broken, and meat from other components lacking sufficient carotenoid membrane for identification.

K. **Shreds**: Individual fibers and broken fragments of crab meat which are smaller than 3/8″ × 1/8″ × 1/8″ in cross section.

L. **Dehydration**: The evaporation or sublimation of water to the extent that the nature of the surface is noticeably changed.

Part II: General Requirements

Section 1: Plant and Product Specifications

All products shall be prepared from wholesome, live Snow Crab.

Section 2: Microbiology (applicable to all meat and shell products)

A. **General**: Snow Crab meat or the thawed drip therefrom shall be inspected for microbiological counts using recognized methodology as published.

B. **Tolerances:**

	Not More Than:
Aerobic Plate Count (TPC)	50,000/gram
Coliform Group	50/gram
E. coli	3.6/gram
Coagulase Positive Staphylococci	50/gram

C. **Limitations**: When routine examination on a minimum sampling basis indicates that microbiological counts may exceed the general limits for a specified lot, duplicate samples in quantity shall be examined for verification. One (1) sample in six (6) may exceed the general limits and still be acceptable as long as the lot average for the six (6) samples does not exceed the tolerance. These microbiological standards shall apply to all Snow Crab products.

Part III: Frozen Alaska Snow Crab Blocks

Section 1: Product Description

A. Snow Crab meat blocks are rectangular shaped units of cooked ready to eat, frozen Snow Crab meat. When sampled in whole units or cut blocks of 2.5 pounds or more, these blocks shall meet the following specifications:

1. The bottom of the block shall consist of merus meat in an amount not less than 20 percent by weight of the drained weight of the block. A minimum of 30 percent of the merus meat must be whole pieces. The remaining 70 percent may be split but should retain a minimum of 50 percent of the carotenoid layer. Merus pieces may have the ends trimmed. The merus meat shall be packed in a uniform arrangement.

2. The top of the block shall consist of mixed red and white meat. (The pieces of red meat shall be packed with a minimum of light areas and voids).

3. The balance of the block shall consist of white meat in bite sized and shredded pieces. Not more than 30 percent of the drained weight of the block shall consist of crab meat which has broken during processing into shreds.

Section 2: Quality Specifications for Frozen Alaska Snow Crab Meat Blocks

A. **Objective Evaluation:**

1. The thawed, drained weight shall not be less than 90 percent of the stated net weight of the frozen block.
2. Extraneous Material: There shall not be more than five (5) major defects per pound total of any combination of, but not limited to, the following defects exceeding 1/2" in any single dimension: Shell, Barnacle, Pearl, Gill, Tendon, Grit. Three (3) incidents of small size defects are to be counted as one major defect as indicated above.

B. **Subjective Evaluation:**

1. Color: The color shall be uniform and characteristic of the species used. The red color may vary from orange-red through rich-red with characteristic pink tinges. The white color shall be white to creamy-white with some light grey areas allowable. A block shall have uniform red and white color and be reasonably free of green, yellow or blue discoloration. Color variation from block to block is not considered, only within-block variation.
2. Flavor: When thawed, the flavor shall be typical of the species and may vary from bland sweetness to slightly salty, depending upon the portion sampled.
3. Odor: When thawed, the odor shall be indicative of freshness as associated with fresh caught, cooked and chilled Snow Crab.
4. Texture: When thawed, the texture shall vary from the tender, moist, longitudinal fibers of the shoulder meat to the somewhat firmer, vertical fibers of the claw meat.
5. Dehydration: The crab meat shall be packaged and/or glazed to prevent dehydration during frozen storage. There shall be no dehydration which would adversely affect the quality or appearance of the product.
6. Appearance: The frozen block shall be symmetrical, with a minimum of unevenness and/or voids. There shall be no conspicuous areas of ice formation.

C. One sample in six may fall below the limitations described above and the lot still judged acceptable, provided the average of the sample still meets the specifications.

Part IV: Frozen Alaska Snow Crab Clusters

Section 1: Product Description

A. Snow Crab Clusters shall consist of a cooked, ready to eat, body section (one-half of a cooked crab) containing three (3) walking legs complete with shoulder, dactylus and claw with arm attached. The fourth leg may or may not be included. All walking legs shall be reasonably uniform in length. Deformed legs or claws shall not be used. The combined shoulder, legs and claws should contain a minimum of 35 percent meat.

Section 2: Quality Specifications for Frozen Alaska Snow Crab Clusters

A. **Objective Evaluation:**

1. Appearance, External: Clusters shall be glazed and/or packaged to prevent dehydration during frozen storage. The exposed shoulder meats shall be reasonably free of viscera and other extraneous material and may be protected with moisture barrier materials. There shall be no dehydration which would adversely affect the quality or appearance of the product. All gills shall be removed. The legs shall be packed in such a manner that the top layer of legs as seen by the customer has the dorsal (red) surface up.
2. The shell shall be reasonably free of barnacles and other marine growth.
3. The deglazed weight shall average 100 percent of the stated net weight of the frozen product and shall meet the guidelines set by the National Bureau of Standards with regard to variations therefrom.

