



higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA



SUBJECT: FOOD PREPARATION

LEVEL: 2

MODULE/CHAPTER NO: VEGETABLES & VEGETABLE DISHES

VEGETABLE AND VEGETABLE DISHES

After completing this topic, you will be able to:

- Understand **food hygiene principles** relevant to vegetable preparation and storage.
- **Clean preparation areas and equipment** before and after use.
- **Identify and categorise** various types of vegetables.
- Identify factors indicating **quality and freshness**.

VEGETABLE AND VEGETABLE DISHES

After completing this topic, you will be able to:

- Identify methods to **preserve nutritional value**.
- **Prepare vegetables in the correct manner** for the recipe provided, including garnishes.
- Identify ways to **keep waste to a minimum**.
- Understand and apply various **cooking methods** appropriate to the vegetable dishes in question.
- Respond appropriately to **unexpected situations**.

INTRODUCTION

- Buy vegetables and fruits that are grown locally and in season, as these items will be cheaper and have a better flavour
- vegetables are highly perishable and good hygiene and storage practices will ensure that they remain fresh

CLEANING PREPARATION AREAS AND EQUIPMENT

- How should you clean preparation areas and equipment before use?



HEALTH AND SAFETY PRINCIPLES FOR VEGETABLE PREPARATION AND STORAGE

- **Wash** fresh produce well.
- Food handlers that have handled unwashed vegetables should also wash their hands to get rid of any bacteria or pesticides that may have been on the vegetables.
- Peel vegetables as thinly as possible. **WHY?**
- Correct tools/ utensils for the job of cutting.
- Clean as you go.
- Use prepared vegetables asap- some may discolour.



IDENTIFICATION & CATEGORIES OF THE VARIOUS TYPES OF VEGETABLES



IDENTIFICATION & CATEGORIES OF THE VARIOUS TYPES OF VEGETABLES

Vegetables are classified according to the edible parts of the plant






Other:

- Sweet potato
- Horseradish
- Parsnip

ROOTS	
	Beets
	Carrots
	Turnips
	Celeriac
	Radish

IDENTIFICATION & CATEGORIES OF THE VARIOUS TYPES OF VEGETABLES

Vegetables are classified according to the edible parts of the plant

TUBERS	
	Jerusalem Artichoke
	Potatoes
	Yam
	Ginger Roots
	Artichoke

IDENTIFICATION & CATEGORIES OF THE VARIOUS TYPES OF VEGETABLES

Vegetables are classified according to the edible parts of the plant

Others:

- Kale
- Brussels sprouts
- Endives
- Spinach

LEAVES	
	Lettuce
	Watercress
	Cabbage
	Mustard Green
	Parsley

IDENTIFICATION & CATEGORIES OF THE VARIOUS TYPES OF VEGETABLES

Vegetables are classified according to the edible parts of the plant

Others:

- Rhubarb

STEMS



Asparagus



Anise (funnel)



Celery



Bamboo Shoot



Fiddlehead Fern

IDENTIFICATION & CATEGORIES OF THE VARIOUS TYPES OF VEGETABLES

Vegetables are classified according to the edible parts of the plant

Others:

- Waterblommetjies

FLOWERS



Cauliflower



Artichoke



Broccoli Rabe



Broccoli



Gai-lohn

IDENTIFICATION & CATEGORIES OF THE VARIOUS TYPES OF VEGETABLES

Vegetables are classified according to the edible parts of the plant

Others:

- Peppers (capsicum)
- Pumpkin
- Snap beans
- Courgettes/Baby marrow
- Gem squash
- Okra

FRUITS



Cucumber



Eggplant



Tomato



Squash








Avocado

IDENTIFICATION & CATEGORIES OF THE VARIOUS TYPES OF VEGETABLES

Vegetables are classified according to the edible parts of the plant






Others:

- Sprouted seeds

SEEDS	
	Broad Beans
	Green Peas
	Corn
	Lentils Seeds
	Beans

IDENTIFICATION & CATEGORIES OF THE VARIOUS TYPES OF VEGETABLES

Vegetables are classified according to the edible parts of the plant

BULBS	
	Chives
	Leeks
	Shallot
	Onions
	Garlic

COMPLEMENTARY BENEFITS OF VEGETABLES

- All vegetables with a very strong **COLOUR** contain vitamins.

