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OREGON
AGRICULTURAL EXPERIMENT STATION.



Marketing Fruit.

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MOSES CRAIG, Botanist.  
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Oregon who request them.

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## MARKETING FRUIT.

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Oregon is pre-eminently a fruit-growing State and her fruit will bring high prices in distant markets if proper care is exercised in grading and shipping. Past experience shows that good, well chosen, carefully packed fruit can be profitably shipped, but small, irregular or rotting fruit is a drug on the market at any price. Packing and shipping charges are always heavy items of expense to the grower, and this bulletin aims to give some brief directions for marketing fruit in the best and most profitable manner.

### COST OF PRODUCTION.

Fruit production is necessarily expensive as there is the original cost of land and trees, planting, cultivation and care of the orchard, spraying, picking, evaporating, shipping and marketing fruit, etc. All of which the orchardist undergoes in the hope of reasonable returns for his labor. In time (provided preliminary work was well done) an abundant crop is harvested and shipped for which consumers pay liberally. If the producers deal directly with their customers, or coöperate with each other, there should be a handsome profit, but if the charges of middlemen and transportation companies have to be deducted little will remain for the men who do the work. For example, our evaporated prunes are selling in the east at ten cents a pound. The producer pays one cent for transportation and receives three cents for his labor, the remaining six cents going to the middlemen for their services. Here is an opportunity to economize, lessening commissions by judicious coöperation and fostering markets near home where personal oversight is possible.

### CULTIVATE HOME MARKETS.

Though the selling of crops is just as important financially as raising them, few farmers exercise the same care in marketing as in growing fruit. Especially is this true of the man with a few trees, who should be most zealous in establishing a market, as he can not (unless in coöperation with others) afford to ship fruit to a distance, but must depend on the home market which may be gradually educated to appreciate good fruit. The grower who patiently and intelligently devotes his personal attention to rais-



ing choice, well-flavored table fruit for a special limited market will in time reap a golden harvest denied his less painstaking neighbor.

#### CARE OF ORCHARDS.

Grow only what the market demands. For a general market the commercial fruit grower should have a half dozen large, showy, highly colored varieties as an attractive appearance counts for more with dealers than flavor or quality. Different varieties should be planted in straight parallel rows through the orchard or vineyard, thus insuring perfect cross-fertilization, securing a better crop and obviating the necessity of sorting fruit after gathering. This is much better than scattering varieties a few in a place as it saves expense in handling fruit. Trees should be headed low and properly pruned to facilitate picking. The removal, before ripening, of fruit from an overloaded tree (=thinning) increases size of remaining fruit and some claim that the quality is also improved. If soil is well fertilized the fruit will have more substance and will not lose so much weight in drying. Orchards when carefully cultivated and thoroughly sprayed will yield good fruit with few culls and for a long time will become more and more profitable each year.

#### WHEN TO PICK FRUIT.

All ripe fruit should be picked clean as pickers go down the row. Pick carefully with thumb and forefingers placing fruits in the basket (not a sack) one at a time to avoid bruising them. Most fruits should be picked with the stems on as they keep better, and if to be sold fresh they should always be gathered in baskets. To keep well fruit must be picked at the proper time when mature but not fully ripe. Fruit is mature and should be gathered when the stem separates readily at its joint with the branch. Never leave it on the tree too long, as there will be loss of flavor and color, the flesh becoming so soft that it is easily bruised and its keeping qualities injured by slight jars in handling. In large orchards picking should begin as soon as fruit in sunniest portion changes color, then as you proceed other fruit is maturing and there will be less loss from over-ripe fruit. The nearer the market the riper the fruit should be when picked. Never pick green, decayed or soiled fruit. Immature fruit, unless for a distant market, should be permitted to ripen, and all diseased or rotting fruit removed and destroyed to prevent the

spread of fungous diseases. Never pick fruit when wet with rain or dew as this impairs the flavor and appearance. Fruit picked in the heat of the day is apt to look wilted and does not sell well. To prevent this, and partially restore the fresh appearance when wilted, place crates as soon as filled in a cool, moist, well ventilated place until sent to market. The flavor of cherries and some small fruits depends on the time of picking being best when they are gathered just after the dew is off in the morning.

