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The Market Situation and Outlook for the Oregon Canned Fresh Prune

Agricultural Experiment Station
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SUMMARY

I. The prune industry in Oregon during recent years has been confronted with the problem of greatly increased production and consequent low prices. Unless additional market outlets can be found, low prices are apt to continue for some time. The canning of fresh prunes, now in its infancy, offers an attractive outlet.

II. The Oregon prune has undoubted excellence for canning, being a tart-sweet prune of large size and fine flavor. In the United States this variety is grown only in the states of Oregon, Washington, and Idaho. Of these states, Oregon in 1925 had more than 70 percent of the prune and plum trees. The Italian prune best adapted to canning is grown in the western parts of Oregon and Washington.

III. The percentage of the total prune crop of the Pacific Northwest used in canning is small compared with the dried product or even the fresh. The average figures for 1925 to 1929 show that nearly 60 percent were dried, 33 percent were shipped fresh, and only 7 percent were canned. In Oregon (using the 1925-1929 average) 8.7 percent were utilized in canning, 16.8 percent were shipped fresh, and 74.5 percent were dried.

IV. Canned prunes comprise less than 2 percent of the total fruits canned in the continental United States. But since 1925 the rate of growth in prune pack in the Pacific Northwest has been considerably greater than that of all other canned fruits combined. Even when compared with the total fruit canned in the entire United States, the rate of growth has been somewhat greater.

V. The annual production of canned prunes today is approximately that of Hawaiian canned pineapple or canned apricots twenty years ago, and about one-third that of canned peaches. Since that time production of canned pineapple has increased sixteenfold, canned peaches ninefold, and apricots sixfold. If the production of canned fresh prunes in the Pacific Northwest were to increase twelvefold, all of the present acreage of Italian prunes would be required for canning purposes.

VI. The limited geographic area in which the Italian prune thrives is a consideration of great importance to growers of the Pacific Northwest, as it means that they would derive the full benefit of advertising and sales promotion calculated to increase consumption of the canned product.

VII. Prunes have an advantage over certain other acid fruits in that they seldom develop pinholes or swells in the can. Since the adoption of the enamel-lined can there have been scarcely any complaints of spoiling, and in addition the color is well preserved.

VIII. The canned prune enjoys certain distinct advantages over most other fruits in costs of producing and processing. The raw product itself is cheaper; the loss in weight before putting into the can is less; and the labor cost involved in preparing prunes for canning is considerably lower than for most other fruits. The great care that must be exercised in the choice of fruit for canning, and the occasional lack of uniformity in pack due to periodic unseasonableness of weather and inadequate standardization, detract from these advantages to a limited degree.

IX. Many consumers have never heard of the canned fresh prune and large numbers are unfamiliar with its merits. The result is that where retailers carry the product at all, they complain of slow turnover and in consequence feel obliged to charge prices that give canned prunes no advantage over other canned fruit, the canning and other costs of which are materially higher. The aim of the industry should be to win consumers to the product by a price policy commensurate with its low cost advantages.

X. The product is in need of concerted advertising, sales promotion, and more attractive nomenclature. Attempts to procure greater uniformity of pack should constitute an integral part of the program. Combinations calculated to draw existing canning firms closer together should prove helpful in fulfilling the desired objectives. Cooperative canneries, in particular, would be materially benefited by such a movement. The Northwest Canners' Association provides an agency already in the field for promoting standardization, commodity advertising and sales promotion.

XI. The growers must themselves manifest a lively interest in such a program. The interests of canners and distributors are divided among many competing products. A united grower sentiment, backed up by an offer to cooperate in the financial support of such a program, would go far toward eliciting the hearty assistance, financial and otherwise, of all interested parties.

The Market Situation and Outlook for the Oregon Canned Fresh Prune

By

MILTON N. NELSON and W. H. BELDEN*

PURPOSE OF THE STUDY

The prune industry in Oregon has been confronted with the problem of greatly increased production and consequent low prices during recent years. Growers generally have not been obtaining sufficient returns from their prunes to establish their orchards on a profit-paying basis. It is true that prune prices have been somewhat more favorable during the past two years (1928-1929) than they were previously, but this was due more to adverse weather conditions curtailing production than it was to any substantial reduction in acreage.† Furthermore, studies made of the prune situation in California, the outstanding prune-producing district in the United States, indicate that unless something unexpected occurs it is probable that prune production in that state will continue to increase during the next few years.‡ Unless additional market outlets can be found to absorb the surpluses, the outlook for Oregon prune growers will be dimmed, with the prospect of continued low prices for some time to come.

During recent years there has been a widespread interest in Oregon with respect to the possibilities of canning as an additional market outlet for prunes grown in the Pacific Northwest. In this connection, the following queries naturally present themselves: To what extent are Oregon growers justified in looking upon canning as a promising outlet for their prunes? Are the merits of the product such as to justify the optimism of many who believe that the market can be vastly expanded? What is the competitive position of this fruit as compared with other canned fruits? Can it be produced and processed at a cost that compares favorably with competing products? What reception is the canned prune receiving from dealers and the consuming public? Has this changed any in recent years? If the verdict upon these interesting questions should turn out to be favorable, what then should and can be done to expand consumer demand

*Formerly Assistant Agricultural Economist, Agricultural Experiment Station.

†In U. S. Dept. of Agric. Circular 416, April, 1927, p. 37, the author, B. H. Critchfield, remarks, "Taking into account the per acre production of trees of different ages, it is estimated that there will be an increase of about 15 to 20 per cent in the average annual production of northwestern prunes from the present acreage when all of these trees are in full bearing. Production from year to year may be expected to vary rather widely, as in the past, but the trend of production will continue upward, from the present (1927) acreage alone, until most of the trees now planted reach full-bearing age six to eight years from now."

‡California Agricultural Experiment Station Bulletin 462, "Prune Supply and Price Situation," by S. W. Shear. 1928.

in a fashion to absorb an important part of the crop? It was to throw light on considerations such as these that the present study was undertaken.

GEOGRAPHICAL LOCATION

The prune industry of the United States is confined largely to California and the states of the Pacific Northwest. According to the 1925 Federal Agricultural Census, approximately three-fourths of all the prune and plum trees in the country are located in California, Oregon, Washington, and Idaho (see Figure 1). When prunes alone are considered, this proportion becomes still greater, approaching nearly 100 percent of the total national production.

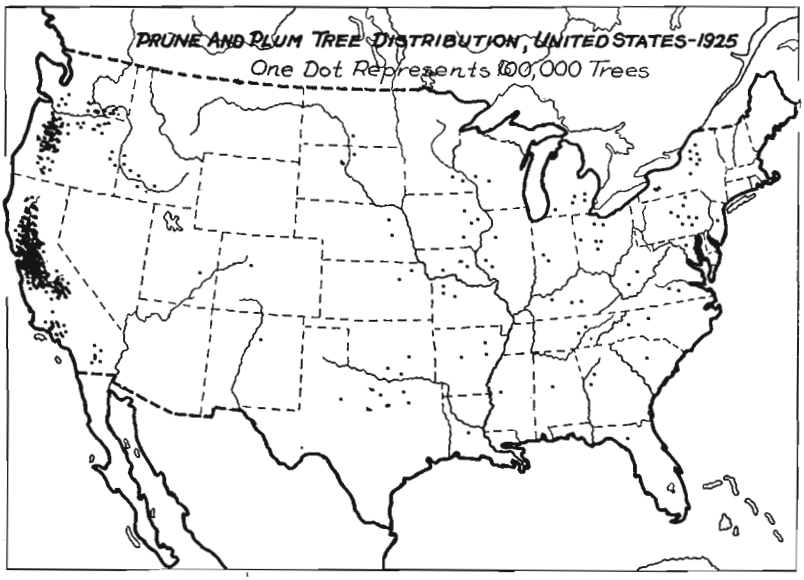

Fig. 1.

