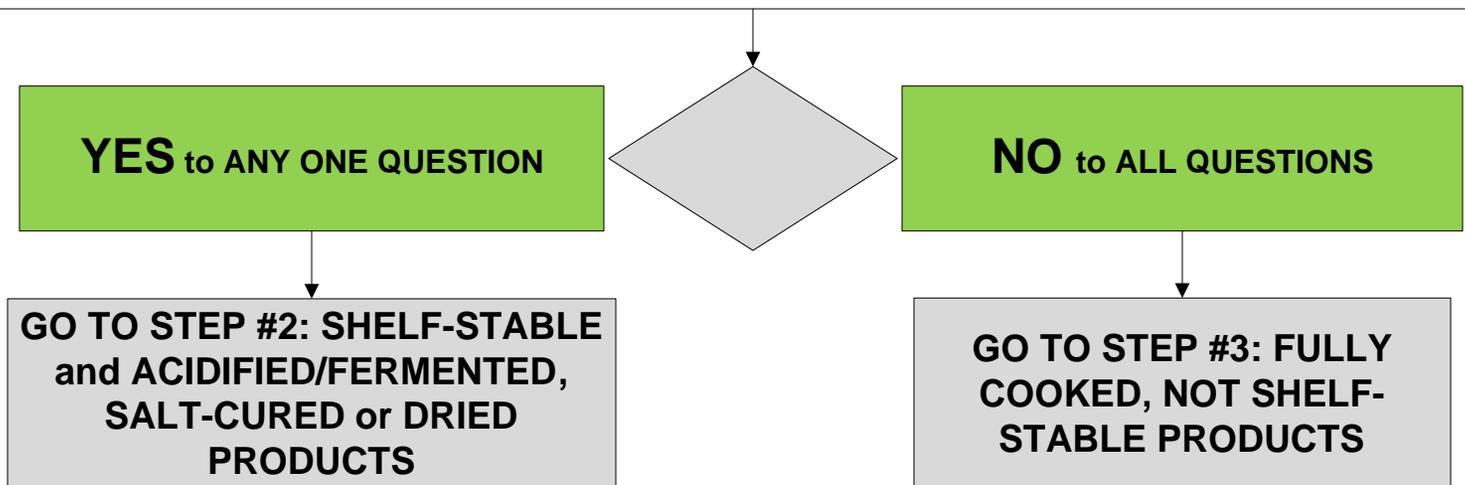


RTE PRODUCT GROUP FLOWCHART

NOTE: The Flowchart has been designed to select the single best representative product category/group in which a given product might be classified, based on the overall microbial lethality, preservation and production method, while being aware that mixed, multiple production steps can occur. (For example, many fermented products may include a cooking/heating step after fermentation).

STEP #1: SHELF STABLE vs. NOT SHELF STABLE (i.e., Perishable)

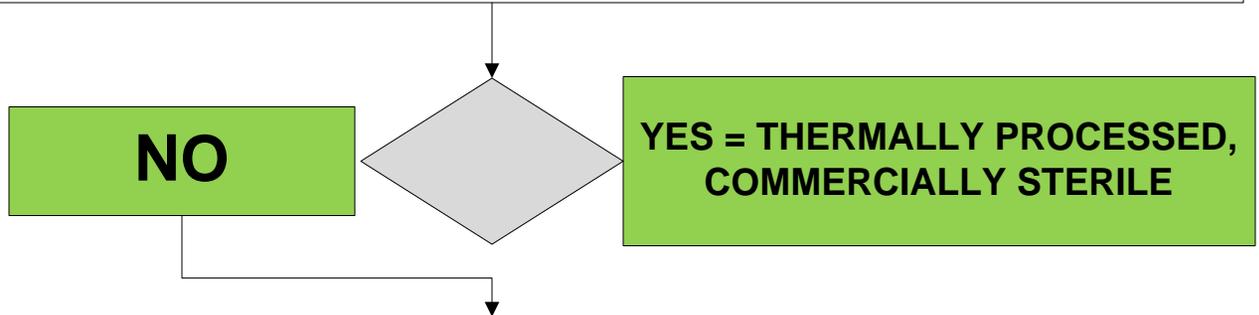
- 1) Is the RTE meat or poultry product produced under a HACCP plan for “Not Heat Treated—Shelf Stable” product, “Heat Treated—Shelf Stable” product, or “Thermally Processed—Commercially Sterile” product?
- 2) Does the RTE product's label exclude a handling statement, for example, the label does *not* state "keep refrigerated" or "keep frozen"?
- 3) Does the RTE product's label include a “Refrigerate After Opening” statement?
- 4) For non-fermented RTE products, does the product achieve a water activity of 0.85 or less and have measures (e.g., short pull dates, low pH, antimycotics, coatings, gas packed or vacuum in an oxygen impervious package, or any combination of these measures) to prevent mold growth?
- 5) For non-fermented RTE products, does the product achieve a water activity from 0.92 to 0.85 and either gas packed or vacuum packed in an oxygen impervious package and labeled “Refrigerate After Opening”?
- 6) Does the RTE dry sausage achieve a MPR of $\leq 1.9:1$?
- 7) Does the RTE semi-dry sausage achieve a MPR of 3.1:1 or less and a pH of 5.0 or less?
- 8) Does the RTE semi-dry sausage achieve a pH of ≤ 4.5 (or 4.6 combined with an a_w of < 0.91), a brine concentration of $\geq 5.0\%$ and is in an intact form (or sliced and vacuum packaged), cured with nitrite or nitrate, and smoked with wood?
- 9) For acidified RTE products (e.g., pickled pig feet) that are cold filled, does the establishment have documentation (e.g., challenge study) that validates that the product is shelf stable and prevents the growth of microorganisms (e.g., yeasts, molds, Lactobacilli, or *Clostridium botulinum*) at room temperature?
- 10) : For acidified RTE products (e.g., pickled pig feet) that are hot filled, does the finished product achieve a pH of 4.6 or lower within 24 hours?
- 11) Does the RTE meat or poultry product achieve commercial sterility and fall under the canning regulations (9 CFR 318.300—311 or 9 CFR 381.300—311)?