B. **Subjective Evaluation:**

1. Color: The dorsal shell surfaces of the legs and claws shall be of a characteristic reddish color. The ventral surface shall be light tan to brown and relatively free of scars and black discoloration. The shoulder shell is light tan to brown. The exposed shoulder meat shall be creamy white.
2. Flavor: When thawed, the flavor shall be typical of the species and may vary from bland sweetness to slightly salty, depending upon the portion sampled.
3. Odor: When thawed, the odor shall be indicative of freshness as associated with fresh caught, cooked and chilled Snow Crab.
4. Texture: When thawed, the texture will vary from the tender, moist, longitudinal fibers of the shoulder meat to the somewhat firmer, vertical fibers of the claw meat.

Part V: Methodology

Section 1: A Method for Determining the Thawed Drained Weight of Frozen Alaska Snow Crab Meat Blocks in Excess of One Pound (Nondestructive)

A. **Equipment:**

1. Balance sensitive to 0.01 pound or 1 gram.
2. US Standard #8 screen.
3. An accurate metal-stem thermometer.
4. A watch or timer.

B. **Procedure:**

1. Determine the gross weight of the bare frozen block.
2. Seal the block in a nonpermeable plastic pouch.
3. Thaw samples over one (1) pound in a refrigerator at a constant temperature of 36 to 40° F for a period of 24 to 48 hours; samples of one (1) pound or less should be thawed under the same conditions as larger samples with the exception that the thawing time shall be reduced to 20 to 24 hours. When thawed, the pouch shall be carefully removed and the block inverted onto a US Standard #8 screen. The screen is inclined to facilitate drainage, the meat is allowed to drain exactly two (2) minutes and the weight recorded. This weight less the tare weight of the screen is taken as the drained weight of the sample.

C. **Calculations:**

$$\text{Percent (\%) of Stated Net Weight} = \frac{\text{Thawed Drained Weight} \times 100}{\text{Stated Net Weight}} = \text{(90\% minimum)}$$

Section 2: A Method for Determining the Thawed Drained Weight of Retail Packages of Frozen Alaska Snow Crab Meat, One Pound or Less (Destructive)

A. **Equipment:**

1. Balance sensitive to 0.01 pound or 1 gram.
2. US Standard #8 screen, 8 inch diameter.
3. An accurate thermometer.
4. A watch or timer.
5. Plastic bowls for
   6 ounce packages marked at the 48 ounce level
   8 ounce packages marked at the 64 ounce level
   1 pound packages marked at the 1 gallon level

B. **Procedure:**

1. Weigh bare block free of all wrappings and record weight.
2. Place in bowl containing 8 times the declared weight of fresh potable water at 80° F.
3. Allow to remain in water until all the ice is melted. This can be accelerated by turning the block over several times. The point at which thawing is complete can be ascertained by probing with a metal-stem thermometer.
4. After the ice is completely gone, the entire contents of the container are poured onto the 8" diameter #8 screen. The screen is then inclined to facilitate drainage, and allowed to drain exactly two minutes and then weighed. This weight less the tare weight of the screen is taken as the thawed drained weight of the sample.

C. Calculation:

$$\text{Percent (\%) of Stated Net Weight} = \frac{\text{Thawed Drained Weight} \times 100}{\text{Stated Net Weight}} = \text{(90\% minimum)}$$

Section 3: A Method for Determining the Net Weight of In-Shell Frozen, Glazed Alaska Snow Crab

A. **Procedure**: Official Methods of the 1980 13th Edition of the A.O.A.C., page 285, paragraph 18.001 (A) Glazed Seafoods: Remove package from low temperature storage, open immediately and place contents under gentle cold water spray. Agitate carefully so product is not broken. Spray until all ice glaze that can be seen or felt is removed. Transfer product to circular No. 8 sieve, 8 inch diameter (12 inch diameter for samples over 2 pounds). Without shifting product, incline sieve at angle of 17–20° to facilitate drainage and drain exactly 2 minutes. Immediately transfer product to tared pan (B) and weigh (A). Wt. Product = A - B.

Section 4: A Method for Determining the Net Weight of In-Shell Frozen, Unglazed Alaska Snow Crab

A. **Procedure**: Official Methods of the 1980 13th Edition of the A.O.A.C., page 543, paragraph 32.051 (A) Unglazed Frozen Foods: Remove package from low temperature storage, remove frost and ice from outside of package and weigh immediately (W). Open package and remove contents, including any product particles and frost crystals. Air dry empty package at room temperature and weigh (E). Wt. Contents = W - E.

Section 5: A Method for Determining the Meat Percentage for In-Shell Frozen, Glazed or Unglazed Alaska Snow Crab

A. **Procedure**: Select random sample (minimum 10 lbs.) in natural proportion to the lot represented. Determine net deglazed weight by methodology above. Allow to thaw at room temperature to an internal temperature of 40°F and weigh product in-shell. Carefully extract all meat and weigh.

B. **Calculation:**

$$\frac{\text{Extracted Meat Weight}}{\text{Deglazed In-Shell Weight}} \times 100 = \% \text{ Meat}$$