

# Picking, Handling and Exhibiting Fruit

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Good fruit, however good it may be, must be properly picked, handled and exhibited, if it is to command the best price on the market, or win first prize at a fruit show. These practices must be given careful attention if the business is to be made a success.

Apples, peaches, pears, plums and cherries should be picked for market when hard ripe. Hard ripe means that the fruits have not softened to any extent, but are mature enough that they will soften and become eating ripe after picking. Picked too late these fruits soften either on the tree or soon after picking, and as a consequence break down and decay. On the other hand, if picked too early, they have poor color and eating quality when they are eating ripe, and are more subject to diseases in transportation and storage.

There are limits on either side of the proper time to pick fruit. These are easy to recognize, and economic necessity forces fruit growers to observe them. Fruit should not be picked before it has attained fair size and color



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because the grower cannot generally sell it to advantage. Fruit should not be left on the tree until it drops, for fallen fruit as a rule cannot be sold at a satisfactory price. For best results, fruits must be picked between these two stages.

### BEST INDICATION OF RIPENESS

One of the best indications that tree fruits are ripe enough to pick is the change of the ground color from green to yellow. Immature fruit is leaf green. Some varieties never have any red color, but most develop more or less on them as they ripen. The green is called the ground color. The red, which appears later, is called the over color. When fruit is eating ripe, the green color has become yellow. This change begins, however, before the fruit is eating ripe, and about the time it is hard ripe. In general the fruit is ready to pick when the green ground color takes on a tinge of yellow.

### PICKING STONE FRUITS

Generally more than one picking is made in the case of peaches, cherries and plums. Only a short period elapses between the time when the fruit has reached the proper size and red color, and the time when it becomes soft ripe. A tinge of yellow may be easily seen at the end of the fruit opposite the stem. Often the fruit softens a little in this region while still hard ripe over most of its extent. If stone fruits are disposed of locally, they can be picked riper than if they are to be shipped or stored for a time. In general, pick stone fruits for local market just before they start to soften, as determined by the yellow ground color over all and by a slight softening at the end opposite the stem. This will give the best possible size, appearance, and eating quality. For longer shipments or storage, pick after good size and red color have been reached, as the first tinge of yellow appears at the end opposite the stem, and before the fruit has softened. For home use, the stone fruits may be allowed to become eating ripe on the tree. For any purpose other than immediate consumption, plums and cherries should be picked with the stems on.

### PEARS

Pears have good eating quality only if picked green and allowed to ripen out of the sun. Pears allowed to ripen on the tree are poor in quality. Wait until good size has been reached and a tinge of yellow has appeared on the more advanced specimens. Pears should be picked and handled very carefully, perhaps more carefully than any other fruit because it is necessary for the fruit to remain in storage so long. Bruises are, therefore, exceedingly harmful to the keeping qualities of the fruit.

### PICKING SUMMER APPLES

Summer apples, such as Transparent, Duchess and Early Harvest are picked whenever they have attained sufficient size and color for use or sale. It is often advantageous to pick them before they are really ripe. They soften up rapidly, even if picked quite green. Storage quality is not an object with this type of apples. For shipment or local market, the grower should try to put

out as attractive and high quality a product as possible. Thinning to get better size and color is often advantageous with early apples. Late summer apples, such as Wealthy, Maiden Blush, and Benoni must also be handled quickly and sometimes picked whenever the market will take them. One should wait, if possible, for size and color to develop, but not necessarily for the yellow ground color.

### PICKING AND HANDLING FALL AND WINTER APPLES

The determination of the proper time to pick fall and winter apples is more difficult than is the case with summer apples. The different varieties offer different problems. Some varieties, of which Jonathan is an example, become hard ripe relatively early; others ripen later. Some suffer in keeping quality if picked too late. Other varieties keep best if left on the tree until relatively late. Jonathans tend to soften on the tree and suffer from Jonathan spot and decay after picking if left too long. It is best to harvest them as soon as they have developed good size and color. During a hot dry fall they tend to drop badly, and may start to drop before they have colored up. When apples which are uninjured by insects or disease start to drop of their own accord, the crop must be picked to save it, regardless of size and color.

Other varieties, like Winesap, Ben Davis, York, Ingram, etc., become picking ripe later in the season than Jonathan. They increase in size and red color through the season. With most varieties, it is best to leave the apples on the tree until the yellow ground color develops to some extent. If they start to drop or soften on the tree, of course, they must be harvested. The eating quality of early picked apples tends to be poorer than that of later picking. Storage scald has been found to be reduced by allowing such varieties as Grimes, Huntsman, and Golden Delicious to become fully hard ripe before picking.