Prune growing in Oregon is confined largely to the valleys west of the Cascades, with some additional acreage in Umatilla, Union, and Malheur counties to the Northeast (see Figure 2). While it is true that Oregon has only about 20 percent of the total prune and plum acreage* in the West, the tart-sweet Italian prune, sometimes called the Oregon prune, is grown only in the states of Oregon, Washington, and Idaho.† On account of its rich flavor, large size, and thin skin, the Italian variety is peculiarly adapted to canning. The limited geographic area in which this canning prune can be successfully grown is a consideration of great importance to growers of the Pacific Northwest as it means that they would derive the

*The plum acreage in Oregon or the Pacific Northwest is comparatively unimportant.
†See U. S. Census of Agriculture for 1925, Part III for Western states, page 51.

full benefit of advertising and sales promotion calculated to increase consumption of the canned product. In 1925 Oregon had more than 70 percent of all the prune and plum trees grown in these states.* It seems probable that this proportion has not changed materially since then, although reliable data on this point appear to be lacking.

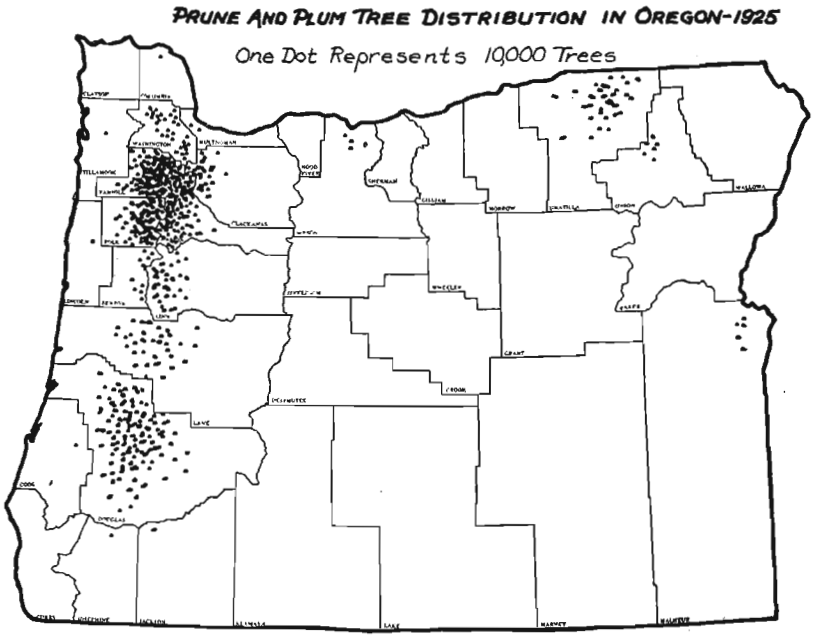

Fig. 2.

Prune canning in the Pacific Northwest is carried on only in the western parts of Oregon and Washington. The irrigated valleys east of the Cascades, owing to the drier climate prevailing there, tend to develop a prune with a skin that is less well adapted to successful canning. But even if this were not true the fact that these prunes generally bring more when shipped East in their fresh state takes away all incentive growers might have to offer them to canners, except in years of great crop shortage when Valley canners are obliged to offer an exceptionally alluring price.

UTILIZATION OF THE PACIFIC NORTHWEST CROP

Reference to Table I and Figure 3 show that even in the Pacific Northwest the percentage of the total prune crop used in canning is small compared with the dried product. The 1925-1929 average indicates that nearly 60 percent of the Pacific Northwest prune crop was dried, 33 percent was shipped fresh, and only 7 percent was canned. Figure 3 does show, however, that the percentage used for canning purposes has been increasing in recent years while the percentage used in drying has been declining.

*See U. S. Census of Agriculture for 1925, Part III for Western states, page 51.

TABLE I. UTILIZATION OF PACIFIC NORTHWEST PRUNE PRODUCTION
1920-1929*
In tons, fresh-fruit basis

Year	Dried†	Fresh† shipment	Canned†	Total
	tons	*tons*	*tons*	*tons*
Average 1920-1924	70,200	33,410	2,691	106,301
1925	39,000	27,469	4,207	70,676
1926	135,000	40,768	7,825	183,593
1927	69,000	40,443	7,203	116,646
1928	18,000	47,970	11,027	76,997
1929	109,200	53,547	14,675	177,422
Average 1925-1929	74,040	42,039	8,987	125,066
	In percentages			
Average 1920-1924	% 66.0	% 31.4	% 2.6	% 100.0
1925	55.0	39.0	6.0	100.0
1926	73.5	22.2	4.3	100.0
1927	59.1	34.7	6.2	100.0
1928	23.4	62.3	14.3	100.0
1929	61.6	30.2	8.2	100.0
Average 1925-1929	59.2	33.6	7.2	100.0

*Data from following sources:
1. Dried-prune production in Pacific Northwest from Table I.
2. Car-lot shipments data from United States Department of Agriculture Statistical Bul. 8, 23, and 27. For years 1928-1929, from United States Department of Agriculture Bureau of Agricultural Economics, Fruit and Vegetable Division, "Comparative Statement of N. W. Carlot Shipments of Fruits and Vegetables," 1929 and 1930 reports.
3. Statistics on Canned Pack of Prunes in Pacific Northwest obtained from Northwest Canners' Association annual reports.

†Conversion to fresh tonnage basis made as follows:
1. Dried prune tonnage multiplied by 3 gives fresh tonnage equivalent.
2. Number of car-loads shipped multiplied by 26,000 gives pounds shipped fresh. Divided by 2,000 gives tonnage.
3. Number of cases of prunes packed divided by 64 gives fresh tonnage equivalent.

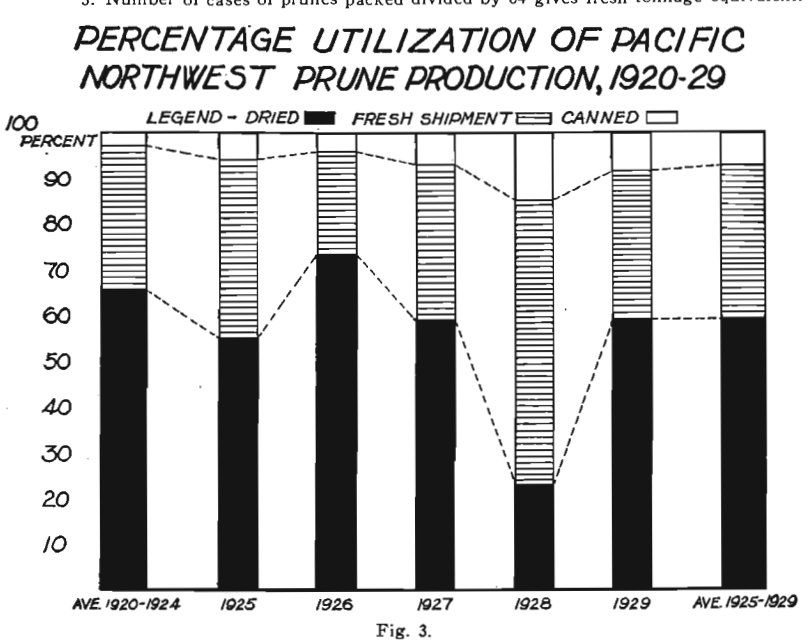

Fig. 3.

Although figures are lacking to show the nature of the utilization of the prune crop in California, it is well known that the great bulk of California's production is dried. In this connection, Table II shows the relative importance of this state when compared to other centers of world production. It is evident that California is the world's center of dried-prune production. The 1923-1928 average indicates that while the Pacific Northwest produced approximately 10 percent of the total world production of dried prunes, California produced about 70 percent. It is to be observed also that the world's supply of dried prunes has been increasing. Much of this increase has come from California, but not a little of it has been contributed by the Pacific Northwest.

TABLE II. COMMERCIAL PRODUCTION OF DRIED PRUNES, BY COUNTRY 1920-1929*

In thousands of short tons—i.e., 000 omitted

Year	Pacific Northwest production	California production	United States total production	Jugo-Slavia exports†	France production	World total
1920	17.5	97.5	115.0	53	13.9	182
1921	13.3	100.0	113.3	26	6.4	146
1922	36.0	130.0	166.0	57	2.4	225
1923	25.0	130.0	155.0	62	29.7	247
1924	25.0	139.0	164.0	5	9.0	178
1925	13.0	146.0	159.0	48	4.0	211
1926	45.0	150.0	195.0	52	9.4	256
1927	23.0	203.0	226.0	34	9.3	269
1928	6.0	220.3	226.3	21	1.5‡	249
1929‡	36.4	103.0	139.4	12	¶	151§
Average 1923-1928	22.8	164.7	187.5	37	10.5	235.0
			Percentage of World Total			
Average 1923-1928	% 9.7	% 70.1	% 79.8	% 15.7	% 4.5	% 100.0

*Data for years 1920 to 1927, from California Experiment Station Bulletin 462, p. 19. For years 1928-1929, from United States Department of Agriculture Crops and Markets.

