



Culinary Institute
of America

US Navy Culinary Training

Day 1: Mise en Place, Knife Skills,
Flavor, Herb, and Spice Basics



Learning Objectives

- Demonstrate effective workstation set up and mise en place.
- Safely hold and handle a knife.
- Select a knife appropriate for its intended use.
- List, identify, and execute commonly used knife cuts.
- Describe roux and its variations.
- Discuss Flavor and Spice basics

Mise en Place

French term for “everything in its place”

What does this mean?

- A clean, organized workstation
- Recipe mise en place (MEP)
- Reading through the **entire** recipe
- Prep time vs. service
- Physically ready to cook
- Mentally prepared to cook – proper state of mind!





Tasting spoons

Sanitation bucket with handy wipes

Paper towels

Salt + pepper

Receptacles for trash + compost

Secured cutting board

Receptacles for product

Workstation Mise en Place

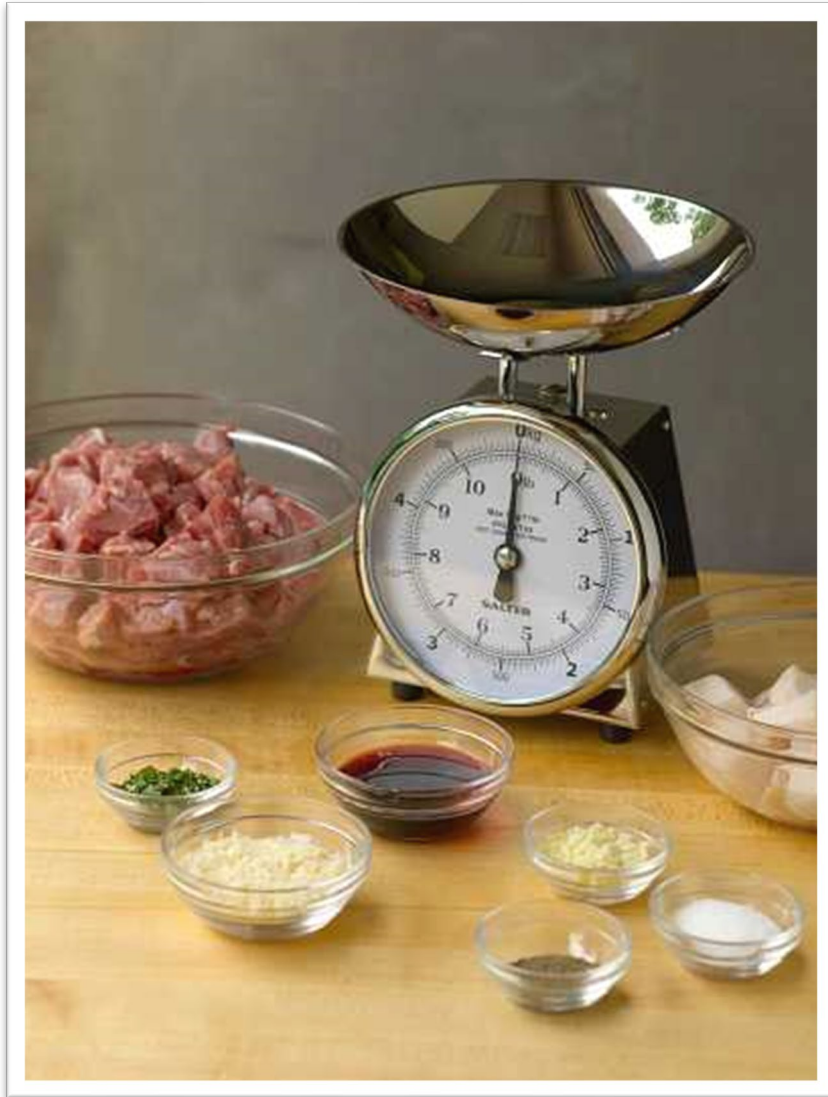
Mise en Place

Organization and Workflow

- Set table and cutting board at correct height
- Use bain-maries with hot water for tools
- Set cutting board on sheet pan for messy jobs
- Have a written daily plan - start with the **end** in mind
- Use standardized recipes
- Consolidate tasks (have one person cut all the onions, garlic, etc.)
- Use timers and thermometers (when necessary)
- Use the right equipment for the job!



