

HOW TO

PREPARE VEGETABLES

FOR 4-H EXHIBITS

There's good fun in exhibiting vegetables with other young farmers. It's a form of education, too. You'll learn about growing and preparing vegetables and about sportsmanship. Exhibiting has its thrills. And you may be able to show dad that he's not the only good farmer in the family.

You 4-H members exhibit at county fairs, 4-H achievement shows, and other local fairs. In most cases, the vegetables must be grown in a 4-H project or along with one. Know the rules for any competition you enter.

Whatever class you enter, you should have a neat, well arranged display. Choose the finest specimens you can produce. Then you will be proud of your display whether you win an award or not.



Fig. 1. General view of part of the 4-H Agricultural Exhibit at a San Joaquin County Fair.

growing

Begin your project with *good seed*. Plant a *desirable variety* at the *right time*. If you do, you will be off to a good start.

Select a variety that is adaptable to your area. Check your county fair premium lists. These will tell you the crops that are exhibited most often in your area.

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Time your planting dates so you will have good specimens at exhibition time. This is of the greatest importance with crops of short harvest season that cannot be held very long. Such crops include radishes, sweet corn, peas, and lettuce.

It may be best to make two plantings for these crops. The plantings should be two weeks apart. Then if the weather makes your crops grow faster or slower than you planned, you will still have a good sample to exhibit. Remember, vegetables grow faster in warm long days and slower in cool short days.

Plants that have been kept in vigorous growing condition produce better specimens for exhibition. You will need to practice proper cultivation, fertilization, irrigation, and disease and insect control. If seeded crops come up too thickly, thin them to recommended or wider spacings. Then the plants will have room for normal growth and development.

harvesting

Be careful when you harvest your selections. Avoid bruising, tearing of the flesh or stems, and other injury. You need a sharp knife to harvest many of the leafy or stem vegetables. It will be useful in picking peppers, eggplant, and some of the vine crops, too. Use a spading fork or shovel to loosen the soil before you pull root crops.

Some vegetables keep well. These should be harvested a few days before exhibition to allow proper "curing". Some of these vegetables are potatoes, sweet potatoes, dry onions, and garlic.

"Curing" of sweet potatoes means the healing of wounds and the toughening of the skin layer. This proceeds best at a warm temperature and high humidity.

To cure onions and garlic, dry the neck and outer skin. Proper conditions include low humidity and good ventilation. If these crops are to be held more than 10 days, follow the directions for storing on pages 8 and 9 in the notes.

Harvest other vegetables as close as possible to the time of the exhibit.

Some vegetables wilt quickly. Lettuce, chard, sweet corn, and some others should be picked, if possible, in the morning of exhibition day. Then they will be fresh for the display.

Gather several times as many good specimens as you will need. Then select the best individuals from this group for your display.

selecting specimens

Specimens must be typical for the variety or type. Seed catalogs, type books, and crop bulletins usually give variety descriptions on shape, color, size, and appearance.



Fig. 2. Choose your very best vegetable specimens to exhibit.

Choose the size that is desirable on the market. For many vegetables there is a wide range between the acceptable size limits. Do not choose very small or extremely large specimens.

Uniformity is essential in size, shape, maturity, color, and type.

Select specimens that are normal in growth. They should be well formed. Do not select those with blemishes or defects caused by insects, diseases, mechanical injury, or exposure to the elements.

The specimens should be of top quality and at prime edible maturity. They should be crisp, firm, and tender.

cleaning

Your specimens should be free of soil, dust, and spray residue. Harvest and select only clean specimens if you can. This is the only way to get clean summer squash, for it is easily injured by any method of cleaning. With other crops a light brushing with a soft brush will often do the trick. This is all you should do to peas, beans, okra, cucumbers, and cantaloupes.

Fruit with a waxy surface—such as egg plant, peppers, tomatoes, watermelons—usually can be wiped clean with a soft cloth. For eggplant, a nice final polish can be added with a drop of olive oil on a cloth.

Washing should be your last resort. Root and leafy crops may often need careful washing, however. Certain leafy vegetables cannot safely be washed. Do not wash head lettuce, endive, cauliflower, or cabbage. Trim off the soiled portions of these vegetables.

Whatever method you use, be sure to avoid skinning and bruising your vegetables while you clean them.

between harvest and exhibition

After you have harvested and prepared your specimens, try to “hold” the vegetables at the temperature and humidity that will keep them in good condition. Here are some general rules for storing just before the exhibition.

- Root and leafy vegetables, sweet corn and peas should be kept at low temperatures (40°F to 45°F) and at high humidity. A home refrigerator will usually give these conditions.
- Irish and sweet potatoes and the fruit-type vegetables such as tomatoes, the vine crops, egg plant, etc. should be held at medium temperatures and at fairly high humidity.
- Garlic, and onions need low humidity and good ventilation.