†Includes only the exported portion of Jugo-Slavian production. These data have been used instead of estimates of total production as the former are more accurate and of greater commercial significance.

‡Preliminary.

¶Not yet available.

§Exclusive of France.

No data are available to indicate the extent to which prunes are canned fresh in Europe, but as far as the United States is concerned the canning of fresh prunes is confined almost exclusively to the Pacific Northwest.

Considering Oregon alone, the percentage of total production canned is greater than for the three Pacific northwest states combined. The 1926-1929 average indicates that 8.7 percent of the Oregon crop was utilized in canning; 16.8 percent was shipped fresh, and 74.5 percent was dried (see Table III and Figure 4). The difference between the percentage utilization of the Oregon crop compared to that of Pacific Northwest crop is due primarily to the fact that nearly all of the Idaho crop is shipped fresh.

TABLE III. UTILIZATION OF OREGON PRUNE PRODUCTION 1921-1929*
In tons, fresh basis

Year	Dried†	Fresh† shipment	Canned†	Total
Average	*tons*	*tons*	*tons*	*tons*
1921-1923	53,000	12,211	2,296	67,507
1925	25,500	7,722	2,852	36,074
1926	102,600	12,103	5,829	120,532
1927	48,000	12,610	5,393	66,003
1928	15,000	15,184	7,576	37,760
1929	87,000	15,041	10,921	112,962
Average				
1925-1929	55,620	12,532	6,514	74,666
	In percentages			
Average	%	%	%	%
1921-1923	78.5	18.1	3.4	100.0
1925	70.7	21.4	7.9	100.0
1926	85.1	10.1	4.8	100.0
1927	72.7	19.1	8.2	100.0
1928	39.7	40.2	20.1	100.0
1929	77.0	13.3	9.7	100.0
Average				
1925-1929	74.5	16.8	8.7	100.0

*Data obtained from the following sources:
1. Dried-prune production in Oregon for years 1921-1923 and 1929 from United States Department of Agriculture, Bureau of Agricultural Economics, Division of Crop and Livestock Estimates, annual Oregon crop production reports. For years 1926-1928, from United States Department of Agriculture Crops and Markets.
2. Fresh prune shipments data—Car-lot shipments data from United States Department of Agriculture, Bureau of Agricultural Economics, Fruit and Vegetable Division, "Comparative Statement of N. W. Carlot Shipments of Fruits and Vegetables," 1929 and 1930 reports.
3. Canned-prune data from Northwest Canners' Association Annual reports.

†Conversion to fresh tonnage basis made as follows:
1. Dried-prune tonnage multiplied by 3 gives fresh tonnage equivalent.
2. Number of car-loads shipped multiplied by 26,000 gives pounds shipped fresh. Divided by 2,000 gives tonnage.
3. Number of cases of prunes packed divided by 64 gives fresh tonnage equivalent.

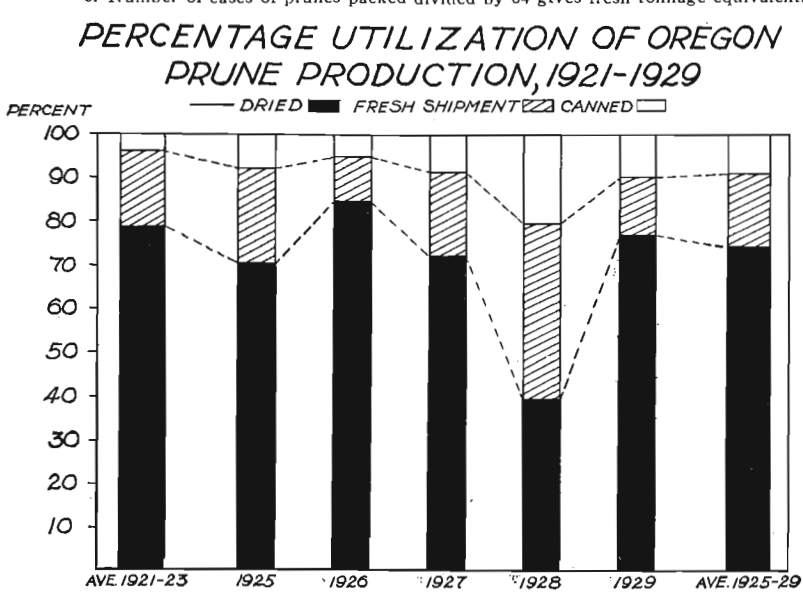

Fig. 4.

TREND IN PACK OF CANNED PRUNES

The trend in pack of canned prunes in the Pacific Northwest has been definitely upward since 1919. Table IV shows that the 1919-1924 average pack of canned prunes was 166,210 cases, while the 1925-1929 average pack was 575,191 cases.* When expressed in percentages, the 1919-1924 pack represented 5.3 percent of the total fruit pack in the Pacific Northwest, and the 1925-1929 pack represented 9.2 percent of the total, indicating that the pack of canned prunes has increased faster than that of other fruits. Table IV also shows that Oregon packs, on the average, from two-thirds to three-fourths of the entire Northwest prune pack. The foregoing trends are presented in graphic form in Figure 5.

TABLE IV. PACIFIC NORTHWEST CANNED FRUIT PACK, 1919-1929†

Variety	Average 1919-1924	1925	1926	1927	1928	1929	Average 1925-1929
	cases	*cases*	*cases*	*cases*	*cases*	*cases*	*cases*
Prunes	166,210	269,242	500,779	460,991	705,749	939,192	575,191
Plums	18,023	36,300	13,510	3,198	2,972	15,811	14,358
Apples	837,041	1,418,452	1,454,344	1,237,038	2,210,203	1,744,117	1,612,831
Cherries	325,630	329,924	708,990	359,144	634,041	607,962	528,011
Pears	556,677	1,275,844	1,373,633	818,914	1,978,283	2,286,012	1,546,536
All berries	1,127,266	1,280,362	2,304,611	1,855,475	2,001,294	1,731,359	1,834,620
All other fruits	103,318	81,743	147,395	147,582	117,987	111,484	121,240
Total all fruits	3,134,265	4,691,867	6,503,262	4,882,342	7,650,529	7,435,937	6,232,787
Percentage of prunes to all fruits	5.3	5.7	7.7	9.4	9.2	12.6	9.2
Oregon prune pack	112,338	182,529	373,038	345,151	484,878	698,943	416,908
Percentage of Northwest canned prunes packed in Oregon	67.6	67.8	74.5	74.9	68.7	74.4	72.5

†Data obtained from Northwest Canners' Association Annual reports; states of Oregon, Washington, and Idaho included.

The relative unimportance of canned prunes compared to other canned fruits in the United States is brought out in Table V. According to the Federal Census of Manufactures, the pack of canned prunes in the United States in 1919 amounted to 1.28 percent of the total case pack of all canned fruit in that year, while in 1927 it increased to 1.88 percent. If Hawaiian pineapple is included in the United States pack the percentages are reduced to 1.03 for 1919 and 1.42 for 1927. To visualize more concretely the insignificant position of canned prunes, one need only be reminded that out of 70 cans of fruit that might be found on the grocers' shelves, only one could be expected to be canned prunes. For each can of prunes one would expect to find, roughly, 22 cans of peaches, 17 cans of pineapple, 6 cans of pears, and 6 cans of apricots.

The census figures in Table V include both dried and fresh prunes. No doubt the pack of canned fresh prunes greatly exceeds that of canned dried

*In these figures canned dried prunes are combined with those of canned fresh prunes, but the former are believed to be relatively insignificant in volume.