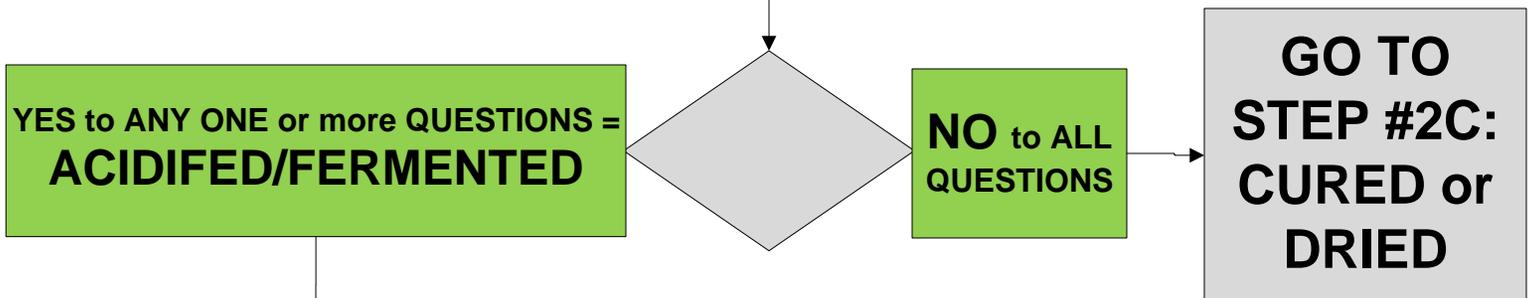
Note: The term "deli" applies to any RTE product category/group in which the product is intended to be used in a sandwich as per 9 CFR 430.1. However, "deli" is not a formal part of the existing product classification system. A forthcoming PHIS enhancement is a Checkbox to indicate if a given product is "deli".

STEP #2: SHELF-STABLE and ACIDIFIED/FERMENTED, SALT-CURED or DRIED PRODUCTS

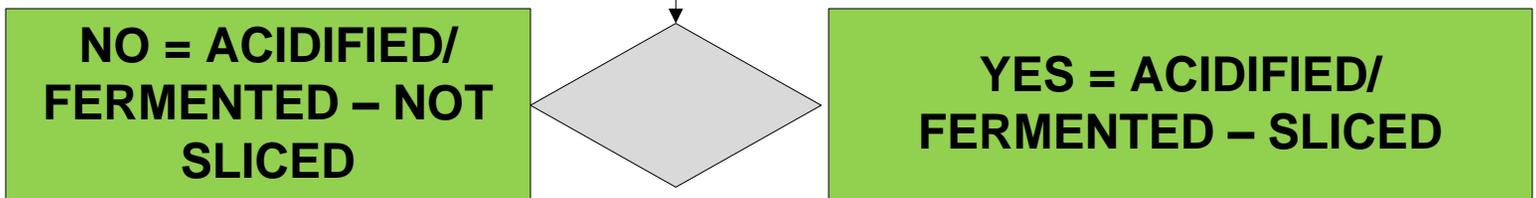
Step #2A: 1) Does the RTE meat or poultry product achieve commercial sterility and fall under the canning regulations (9 CFR 318.300-311 or 9 CFR 381.300-311)?
 2) For acidified RTE products that are hot filled (e.g., pickled pig feet), does the finished product achieve a pH of 4.6 or lower within 24 hours?