#### STUDY TO PLEASE THE MARKET.

The importance of striving to please customers is not always fully realized by those marketing fruit. The consumer's wants may not coincide with your views of what they should be but when he is satisfied you not only make a sale but gain a permanent customer. Keep in close touch with the markets, visiting them often to find out what people really want and pay the most for. The producer, retailer and consumer should, as far as possible understand and trust each other, remembering that in union there is strength, and each needs the others assistance.

The sale of fruit depends on its appearance and quality, the kind of package used, proper grading and packing, and its condition when sold. Overproduction and low prices tend to cause carelessness in picking and packing small fruits which are frequently placed on the market in an uninviting condition, keeping prices down. When graded it is more in demand and brings higher prices. More care is needed in selling fruit. The market is seldom so overstocked that choice fruit retailed in perfect condition will not bring a fair price. Beauty of form and color, large, uniform size and good keeping qualities often sell fruit when excellence of flavor will not, and many little devices may be employed to increase its attractiveness. For example, Did you ever try selling choice pears, peaches, prunes or cherries in neatly labeled one and five pound paper boxes?

#### USE STANDARD PACKAGES.

If some fruit packages sell better than others seek to ascertain the reason, and if possible meet the requirements of an exacting market. Establish a reputation for selling only the very best so buyers will trust you and prefer your fruit. Aim to constantly improve the quality of fruit sold and never "top off" a barrel or crate with fine specimens, hiding poorer ones beneath, as the de-

ception is soon discovered and you lose a customer. Honesty is the best policy, as the pleasant surprise of finding all the fruit in a package equally good, will almost invariably secure increased patronage. Have standard packages of uniform size, for each kind of fruit, and avoid fraud in using small boxes, which is one of the prevalent evils with which honest dealers have to contend. Always mark the packages containing your choicest product with grower's name, name of orchard, and brand or trade name of the fruit, especially when shipping to a distant town, as this is your best possible advertisement, and tends to establish a permanent market for your fruit. Culls and fruit you are ashamed to own may be sold unbranded and on their merits in the home market.

#### HOW TO SHIP FRUIT.

There should be some guarantee of quality, and here is one advantage of organized effort among small growers, several of whom may coöperate shipping fruit to a central point and storing it for members until distributed. A better way would be to have storage centers at several shipping points, in charge of competent men, where fruit should be carefully sorted into uniform standard grades by the union which labels, sends out and guarantees the quality of all fruit. In shipping to commission houses send promptly exactly what is needed, well packed and carefully labeled with grower's name and address so as to have fruit reach market at the right time and in the best condition to attract and please the customer's watchful eye. The retailer makes more on such fruit and naturally exerts more effort to sell it. Commission merchants should immediately notify their correspondents to stop shipping when the market is becoming overstocked. If demand increases or prices rise shippers should again be notified so they can, if not too far distant, suit their consignments to the condition of the market and avoid loss. Whenever possible deal directly with the consumer, as the commissions paid middlemen materially lessen the grower's profit. When freight rates are high ship the greatest value in the smallest space, and never rush fruit into a few large distant markets to the neglect of near and numerous smaller ones. In the light of last year's experience one may doubt the advisability of shipping "green fruit" long distances when carefully evaporated fruit finds ready sale in the markets.



#### ADVANTAGE OF EVAPORATED FRUIT.

Evaporated fruit is usually sulphured to brighten its color, increase its keeping qualities, and to obtain the increased price paid by the dealers for the better appearing bleached fruit. It may be sulphured either before or after drying. Sulphuring dried fruit brightens its color, regardless of quality, hence the product sells better with those who disregard the impaired flavor and injurious influence of dry-bleached fruit on the consumer's health. Such fruit is objectionable because inferior grades may be fraudulently substituted for better ones, and the acidity being considerably increased more sugar is needed in cooking. Freshly sliced fruit may be bleached without destroying all its flavor by using but little sulphur at a time. See that the entire surface of the sulphur is burning before placing it in the bleaching box, admit plenty of air and do not leave fruit exposed to fumes longer than necessary. Thus treated less sulphur is absorbed, the taste and odor of which will disappear in drying. Producers will use sulphur just as long as consumers demand bleached fruit, so the real remedy lies in educating public taste to prefer the less attractive but better flavored and more wholesome unbleached fruit.