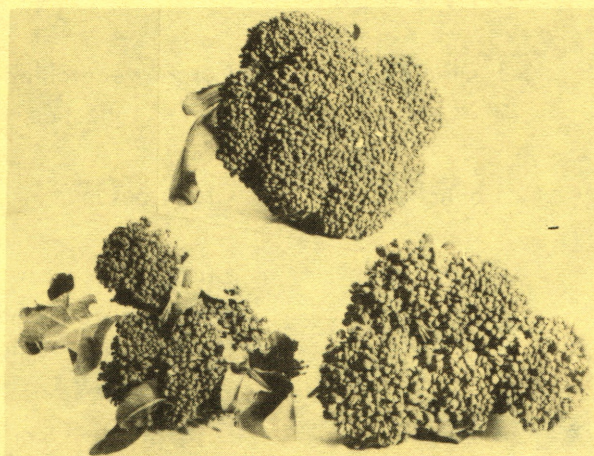


Fig. 3. In selecting vegetables, such as broccoli, it is necessary to know desirable types. The head on the left is too leafy and irregular; the cluster on the right has excessively large buds; the one above center is a desirable type.

number of specimens

Most fairs provide a premium list that tells how many specimens are needed for each display. Obtain this list and follow it exactly.

If a premium list is not provided, follow these suggestions:

FOR PLATE DISPLAY

1 specimen	Large vegetables such as watermelons, field pumpkins, large winter squashes
1 bunch	Green onions, Swiss chard, mustard, rhubarb, beets, carrots
2 specimens	Broccoli (center heads), cabbage, cauliflower, celery, endive, head lettuce, romaine lettuce, leaf lettuce, melons, pie pumpkins, small fruited squashes, icebox-type watermelons
2 bunches	Dill, parsley, spinach, radishes
3 specimens	Artichokes, eggplant, kohlrabi, topped rutabagas, slicing cucumbers, miscellaneous edible vine crops
4 specimens	Bell peppers
5 specimens	Round tomatoes, chili or pimiento peppers, topped beets, topped carrots, topped parsnips, sweet potatoes, topped turnips, dry onions, potatoes, summer squash, dill-size pickling cucumbers, ornamental gourds, sweet corn
6 specimens	Okra, garlic, small-size pickling cucumbers

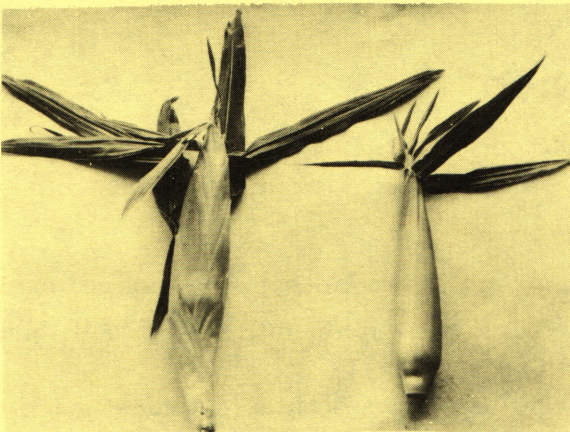


Fig. 4. Sweet corn ears before and after trimming.



Fig. 5. Lug displays of tomatoes, Bell peppers, dill pickles, and potatoes.

7 specimens	San Marzano type tomatoes
10 specimens	Asparagus spears, small fruited tomatoes, small hot peppers and broccoli side shoots.
12 pods	Peas, snap beans, lima beans

The containers listed for the crate and lug displays on this page are the common containers used commercially for packing and shipping. (Potatoes are an exception. They are usually handled in sacks, but the lug is better for display purposes.) For lug displays use the standard box commonly referred to as the "L.A. lug". The crate listed for lettuce is the standard lettuce crate.

FOR LUG OR CRATE DISPLAY

1 crate	Cauliflower – 8 to 12 heads – about 40 pounds
1 crate	Celery – 24 to 36 heads – about 50 pounds
1 crate	Sweet corn – 5 dozen ears
1 lug	Sweet corn – 3 dozen ears
1 flat	Cucumbers – about 18 pounds
1 crate	Lettuce – 4 or 5 dozen heads
1 carton of	Lettuce – 2 dozen heads
1 lug	Onions – about 30 pounds
1 lug	Peppers – about 15 pounds
1 lug	Potatoes – about 32 pounds
1 lug	Sweet potatoes – about 30 pounds
1 lug	Tomatoes – about 32 pounds

trimming and bunching

Neatly trim any vegetable that requires it. Trim stems to a uniform length if you do not remove them. Remove old, dirty, or injured leaves from specimens to be bunched or from leafy vegetables.

For your bunch display, include enough specimens in each group to make a good exhibit. (For further details see the notes on crops.) Depending on the crop, a bunch should weigh between 1/2 and 1-1/2 pounds. Tie the bunch neatly and securely. Use a white string or green "twistems". (See illustration on next page)

crop notes

SPECIAL INSTRUCTIONS FOR THE COMMON VEGETABLES

- **Asparagus** Select straight uniformly green spears with tight heads. Avoid spears with a purple overcast or rusty spots. Trim each spear to a uniform length of 7 inches. Keep the specimens fresh by standing the spears in a jar containing an inch of cold water.
- **Beans, Lima** Pods should be fresh and green. See that they are straight and well filled with 3 to 4 beans. The beans should be fully sized but still show a full green color.

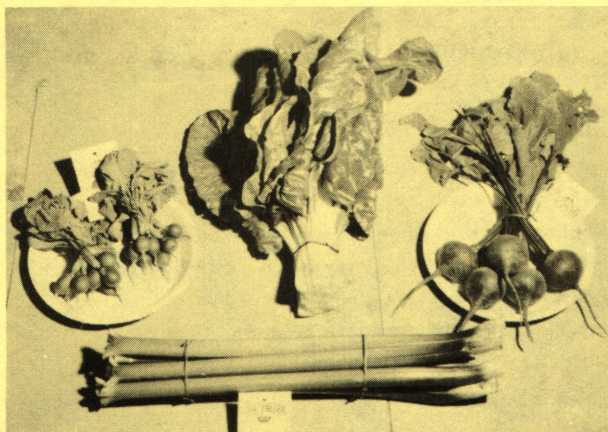


Fig. 6. Proper tying of bunched vegetables. Upper left, Radish (Globe type); Upper center, Swiss Chard; Upper right, Table Beets; Below, Rhubarb.