Step #2B: 1) Is a starter culture added to the product during formulation?
 2) Is a chemical acidulant added to product during formulation in order to decrease the product pH?
 3) Is the establishment following the degree hours concept (pH reaches 5.3 within a certain timeframe based on the fermentation temperature) to inhibit the growth of *Staphylococcus aureus* and prevent its enterotoxin production?



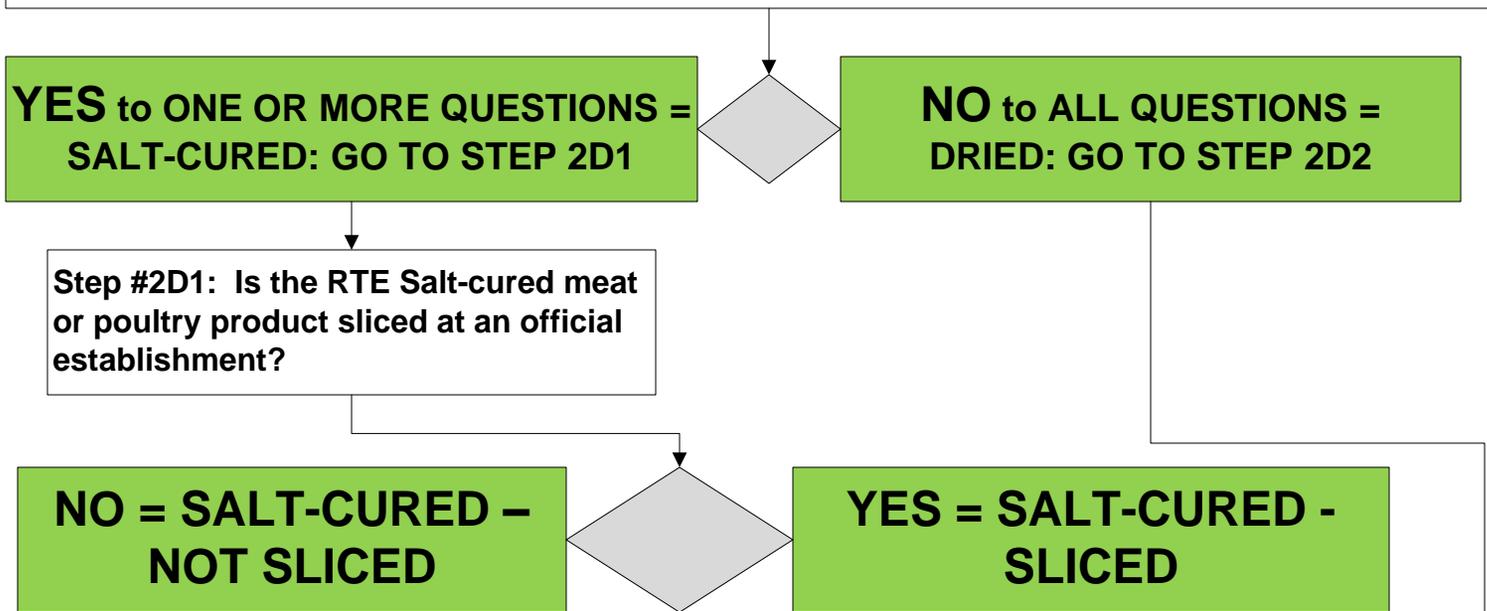
Step #2B1: Is the RTE Acidified/ Fermented meat or poultry product sliced at an official establishment?