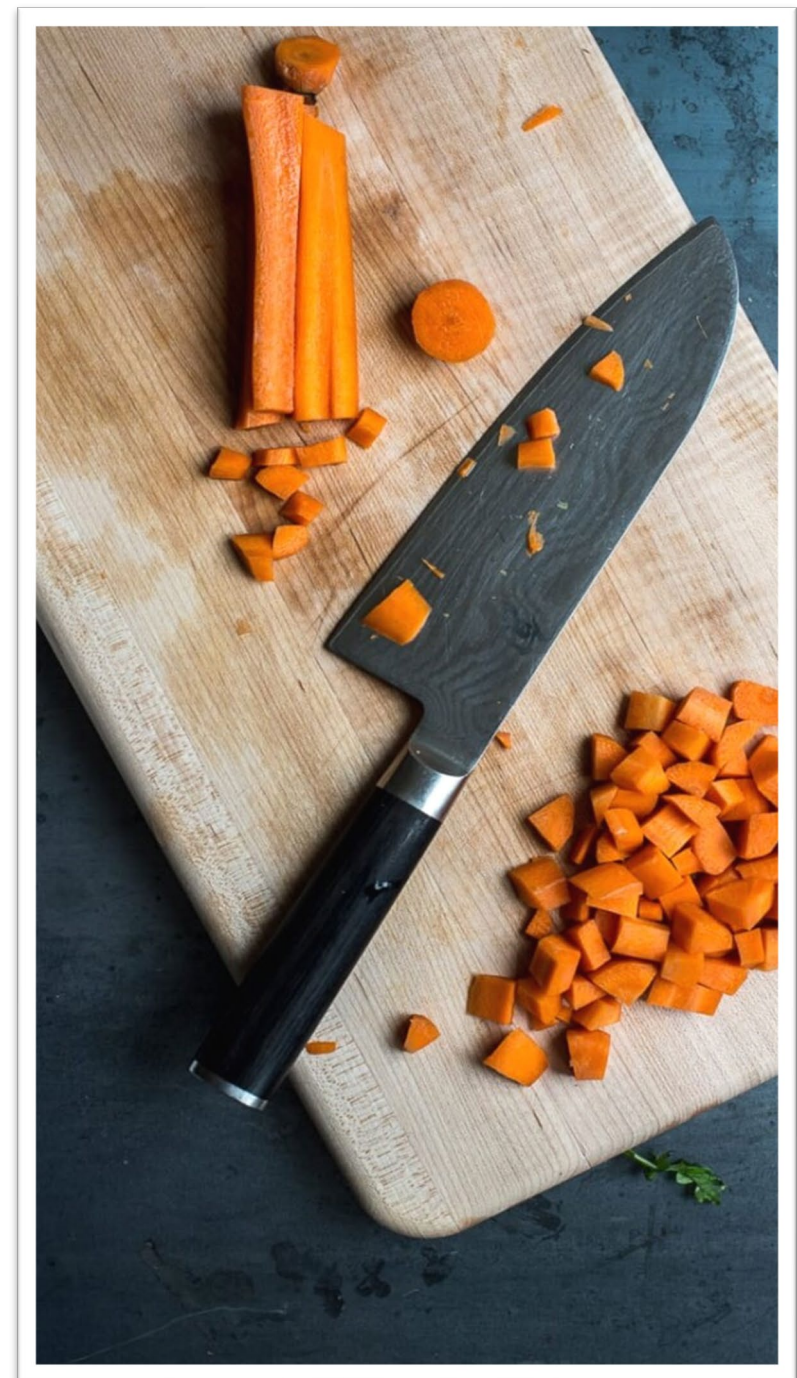
Recipe Mise en Place



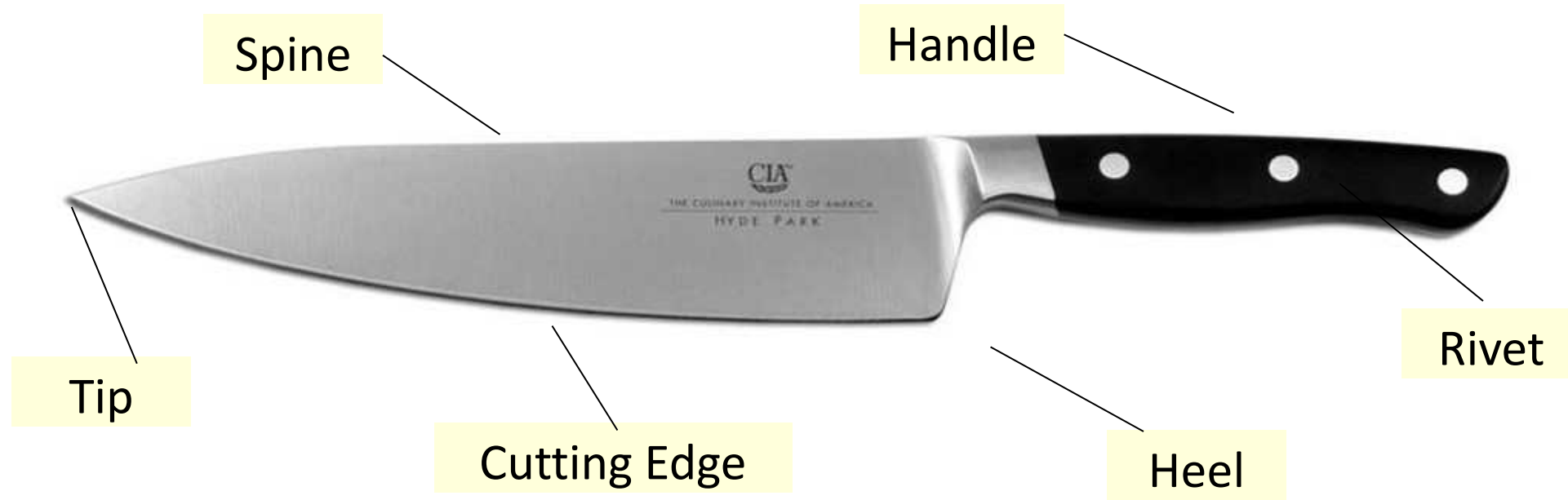
- Read entire recipe before starting
- Review yield, temp., cook times
- Understand terms, techniques– ask questions if unsure!
- Visualize the cooking process from start to finish
- Complete any pre-steps (soak, marinade, etc.)
- Gather, measure/ weigh all ingredients
- Complete all basic prep (wash, trim, grind, dice, etc.)

Knife Safety

- Always use a sharp knife!
- Hold the knife firmly in your hand and cut away from your body
- Always use a cutting board
- Always place knives on flat surfaces away from the edge of the table with the blade facing away from you
- Keep knives in clear sight – never covered
- Do not grab blindly for a knife
- Pass a knife using the handle, never the blade
- Carry knives with the point down



Anatomy of a Knife



Knife Selection

Use the RIGHT knife for the job!!