Vitamin B9, C or Provitamin A

Provitamin A

Provitamin A

COMPLEMENTARY BENEFITS OF VEGETABLES

- **Leafy vegetables:** rich in vitamin B9, provitamin A & Vit C. Also IRON
- **Pod & fruit vegetables:** Fiber, Vit B9 and Vit C
- **Seed vegetables:** higher in calories as they contain carbohydrates. High in fiber, iron and magnesium.
- **Root vegetables:** fiber & provitamin A
- **Flower vegetables:** high in fiber, provitamin A & Vit C

IDENTIFICATION OF THE FACTORS INDICATING IN QUALITY AND FRESHNESS

- Buy from a greengrocer.
- See that vegetables are stored properly, not in the sun, and benefit from cool conditions on regular spraying.
- Vegetables are at their best **quality if they are bought in season**.
- Vegetables are **graded** according to quality: example potatoes.

IDENTIFICATION OF THE FACTORS INDICATING IN QUALITY AND FRESHNESS

- **General points on freshness of vegetables:**
 - Vegetables should be clean with no visible soil except some soil on the potatoes.
 - Vegetables should be compact and crisp.
 - Stalks should be firm and should snap when they are broken.
 - Vegetables should have good shape, appearance, and colour.
 - No signs of blight or disease, insect or pest damage.
 - No bruising or spayed marks or any other cuts.
 - Should have no strange odours.
 - No blemishes.

IDENTIFICATION OF THE FACTORS INDICATING IN QUALITY AND FRESHNESS

- General points on freshness of vegetables:

Colour

Gloss

Shape
and size

Texture

Smell

No
damage

Crisp &
firm

IDENTIFICATION OF THE FACTORS INDICATING IN QUALITY AND FRESHNESS

- How will you recognize the quality of the following vegetables?

Greens	Cabbage	Root vegetables	Potatoes
Onions	Garlic	Cucumber	Mushrooms
Tomato	Aubergines	Ginger	



METHODS TO PRESERVE NUTRITIONAL VALUE

Students to complete the right column

Vitamin C is lost during storage.	
Vitamins and minerals are soluble in water.	
Oxidation destroys vitamins and changes colours.	
Vegetables become soggy and vitamin C is destroyed in an alkaline medium.	
Some vitamins are destroyed by heat.	

IDENTIFICATION OF METHODS USED TO PRESERVE NUTRITIONAL VALUE

Protect the vitamin content of vegetables in both preparation and cooking

- Use fresh produce as needed to prevent extended storage of vegetables.
- Avoid bruising the vegetables.
- Don't prepare vegetables until you need them
- Use a sharp knife.
- Only peel vegetables when absolutely necessary - nutrition.
- Clean skins and peels of vegetables can be used on their own as a snack, or in a stock pot.
- Don't soak vegetables in cold water after you have prepared them.

IDENTIFICATION OF METHODS USED TO PRESERVE NUTRITIONAL VALUE

Protect the vitamin content of vegetables in both preparation and cooking

- Cook for a short period of time as possible.
- Boil in little water as possible.
- Shred green vegetables.
- The addition of bicarbonate of soda will destroy vitamins.
- Can use the water from cooked vegetables for soup, gravy or sauces.

DIFFERENT TYPES OF PREPARED VEGETABLES REQUIRE DIFFERENT STORAGE

How should the following prepared vegetables be refrigerated?

