

CHAPTER 16

UNDERSTANDING VEGETABLES



COOKING VEGGIES CHANGES THE FOLLOWING:

- TEXTURE
- FLAVOR
- COLOR
- NUTRIENTS





Controlling Texture Changes

(Changing texture is one of the main purposes of cooking veg.)

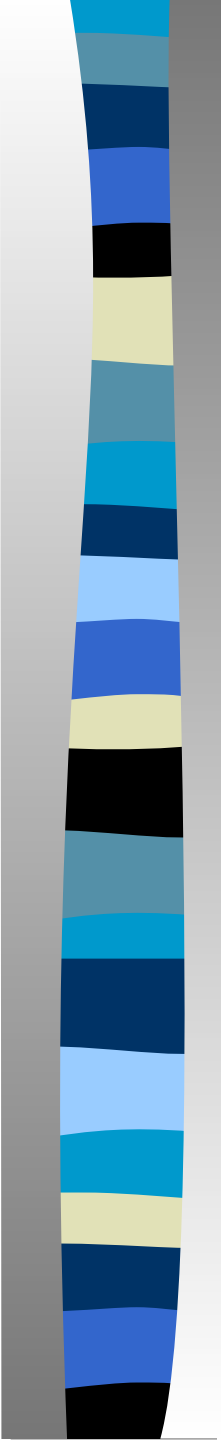
FIBER

The amount of fiber varies in:

1. Different veggies (spinach vs. carrots)
2. Different examples of same veggies – old versus young
3. In same veggie - asparagus – tip versus stem







TENDER →



TOUGH →



FIBER IS MADE FIRMER BY:

- ACIDS – lemon jc., vinegar, tomato
- SUGARS – strengthen cell structure (fruit cookery)

FIBER IS SOFTENED BY:

- HEAT
- ALKALIS – bad for green veggies!

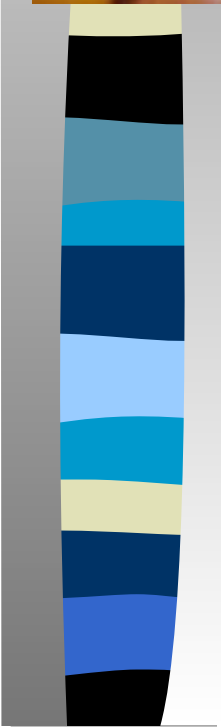






STARCH

- Dry legumes, rice, pasta need water so starch granules can absorb, swell, soften.
- Moist starchy veggies: sweet potatoes, potatoes; need to be cooked until the starch molecules soften.





GUIDELINES FOR COOKING:

Don't overcook!

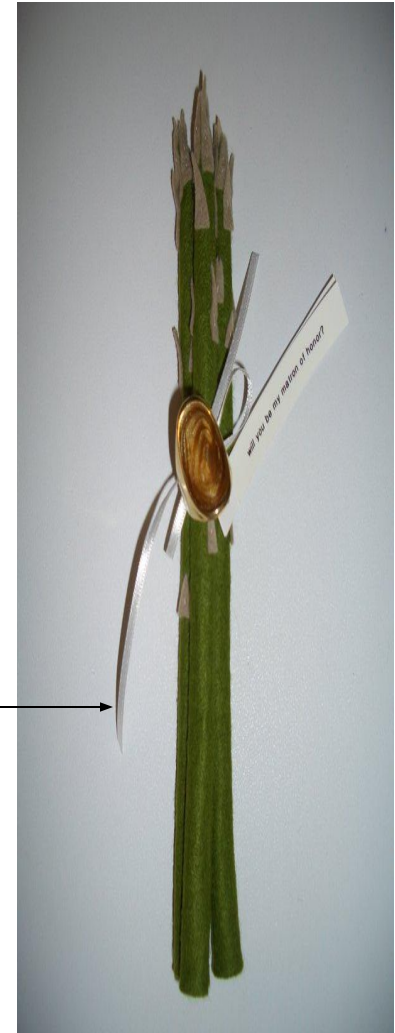
Cook close to service time

Shock to cool quickly and reheat

Make sure pieces are same size!

Take care of those veggies that are tough and tender at the same time

Don't mix batches of cooked veggies together



CONTROLLING FLAVOR CHANGES

- Cook for short time – quickly
- Boil water first, than add veggies
- Minimize leaching by using the least amount of water as possible
- Steam where appropriate vs. boiling





COOKING, CONT'D

Flavor Changes:

- Cooking changes the flavor which is desirable as long as you don't overcook
- Overcooking cabbage? (Flavor?)
Brussell sprouts?

Sweetness:

- Young, fresh veggies are sweet by nature
- Store for a short time
- Add a bit of sugar to older veggies to soften







CONTROLLING NUTRIENT LOSSES

- Hi temps
- Long cooking times
- Leaching
- Alkalis (baking soda, hard water)
- Plant enzymes destroyed by high heat
- Oxygen

H₂O – A LITTLE OR A LOT?

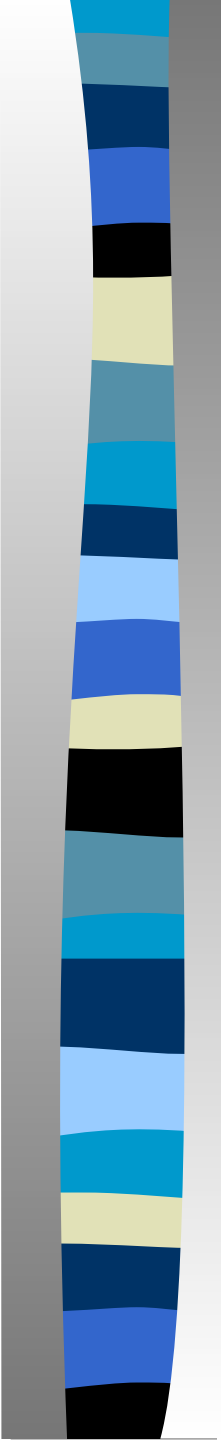
Use just enough to cover

Using a little increases cooking time: water temp drops; recovery

The best method preserves nutrients while maintaining color, flavor and texture



QUALITY IN COOKED VEGGIES

- 
- Color
 - Appearance on plate
 - Texture
 - Flavor
 - Seasonings
 - Sauces
 - Attractive combinations





HANDLING VEGETABLES

WASHING

- Wash thoroughly
- Cold water; veg. sink
- Scrub root veggies
- Leafy veggies: several times
- Wash, drain, cover lightly to crisp

SOAKING

- Not so much today
- Salt draws out bugs!
- Fluff up limp veggies with a dose of ice water!
- Dried beans soak to soften before cooking



PEELING AND CUTTING

- Not too much peel!
- Uniform pieces
- Cut close to service; retain moisture
- Veggies that brown when cut and exposed to air: potatoes, eggplant, sweet potatoes
- Store in water; water with acid

PROCESSED VEGGIES



FROZEN VEGGIES

Temperature – 0 degrees

Large ice crystals – no good

Signs of leakage – no good

Freezer burn – no good

Cook from frozen state

Shorter cooking time; they are par cooked



CANNED VEGGIES

- No puffed or swollen cans
- Drained weight is important
- Check the grade: US Grade A is best; B or C???? What would we use these for?



COOKING CANNED VEGGIES:

- Wipe can top
- Drain $\frac{1}{2}$ the liquid
- Heat but don't boil; reheating
- Heat close to service
- Season? Butter?
- Dress them up?