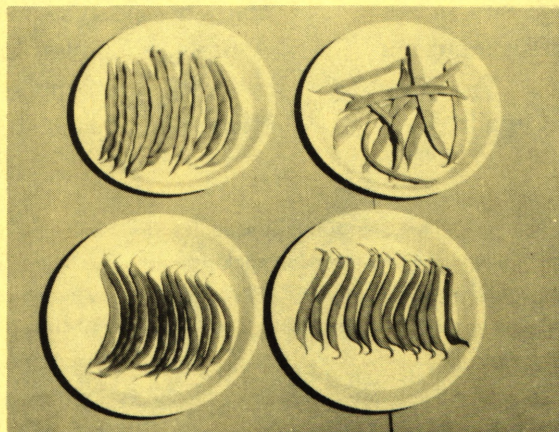


Fig. 7. Good and poor plates of green snap beans. The upper left plate shows good arrangement, good maturity and reasonably good uniformity. Notice the poor arrangement in the upper right plate, lack of uniformity in the lower left plate and poor development of the pods in the lower right plate. It is desirable to leave short stems on as is shown in the lower plates.

- Beans, Snap

Pods should be fairly straight, evenly developed, and fairly smooth. They should be crisp and tender. Over-large seeds and toughness indicate that the specimen is too old (over-mature).

Pick snap beans with the stems on. Hold them in a moist place at 55° F to 60° F. Arrange the beans in a row on the plate, keeping the stems all in one direction. Miscellaneous types include such varieties as Purple Pod and Yard Long.

- Beets

Select smooth beets with tap roots 2 to 3 inches long. Good specimens are free of side roots, cracks, and blemishes. Wide necks indicate old age. A desirable diameter is 1-1/3 to 2-1/4 inches.

Use 5 roots in a bunch. Leave 1 inch of stem on the topped beets. Hold them in a cool, moist place until you exhibit them.

- Broccoli

Heads should be compact and evenly colored with uniform buds of medium size. Stems should be solid, not hollow. Excessive leafiness in the head is undesirable.

Cut the stems squarely to give an overall length of 7 inches for center heads and 5 inches for side shoots. You may trim off large lower leaves. Center heads should be 3 inches or more in diameter. Hold in a cool, moist place.

- Brussels Sprouts

The sprouts should be uniform in size and color. They should be a medium green and should be fresh, firm, and free of aphids. Remove any loose outer leaves. Trim the stem to 1/4 inch.

- Cabbage

Select firm crisp heads that are typical for the variety as to size, shape, and leaf texture. Remove the outer (basal) leaves except for 2 or 3 wrapper leaves. Cut the stem about 1/4 inch below the lowest leaf.

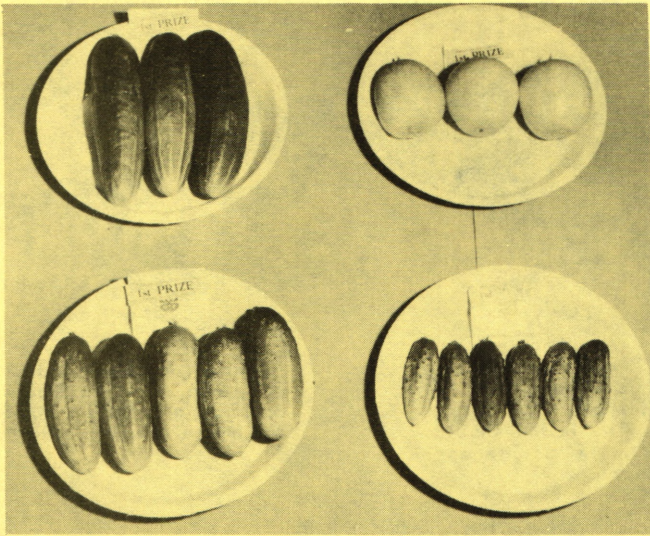


Fig. 11. Types of cucumbers. Upper left, Green Slicing; Upper right, White Slicing (Lemon variety); Lower left, Dill Pickle; Lower right, Sweet Pickle.

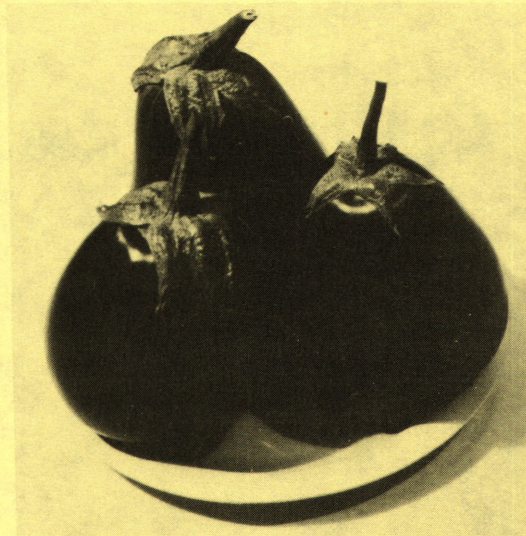


Fig. 12. A plate display of eggplant. These specimens are typical of the Black Beauty and New York Spineless varieties.