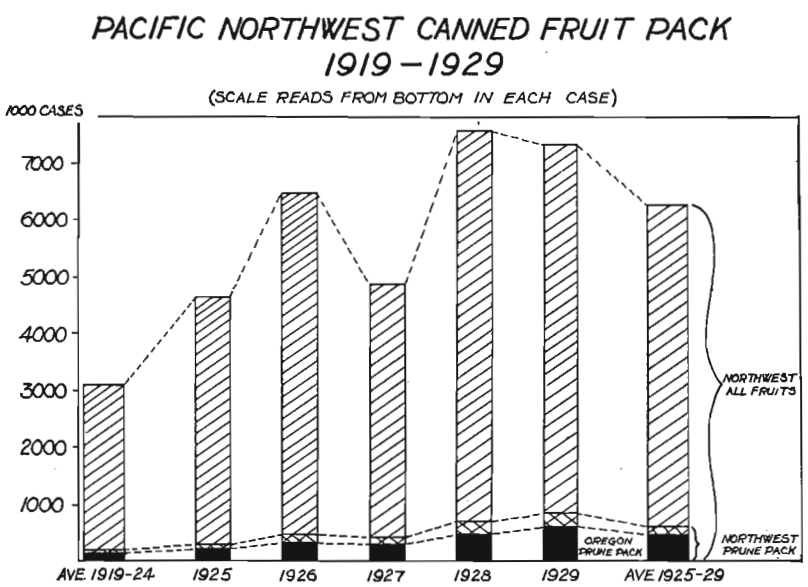

Fig. 5.

TABLE V. PACK OF CANNED FRUITS IN THE UNITED STATES—1919-1927*

(In Standard Cases 1919; In Actual Cases 1923-1925-1927)

Variety	1919	1923	1925	1927	Average 1919-1927
Prunes	273,710	286,496	379,556	518,706	364,617
Plums	571,520	215,036	222,272	223,955	308,196
Peaches	7,706,855	7,357,060	10,526,286	11,305,057	9,223,814
Apricots	3,939,768	1,596,302	2,087,961	3,099,357	2,680,847
Pears	2,021,610	1,883,358	3,879,917	2,953,502	2,684,597
Apples	2,447,927	2,125,631	3,467,176	2,939,031	2,744,941
Cherries	1,362,832	1,785,689	1,486,631	1,229,386	1,466,135
All berries	2,347,213	2,217,111	2,119,559	2,374,588	2,264,619
All other fruit	760,957	1,665,339	1,823,422	2,920,759	1,792,619
Total all fruit	21,432,393	19,132,022	25,992,780	27,564,341	23,530,385
Hawaiian pineapple†	5,071,976	5,895,747	8,728,580	8,879,252	7,143,890
Total United States and Hawaii	26,504,369	25,027,769	34,721,360	36,443,593	30,674,275
Percentage of prunes to United States total fruit pack	1.28	1.50	1.46	1.88	1.55
Percentage of prunes to United States and Hawaii pack	1.03	1.14	1.09	1.42	1.19

*Data from Federal Census of Manufactures, Biennial reports, 1919, 1923, 1925, and 1927.

†Data from Western Canner & Packer, Statistical Numbers, 1927 and 1929, all in terms of actual cases.

prunes, probably amounting to three-fourths of the entire pack of canned prunes. As mentioned before, the fresh pack is confined almost exclusively to the Pacific Northwest.

It is interesting to reflect that the annual production of canned prunes today is approximately the same as that of Hawaiian canned pineapple or canned apricots twenty years ago and about one-third that of canned peaches. Since that time production of canned pineapple has increased sixteenfold, canned peaches ninefold, and apricots sixfold. If the production of canned fresh prunes in the Pacific Northwest were to increase twelvefold, all of the present acreage of Italian prunes would be required for canning purposes.

Although prune canning is quite unimportant when compared with such fruits as peaches, apricots, pears, and Hawaiian pineapple, it must not be assumed therefore that prune canning is not important to the Northwest and particularly to the Willamette and Lower Columbia River valleys. In addition to prunes, there is a tendency in the Pacific Northwest to specialize in the canning of pears, apples, cherries, and berries (see Table IV). In the prune districts, there are some canneries the output of which is composed of more than 25 percent of canned fresh prunes. If the present rate of growth in the canning of fresh prunes is any criterion of its future market prospects, Oregon growers should feel encouraged by the fact that since 1925 the rate of growth in the production of canned prunes has not only been substantially greater than the rate of growth in the total of all Pacific Northwest canned fruits (see Table IV), but somewhat greater even than the pack of the entire United States (see Table V).

THE PRODUCT

The peculiar merits of the Italian prune for canning purposes have already received emphasis. Unfortunately, the delicious qualities of this fruit in its most perfect form are known only to a few. The requirements for perfection, however, are so exacting that if the product is to be esteemed at its true worth, careful harvesting and canning methods must be employed. In the first place, the fruit itself must be of a far better average than that demanded for drying purposes. It must also be in a perfect stage of ripeness. This is accomplished by shaking the fruit from the tree or permitting it to drop to the ground. If the fruit, when canned, is too green, it suffers in flavor from an excess of acid and a deficiency of sugar. The sirup is apt to be colorless and the fruit itself may fade from the clear wine red denoting perfection to a greenish color. On the other hand, if the fruit is too ripe, it develops a brownish color, the sirup is not clear, and the fruit, instead of standing up well in the can, settles down toward the bottom.

Imperative as it is that only the very choicest prunes be used for canning, how does the canneryman assure himself of a supply of such fruit? The Northwest Canners' Association has developed rules governing the delivery of fruit on contracts.* Only the No. 1 grade is acceptable for canning, and it is not customary for canners to buy prunes that do not meet this specification. In those few instances where they do, they face

*See page 16.

the problem of disposing of the second-grade fruit. Where such fruit falls short of No. 1 requirements merely because it is small in size the canner may attempt to dispose of it through the medium of the eight-ounce tin. Not only does such fruit present a better appearance in a can of this small size, but it is a more convenient package for the small family. Where the canner accepts fruit that is inferior in other respects than size, some will grade the fruit and pay a premium for the best, others will can the best and dry the rest, while still others will throw away the inferior fruit or give it back to the grower.

CANNING PRACTICES

Once the prunes have been received and accepted in the cannery they are next sorted, stemmed where needed, washed by automatic washers, and then sized by allowing them to flow over a standard shaker type of grader. After sizing, they are immediately filled into enamel-lined tins, a simple operation carried on near the outlet of each grade at the grader. In con-

Northwest Canners' Association Grade Rules for No. 1 Fresh Prunes for Cannery Purposes

Shall consist of prunes of the Italian variety.

Contract Provisions

Ripe and of good color:

In good condition for canning, free from mold, decay, worms, cracks, split pits, scales, fungus, bruises or other imperfections.

Size: Shall not be smaller than 16 to the pound.

Explanation of Terms as Applied to Prunes:

Ripeness

Means not underripe or undeveloped with the meat of the inside of the prune showing a greenish cast, or not overripe with the surface of the prune badly withered and wrinkled.

Condition

Prunes shall be cleanly picked, well formed, free from gum, cuts, skin breaks, and damage caused by earth and foreign matter, hail, drought, excessive russeting, brown rot, diseases, insects, mechanical or other defects.

Tolerance

A tolerance of 5 percent by weight shall be allowed of each grower's daily deliveries for prunes not up to above specifications, excepting moldy, wormy, or decayed fruit for which no tolerance shall be allowed.

nection with the grading process hand-sorting on picking belts usually takes place. This will tend to remove prunes affected with scab or brown rot, prunes stung by insects, or prunes that have been marred by the mechanical process of handling. When once the fruit has been filled into enamel-lined tins, the process is much like that involved in canning other fruits. Depending upon the grade desired, a certain thickness of sirup is

poured into the can. For the fancy grade, for instance, a 40° (Balling scale) sirup is used. The temperature is regulated at about 160° F. so as not to crack the skin. The can is next subjected to a seven- to nine-minute exhaust at a temperature ranging from 180 to 185° F. for steam or hot water. Hot water is often favored because it is more apt to prevent peeling and cracking. After the can has been exhausted the fruit is next cooked, the cooking period ranging from seven to ten minutes. There must be no overcooking. Otherwise the fruit will become mushy. On the other hand, it must be cooked thoroughly and quickly if its keeping qualities and a good color are to be preserved. Although there seem to be no data bearing on the time that properly-canned prunes will keep, there have been exceedingly few complaints of spoiling where the fruit has been preserved in enamel-lined cans. In addition to preserving the color, enamel-lined tins ward off the danger of "pin-holes" and "swells."* In this respect, prunes enjoy an advantage over certain other acid fruits that are canned with difficulty even when enamel-lined tins are used because the acid attacks the surface. Prunes also enjoy an advantage over such fruits as peaches, apricots, or pears, since the latter involve a heavy labor expense for peeling, halving, and pitting. Very few pitted prunes are canned.

