

PICKLE VARIETIES

There are over 36 types of pickles to choose from, and hundreds of varieties within the 36. Here are the most popular types of pickles:

DILL: The most popular variety of cucumber pickle. The herb dill or dill oil is added to impart a distinctive and refreshing flavor. Dill pickles are available in many forms -- chips, spears, halves or whole. There are three basic types of dill pickles:

Genuine Dills – Made by the slow "processed" method. Dill weed is added to the tanks during the last stage of fermentation or to the jar after fermentation. These pickles usually have a higher lactic acid flavor than other varieties. A more robust type of dill pickle is the **kosher dill**. In pickle lingo, "kosher" means garlic has been added to the brine. Kosher dills are the ultimate accompaniment to an overstuffed deli sandwich.

Fresh Pack Dills – Fresh cucumbers are unloaded at the plant and instead of being placed in brining tanks, they are packed in jars with the dill spice. These pickles must be packed as soon after picking as possible so that the original quality can be maintained.

Refrigerated Dills – These pickles are placed in brine for a very short time — a day or two at the most. These pickles taste very much like fresh cucumbers accented with dill flavor. They are the type of pickle you would find at a delicatessen.

SOUR/HALF SOUR: These are typically only refrigerated pickles. Cucumbers are first cured in brine and finished in a solution of vinegar and spices. The longer the cucumbers remain in the brine, the more sour they become. Half-sour pickles are extra crispy and keep their fresh cucumber color.

SWEET: Sweet pickles are packed in a sweet mixture of vinegar, sugar and spices. Here are some of the variations on sweet pickles:

Bread & Butter – Sweet, sliced pickles that have a distinct, slightly tangy taste. Available in either smooth- or waffle-cut chips or chunks.

Candied – Pickles packed in an extra-heavily sweetened liquid.

No-Salt Sweet – A relatively new variety of sweet pickle to which no salt has been added. Usually available as chips, these appeal to consumers who need to restrict their salt intake.

Sweet/Hot – Another growing trend — adding hot spices and seasonings to pickles for a delightful spark of piquant flavor.

PICKLED PEPPERS: Made the same way as cucumber pickles, there are more than fifteen varieties of pickled peppers available, ranging from mild to hot, hot, hot. These are some of the most popular pickled peppers:

Jalapeño – Thanks to the growing interest in Mexican food, this type of pickled pepper is hot — literally. Fiery jalapeños are packed in brine and come whole or in rings.

Banana Peppers – Long, shiny, yellow, orange or red peppers that come both sweet and hot. Pickled banana peppers, available whole or in rings, are popular breaded, deep-fried and served as appetizers in many restaurants.

Cherry Peppers – Shaped like a cherry, these pickled peppers are red or green in color and available in both sweet and hot versions. They are most popular whole or in rings.

Pepperoncini – Pickled whole, green, Greek or Italian peppers, usually about 2 to 3 inches long. These mildly hot peppers are popular in antipasto offerings and Mediterranean-style salads.

SPECIALTY PICKLES: There is a wide variety of specialty pickled vegetables in supermarkets today. While many are available nationally, some are regional specialties and found only in certain sections of the country. These included pickled: **cocktail onions, cauliflower, sweet mixed vegetables, sweet pickled with raisins, asparagus, watermelon rinds, beets, okra, green tomatoes, sauerkraut** and many more.

GROW YOUR OWN CUCUMBERS AND MAKE YOUR OWN PICKLES!

NOTE TO TEACHER: You may want to begin this project a few weeks before starting the unit since it will take approximately six weeks before you actually have harvestable fruit. Also, be sure to plant two pots as insurance against accidents.

Things you will need to grow cucumbers:

paper towels	a shallow pan
cucumber seeds	water
potting soil	two 6- to 8-inch flower pots
cotton swabs	

1. Place a paper towel in the shallow pan. Add enough water to make the paper towels moist. Place four to six seeds on the moist paper towel and cover with another piece of paper towel.
2. Leave the seeds for 24 hours in regular lighting. Make sure the paper towel remains moist by spritzing occasionally with water if needed.
3. After 24 hours, carefully remove the top piece of paper towel, and transfer the seeds to the two flower pots with soil. Place the seeds no deeper than an inch below the surface. Place pot in normal light and water the pots to moisten the soil.
4. After the sprouts have broken the surface of the soil (about five to seven days), place the pot where it will receive sunlight. *Lightly* water the plants often so the soil does not dry out. (But be careful not to drown them!)

After a few days, cut out the two or three weaker plants from each pot with a scissor at the soil level to allow the one strong plant to grow unencumbered.

The plants will produce long vines. You may wish to trellis them against a window or wall, or they can spread onto the floor or a countertop. *Activity:* Have the class measure the vine every day to see how quickly the plant is growing. Chart the vines' progress on a line or bar graph.