#### GATHERING AND PACKING PRUNES.

Prunes intended for shipping green should always be picked in baskets, before fully ripe, and carefully graded into sizes. For evaporating gather when thoroughly ripe by picking them or shaking trees, going over the orchard several times as they mature. If gathered by shaking spread sheets under trees, which should be emptied into baskets, handling fruit carefully to avoid breaking the skins. If skins are broken prunes will drip in drying. Grade into three sizes to insure uniformity in drying and remove leaves, twigs, decaying fruit, etc. Grade again after they are through sweating to sizes indicating number of dried prunes to the pound. Before packing many growers "gloss" or "finish" prunes with glycerine, etc., to improve appearance and prevent their sticking together. Much fruit is packed in sacks though it will pay better to pack in boxes as fruit looks better and does not lose weight by drying. Full directions for evaporating, sulphuring, etc., are given in Bulletin No. 45 of this Station, entitled "Prunes in Oregon," to which those desiring more light on this subject are referred.

Peaches should be carefully wrapped in soft paper bearing name and address of grower and packed firmly in crates so they cannot move in box during transportation. When marketed in baskets place rosy cheek uppermost and put some leaves over the top to intensify color of fruit. Pears are best when packed green and ripened indoors. They should be kept in a cool dark place en-

closed from air as their flavor (= aroma) being volatile is easily lost. They will ripen and develop good flavor on removal from cold storage.

#### PICKING AND SORTING APPLES.

In apple growing an important item of expense is the preparation of fruit for market. Never carry apples to market in boxes, always use baskets to avoid bruising. Large quantities can be best shipped in clean white barrels holding three bushels. Order barrels early so as to have them on hand when needed and avoid expensive delays. All fruit intended for market should be gathered by hand as bruised fruit soon decays. Pick clean as you go down the row. The pickers should have a short light ladder and two half-bushel baskets provided with a hook to secure them to the tree or ladder. Empty the baskets when filled on a large padded table placed between the rows. This should be the same height as the barrels and have a rim around the edge to prevent apples from falling. Sorting is most easily done in the orchard immediately after fruit is picked. Carefully grade it and place in barrels all the large perfect specimens of uniform size. It does not take many small, scabby, wormy or imperfect apples to destroy the profit on an otherwise excellent barrel of fruit.

#### PACKING AND STORING APPLES.

In packing the first two layers (which must be of uniform quality with the rest) should be placed face downward and the apples carefully dumped in. Shake well when barrels are one-third and one-half full. The last two layers should be placed face up and must a little more than fill the barrel. Use a press in heading, packing the fruit tight so that it cannot move in barrel during transportation. If fruit has to be kept some time before marketing, as it is often profitable to do, place the barrels on their sides in cold storage. Small quantities of fruit may be placed on shelves where it can be readily inspected and defective specimens removed. The cold chamber should have a low, even temperature, with a sufficient circulation of cold moderately dry air to prevent condensation of moisture on the fruit. Apples may be thus kept at a temperature of 38° to 50° for over four months without loss. Other fruits as pears, plums and peaches require a lower temperature (38° to 45°) and will not keep so long. When removing fruit from cold storage always raise the temperature of cold chamber gradually to that of outside air.

We have availed ourselves freely of the ideas advanced by able writers in the horticultural magazines and bulletins which limited space prevents our mentioning. If what is here given shall aid fruit growers in supplying the needs of their customers, and in improving the quality and standing of Oregon fruit in American markets, our object will be accomplished.

MOSES CRAIG.