- Raw potatoes and carrots
- Aubergines and avocados
- Celery, beans and pumpkin
- Green leafy vegetables

PREPARING VEGETABLES IN THE CORRECT MANNER

Washing

Peeling and
skinning

Slicing

Chopping

Shredding/
grating

Trimming

PREPARING VEGETABLES IN THE CORRECT MANNER

Peeling and skinning



PREPARING VEGETABLES IN THE CORRECT MANNER

Slicing



PREPARING VEGETABLES IN THE CORRECT MANNER

Chopping



PREPARING VEGETABLES IN THE CORRECT MANNER

Grating

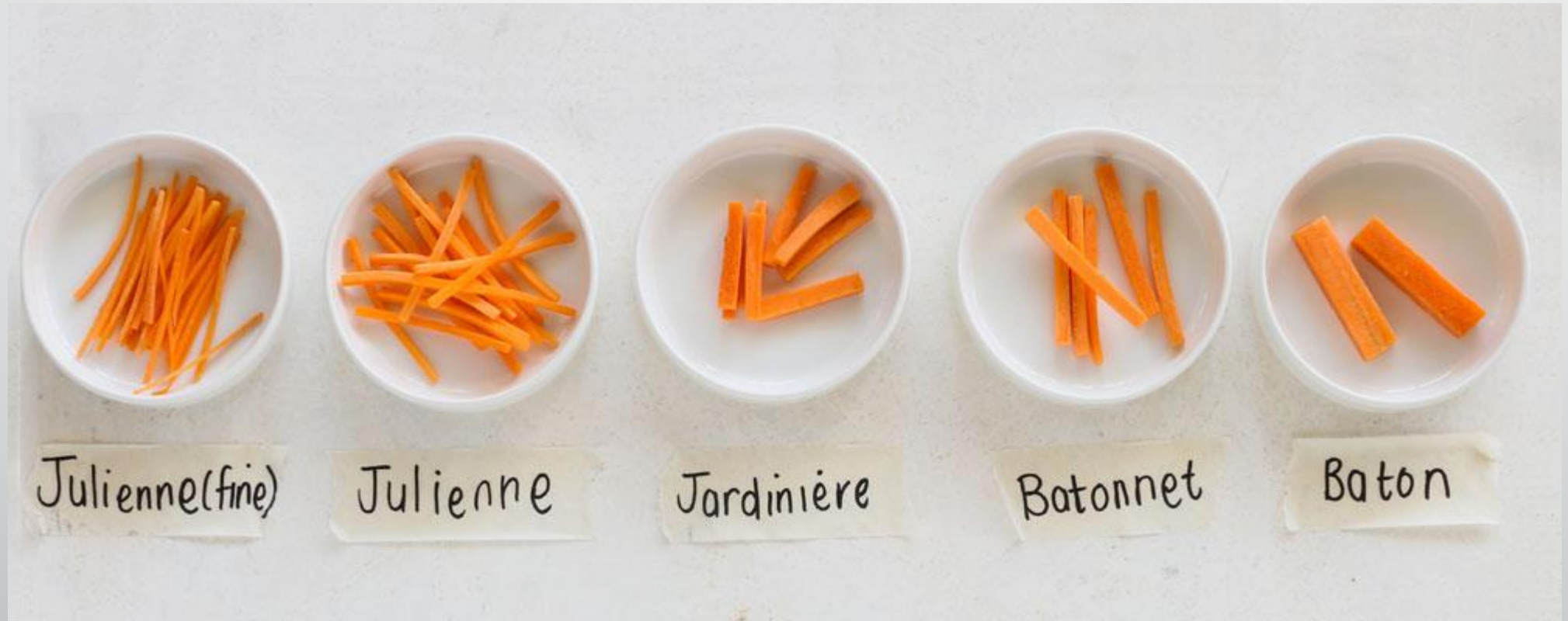


PURPOSE OF CUTTING VEGETABLES IN SPECIFIC FORMS

Vegetables are cut in different ways to:

- Make for fast and even cooking.
- Improve the look of the meal being served.
- Release the flavour of the vegetables.
- Meet the specific recipe needs of a traditional dish.