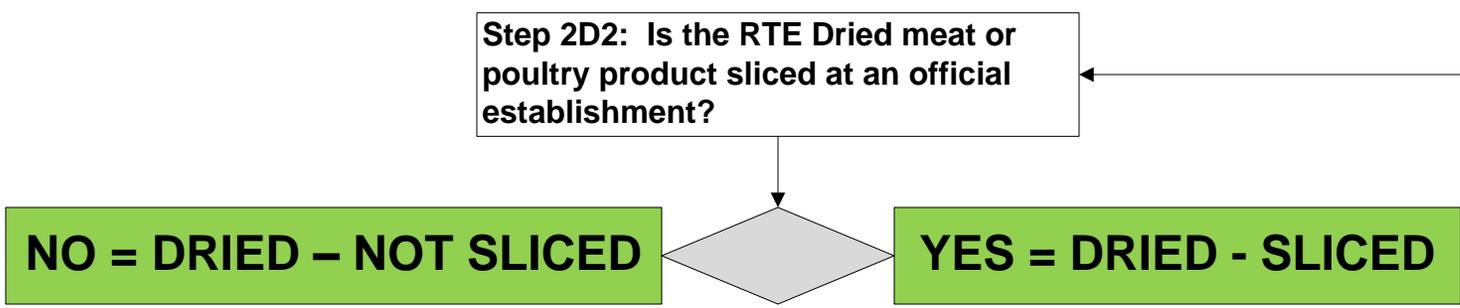
EXAMPLES: Genoa salami, hard salami, pepperoni, turkey pepperoni, summer sausage, Abruzzese, Lebanon bologna, sopressata, thuringer, mettwurst, saucisson, chorizo, chourico, sucuk (soujuk), pickled pigs feet*, bologna in vinegar*.

(* = If Yes to Step 1, question 9).

- Step # 2C:** 1) Is the meat or poultry product dry rubbed (dry curing) with a cure mixture (salt and nitrate and/or nitrite) and then undergoes a curing/equalization step and a drying step?
- 2) Is the meat or poultry product immersed in a concentrated brine solution (pickle curing) and then undergoes a curing/equalization step and a drying step?
- 3) Is the meat or poultry product injected with a brine solution (injection curing) and then undergoes a curing/equalization step and a drying step?
- 4) Does the finished meat or poultry product achieve an internal salt content of at least 4 percent when sodium or potassium nitrate and/or sodium or potassium nitrite is used with the application of salt (NaCl)?
- 5) Does the finished meat or poultry product achieve a brine concentration of at least 10 percent when no sodium or potassium nitrate and/or sodium or potassium nitrite is used with the application of salt (NaCl)?



EXAMPLES: Prosciutto ham, Parma ham, Westphalian ham, Bayonne ham, Serrano ham, Black Forest ham, country ham, pancetta, coppa, capocola, bresaola, beef prosciutto, basturma, duck prosciutto, linguica, salchichon.



EXAMPLES: dried beef, beef jerky, beef nuggets, steak tenders, kippered beef, landjager, meat sticks, turkey jerky, tasajo, pemmican, pipi kaula, biltong, jamon (jambon), longanisa, (some) saucisson, (some chorizo), dried soup mixes/soup bases, freeze-dried entrees, fried pork skins/rinds/cracklings/chicharrones, lard.

STEP 3: FULLY COOKED, NOT SHELF- STABLE PRODUCTS (page 1 of 3)

3A. Does the product consist in whole or in part of a cooked sausage (hotdog) product as defined in 9 CFR 319.180, 319.181, or 9 CFR 430.1?

**YES = FULLY COOKED
HOTDOG PRODUCT**

NO
EXAMPLES: Hot dogs, frankfurters/franks, cheese dogs, corn dogs, knockwurst (knackwurst), wieners.

3B. Is the product a cooked sausage or sausage-like product, or cooked linked sausage or sausage-like product, other than a 9 CFR 319.180/319.181/430.1 product (i.e., other than a hot dog)?

**YES = FULLY COOKED
SAUSAGE PRODUCT**

NO
EXAMPLES: Andouille, beer sausages/beerwurst, blood sausage, blood pudding, pork blood, bratwurst, bockwurst, braunschweiger, breakfast sausages (fully cooked), chicken/turkey sausage (fully cooked), German sausage, polish sausage, Krakow, kielbasa, cervelat, boudin, cha lua (gio lua), other ethnic sausages. (For sausage patties, see FC 3E. For sausage products that are sliced, crumbled, chopped, etc., see FC 3F).

3C. Is this a salad product with meat or poultry (e.g., a vegetable or pasta mix with dressing or a mayonnaise or oil-based mix), or a meat or poultry spread or pate-type product?

**YES = FULLY COOKED
SALAD/SPREAD/PATE**

NO
EXAMPLES: antipasto salads, Asian style salads, Caesar salads, chef salads, Cobb salads, pasta salads, salad spreads ALL with meat/poultry added; chicken salad, chopped liver, ham salad, liver mush, mousse, pate, sandwich spreads, turkey salad.

**GO TO NEXT PAGE (FC 3D: FULLY COOKED MEAT + NONMEAT
MULTICOMPONENT PRODUCT)**

STEP 3: FULLY COOKED (page 2 of 3)

3D. Is the product a meat or poultry filling enclosed in dough or pastry, or is the product any combination of meat and non-meat items other than salad/spread/pate?