SALES METHODS AND POLICIES

The channels of distribution for canned prunes are no different from those employed in the sale of other canned goods. With the exception of a few direct sales made to local retailers, canners are in the habit of employing brokers to act for them in disposing of their pack to wholesalers, jobbers, and large retail organizations. In a few cases a small cannery may sell to other canners who enjoy selling connections superior to their own. Contracts are customarily consummated many weeks or months in advance of the canning season, the booking of orders often taking place as early as February and March. There may be exceptional cases where no attempt at sale is made before the goods are packed. Where this is true, the canner usually enjoys connections with buyers who habitually take his goods. To be sure, a canner may not book his entire pack in advance as he may desire to speculate on a portion of it. But as a rule the canner prefers to contract as high a percentage of his intended pack as market conditions permit.

Opening prices. Before the opening of the selling season the canner publishes what is known as an opening price list, and this is used as a basis for contracting future deliveries. These opening prices, however, are not unalterable. Contracts may be let below or above such opening prices, depending upon the weakness or strength of the market or of the bargaining parties.

Just what factors are chiefly responsible for high or low opening prices is difficult to determine. Perhaps the most potent factor is the estimated amount of canned goods in stock carried over from the previous season and still in the hands of canners and dealers. Naturally, too, prices fluctuate in sympathy with the position of other canned fruits, particularly the

*"Pin-holes" are due to the action of the contents on the can, while "gas formation" is responsible for "swells."

carry-over of such fruits. News of widespread intentions to increase pack has a bearing on the situation. The individual canner's cost of production naturally plays an important role in a determination of opening prices. His ambition is to set the price at such a point (having due regard for competitive forces) that a maximum amount of business can be procured on which a remunerative profit may be realized. Production is then adjusted accordingly. Of course, there is no advantage in cutting prices if the fruit is not available, or if the equipment is used to capacity, or if financial backing is inadequate. If there is a light carry-over, the whole industry will sell at a higher margin above cost than in years when the carry-over is heavier.

No simple relationship appears to exist between the price of canned prunes for any given year, on the one hand, and the Pacific Northwest crop or the pack of prunes canned, on the other. In some years, stimulated by a light carry-over, high opening prices may accompany a heavy production of canned prunes. In the event that the volume canned is thus expanded to the point where all the pack cannot be sold at the opening prices of the season, a price readjustment, calculated to move the bulk of the season's pack into consumption, takes place. In other years, subsequent developments may reveal that opening prices have been set at too low a level. The pack of canned prunes is then apt to be curtailed, and in consequence canners fail to reap the full benefits of the true market situation and consumers are obliged, ere the season is brought to a close, to pay inordinately high prices. Lack of price stability plays havoc in more ways than one, and the canner is perhaps the chief victim. Bankers hesitate to furnish needed credit facilities; wholesalers, by refusing to carry heavy inventories, aggravate his financial problem by forcing him to carry heavier stocks, and all in all the burden is made heavier by the slow and halting manner in which the pack moves into consumption. To the extent that an industry is subject to fluctuations of price and production, the risk element is magnified and in consequence also the expenses of production and distribution. The only hopeful solution to the problem of alternating periods of scarcity and over-production of canned goods seems to lie in a closer study by canners themselves of supply and production programs. The Northwest Canners' Association has taken a step in this direction by distributing periodically a confidential list of total supplies on hand, to which a large part of the membership contributes. In addition to this, would it not be valuable to gather data over a period of years showing the percentage of production contracted in advance? Following that, a correlation might be made between the percentage of production contracted in advance for any given season and the carry-over for that season. Possibly a rule could then be formulated on the basis of this series of correlations tending to show the best ratio of volume of pack to contracts. This in turn might be used with current data on contracts to correct list prices at the end of the canning season. Acquaintance with such a rule would doubtless have a salutary effect on canners who are tempted to produce more goods than they have reasonable expectation of selling above costs. The correction of list prices based on such a rule should operate to secure for canners the maximum price involved in clearing the market of surplus goods.

Branding practices. In disposing of the pack to the trade it is customary for canners to sell on grade, but such is not the case in sales made

between the wholesaler or jobber and the retailer. These agencies sell solely on brand name. It is virtually impossible therefore for a retailer or consumer to tell by looking at the label on a can of prunes what the grade of the fruit actually is. Brand names are intended to convey the impression of superior quality, but whether this quality is equivalent to a "fancy" or "choice" grade or something else is oftentimes impossible to determine without examining the contents of the can. The so-called "best" brand of some wholesalers may involve goods of second-grade quality. This has led most canners to specify that they do not guarantee the grade when the can carries the label of another firm. There are instances where a wholesaler may have a variety of brands to denote different grades, but he is more apt to place his own brand on fruit of the highest grade, and sell the poorer-grade fruit under the canner's brand. As a matter of fact, only the better-known canners are able to sell any considerable part of their pack under their own label. The others are obliged to use buyers' labels except for such grades of fruit as the purchaser does not desire to carry under his own label. The state of confusion caused by the failure of wholesalers to sell on the basis of standardized grades explains to a large degree why well-established brands conveying the idea of dependable quality are often found to be selling at a premium.

Since wholesaler's brands are not standardized according to grades, occasions may arise when consumers pay more than is necessary for canned fruit, not realizing that different brands may represent identical grades of the same fruit. To the extent that this practice acts as a deterring influence upon sales, the interests of the canner and grower are adversely affected. The enactment of Federal legislation establishing grades of canned prunes and true marking of grades on labels should prove helpful in clearing up this situation.*

Canners naturally deplore the wide-spread use of wholesalers' brands since the opportunity is denied them of entrenching themselves with consumers by building up a reputation for their goods. Only by taking over the function of demand creation themselves can the canners hope to modify this practice. Once consumers start demanding canners' brands, wholesalers will begin stocking them. Small canneries, whether cooperative or private, find demand creation a hopelessly expensive undertaking. Only by drawing together into combinations permitting the effective pooling of resources can these small units hope to make progress along this line.

REGIONAL DISTRIBUTION OF SALES

Where does the canned prune produced in the Pacific Northwest find its chief outlets? The principal markets arranged in the order of their importance are revealed in Table VI.† More than 90 percent of the recorded sales were made in the eighteen states designated in Table VI.

*At the present writing an effort is being made to initiate legislation amending the National Pure Food and Drugs Act so as to compel the trade to show on the label the quality of the contents of the can.

†These data were made up from the records of 50 to 60 percent of the 1926-27 Northwest pack. The data represent primary sales. Some goods may therefore have been reshipped in wholesale or job lots to other states.

Sales were reported, however, for all the states of the Union with the exception of two with very small populations. In order to bring out more clearly the relation of the quantity of sales to population by regions, Table VII* has been prepared. The wide range of difference in the quantity of sales to population is strikingly apparent.

A grouping of sales according to regions discloses that sales in relation to population are poorest in the South. Markets in the New England states, the East North Central states, and parts of the Mountain states are scarcely better. The best markets in ratio to population are found (1) on the West Coast, (2) in three of the Mountain states, (3) in the Corn Belt, and (4) along the middle Atlantic Coast. Just why these regional differences in sales prevail is a matter of conjecture. Much additional research would be necessary to shed any light on this problem. Possibly the variation in consumption between regions is dependent to a degree upon the availability of fruit grown nearby, the type of population whether urban or rural, the racial strains, and the type of occupation. Canners report that a considerable percentage of the heavy New York and Philadelphia consumption is attributable to the Jewish population. It is somewhat surprising that the industrial belt south of the Great Lakes does not take a larger proportion of the output. Perhaps this may be accounted for to some extent by the presence of a large fruit belt in the same area.