French Knife



chopping, slicing,
dicing, mashing

Paring Knife



peeling, trimming,
and shaping fruits and
vegetables

Boning Knife



cutting meat away
from bones

Knife Selection

Slicer



slicing cooked meats and poultry

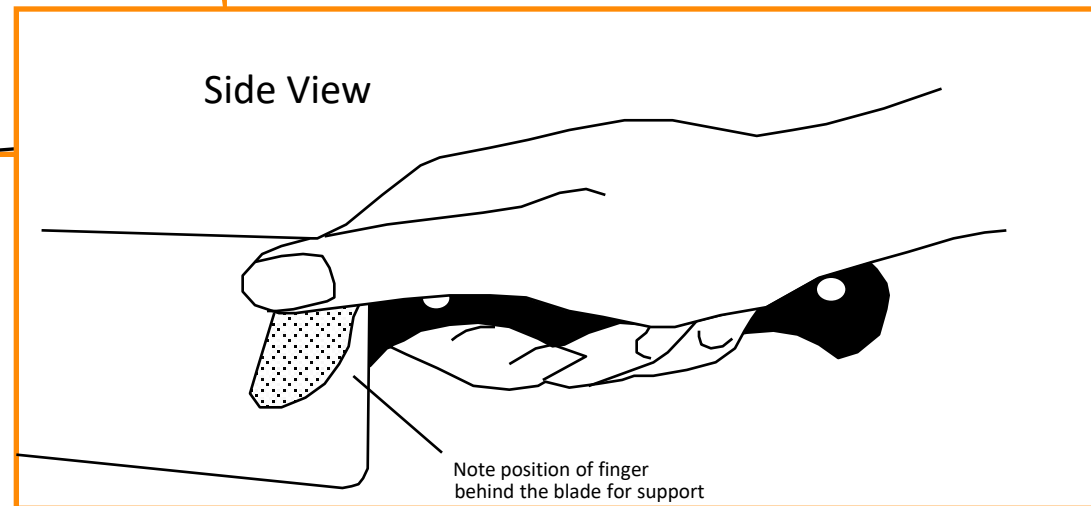
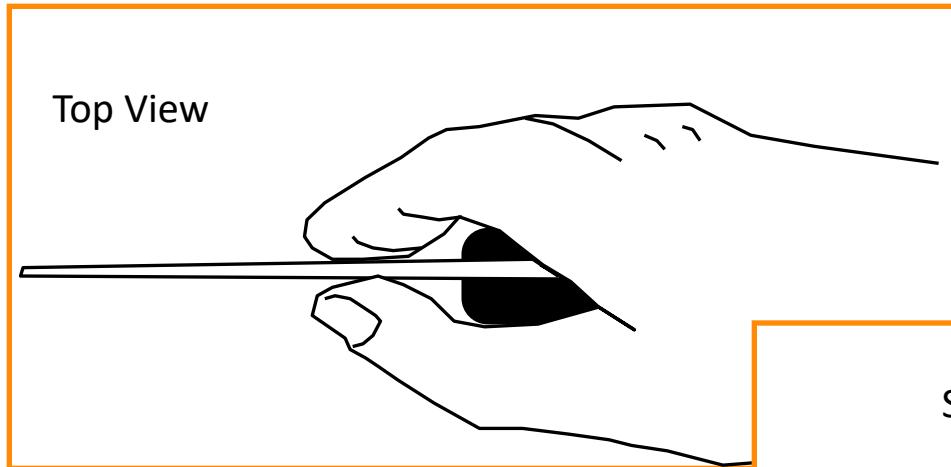
Serrated Knife



slicing through the crusts of bread

Holding a Knife

Grasp the knife by the handle, allowing your thumb and index finger to rest on the blade for support.



How To Julienne and Dice

1. Square off the ends and sides.
2. Slice into even slabs of the same thickness.
3. Stack the slabs and slice into even sticks.
4. Gather the sticks and cut into even cubes.



Julienne Sizes

Fine Julienne

$1/16 \times 1/16 \times 1 - 2$
in.



Julienne/Allumette

$1/8 \times 1/8 \times 1 - 2$ in.



Batonnet

$1/4 \times 1/4 \times 2 - 2\frac{1}{2}$ in.



Dice Sizes

Small Dice

$\frac{1}{4} \times \frac{1}{4} \times \frac{1}{4}$ in.



Medium Dice

$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$ in.



Large Dice

$\frac{3}{4} \times \frac{3}{4} \times \frac{3}{4}$ in.



Brunoise Sizes

Fine Brunoise

$1/16 \times 1/16 \times 1/16$ in.



Brunoise

$1/8 \times 1/8 \times 1/8$ in.