YES = FULLY COOKED MEAT + NONMEAT MULTICOMPONENT PRODUCT

NO

EXAMPLES: burritos, egg rolls, empanadas, enchiladas, fajitas, meat/bean combinations, meat/egg/cheese combinations, meat/pasta combinations (lasagna, ravioli, etc.), meat/poultry pizza products, meat/poultry-containing sauces, meat/poultry-containing soups (fully cooked, not shelf-stable), pasties, pinwheels, pot pies, pot stickers (Chinese dumplings; gyoza), piroshki, shumai, chili, quesadillas, samosas, tacos, tamales, teriyaki, turnovers, gyros, wraps.

3E. Is the product a comminuted product other than sausage/sausage link (e.g., patty or meatball) or a breaded or unbreaded molded product (e.g., nugget)?

YES = FULLY COOKED PATTIES/NUGGETS

NO

EXAMPLES: Nuggets/fingers/tenders, popcorn chicken, meatballs, meat loaf, fully cooked hamburger/meat/poultry patties (including sausage patties), pork roll, scrapple.

3F. Is the product a comminuted or whole muscle product that has been diced or shredded or crumbled or chopped or shaved or otherwise cut into pieces?

YES = FULLY COOKED DICED/SHREDDED

NO

EXAMPLES: Barbequed diced/shredded meat/poultry products, carne asada, chopped ham, diced meat/diced ham, diced poultry, gyro pieces, stir-fry pieces, jerk chicken, meat/poultry crumbles, meat/poultry strips, meat/poultry taco filling, pulled pork, kahlua shredded pork, other diced or shredded or cut meat/poultry products.

GO TO NEXT PAGE (ALL OTHER FULLY COOKED)

STEP 3: FULLY COOKED (page 3 of 3)

3G1. Is the product an RTE fully cooked meat or poultry product that is sliced in official establishment and typically is (or is intended to be) assembled in a sandwich for consumption (i.e., *deli products* as per 9CFR 430.1)? OR, 3G2. Is the product an RTE fully cooked meat or poultry product that is sliced in official establishment and is OTHER THAN a hotdog, sausage, salad/spread/pate, nugget/patty, diced/shredded or multicomponent product?

**YES to Either =
OTHER FULLY
COOKED – SLICED**

NO

3H1. Is the product an RTE fully cooked meat or poultry product that is NOT sliced in official establishment but is intended to be assembled in a sandwich for consumption by the end user (i.e., *deli products* as per 9CFR 430.1)? OR, 3H2. Is the product an RTE fully cooked meat or poultry product that is NOT sliced in official establishment and is OTHER THAN a hotdog, sausage, salad/spread/pate, nugget/patty, diced/shredded or multicomponent product?

**YES to Either =
OTHER FULLY COOKED – NOT SLICED**

EXAMPLES (3G1 [SLICED] or 3H1 [UNSLICED]): Ham (if cooked), bologna (exception is Lebanon bologna), mortadella, chicken roll, turkey breast, olive loaf, corned beef, pastrami, roast beef, brisket, pickle loaf, pimento loaf (pimiento), pepper loaf, liverwurst, tongue, head cheese (AKA souse or sulze), capocola (capicola) *labeled as cooked*, olive loaf, luncheon loaf, jellied beef loaf, Dutch loaf.

EXAMPLES (3G2 [SLICED] or 3H2 [UNSLICED]): Baked products, barbecued intact products, battered or breaded products (if not a molded nugget-type product), broiled products, chicken or turkey breasts (for reheating as opposed to slicing for deli purposes), fried products, grilled products, tasso, meat ribs, legs, pork parts, fully cooked bacon/Canadian bacon or pork roll (sliced or unsliced), gyro slices, sliced sausage for use as pizza topping, pot roasts, legs/drumsticks (fully cooked), wings, roasted products, smoked fully cooked products (high-temperature smoked products), whole chickens or turkeys (fully cooked), single-component RTE soup broths, pickled pigs feet*, bologna in vinegar*.

(* = If No to Step 1, question 9 or question 10).

Note: Lard is fully cooked but shelf stable. Based on a combination of HACCP for Heat Treated Shelf Stable Products and obvious low water activity this product has been classified under "Dried".

Note: The term "deli" applies to any RTE product class/group in which the product is intended to be used in a sandwich as per 9 CFR 430.1. However, "deli" is not a formal part of the existing product classification system. A forthcoming PHIS enhancement is a Checkbox to indicate if a given product is "deli".