- **Cucumbers, Pickling** These varieties usually have black spines. The small or sweet pickles should be under 3-1/2 inches long. Dill sizes range between 4 and 5-1/2 inches in length with a diameter of about 2 inches.

Cut the stem close to the fruit (about 1/4 inch long). Brush lightly if cleaning is necessary. Do not wash or wipe. The natural bloom and the spines should be left on. Display gherkins in the section on miscellaneous vine crops.
- **Dill** Dill is an herb used in making dill pickles. The seed heads (umbels) are cut with about 10 inches of stems. Five heads make a good bunch.
- **Eggplant** Good eggplant is firm and has a small blossom scar and green calyx. It is uniformly purple and free from bronzing or greening.

Select a size that is medium for the particular variety. Leave a stem 1 to 1-1/2 inches long.
- **Garlic** Late garlic has bulbs that are smoother and cloves that are smaller and more numerous than those of Early garlic. The cloves of Early garlic are tan, while those of the Late variety are pink or pinkish brown.

Select fairly smooth bulbs with small, well-dried necks. Trim the necks to 1 inch. Roots should be trimmed close to the bulb. Wrapper leaves should be intact, clean, and white. Garlic may be stored for several months in a dry cool place.
- **Lettuce, Head** Heads should be full sized, and solid. They should be free of tipburn, broken ribs, and seedstalks.

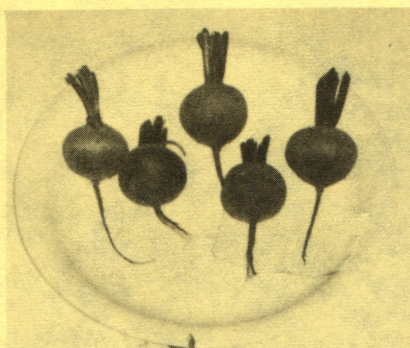


Fig. 8. A plate of topped beets. These are good specimens, but you can improve on them.

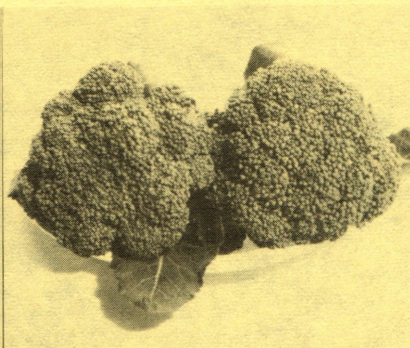


Fig. 9. Select 2 center heads as shown here, or 10 side shoots for a broccoli plate display. The heads should be uniform in size, shape and appearance.

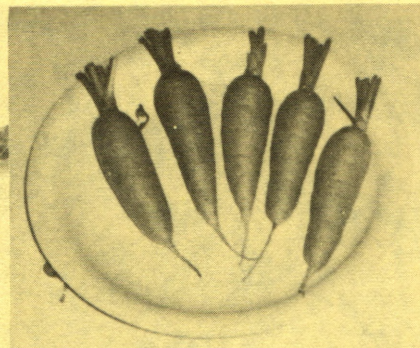


Fig. 10. A fairly good plate of topped carrots. The roots could be a little smoother and more uniform in shape.

● Carrots

Choose roots that are straight and deep orange. They should be free from green shoulders, coarse side roots, cracks, dark spots, and nematode galls. Usual lengths are 2-1/2 to 4-1/2 inches for short varieties like French Forcing or Oxheart. They should be 5 to 7 inches for half-long varieties such as Chantenay or Danvers Half-Long, and 7-1/2 inches or more for the long types like Imperator. Avoid roots with very large or very small diameters.

Use 5 carrots to the bunch. Leave a short tap root and 1 inch of stems on topped specimens.

● Cauliflower

The head includes the white curd, the stem, and the protective leaves. The curd should be fully developed, smooth, compact, and white. Avoid heads that have curds that are overmature, or show any ricing. Curds of the Snowball type should be protected from light during growth. You can do this by tying the leaves together.

Remove the outer older leaves before you exhibit the cauliflower. Leave 4 to 6 good inside leaves to protect the head. Cut these off about 1 inch above the top of the curd and trim the stem to 1/2 inch below the bottom leaf. Good heads weigh 3 to 4 pounds.

● Cucumbers, Slicing

The market types usually have white spines and are longer and more slender when full-sized than are the pickling types. The best cucumbers are well formed, uniformly green to the tip, and fairly straight.

Cut off the vine leaving 1/4 inch of stem.

After cutting, remove basal or outer leaves but do not remove the wrapper leaves. The loose outer wrapper leaves may be removed just before you arrange your display. It is best if you do not wash head lettuce. You may use a fine spray, however, to remove dust.

- Lettuce, Leaf and Romaine

Exhibit full sized, whole plants. Remove old, injured, or dirty lower leaves. Dust or dirt on other leaves can be removed by water spray or careful washing. Remove all excess water before you exhibit your lettuce.

- Melons

Honey Dews, Crenshaws, and Casabas are smooth-skinned melons with little or no netting. Cantaloupes have a dense netting; Persians and Pershaws have lightly netted skins. Netting should be uniform over the entire surface. Avoid immature melons or those that are overripe or have sunburned spots.