TABLE VI. PRINCIPAL DOMESTIC MARKETS FOR CANNED FRESH PRUNES, 1926-1927

State	Percentage of total sales	Percentage of U. S. population	State	Percentage of total sales	Percentage of U. S. population
	%	%		%	%
New York	23.30	9.84	Kansas	3.54	1.70
Pennsylvania	10.41	8.23	Ohio	3.06	5.49
California	8.09	3.22	Nebraska	2.82	1.23
Iowa	5.63	2.27	Colorado	2.52	.85
New Jersey	5.47	3.03	Montana	1.92	.47
Oregon	5.24	.76	Massachusetts	1.79	3.69
Oklahoma	4.78	1.89	Washington	1.35	1.32
Illinois	4.34	6.15	Minnesota	1.20	2.27
Missouri	4.08	3.22	Texas	1.11	4.45
			Total	90.65	60.08

The chief explanation for the small consumption of canned fresh prunes in this region as well as others probably lies in the fact that there has been virtually no sustained and concerted effort at sales promotion. This is clearly brought out in correspondence with chain stores and wholesale houses operating in various parts of the country, and in personal interviews with retailers in Oregon. The tenor of these statements is the same—namely, that a surprising number of consumers are totally ignorant of the existence of such a product as canned fresh prunes, or if aware of their existence lack experience with the product and consequently are utterly ignorant of its excellent qualities. There are many buyers who fail to differentiate between canned fresh prunes and canned dried prunes. The

*Some states do not fit into their customary geographic divisions. Thus Delaware goes with the adjoining Middle Atlantic instead of the South Atlantic states. Minnesota is placed with the adjoining East North Central States, and Oklahoma with the adjoining West North Central group. The Mountain states have been placed in two divisions.

prejudice sometimes found to prevail against the dried prunes which classes it as cheap and healthful rather than palatable and pleasing in appearance, often reacts unfavorably upon the canned fresh product. Then, too, the fact that canned fresh prunes are more expensive than the dried product undoubtedly also militates against the sale of the former.

TABLE VII. DISTRIBUTION OF DOMESTIC SALES OF CANNED FRESH PRUNES, 1926-1927

Division	Percentage of total sales	Percentage of total population (1920)	Ratio of percentage of sales to percentage of population
	%	%	%
Middle Atlantic and Delaware	39.98	21.30	1.88
West North Central except Minnesota and including Oklahoma	22.28	11.48	1.94
Pacific	14.67	5.30	2.77
East North Central and Minnesota	10.79	22.61	.48
Intermountain Montana, Colorado, Wyoming	4.60	1.51	3.05
Idaho, New Mexico, Arizona, Utah, Nevada	.89	1.81	.49
South Atlantic except Delaware, East South Central and West South Central except Oklahoma	3.66	28.96	.13
New England	3.13	7.03	.45
Total	100.00	100.00	.....

As far as the distribution of sales based on grades and sizes is concerned, it is interesting to note that the canned fresh prunes going to the North Atlantic Seaboard, including New England, are practically all sirup grades and a very large proportion are packed in small-sized tins. This doubtless means that most of the goods are used in home consumption rather than by restaurants or boarding houses. In the Mississippi Valley, on the other hand, the great bulk of the sales is composed of water-packed prunes preserved in the No. 10, or gallon-sized tins. Such goods, however, as are sold canned in sirup are nearly all packed in the small-sized tins. In the Lake states, although the sale of sirup grades seems more prevalent with the smaller-sized cans predominating, there is also a considerable sale of water-packed goods. Other regions show no outstanding preferences.

Exports of canned fresh prunes to foreign countries comprise such a small percentage of the total Northwest pack that they scarcely deserve mention.* Such, however, is not the case with dried prunes, since about one-half the entire Pacific Coast output is exported each year.

COSTS, MARGINS, AND PRICES

In an attempt at analysis of the market possibilities of the canned fresh prune, the importance of ascertaining the relative cost of producing, processing, and distributing the canned fresh prune and comparing it with those of competing canned fruits goes without saying. Viewed from this angle the canned fresh prune enjoys at least one very distinct

*The average for 1926-1928 was 4,422 cases, of which Oregon furnished 4,324, and Washington 98. Data compiled by Portland District office of the Bureau of Foreign and Domestic Commerce.

advantage. Of all the fruits canned on the Pacific Coast the fresh prune is the most economical to can.

Costs of canning. The raw fruit itself is cheaper than other fruits. During the past five years (1925-1929) prices to growers have ranged from $15.00 to $40.00 per ton cash, or an average price for the period of approximately $28.00. To some degree the low price of raw prunes is due to the relative inexpensiveness of growing and harvesting the product. But beyond doubt the chief explanation, considering the present undeveloped condition of the markets, lies in the general overexpansion of prune production.* Practically no other raw fruits, whether small or large, are as low-priced. To be sure, the acreage of Italian prunes, although greatly expanded, is still small compared to that of Petite prunes, but it is nevertheless more than ample to care for the present undeveloped state of consumer demand.

One of the chief competitors of the prune is the peach. The yearly average price of California grade No. 1 canning Cling peaches since 1924 has been as follows:†

Year	Average price per ton
1924	$43.00
1925	33.00
1926	38.00
1927	22.50
1928	20.00
1929	80.00
Average 1924-1928	31.30
Average 1925-1929	38.70

Canning peach prices during the past five years have averaged about $11.00 per ton more than fresh canning prunes. The extremely high price of peaches in 1929 was due to a partial failure of the peach crop. A comparison of the 1924-1928 average prices would not show a difference of more than $4.00 per ton between canning peaches and canning prunes.

This price comparison, however, does not tell the entire story, for while a ton of prunes will produce from 65 to 75 cases of canned product, a ton of peaches will produce in the aggregate only 55 cases or less.

To the advantages already enumerated must be added another that is of considerable consequence to the competitive position of the canned fresh prune—namely, the very substantial saving in labor cost due to the fact that fresh prunes for canning need not be halved, peeled, cored or pitted, as in the case of many other canning fruits.

Referring again to the cost of the raw fruit, it is not always recognized that this item, after all, seldom looms very large when compared to the aggregate costs of canning. Such is particularly the case with prunes. By referring to Table VIII it is seen that with the best grade of canned prunes, the cost of the raw product is less than 14 percent of the total costs of canning and less than 12 percent of the canners' selling price. Even if the poorest grade of pack is used for purposes of comparison less than 24 percent of the total canning costs is absorbed.

*Critchfield, B. H., "Demand, Marketing and Production of Oregon and Washington Prunes," United States Department of Agriculture Circular 416, April, 1927.

†Data from California Canning Peach Growers, San Francisco, California.

As Table VIII reveals, cans are by far the most expensive item of cost. A No. 2½ tin, for instance, costs twice as much as the raw fruit. Even with the No. 10 size, the cans cost more than the fruit itself. Sugar is the next most expensive item where sirup grades are concerned, the actual burden of expense naturally varying with the price of sugar, the quality of the prunes, and the care with which tests are made. Variations in the amount of sugar used may run as high as 20 percent. It is not the purpose here to analyze in detail the other items of canning expense, as a glance at Table VIII will reveal their relative importance.

For purposes of comparison with canning costs and profits a representative list of average opening prices prevailing in 1925-1929 has been added to Table VIII. Such comparisons tend to disclose that a canner's profits depend largely upon his ability to limit his pack to the highest grades. In fact, a canner considers himself fortunate if he does not incur a loss on his water pack. Because of the necessity of disposing of inferior prunes as water-pack prunes, if they are to be canned at all, it is plain that the marketing of such prunes without loss is a very troublesome problem. Given the scale of costs contained in Table VIII, if the canner were furnished these inferior prunes gratuitously and were to make no charge for the use of the factory or for office expenses, he would still be obliged to receive $2.54 a dozen for No. 10 water-grade pack to pay for supplies, labor,

TABLE VIII. APPROXIMATE COSTS OF CANNING FRESH ITALIAN PRUNES PER DOZEN CANS

Items	Size No. 2½		Size No. 10	
	Fancy	Choice	Fancy	Water
Fruit at 1.4c per pound	$0.21	$0.21	$0.84	$0.84
Cans 12	.43	.43	.96	.96
Cases	.08 (½ case)	.08 (½ case)	.30 (2 cases)	.30 (2 cases)
Labels 12	.05	.05	.05	.05
Sugar at 6½¢ per pound..	.26	.18	.85	.00
Labor	.13	.13	.50	.50
General manufacturing expense and freight	.12	.12	.48	.48
Brokerage 5 percent of sales	.09	.08	.275	.16
Discounts 2 percent of sales	.035	.03	.11	.07
Swells ¼ percent of sales	.01	.01	.035	.015
Overhead 5 percent of sales	.09	.08	.275	.16
Total cost per dozen cans	1.505	1.40	4.675	3.535
Nominal price*	1.76	1.54	5.52	3.40
Profit per dozen cans	.255	.14	.845	–.135
Profit per case†	.51	.28	.423	–.067

*Opening list price of certain representative firms in Oregon, 1925-1929 average.
†The No. 2½ cans are packed 24 in a case, while the No. 10 cans are packed 6 cans to a case. The cases are somewhat similar in size but are not identical.

power, and other disbursements or outlays.* Instances are not unknown where some water-packed prunes have actually sold for 30 percent or more under this figure.

