



Week 5 & 6 —Moist Cooking Methods

Applying the correct cooking method to vegetables is more difficult than protein products like chicken or beef because of the wide variety of vegetables that require different care. A chicken breast is a chicken breast, but a vegetable can be a tough carrot or a tender mushroom. The one thing essential to great taste in vegetarian cooking is correct cooking method. **-Chef Todd Mohr**

Cooking Vegetables

Cooking affects vegetables in four ways:

Texture, Flavor, Color and Nutrients

Don't mix different types of raw vegetables when cooking

Boiling and Steaming Vegetables

Unless served immediately, vegetables are shocked in ice water bath

Prevents vegetables from being overcooked

Finished by applying another cooking method

Steaming is the ideal cooking method for fragile vegetables

Higher temperature, less agitation, less nutrient loss

Procedure for poaching or steaming vegetables

Trim, peel, cut vegetables to uniform sizes

Bring salted water or stock to boil

Add vegetables to water or steamer basket

Bring water or stock to low simmer

Drain quickly to avoid overcooking

Finish recipe and serve, or shock to cool

Sauteeing and Pan Frying

Sauteeing – cooking in small amount of fat

Pan frying – more fat, longer time, lower heat

Both methods can be used for finishing blanched vegetables

Braising

Braising is slow, moist heat method using a small amount of liquid

Braised meats are cooked in fat

Vegetables are not braised in fat, but in flavorful liquid

Baking

Baking vegetables means one of two things:

1) Starchy vegetables are baked from raw state because of the effect dry heat has on its' texture.

Any vegetable w/ enough moisture can be baked effectively, but drying effect of oven would ruin small, delicate vegetables

2) Vegetable casseroles are baked because:

Slow, all around heat allows product to cook undisturbed.

Agitation and stirring of range top cooking is not always desirable.

Baked beans will break up when stirred.

Dry heat produces effects like browning, caramelization of sugars.

Sweet potatoes are colorless in steamer but brown in the oven.

Boil

212 f / 100c

Simmer

180-205f / 82-96c

Poach

160-180f / 71-82c

Controlling color changes

Pigments give vegetables their color.

Different pigments react differently to heat and acids

White vegetables

Flavones are white pigments in onions, cauliflower, potatoes

Stay white in acid, turn yellow in alkaline

Too much acid will toughen the vegetable

Cooking quickly maintains color

Red vegetables

Anthocyanins are red pigments in beets and red cabbage

Acids turn them brighter red

Alkalis turn them blue or blue green

Red pigments dissolve easily in water

Don't overcook

Use only as much water as necessary

Cook beets whole and unpeeled to retain color

Use cooking liquid as a sauce

Green vegetables

Chlorophyll is green coloring in all green plants

Acids are enemies of green vegetables

Acid and long cooking turn to drab olive color

Protect the color of green vegetables by:

Cooking uncovered to allow plant acids to escape

Cooking for shortest possible time

Steaming is preferred method for green vegetables

Steam lessens dissolving of flavor and nutrients

Yellow and Orange vegetables

Carotenoids – yellow and orange pigments in corn, carrots, tomatoes, red peppers, sweet potatoes

These pigments are very stable

Little effected by acids or alkalis

Long cooking dulls the color.

Short cooking keeps color and nutrients

Controlling nutrient loss

Vegetables are major source of vitamin A and C.

Many of these vitamins can be lost with improper cooking

6 factors of nutrient loss

High temperature, Long cooking times

Leaching through Alkalis or Acids,

Specific Plant enzymes, Amt of Oxygen