Harvest cantaloupes at full slip. Trim stems of other melons to 1 inch. Hold melons at room temperature.

- Onions, Dry

Good specimens are well cured. They have intact dry skins and a small well-dried neck. Medium sizes are preferred.

Trim roots to 1/4 inch and leave the neck 1/2 to 1 inch long. Do not peel or wash bulbs. Best storage conditions are low humidity and temperatures. Store them either below 45° F or between 80° F and 90° F. In-between temperatures encourage sprouting and rotting. High humidity encourages undesirable rooting.

- Onions, Green

Good specimens have a long white stem 1/2 inch or less in diameter. The bulb should not be enlarged more than slightly. White varieties are preferred.

Wash green onions thoroughly. Trim the roots to 1/2 inch and trim the tops to give an all-over length of about 10 inches. Use 10 onions per bunch.

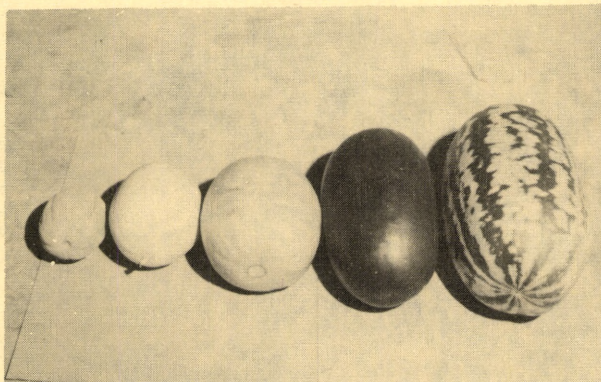


Fig. 13. Three types of melons and 2 varieties of watermelons. From left to right; Cantaloupe (Hale's Best); Honeydew; Crenshaw; Large green watermelon (variety Klondike); Striped watermelon (variety Blue Ribbon). The green types often are as large as the striped types.

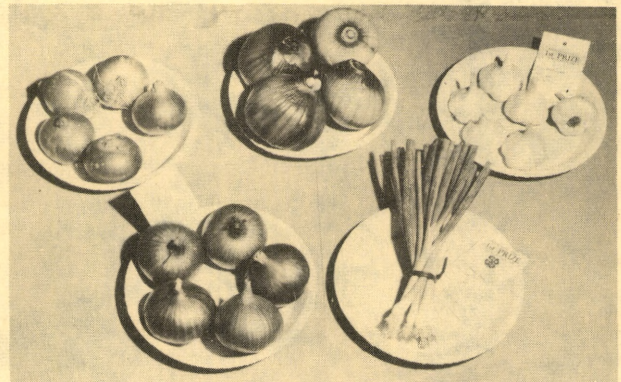


Fig. 14. Bulb crops. The lower left plate shows a good display of dry onions (Globe type). The upper left plate shows poorly-trimmed roots. The upper center plate shows excessive peeling of the outer skins. The upper right plate of late garlic shows excellent specimens with proper root trimming. The lower right shows a good bunch of green onions.

- Parsley

The leaves should be fresh, bright green, clean, and tender. Discard yellowed or overmature leaves. Use a water spray to remove dirt and dust.

About 20 sprigs make a good bunch. Trim stems evenly and make the bunch 8 to 10 inches in overall length.
- Peas

Select pods that are bright green and fully filled with well-sized but tender peas. Pick and exhibit them with the stems on. Handle the pods carefully to preserve the original bloom.
- Peppers, Bell

Good specimens are well formed with 4 lobes. They should show a uniform medium-green color.

Trim the stem level with the shoulders. Display specimens with the stem down. Avoid using peppers that show injury from sunburn or have a purplish or reddish discoloration.
- Peppers, Other

Pimiento peppers should have firm, thick smooth walls and a uniform red color. Hot types should be uniform in color, whether red, yellow, or green. Small hot types like Floral Gem and Red Chili are less than 4 inches in length, and long hot types such as Anaheim Chili, Mexican Chili, and Hungarian Yellow Wax are over 4 inches.

Trim stems to length of about 3/4 inch.
- Potatoes

Medium sizes are preferred. White Rose is an example of a long white variety, Russet Burbank (Netted Gem) is a netted type, Pontiac and Triumph are red skinned, and Kennebec and Sequoia are round varieties.

Harvest potatoes when they are fully mature. Dig them carefully to avoid cuts and bruises. Allow the skin to dry thoroughly before removing the soil with a soft brush. Tubers that show green (from holding in the light for a few days) or that have enlarged white lenticels (breathing pores) will make poor specimens. Wrap 2 or 3 times the needed number of specimens. Put each one in an individual paper wrapping and store in a cool place until exhibit time.

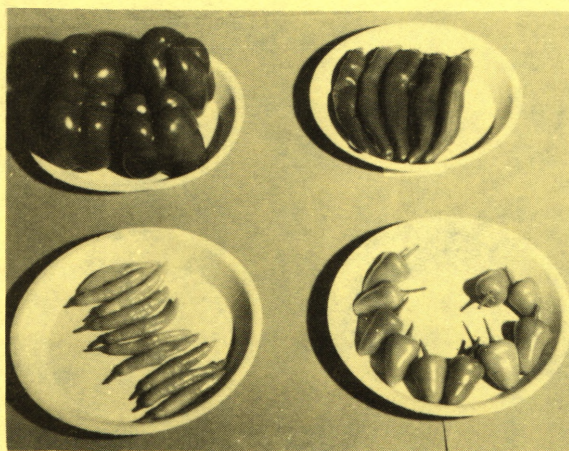


Fig. 15. Types of peppers. Upper left, a good plate of Bell Peppers (California Wonder variety); Upper right, Long Hot type (Anaheim Chili variety); Lower left, Long Hot type (Hungarian Wax); Lower right, Small Hot type (Floral Gem).