Other Classic Vegetable Cuts

Tourné

2-in. long with 7 faces



Oblique

Uniform pieces with
2 angled cuts



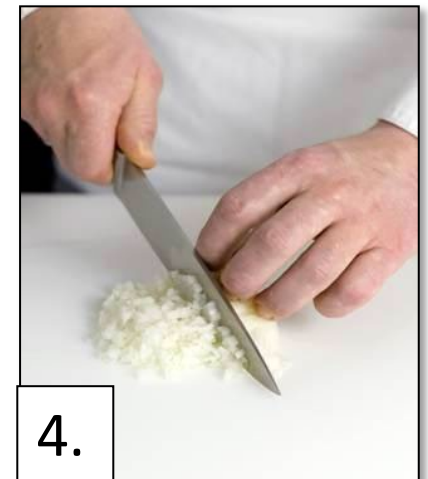
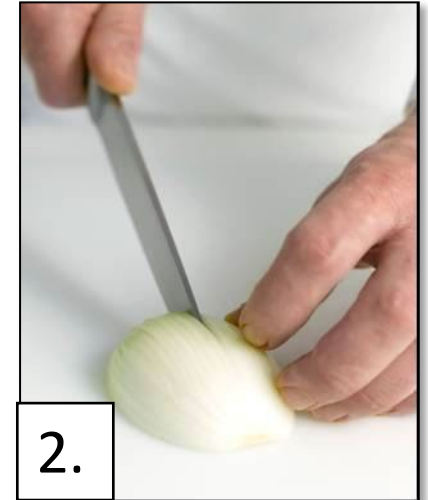
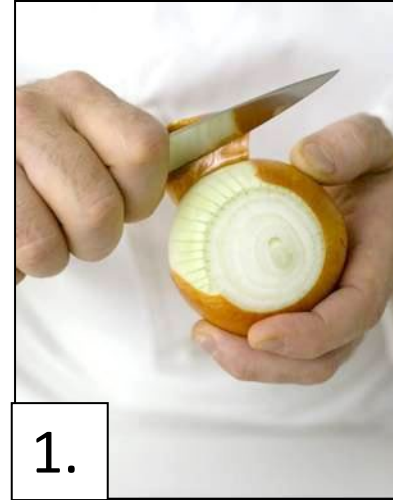
Rondelle

$\frac{1}{2}$ - $\frac{1}{8}$ -in. thick rounds



Dice/Mince Onions & Shallots

1. Cut off tip end, peel, and cut through root to tip.
2. Make several evenly spaced parallel cuts, without cutting the root.
3. Make two to three horizontal cuts, without cutting the root.
4. Make even crosswise cuts working from tip to root.



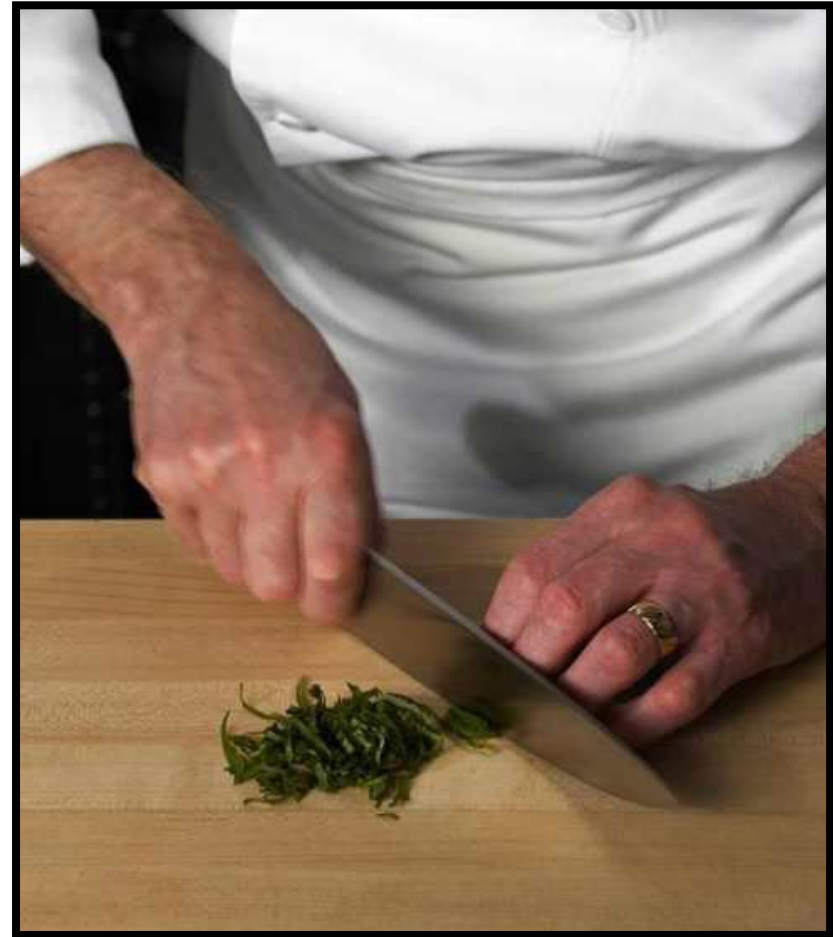
Chop/ Mince Herbs



1. Wash, dry, and remove leaves from stems; roll into a tight ball and chop roughly.
2. Move hand to front of knife and chop using a rocking motion.
3. Continue cutting to desired fineness.