Labor conditions are bound to influence the grower in deciding when to pick. If he has a big crop he may have to pick some trees too early, and others too late. He should not let his eagerness to get the crop off induce him to pick the bulk of his apples too early. Market conditions may also affect the decision. It is usually unwise to leave apples on the trees too long in the hopes of a better price. They may become soft or blow off. Certain varieties have been found to keep better for a time on the tree than they did in a common storage cellar.

There are definite signs and indications not mentioned above, which are used by growers to tell whether or not their apples are ready to pick. Most of these are undependable. Color of seeds is often used. In some cases the seeds are brown weeks before the apples are ready to pick. The development of a large amount of red color does not give satisfactory evidence that apples are ready to pick. The poor eating quality of some apples from the Pacific Northwest is due to the fact that they are picked when completely covered with red over color, but have not really matured properly. The ease of separation of the stem from the twig is also deceiving, as it is influenced by climatic conditions.

## UTENSILS FOR PICKING

Stone fruits and apples for a fancy market should be picked in baskets, care being taken at all times not to bruise the fruit or puncture the skin. The commercial apple crop is usually picked in picking bags or aprons. The apples should not be allowed to fall a long distance into the container, and the picker should not let his picking bag or apron bounce from round to round of the ladder when descending. Reasonable care should be exercised in dumping the fruit into the barrels, boxes, or on the packing table. Fruit should always be removed from the tree by means of a sideways twist. The practice of pulling off fruit, spur and all, is to be avoided, as it may reduce the number of spurs sufficiently to affect later crops.

## HANDLING FRUIT BETWEEN THE TREE AND THE CONSUMER

The softening of fruit after picking depends mainly upon the temperature. Sealing fruit in air-tight jars, or coating it with paraffin and the like, will delay softening, but aside from these exceptional conditions, temperature is the controlling factor in the softening of fruit. In general, fruit should be kept as cool as possible after picking. If several days elapse between picking and packing, the fruit should never be piled up under the trees or left out in the sun. If a cellar is available, it should be used for storing between the operation of picking and packing. Fruit picked during the day may be left outdoors during cool nights to lower the temperature, and put in the cellar early the next morning. The management of common storage of any kind is quite simple. Open every door, window, or other aperture during the cool nights in order that the cool night air may surround the fruit. Close every opening during the day to keep the cool air in and the warm air out.

In many cases cellar space will not be available. It is better to store fruit under some shelter rather than directly in the sun as some growers do. The same thing applies to the packed fruit. It should be kept as cool as possible and should never be piled in the open where it will be exposed to the sun. After packing, fruit should be rushed as quickly as possible to the refrigerator car or cold storage. If delay is necessary a cellar, above-ground common storage, or a shed should be used.

The results of experimental work show that apples soften more in a week at outside fall temperatures than in several months in cold storage. Jonathans may become as soft as they ever get in ten days outdoors at the temperatures prevailing at picking time. The good results of careful culture, spraying, picking, and handling are often lost by a delay in getting the fruit into storage. This delay, of course, may be unavoidable. Often, however, by exercising ingenuity or by making previous arrangements with the buyers or storage men, delay in moving the packed product may be avoided.

The matter of commercial handling and marketing of fruit may be summarized as follows: Produce the best quality of fruit possible. Pick it when it will make the highest quality and most attractive product. Handle carefully at all times and keep it as cool as possible after picking.

## SELECTING FRUIT FOR EXHIBITION

**Selecting the Fruit.**—A good fruit exhibit usually depends more upon the ability of the grower to select prize winning fruits than upon other factors. The selection can best be made by viewing the fruit from time to time as it grows upon the trees. By so doing, the grower can assist in developing the specimens desired by judicious thinning, more careful spraying and perhaps by training the branches in positions where more sunlight may be received. Ordinarily the best fruit for show purposes will be found near the top of the tree or upon the outermost branches where it is exposed to an ample supply of sunlight. The essential factors to keep constantly in mind are: (1) Freedom from blemish; (2) Uniformity of the individual specimens; (3) Good typical color for the kind; and (4) Characteristic size and shape for the variety. These requirements will be given further consideration under the discussion of the score card.

**Care of the Fruit.**—Much will depend upon the care and attention given to such matters as picking, handling, storing and transporting. If the exhibitor is careless, or negligent in any one of these factors, it may mean failure. Pick the following fruits with stems on: apple, pear, quince, plum, and cherry. Pick without stems: peaches, apricots, and nectarines. Cold storage is generally necessary for keeping the stone fruits and berries for more than a few days, but apples and pears if wrapped carefully and put up in small packages keep very satisfactorily in a good, cool house cellar. It is much safer, however, to store early apples, if held for later fall or winter use, in cold storage.