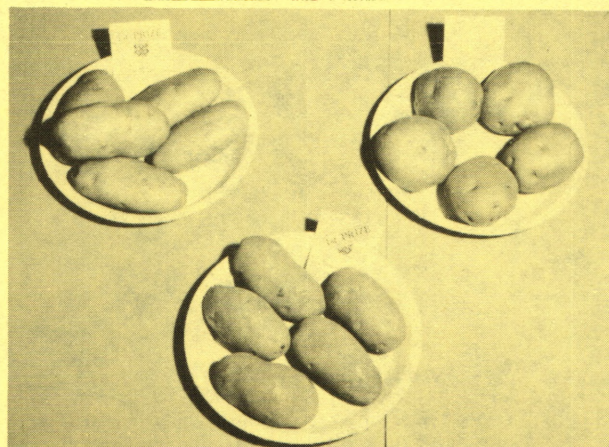


Fig. 16. Three types of potatoes. Upper left, Long White type (variety White Rose); Upper Right, Red Skinned type (variety Pontiac); Lower, Netted type (variety Netted Gem or Russet Burbank).



Fig. 17. Pumpkins. The 2 small pumpkins in the foreground are Small Sugar. The 2 large pumpkins on the right background are Connecticut Field and the flat pumpkin on the left is Kentucky Field (Large Cheese).

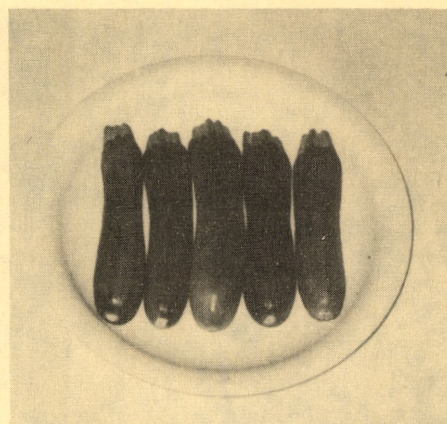


Fig. 18. A good plate of Italian type summer squash. (Variety Black Zucchini.)

- Pumpkins

Good pumpkins have a smooth, evenly grooved surface. They also have a uniform rich color and a hard thin rind. If the weight is light for the size of the pumpkin, the flesh is probably too thin. Large field (Jack-o-lantern) types should be larger than 12 inches in diameter. They should weigh 10 pounds or more. You should trim the stems to 2 inches.

- Radishes

The roots should be fresh, firm, and uniform in shape and color. Desirable diameters are 1/2 to 3/4 inch for the icicle type, and 3/4 to 1-1/4 inches for the globe type.

Remove any yellowish or injured leaves. Use 10 roots per bunch for the globe type and 6 for the icicle type.

- Rhubarb

In harvesting, pull out the stalks instead of cutting them off. Select young, tender, full-sized stalks. You may trim off most of the leaf, but leave a 1 to 2-inch semi-circle of leaf blade and veins attached to the stalk. Six stalks make a good bunch. Use 2 twistems or strings (one near each end) to tie the bunch securely.

- Spinach

Specimens should be deep green in color. They should be clean, tender, and fresh.

Discard injured or diseased leaves. Fifteen fully expanded leaves make a good bunch. You may display your spinach entry with the stems in a clean jar of water.

- Summer Squash

There are several varieties of summer squash. Each is distinct in type.

Harvest summer squash at an immature stage. The rind should still be very tender. Select your specimens carefully for uniform shape and size. Trim the stem length to 1/4 or 1/2 inch. Handle the fruit very carefully to avoid bruising. Select clean specimens and remove flecks of soil by brushing lightly. Do not try to wash or wipe.

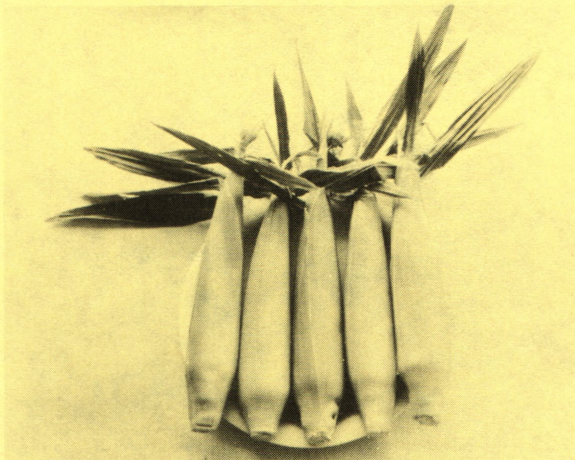


Fig. 19. A good plate of sweet corn. A few banner leaves should be left on each ear.