5. The first flowers to appear, in about two to three weeks, will be the male flowers. They will appear in the center of the plant on stems that are three to four inches long and thinner than a pencil. Female flowers will appear further out on the vine on sturdier, 3/4- to 1-inch stems. It is from these flowers that the cucumbers will actually grow.

The female flowers must be pollinated for cucumbers to grow. You can demonstrate to your class how pollination works in nature by taking a cotton swab and collecting pollen from the male flowers and swabbing it inside the female flowers. Explain to students that in nature, pollination is the work of insects like bees.

After pollination, it will be about two weeks before you have harvestable, 2-1/2- to 4-inch cucumbers. *Activity:* Have the class measure the cucumber as it grows. Chart its growth on a line or bar graph.

Note To Teacher

You can enhance this project by:

- having the class develop a hypothesis about the most successful conditions for growing cucumbers;
- planting three or four pots of cucumbers and growing them under varying conditions (e.g. one in sunlight, one in a closet, one watered daily, one watered periodically, etc.); and,
- determining the optimal growing conditions based on which plant produces the most/best cucumbers.

Should your plants not yield sufficient cucumbers to fill an entire pickle jar, you may wish to supplement your crop with a few pickling cucumbers purchased in the supermarket.

SIMPLE DILL PICKLES

4 stalks dill weed	Sterilized quart jar
Fresh, medium pickling cucumbers	2 tablespoons coarse salt
1 tablespoon sugar	1/2 cup cider vinegar

1. Place two stalks of fresh dill in the bottom of a sterilized quart jar.
2. Wash very fresh, medium cucumbers—enough to fill the jar—and pack them into the jar.
3. Add two tablespoons of coarse salt, one tablespoon of sugar, a half-cup of cider vinegar and two more stalks of dill.
4. Fill the jar to the top with cold water and seal at once.
5. Date the jar and store it in a refrigerator and allow the cucumbers to absorb the salt and flavors for two to four weeks. Use within 60 days of pickling date.

GLOSSARY

ACIDIFICATION:	To become acid or sour. In pickle making, acidification is usually accomplished by using vinegar.
AGRARIAN:	Relating to fields or lands. Refers to the farmer and his way of life.
AGRICULTURE:	The science or art of cultivating the soil, producing crops and raising livestock. Sometimes includes preparation of these products for man's use.
AVIATION:	The operation of air craft.
BACTERIA:	Any of a class of microscopic plants having round, rodlike, spiral or filamentous single-celled or noncellular bodies, often formed into colonies. Found living in soil, water, organic matter or the bodies of plants and animals.
BRINE SOLUTION:	Water saturated with salt. A strong saline (salt) solution.
COMBINE:	A machine used for harvesting.
CURED:	Prepared by chemical or physical processing for preservation. May be accomplished by drying, salting, smoking or other methods of preservation. Examples: sugar-cured ham, smoke-cured bacon, brined pickles.
DEHYDRATING:	Removing the water content from foodstuffs by passing heated air over the food at a temperature low enough to prevent cooking but high enough to remove water.
DISEASE-RESISTANT:	The inherent capacity of a living plant or animal to avoid or resist disease.
FERTILE:	Capable of supporting abundant plant growth. The land is fertile.
FERTILIZER:	A natural substance such as manure or a chemical mixture used to make soil more productive.
INDEPENDENT-MINDED:	Having a mind of one's own, not readily influenced by what others think or expect.
INNOVATIONS:	New ideas, methods or devices.
LACTIC ACID:	Produced when bacteria in the brine "eat" the sugar that exists in cucumbers. Produced by the fermentation of milk sugar.
MECHANIZATION:	Replacing human or animal labor with machinery.
MERCHANDISE:	To promote for sales. Also the commodities or goods that are bought and sold.

PASTEURIZED:	Treated with mild controlled heat to kill harmful micro-organisms without impairing the quality of the food. The process is named after Louis Pasteur who developed it from his work with wine and beer. Milk is pasteurized as are pickles.
PEDIGREED:	Having a distinguished ancestry. The recorded purity of an individual breed or strain.
PESTICIDE:	An agent used to destroy pests.
pH:	The expression of degree of acidity or alkalinity. Numbers less than 7 indicate increased acidity. 7 is neutral. Numbers greater than 7 indicate increased alkalinity.
PICKLING:	A process of flavoring or preserving meat, fish, vegetables, fruits and other foods in brine, spices, vinegar, lemon juice, brandy, wine, beer or cider mixtures. Pickling can take a few days, weeks or months.
POLLINATION:	The transfer of pollen from a stamen to an ovule. A necessary process for female flowers to produce fruit.
PRESERVATION:	The process of keeping food from decomposing or spoiling over an extended period of time. Today it might be done by such methods as pickling, canning, freezing, dehydrating or smoking.
QUALITY CONTROL:	The practice of monitoring or overseeing to ensure that certain standards are met or exceeded during production. When a food product is processed, strict quality control will be employed every step of the way from field to finished product.
SPECIFICATIONS:	A detailed plan or proposal in which all requirements for producing a product are stated. A pickle company provides specifications to the farmer for the cucumbers it will purchase, or to the glassmaker or boxmaker for the jars and cartons it will buy.
TRELLIS:	A frame of latticework used as a screen or support for climbing plants such as roses, tomatoes or cucumbers.
VACUUM-SEALED:	Having much of the air removed before being sealed to prevent spoilage.
VALUES:	Principles or qualities on which ones beliefs and actions are based. The worth or importance one places on something.