Naturally, there is a great variation between the canning costs of different canneries. This variation in cost reflects itself principally in the extent to which the plant is worked to capacity. Canneries in the Pacific Northwest vary greatly in this respect. A few succeed in working to capacity, some operate at less than half capacity, while the average plant would do well to operate at two-thirds capacity. Variations in operating capacity are reflected principally in the item of overhead.

The profits depicted in Table VIII are determined by deducting the approximate cost of canning and selling from the 1925-1929 average opening list price of several representative concerns. In individual instances both items are of course subject to a considerable variation from the figures as given. In an inefficiently operated cannery the costs are apt to be higher than those indicated and the prices received are often found to be lower. Where high costs and low prices are thus combined, the profits, if any, will be far different from those where opposite conditions prevail.

In a study of the marketing possibilities of canned prunes, we are less concerned with the relative efficiency of individual canneries than we are with the average cost of canning and selling fresh prunes as compared with competing canned products. From this point of view, as has already been emphasized, the canned fresh prune enjoys some pronounced advantages.

Dealer margins. Substantial though these advantages may be, they are of little avail either to the grower or the consumer unless they can be made to reflect themselves either in a lower price to the latter or a higher price to the former, or both. It is therefore of interest to examine dealer margins and retail prices.

There is no doubt whatever that the competitive advantages enjoyed by the canned fresh prune over other canned fruits due to the lower costs of canning and the cheaper price of the raw fruit, are passed on in large measure by the canner to the wholesaler and by the wholesaler in turn to the retailer. The very active competition known to exist in these quarters would lead one to expect this and a careful scrutiny of canners' and wholesalers' price lists tends to confirm the supposition. The strongest canners and wholesalers may, through their well-established brands, be able to retain a somewhat larger margin than concerns less well established. But the possibilities of such savings are distinctly limited. The margins enjoyed by the wholesaler range from 10 to 16 percent of the sales price and furnish his compensation for assembling, storing, dividing into job lots, and selling the product.

The price advantage that canned prunes enjoy over various other Pacific Coast canned fruits may be observed by referring to Figure 6 where canners' opening prices are graphically depicted. Does the low price of canned fresh prunes prevailing in the wholesale markets reflect itself in a correspondingly low retail price? In other words, is the consumer attracted to the product because its price is lower than that of other canned fruits? To establish this point conclusively in all retail outlets would involve a vastly more extensive investigation than the present writers have been able to conduct. If limited experience with Oregon re-

*This figure is derived by subtracting the cost of fruit (84¢) and overhead costs (16¢) from the total cost ($3.535). See Table VIII.

tailers is any criterion of prices charged by other retailers throughout the country handling canned prunes, the answer points in a negative direction. Although canned fresh prunes enjoy the lowest price in the wholesale trade, that has not generally been found to be true in retail stores visited in Oregon. This conclusion is based on personal visits to some 87 stores in four cities in Oregon.* Incidentally, of these 87 stores only 13 carried canned fresh prunes or canned plums. Table IX gives some idea of the range in prices charged by retail stores carrying canned fresh prunes. For the No. 2½ can, for instance, the customary range in price was from 20c to 25c per can. Peaches of similar grades were found to be selling at this same range of prices, despite the fact that wholesale prices for the latter

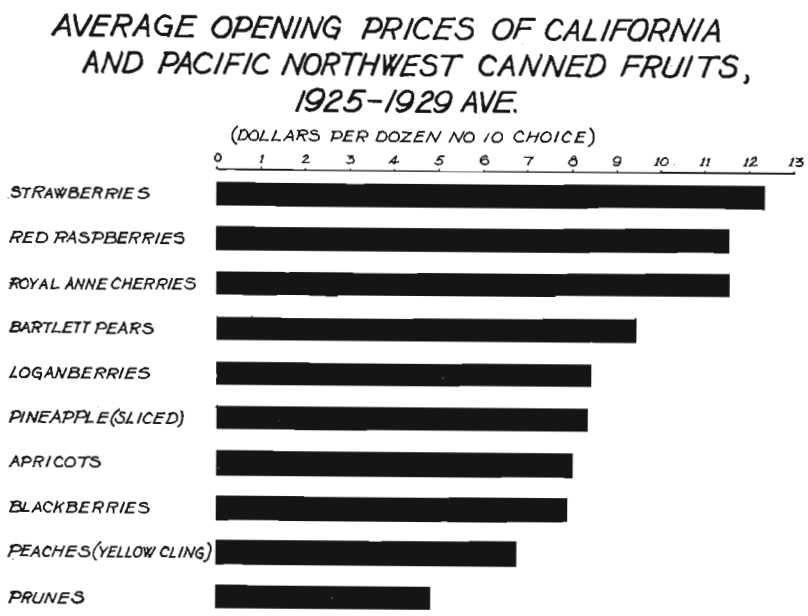

Fig. 6.

averaged higher. In one instance the grocer was found to be selling apricots at 25¢ per can (No. 2½ size) and prunes of the same brand at the same price, although the wholesalers' price of the former was $2.07 per dozen, while the price of the latter was $1.70 per dozen. In one community within the same block one store was found to be selling prunes at 30¢ per can; another, cans marked "Francy" (best grade) for 18¢ per can and "Choice" (second-best grade) for 16¢ per can.

As previously stated, evidence regarding retail margins throughout the country can scarcely be regarded as conclusive when based on observations taken from the few stores in localities where the prune is itself produced and canned. But the results are at least indicative of a situation that may exist in other consuming markets. If, upon further study, that should prove to be the case, here, indeed, lies a stumbling block in the path of progress leading toward an expansion of consumer demand. In the early

*Eugene, Corvallis, Salem, and Roseburg. These visits were made in 1928.

beginnings of the California citrus industry this same condition was found to exist with respect to retail margins. Retail prices for oranges, for example, were so high as greatly to discourage sales. When the California Fruit Growers' Exchange began working on this problem, it learned that retailers were charging these high prices because they made so few sales. The Exchange immediately set to work to educate them to the idea that if

TABLE IX. RANGE IN PRICES CHARGED BY CERTAIN OREGON RETAIL STORES CARRYING CANNED FRESH PRUNES, 1928

Size of container	Number of grocers	Grade	Price per can (cents)
2½	4	Unknown	20
2½	1	Unknown	24
2½	1	Unknown	25
2½	1	Unknown	30
2½	1	Fancy	22 or 3 for 65
2½	1	Fancy	18
2½	1	Choice	16
1	1	Fancy dried prunes	20
10	1	Probably water	35 or 6 for $2.10
10	1	Probably water	Not sure
10	2	Probably water	50
10	1	Sirup	63

they would reduce their margins and make oranges available at prices that the average consumer could afford to pay, sales would be greatly stimulated and the retailer would more than make up in volume of sales what he stood to lose by a lowering of margins. By a persistent campaign of education through all these years the California Fruit Growers' Exchange has succeeded in achieving this objective to a marked degree and the grower is reaping the benefit of the enormously expanded sales volume. National advertising by greatly stimulating consumption has been an indispensable means of converting the retailer to an acceptance of the new plan of sales promotion.