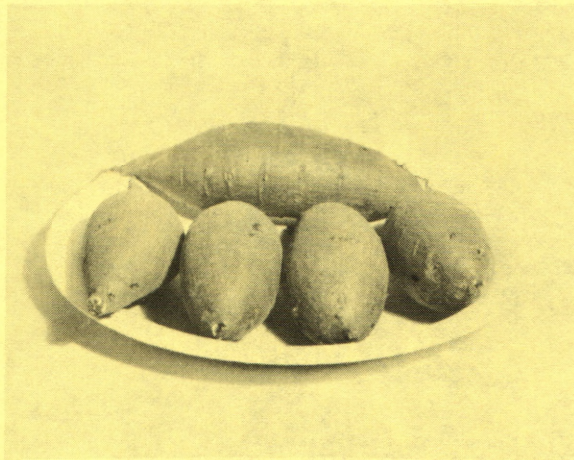


Fig. 20. Plate display of Porto Rico sweet potatoes. Sweet potatoes skin very easily so they must be handled carefully.

- **Sweet Corn**

Good corn has green fresh husks and well-filled ears free of worms. You can frequently feel the presence of worms and poorly filled tips by feeling the ear.

Remove any excess shank at the base of the ear. Leave some green husk leaves with short banners. Remove any dust residue by brushing and careful washing. Trim silks back to 1 inch from the tip of the husk.

- **Sweet Potatoes**

Brightness, smoothness, shape and color are important characteristics to consider in selecting sweet potatoes. They should be free from sprouts, bruises, nematodes, and diseases, too. Most desirable potatoes weigh 8 to 16 ounces and are 2 to 3 inches in diameter. Yellow Jersey is a dry type; Porto Rico and Velvet are moist varieties.

Dig the potatoes a few days in advance of the show to allow some curing. Wrap selected specimens individually in paper and hold in a warm room for 5 to 7 days. If further storage is necessary, a temperature of 55° F to 60° F is best.

A short stem and about 1 inch of tap root should be attached.

- **Swiss Chard**

Select fully expanded leaves that are clean, fresh, and free of injury. They should have bright and tender stems. Ten leaves make a good bunch. You may exhibit the chard in a clean jar filled with cool water. This keeps it fresh longer.

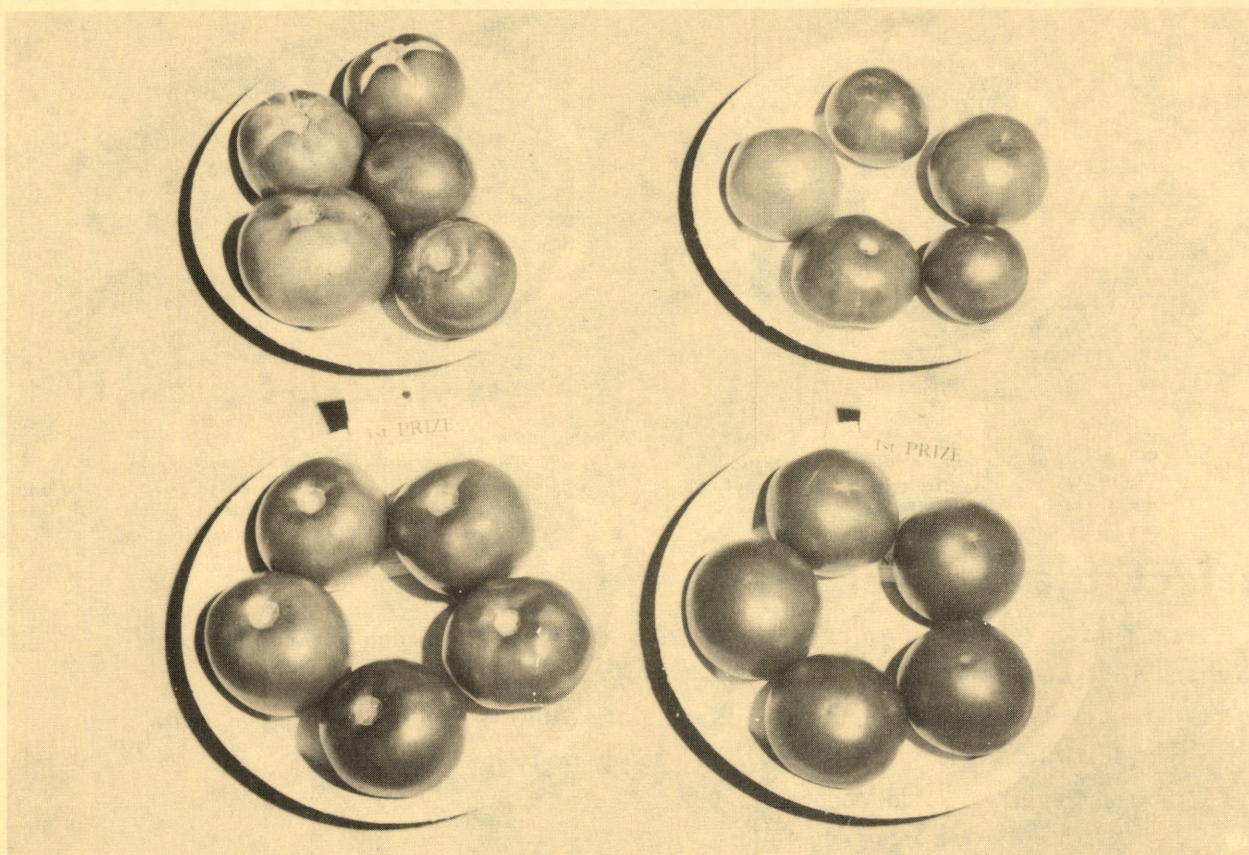


Fig. 21. Good and poor tomato plates. Display the tomatoes with stem end down as shown in lower right hand plate. The upper plates show some of the common defects on both the stem and blossom ends of tomatoes.