VEGETABLE CUTS

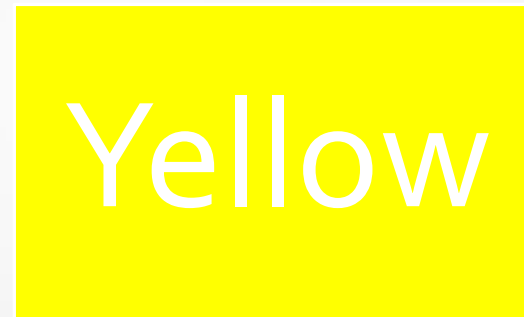


IDENTIFY WAYS TO KEEP WASTE TO A MINIMUM

- Some vegetables do not have to be peeled.
- Use scrapers instead of peeling.
- The softer part of the stem of some vegetables can be eaten.
- Always use a sharp knife.
- Use all vegetable peels/scrap/ pieces in stock.
- Purchase just the **necessary amount needed** to prevent long storage.
- **Peel thinly and cut-up** economically to ensure minimum waste.
- knowledge of the **recipe and application** of the correct **cooking method** ensures that prepared items are successful.

COLOUR CHANGES

Four colours of vegetables



WHAT DOES COOKING DO TO VEGETABLES?

- Green
 - Green colour comes from- chlorophyll
 - Heat makes chlorophyll fade.
 - Over cooked vegetables turn – brownish green.
 - Cook only until tender but still a bright green.

WHAT DOES COOKING DO TO VEGETABLES?

- Yellow
 - Carotene gives yellow and orange colour - source of Vit A.
 - Heat destroys carotene.
 - Carotene dissolves in water- therefore water will become pale yellow or orange.

WHAT DOES COOKING DO TO VEGETABLES?

- White
 - Contain flavones – pigments are soluble in water.
 - They will turn yellow or dark grey if overcooked- flavones in water.

WHAT DOES COOKING DO TO VEGETABLES?

- Red
 - Red carotenoid – pigment
 - Hard-water changes red to purple or purplish green.

WHAT DOES COOKING DO TO VEGETABLES?

- Prevent colour change in vegetables
 - Add a small amount of acid to water e.g. vinegar or lemon juice.

WHAT DOES COOKING DO TO VEGETABLES?

- Texture changes
 - Vegetable become tender, but firm.
 - Mushiness indicates overcooking.
 - Starchy vegetables should be cooked until they are mealy.
 - Overcooking- changes vegetable form and reduces nutritional value.
 - Addition of acid- increases vegetables resistance to softening.

WHAT DOES COOKING DO TO VEGETABLES?

- Flavour development
 - Flavour changes in vegetables from:
 - Contact of vegetable surface with water.
 - The amount of water used.
 - The length of the cooking period.
 - The shorter the cooking time will help retain the flavor of the vegetables.
 - Overcooking leads to the decomposition of sulphur compounds and produces hydrogen sulphide gas e.g. cabbage

COOKING METHODS

- Vegetables can be classified into four categories for suitable cooking methods:

Mildy
flavoured
vegetables

Strongly
flavoured
vegetables

Starchy
vegetables

Dry starch
vegetables

COOKING METHODS

- **COOKING METHODS USED FOR VEGETABLES**

Boiling

Steaming

Blanching

Sautéing/ pan-frying
vegetables

Stir-frying

Braising

Baking

Deep-frying

Grilling

Roasting

SCALLOPING

- Raw vegetables is sliced thinly and placed in layers in a buttered baking dish.
- Each layer is sprinkled with flour, salt, pepper and bits of fat.
- Some liquid can be added.
- Baked in a slow oven until tender and golden.
- E.g potatoes,

SCALLOPING

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AU GRATIN

- Cheese sauce is added to the vegetables.
- Grated cheese or breadcrumbs can be added on top of the dish.
- Bake in medium-hot oven for 10 to 15 minutes to brown.
- E.g. cauliflower



TIMBALE

- Layered vegetable with milk and eggs, but it has more vegetable pulp than milk.



HANDLING PROCESSED VEGETABLES



Frozen



Canned



Dried

HANDLING PROCESSED VEGETABLES

Frozen vegetables

- Frozen vegetables have already been processed partly.
- Shorter cooking time.
- Cook from frozen state – don't need to thaw e.g mixed vegetables.
- If frozen in one big block e.g. spinach then you can thaw.

UNEXPECTED SITUATION

Insufficient or damaged vegetables

- Stretch vegetables by adding a sauce.
- Investigate reasons.
- Damaged vegetables can be sent back to the supplier and replaced.
- Used damaged vegetables in soup, muffins etc
- Inform the supervisor.