ACTIVITY IDEA GUIDE

- Have students script and produce their own pickle/pickled pepper commercial. They should make and design the set. Share the video with other classes and/or with parents.
- Have children invent their own pickle brands and new products and develop magazine ads for them. Create innovative packaging/labels for the new products.
- Have students create their own pickle superhero. Create comic books based on his or her adventures.
- Develop “cool cukes.” Start with a pickle shape and dress it using construction paper, fabric and trimming scraps, etc.
- Make a poster of all the steps needed to go through to complete a task. For example, getting ready for bed, feeding a pet, setting a table, making a sandwich. (Students will learn that even simple tasks have many steps.)



- Label individual poster boards with names of a raw food product. Have children go through magazines and cut out pictures of finished products made with these raw products and paste them on the correct poster board. (For ideas, see student activity sheet #1.)

- Write pickle poems. Have a poetry reading contest to see who has the best poems.
- See if any class member has a parent, close friend or relative who works in the food industry who is willing to come and talk to the class about their job.
- Check the list of pickle manufacturers at the back of this unit. See if there is one in your area and ask them to send a speaker to your class to discuss pickle processing and marketing.
- Have someone from a local food manufacturing plant come in and discuss how they make and market their particular brands.
- Ask a supermarket home economist or consumer affairs director or store manager to talk about how food products are marketed and merchandised.
- After a pickle tasting, poll children to find out what their favorite varieties are. Have students make a graph of how the pickles ranked.
- Have students make a pickle poster that shows several different types of pickles and pickled peppers. Either draw the pickles or cut them out of magazines.
- Survey other classes in school to find out students' favorite types of pickles. Show them the poster described above to make selections. Let the class determine results and convert them to a bar graph or percentages.
- Get students to work in groups to create menus that include pickles as an ingredient in dishes or as a garnish.
- Have students interview different types of food service managers/owners (a local fast food chain, school cafeteria, Mexican restaurant, an inexpensive family-style restaurant) to learn how they use pickles or pickled peppers in their operations—as a garnish, with sandwiches, in sandwich fillings, on a salad bar, in salsas, etc.
- Assign different groups of students to research various ethnic menus or recipes to see how pickles are used. Check cookbooks, school or public libraries or family recipes.
- Look in magazines for food product advertisements. Cut them out and paste them on poster board in categories of consumers to whom they are targeted (example: adults, children, families, single people).
- Ask students to bring in a recipe that includes pickles—preferably an ethnic dish enjoyed by their own family. Conduct a class discussion on the various types of ethnic foods. Create a class cookbook incorporating all of the recipes and make copies for each student. This activity can incorporate lessons about how to use the computer to design and layout a cookbook.
- Involve students in a discussion about other jobs/careers in the food industry. Some ideas include chefs, cooking school teachers, cookbook authors, USDA food inspectors, butchers, foodservice workers, hospital dietitians, restaurant owners, university researchers, television food show hosts, caterers.

- Invite county agent to class to help plant pickle seeds and to discuss his/her role in helping the community. Then ask the county extension home economist to assist with making pickles and have him/her discuss what services he/she offers to families.
- Outline a large pickle shape on construction paper. Have students cut swatches of various shades of green from magazines to represent the different pickles and paste them in the outlined pickle.
- Find out which pickle brands are sold in your area (see list at back of unit). Contact the manufacturer to see if the company provides any type of pickle paraphernalia (pins, stickers, magnets) in sufficient quantity for your classroom.
- Start a Pickle Birthday Club. Have students select a type of pickle to represent each month of the year (i.e., sweet—January, pickled pepper—February) and list the 12 pickle varieties across the top of a sheet of paper. Create a boxed chart and have students write their names under the month/pickle variety of their birthday. Total the number of students for each month and then prepare a line or bar graph that illustrates what portion of the class has birthdays each pickle month.