- **Tomatoes**

Good specimens have small blossom scars and no blemishes except those characteristic of the variety. Diameters of 2 to 3-1/2 inches are most desirable for many of the round varieties.

Select fruits that are completely and uniformly colored, firm, sound, and free of all injuries. Stems should be removed on all except the small fruited types such as Cherry. Arrange specimens neatly on a plate with stem end down.

- **Turnips**

Specimens should be smooth, well formed and tender fleshed. They should be of medium size. The color pattern should be typical for the variety and uniform among the 5 specimens displayed.

Trim tops to a 1-inch length. Leave 2 to 3 inches of tap root.

- **Watermelons**

Select a specimen that is typical of the type and of medium-to-large size. It should have a regular shape. Display a watermelon when it is of good eating maturity. Trim the stem to 1 inch.

- **Winter Squash**

Specimens should be of regular shape and of medium size for the variety. They should be of uniform color and free of blemishes from insect-damage or other injury. Small fruited varieties include the Table Queen (Acorn), Butternut, and Buttercup. The Hubbard type includes the Hubbard, Delicious, and Boston Marrow varieties.

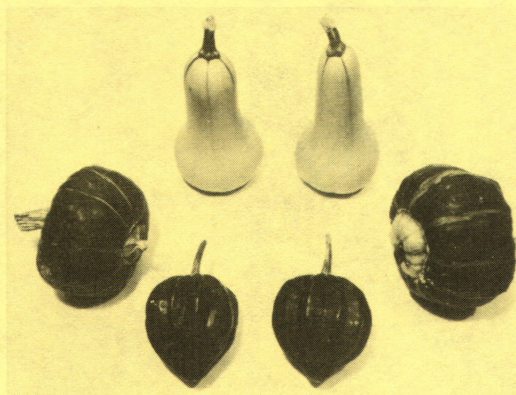


Fig. 22. Small fruited squash varieties. Butternut above, Table Queen (Acorn) below, and Buttercup on the sides. Two specimens make an entry.

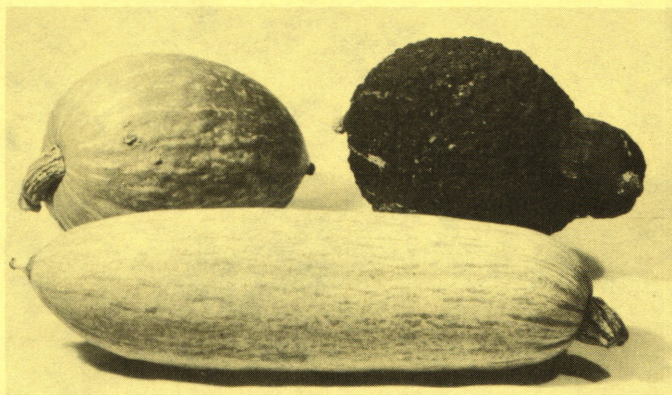


Fig. 23. Three varieties of large fruited squash. Banana in the foreground, Delicious on the left, and Hubbard on the right. One specimen of this type makes an entry.

select the correct class and section

Be sure you enter your produce in the right section. If you don't, the judge may be forced to disqualify your entry.

Most county fairs have four classes for plate exhibits and one for lug or crate displays.

The four classes for plate display are usually as follows:

- Fruit and Pod Vegetables
- Leafy and Stem Vegetables
- Root, Bulb, and Tuber Vegetables
- Vine Crops

In the premium lists for county fairs you will find different vegetables listed for the several sections under each class. When a vegetable has two or more distinct types, you will often find a section for each type. Be sure you select and grow the proper variety for each type listed.

setting up your exhibition

Carry your specimens to the fair in a box or basket that is carefully packed with padding. Specimens like sweet potatoes, potatoes, cucumbers, onions, and summer squash should be wrapped individually in tissue or newspaper to prevent bruising of the fruit.

Bring along at least an extra specimen or two in case something happens to one of your preferred selections.

For plate displays, use clean, plain paper plates. For package displays, use clean new containers. A few of the bunched leafy vegetables (parsley, spinach, chard) may be displayed by placing the bunches in clean plain jars or in cans partially filled with water.

Arrange an orderly and attractive display. For example, have specimens side by side with all stems pointing in the same di-

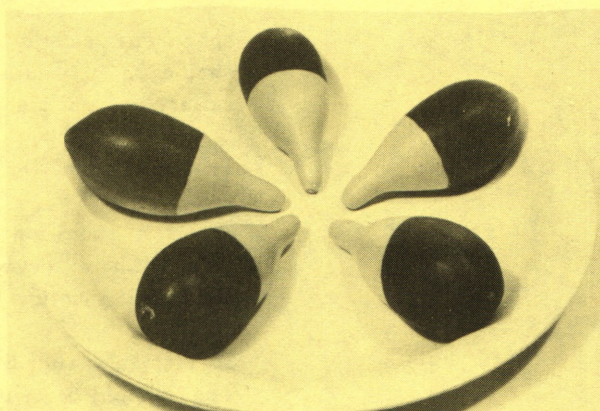


Fig. 24. A plate of 1 variety of ornamental gourds. This is better than having several different types on the plate.