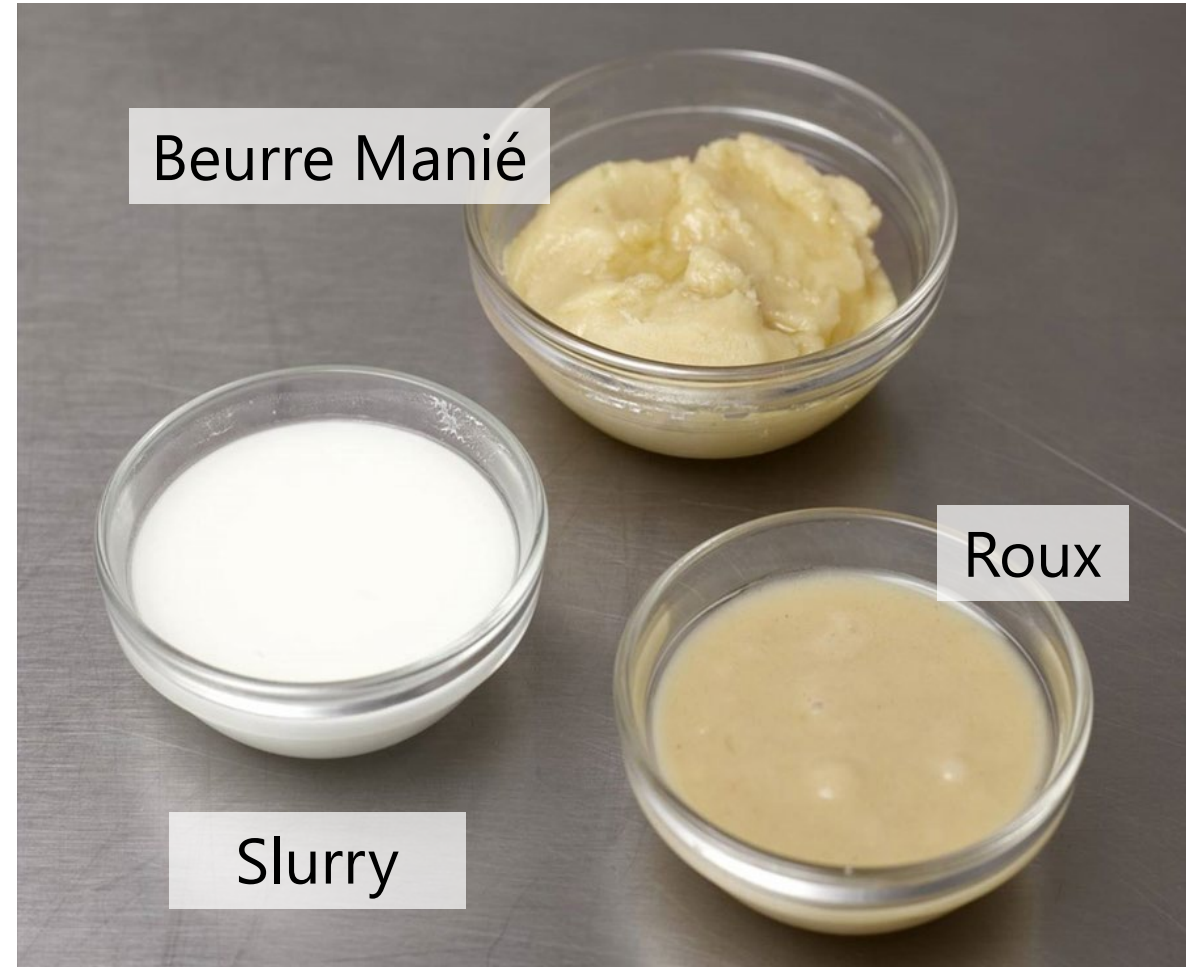
Chiffonade Herbs

1. Remove the leaves.
2. Stack the leaves, placing smaller leaves on top of larger leaves.
3. Roll into a cylinder.
4. Make fine parallel cuts across the cylinder.