The need for a similar campaign of education, calculated to win over the retailer to a policy of speeding up turnover by reducing margins on canned fresh prunes, is self-evident. From every retailer interviewed, came the same story with monotonous regularity: "Our sales of canned prunes are so few and far between and the turnover is so slow that to protect ourselves against loss we are obliged to charge the prices we are now asking." Instances were rather numerous, too, where canned prunes had been placed in stock but had moved so slowly that they were not restocked. Further inquiry also developed the fact that customers knew little or nothing about the merits of the product, and in certain instances were unaware of its existence. The attitude of most retailers interviewed was not one of endeavoring to inform and educate their customers regarding the product, but rather one of passively filling orders as requested by purchasers.

Even certain of the retailers themselves showed a lack of familiarity with the product. When asked about the quality of the canned prunes carried, for instance, they confessed in some cases that the grade and quality were unknown to them. Instances occurred where dried canned prunes were confused with the fresh canned product. The fact that the labels on the cans themselves were found to convey very slight information

regarding the grade or quality of the contents undoubtedly affords a partial explanation of this deplorable unfamiliarity with the product. But even after discounting that factor, one can scarcely escape the conclusion that the whole situation points to an appalling lack of sales promotion.

This unfamiliarity with canned prunes or the fact that only 13 stores out of 87 were found handling the product offers no conclusive proof that a similarly low percentage of retailers throughout the country fail to carry the product in stock or lack an appreciation of, or familiarity with, its merits. It would take a very elaborate investigation to prove the point one way or another. The writers feel convinced in their own minds—and this conviction finds support in the statements of prominent dealers in the East and Middle West—that a comprehensive nation-wide survey would lead to results varying little from those found to prevail in Oregon cities.

ADVERTISING AND SALES PROMOTION

From what has gone before, it is sufficiently evident that the canned prune enjoys certain well-defined advantages which should be given due weight in considering the feasibility of promulgating a program of sales promotion and advertising. Briefly restated, these include the undoubted excellence of the product itself, the technical and low-cost advantages it enjoys in producing and canning, and the limited geographic area in which the Italian prune appears to thrive. Running counter to these advantages are the great technical care that must be exercised in producing an acceptable product, the occasional lack of uniformity in pack due to periodic unseasonableness of weather and to inadequate standardization, and the unorganized condition of the industry itself. One is indeed pessimistic if in weighing the one set of factors against the other a verdict favorable to an industry-wide program of advertising and sales promotion is not reached.

Few, if any, will question the urgent need of publicity for the canned fresh prune. It does not necessarily follow, however, that growers, canners, and distributors should launch unhesitatingly upon an advertising and sales promotion program without cautious preliminary inquiry and investigation.

Cognizance should be taken of the breakers that may lie ahead. The product itself has undoubted excellence. The pungent, stimulating, tart-sweet taste of a perfectly ripe canned fresh prune should carry a wide appeal. Under present conditions, however, there can be no assurance of uniformly high quality. The machinery required to enforce standards is inadequate. Unfortunately the canned prune industry is not in the hands of operators so limited in numbers that control over grades, standards and selling policies can be exercised easily. With as many as twenty-eight firms operating some thirty-nine plants* in Oregon alone, the problem of getting concerted action on these and other matters is far from easy. If, in consequence, the pack lacks uniformity and is found undependable, advertising and sales efforts largely go for naught.

To be sure, as previously emphasized, even if the industry were well organized, the fickleness of nature would play a role in determining the general quality of the pack. Every canner has no doubt gone through the

*1927 figures.

experience of successfully developing desirable sales outlets only to find the work of years frustrated by the advent of a bad crop year brought on by adverse weather. Such contingencies are fortunately of infrequent occurrence and need not weigh too heavily against a concerted effort to bring about a uniform pack and the development of an advertising and sales program.

Marketing considerations are responsible to a marked degree for the numerous combinations being effected daily in industry. Within the limits prescribed by law, it would be well for the canning industry in the Pacific Northwest to give careful attention to the feasibility of drawing closer together. Probably one reason why the canned pineapple industry has increased as much as sixteenfold in the past twenty years is because the control of the industry rests in the hands of a few powerful concerns. What control will accomplish may be appreciated by comparing the average pineapple pack of today with that of a few years back when the industry was in an unorganized condition. The present efforts of some of our weaker cooperative canneries to strengthen their position by setting up a joint selling agency is a move in the right direction. The fewer the number of independent operating agencies there are to contend with the easier it is to agree upon production and sales policies. A uniform, dependable pack and successful sales promotion and advertising go hand in hand.

Must the industry wait upon the slow process of business combination to bring about this dependability of pack and concentrated sales effort, or may the job be accomplished more quickly through the medium of agencies now in existence or through those that may be called quickly into being? The Northwest Canners' Association is already in the field. Perhaps this organization provides the logical focal point for the contemplated program. If the experience of such well-organized industries as the Portland Cement Industry and others that might be mentioned offers any criterion, the trade association is a logical medium through which to promote standardization and commodity advertising and sales efforts. Here, as elsewhere, we witness the combination movement developing hand in hand with the trade association program. Perhaps it should be so in the canning business.

There is, of course, this angle to the problem to which growers must give consideration—neither the canners' association nor canners and dealers themselves are interested solely in canned fresh prunes. Representing as many different lines of canned goods as they do, it would be surprising, indeed, if of their own volition, they were to choose canned fresh prunes for special consideration in an advertising and sales promotion campaign. This statement gains support from the undoubted fact that many canners feel that to throw the spotlight on any one product merely serves to divert buyers away from other canned goods on their list. To be sure, as far as canned prunes are concerned this need not necessarily be true because if retailers could be induced to sell the product at a price commensurate with the low cost of canning, the product should be cheap enough to attract a class of consumers who ordinarily must economize in the use of higher priced canned fruits because their pocket books will not permit of their purchase.

The fact that canners and distributors are not interested solely in canned prunes is a consideration with which the prune grower must reckon.

It is, after all, the prune grower himself whose interests are primarily at stake. That being true, the initiative in such a program would doubtless have to be taken, in part at least, by the growers. A manifestation of grower interest and support in an advertising and sales promotion program for the canned fresh prune would, it is believed, evoke a friendly response from those who process and distribute the product. A united grower sentiment backed up by an offer to cooperate in the financial support of such a program, would go far toward eliciting the hearty assistance, financial and otherwise, of all others interested. Canners and distributors are undoubtedly sold on the benefits that are likely to inure from an advertising and sales campaign, but without the compelling force of grower sentiment back of them, it is doubtful whether they themselves would use the machinery of their association to set in motion such a program.

It is perhaps unnecessary to emphasize the need of extreme caution in planning the program itself. Experience with advertising campaigns of the unfortunate kind points toward the wisdom of making careful preliminary surveys and limiting the initial campaign to inexpensive trials in narrowly prescribed market areas. The survey would doubtless establish what markets offered the greatest promise of intensive development, what characteristics of the product should be stressed, what selling appeals to use, what price to charge the consumer and what name or names should be used in describing the product.

Once having determined by research the possibilities of advertising, the campaign itself could be started in a small way by concentrating in a limited market area in one or two representative cities. Here it would doubtless be found that local media, such as street-car cards, local newspapers, dealer displays, and the radio, would be found most effective.

The imperative necessity of obtaining dealer cooperation in reducing retail margins has already been stressed.* It is perhaps superfluous to reiterate here that an advertising campaign unaccompanied by sales promotion efforts to reduce such margins is likely to prove disappointing. The very keynote of such a campaign should be the cheapness of the product, quality considered. Failure to convert the retailer to the idea of speeding up turnover by lowering prices would in large measure bring the entire program to defeat.

If the only effect of an advertising and sales promotion campaign were to maintain the present markets of the canned prunes against the inroads attributable to the heavy advertising of competing fruits, the effort would be decidedly worth while. As a matter of fact, the type of advertising now resorted to by canners and wholesalers probably does more to cut down the market for canned prunes than to aid it. In playing up brands and trade names, the "leaders" such as peaches, pears or apricots, naturally receive most publicity.

If, despite such disadvantages, the consumption of canned fresh prunes has actually developed more rapidly the past few years than that of any other competing canned fruit, is it not probable that with the aid of a concerted program of advertising and sales promotion, the growth of the industry could be greatly stimulated and accelerated?

*Pages 24-27.

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