PICKLE TASTING TEACHER'S GUIDE

Conducting a pickle tasting in your class serves several purposes. Of course it is fun for your students, but it also:

- shows students the wide range of choices that are available to them in a category;
- illustrates how some products satisfy certain needs and wants while different products satisfy other needs and wants; and,
- helps students learn their power as a consumer since the choices they make as a consumer affect which products survive in the marketplace and which do not.

In order for the students to see the wide variety of pickles available, we recommend purchasing five products for the students to taste: whole dill pickles, bread and butter chips, pickle relish, mild pickled peppers (such as cherry peppers), and another different flavored or shaped pickle such as sweet gherkins, sour pickle halves, sweet pickle salad cubes or a zesty, hotter pickle. Also, be sure to purchase a few different sizes and brands, including a bargain-priced brand.

To conduct the testing, pass out five disposable cups to each student and place one variety of pickle in each cup. Instruct the students to taste the pickle one at a time and fill out the Pickle Tasting Worksheet as each pickle is tasted.

Have students make a graph (student choice—pie, bar, line, picture) showing tasting results.

NOTE: One teacher suggested blindfolding students during tasting.

SUPERMARKET ASSIGNMENT CATEGORY SUGGESTION

Assign each of your students one category to investigate and answer questions about at the supermarket. (Questions are included in the subsequent pages in the "Supermarket Check-Out List.") Here is a list of suggested categories:

pasta	soda
cereal	pickles
soda	salad dressing
milk	crackers
juice	chicken
potatoes	tomatoes
cooking oil	cookies
peppers	bread
cold cuts	cheese
peas	onions

PICKLES ARE A PERFECT FUNDRAISER

Whether you're raising money for a school trip or a trip to the prom, many schools tell us that selling pickles is a popular way to pull in profits. We recommend selling whole pickles, and one or five gallon containers will provide the biggest pickles. You can sell them for anywhere between 50 cents and \$1.00. Here's how to make your class project, school project or even PTA project a perfectly pleasing event -- and remember, because everyone loves pickles, your fundraising efforts can take place more than once a year:

WHERE TO SELL PICKLES

- At a school fair; get a booth and decorate it with pickle paraphernalia...or just sell them in the halls
- At after-school sporting events such as soccer games or track meets, or school plays or band concerts
- In school to classmates during lunchtime or as a snack between classes
- At school during "Parent's Night"

WHERE TO BUY PICKLES IN BULK

- Ask your school foodservice director if he/she can order them for you at wholesale cost
- See if there is a pickle manufacturer in your area or state and contact them to see what they can make available (see inside back cover of school kit folder for a list of many pickle manufacturers)
- Look up local Food Brokers/Distributors in the yellow pages to see if you can buy pickles through them in quantity
- Buy gallon or larger jars at a warehouse or club store (membership supermarket) in your area. Five gallon buckets offer the best bargain for your money.
- Ask a local restaurant to order in bulk for you... maybe one of your class members has a family member who is in the restaurant business and they can help get pickles for you

HOW TO PACKAGE YOUR PICKLES

- Slip each pickle into a small, resealable plastic sandwich bag, using a pair of tongs and plastic gloves
- Order quantities of "Chilly Dilly" bags from Pickle Packers International. A case of 2,000 costs only \$35 (less than two cents apiece). They are less expensive than sandwich bags, and more fun, as they have a big green pickle character on the front! (Send a check to PPI at One Pickle and Pepper Plaza, P.O. Box 606, St. Charles, IL 60174-0606.)
- Slip a popsicle stick into whole pickles to serve "Pickles on a Stick"

MERCHANDISING PICKLES BEFORE AND AT YOUR SALE

In order to get the greatest amount of visibility for your pickle day sale, it's important to tell people why you are having a fundraiser, and what the money will be used for. The more newsworthy the cause, the more attention and money you should be able to generate.

- Serve your pickles cold and give them a catchy name, such as Chilly Dillys, Pickle Pops, Pickle Sickles, etc.
- Make posters with pickle characters to "advertise" the sale in advance. Check with the principal to see if you can put the posters in prominent places in the school a few days before the sale (the cafeteria, the gym) -- it will remind students that "Pickle Day" is soon here
- Think about scheduling a regular "Perfectly Pickle Day"; it could be the same day each week, or the same day each month
- See if the school office will include news about the pickle sale in the morning announcements
- Make pickle costumes that can be worn by students selling the pickles or have students dress all in green
- Meet with the school newspaper to tell them that your pickle sale is coming up, and see if they will write a story about it; make sure to tell them what the funds will be used for
- Call the local newspaper and tell them about your pickle fundraising project. They may send a reporter and/or a photographer to do a story about it
- Make a call to your local cable station and see if they will talk about your event on the air
- Contact a local radio station to tell them what you are doing. They may announce it over the air