Thickening Agents

- Beurre Manié
- Pure starches (cornstarch, arrowroot)
- Liaisons
- Grains
- Vegetables



Thickening Agents



- Additional body
- Type impacts final product:
 - Appearance
 - Flavor
 - Texture
 - Color

Thickening Agents: Roux



- A roux ("roo") is cooked fat + flour.
- Base for sauces and soups that works as a thickening agent when heated.
- Added at beginning of cooking.
- Develops a darker color, deeper flavor as it cooks.
- More flavorful and smoother than a slurry.
- 4 oz. roux thickens 1 qt. liquid (medium consistency).

Roux



Method for Making Roux

1. Heat fat.
2. Add flour to hot fat.
3. Cook over moderate heat until appropriate color is achieved.

Roux Ratio:
6 parts flour
4 parts clear fat



Combining Roux with Liquid



1. Combine the roux and liquid.
2. Return to a boil while whisking.
3. Reduce the heat and simmer for 20 minutes.



Combining Roux with Liquid

- Add **room temperature roux** into **hot liquid**, stirring vigorously.
- Add **cold liquid** into **hot roux**, stirring vigorously.
- Hot roux + hot liquid = lumps
- Cold roux + cold liquid = lumps



Taste



“One of the special senses which perceives and distinguishes the sweet, sour, bitter, or salty quality of a dissolved substance and is mediated by taste buds on the tongue...”

Taste

"... is a big source of pleasure in most lives, a complex realm of satisfaction both physiological and emotional, much of which involves memories of childhood."



Aroma

“A distinctive and usually pleasant or savory smell...”



Flavor

- the blend of taste and smell sensations evoked by a substance in the mouth
- a sensation produced by the stimulation of the sense of taste, in conjunction with that of touch and smell



Flavor



“A food’s flavor includes its texture, smell, temperature, color and painfulness (as in spices), among many other features.”

Flavor-Principle 1

“...certain conjunctions of flavoring ingredients are used over and over again within a cuisine...”

- Referred to as a “Flavor Profile”



Herb Categories

Hardy

- Tougher, often resinous flavor
- Added earlier in the cooking process
- Rarely eaten raw
- Store Well

- Bay leaves
- Rosemary
- Marjoram
- Oregano
- Sage
- Savory
- Thyme

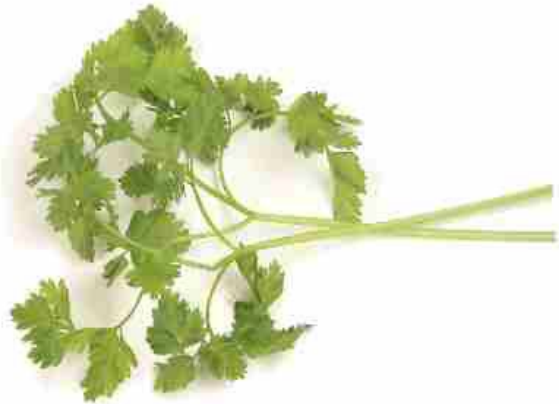


Herb Categories

Tender

- Lighter flavor, More delicate leaves
- Added near end of cooking, off the fire, or used raw
- Short storage life

- Basil
- Chervil
- Chives
- Dill
- Cilantro
- Mint
- Parsley
- Tarragon



Fresh For Dried

Equivalents:

-Use one third to one half as much dried herbs as fresh.



“Spices...
are dried organic matter
such as roots, leaves,
bark, buds, stems, and
seeds of plants, all
difficult to digest in their
raw form”

-Julie Sanhi Classic
Indian Cooking



Toasting Whole Spices



- Heat a cast iron pan 2 minutes.
- Add whole spices.
- Shake and stir **CONSTANTLY**
- 1-2 mins.- No change.
- Browning begins/ flavor released.
- Adjust heat down.
- Roast until dark brown (not burnt)
- Remove immediately.
- Cool before grinding.

Toasting Nuts

- NO Fat needed.
- 2 Methods
 - Range method
 - Oven Method
- Careful not to burn
- Toast before chopping
- Remove from hot pan.





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Any Questions?