**The Placing of Exhibition Fruit.**—Superior fruit if not placed or arranged in an attractive, neat and artistic manner, may receive a low score and win no prizes. If the table, for example, is covered with green crepe paper instead of white, yellow, or black paper, the contrast in color brought out between the green paper and the red and yellow fruits will heighten the effectiveness of the exhibit. It is also important that the correct number of specimens be placed on each plate. This will vary somewhat depending upon the rules of the particular fair or association concerned. For the larger fruits, such as the apple, pear, quince, and peach, five specimens are generally required; while in the case of the smaller fruits, such as plums, from ten to twenty specimens are needed on each plate to make an exhibit. Five bunches of grapes may also constitute a single plate exhibit. When fruit is exhibited in containers such as boxes, baskets, barrels or other receptacles, the same careful attention to its appearance and artistic arrangement should be given. For success, conformity to the standard rules for packing, grading, and quality should be carried out in the strictest detail.

**Score Card.**—A careful study of the score card will acquaint the exhibitor with the value of the most important points to be considered in the selection of fruit for show or exhibition purposes. For single plates, the score cards may be as follows:

	Apples and Pears	Peaches	Plums
Freedom from blemishes -----	30	25	25
Uniformity -----	20	20	25
Color -----	20	20	15
Size -----	15	20	25
Form -----	15	15	10
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	100	100	100

*Freedom from Blemishes.*—This is the most important single point on the score card. It means that each fruit should be absolutely free from insect and disease injury, such as San Jose scale, codling moth, curculio, apple scab, blotch, black rot, frost injury, spray burn, peach scab, grape black rot, limb rub, etc. Each specimen should be as nearly physically perfect as it is possible to select it. Mechanical injuries as bruises, twig punctures, box or barrel bruises should be carefully eliminated. If only one specimen of the five or more shows any of the injuries or blemishes listed above, it may prevent the exhibit from winning a prize even though all the other specimens are perfect.

*Uniformity.*—Many exhibitors fail to recognize the importance of this point. Uniformity means that all the specimens on one plate should be of the same size, color, shape and degree of ripeness. Every specimen should be as nearly like every other specimen as it is possible to make it. Four large apples and one medium sized or small apple, for example, will not score as high as five medium sized apples. Moreover, five apples of the same size with one lacking color as compared with the others will not make as good a score as five apples a little smaller in size but all of the same color. It is also important that all the specimens have the same shape.

*Color.*—The fruit should have the color characteristic of the variety. If the variety is red, try to select all the specimens exactly like the one typical for the kind. Four red specimens and one splashed with green or yellow would receive a lower score than five fine specimens colored with splashes of green or yellow.

*Size.*—Exhibitors frequently select for show or exhibition purposes the largest specimens obtainable. This is generally a mistake because this extra large size is not typical for the variety and it is often difficult to procure all the fruits of the same size.

*Form.*—This has to do with the general shape or form of the fruit. Every fruit grower should know the form typical for the various varieties. Fruits for show or exhibition purposes should all have the shape characteristic for the sort and be as true to that particular form or type as it is possible to select them.

**Name Varieties Correctly.**—Fruit incorrectly named is usually worthless in an exhibit and should be disqualified by the judge. When not sure of the name and unable to secure local assistance in identification, send several specimens to the Department of Horticulture, Missouri College of Agriculture, at Columbia, for identification.

# FACTS FOR THE FRUIT GROWER AND GARDENER

The following publications on gardening and fruit growing may be obtained without cost by addressing the Missouri College of Agriculture at Columbia, ordering by Series, Number and Title:

## Station Bulletins

- 184. Small Fruit Growing in Missouri
- 194. Better Methods of Tomato Production
- 198. Spraying Irish Potatoes
- 204. Controlling Soil Moisture for Vegetable Crops in Missouri
- 205. A New Method of Making Engine Oil Emulsions

## Station Circulars

- 83. The Home Vegetable Garden
- 99. Federal and State Laws Regulating Nursery Stock
- 103. Sweet Potato Culture in Missouri
- 106. Seed Potatoes for Better Yields
- 107. Winter Injury of Fruit in Missouri
- 109. Controlling San Jose Scale
- 112. Controlling Peach Tree Borers with Paradichlorobenzene
- 113. Picking, Handling and Exhibiting Fruit

## Extension Circulars

- 21. The Time of Planting Vegetables
- 53. Storing Vegetables
- 64. Potato Culture for Missouri
- 65. Planting a Backyard Orchard
- 93. Selected Apple Recipes
- 114. Pickling Fruits and Vegetables
- 115. The Use and Preparation of Vegetables
- 125. Cluster-Bud Spray for Apples
- 126. The Calyx Spray
- 127. Third Summer Spray for Apples
- 128. Spraying for the Second Brood of Codling Moth

Leaflet 21. Fourth Summer Spray for Apples