

MARKETING APPLES

Prepacked at the

Shipping Point

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COOPERATIVE EXTENSION SERVICE

EAST LANSING

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Marketing Apples Prepacked at the Shipping Point

By G. N. MOTTS¹

Michigan apple growers, shippers and dealers have been selling a rapidly growing volume of apples in consumer-sized packages during the past three seasons. It has been estimated that nearly 10 percent of the state's apple crop in 1953, or about 750,000 bushels, was prepacked at farms or shipping points. There has been a substantial increase in the number and capacity of cold storage facilities for apples on Michigan farms since 1945. These farm storages permit Michigan apple growers to keep their fruit in better condition during a longer marketing season. Thus, an increasing number of growers are in position to consider marketing some of their apples in prepacked form during the entire crop season.

The purpose of this study has been to assemble marketing information useful to Michigan growers and shippers engaged in apple prepacking or considering that possibility. Basic marketing data were obtained from seven commercial-scale prepackers, 10 growers ranging from small- to large-scale producers in eight counties, and 30 independent retail grocers with stores in 19 cities well distributed throughout lower Michigan.

The seven commercial prepackers included two fruit growers' marketing cooperatives, two shippers or country dealers, two orchard supply firms, and one grower who prepacked on a commercial scale. These seven, interviewed in the survey, were all but one of the commercial apple prepackers in Michigan who operated at farms or shipping points during the 1953-54 season. All of the marketing data are for the 1953 crop.

WHAT KIND OF APPLES FOR PREPACKING?

Varieties. Red varieties of good eating quality are particularly suited to prepacking. All seven of the commercial-scale prepackers sold some Delicious and Jonathan apples prepacked, and five of them also sold McIntosh in this way. The Northern Spy and Steele's Red

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varieties were each prepacked by two shippers. Six other varieties were listed once: Red Rome, Red Spy, Snow, Stayman, Turley Wine-sap, and Wealthy. The number of varieties prepacked by individual firms ranged from two to seven.

Grade. All the packers labeled their prepacked apples "U.S. No. 1" grade, but the quality substantially exceeded the minimum *U. S. No. 1* requirements for color. The packs were generally equivalent to a combination of *U. S. Fancy* and *U. S. No. 1*. Three reasons were given for this practice:

1. Customers expect better quality in consumer packages than in bulk displays or bushel containers.
2. Sellers can offer the same grade all season and every season.
3. The bulk of the crop can be marketed in that grade.

The consumer's expectation of superior fruit in prepacked form means that more care must be taken in regard to quality. Prepacking requires stricter grading, more careful handling to minimize bruising, greater speed in the marketing process and, perhaps, refrigerated retail displays in order to realize the greatest possible advantages from this marketing method.

Sizes. Four of the seven prepacking firms sized the apples "2¼ inches and up". This generally meant a ¾-inch range in size, because apples larger than 3 inches in diameter were not favored for prepacking. Such apples bruise more easily in small bags, and cause the other apples to appear relatively small. One of these firms used tray-pack cartons for their apples of 3 inches or more in diameter; the other three included such apples in their bushel packs of "2½-inch minimum".

Three prepackers sized the apples within a half-inch range. One of these firms prepacked its Delicious and McIntosh in a 2½- to 3-inch range and Jonathans 2¼ to 2¾ inches. The second used a range of 2¼ to 2¾ inches for Jonathan, but only a 2½- to 2¾-inch variation for Delicious. The third firm prepacked 2- to 2½-inch sizes for markets in the Kansas City area, but 2¼- to 2¾-inch diameters for markets east of the Mississippi.

Market preference was the basic guide in sizing the fruit. This was supported by the replies of the 30 independent retail grocers interviewed in this survey. Twenty-seven of these grocers stated that their customers preferred either "medium sizes", "2¼-3 inches" or "2¼ inches and up" (page 10).

WHAT KIND OF PACKS?

Consumer units. Plastic bags, slightly milky in color, were the only consumer-sized packages used by the seven commercial-scale prepacking firms. These bags were preferred to a clear plastic material, because tiny fruit blemishes were less visible and the bags were more resistant to stem punctures or tearing. It is important to use bags with several small holes so that the natural gases released in transpiration can escape. One of the ten growers who responded to a mail questionnaire used corrugated paper boxes, one used cardboard cartons, and another used plain paper bags. The latter grower sold directly to consumers at the farm.

The 3- and 4-pound containers were the most frequently used sizes during the 1953-54 crop season, as shown in Table 1.

TABLE 1—*Sizes of consumer units used for Michigan apples by seven commercial prepackers and ten growers, 1953-54 season*

Kind of package	Sizes used	Number of users	
		Packers	Growers
Plastic bags.....	3 lb only.....	..	1
	4 lb only.....	1	3
	5 lb only.....	..	1
	3 and 4 lb.....	3	3
	3, 4 and 5 lb.....	2	..
	3 and 5 lb.....	..	1
	4 and 5 lb.....	1	..
Corrugated paper boxes.....	10, 15, 20 and 40 lb.....	..	1
Plain paper bags.....	2, 4 and 8 qt.....	..	1
Cardboard cartons.....	4 lb.....	..	1

The majority of these apple prepackers and growers have used only the 3-, 4- and 5-pound sizes of consumer packages. When apple prices are relatively high, grocers prefer the 3- and 4-pound sales units, but the 5-pound size gains favor at lower price levels.

One of the prepacking firms used 5-pound bags when packing 4-pound units of the larger apple varieties, such as Northern Spy. This firm found that the larger bag was easier to fill and close, when most of the apples were 2½ inches or more in diameter, than was the regular 4-pound size.

There was a difference of opinion among apple prepackers in regard to the desirability of using printed brand labels on the plastic bags. Three of the seven firms packed some apples in bags with their

own brand label and some in plain bags. Three others used plain bags only, and the seventh packed some apples in bags bearing the buyer's brand and others in plain bags. Those who used bags with printed labels listed three reasons:

1. The packer's name and brand reach the ultimate consumer and eventually result in a sustained demand for that particular brand.
2. Some buyers want their own brand name used because they have built up a customer demand for their brand which is often used for a variety of foods.
3. A printed bag is more colorful and has greater eye appeal.

One of the basic principles of effective advertising is to create a sense of uniqueness about the product in the buyer's mind. A brand name is probably the most widely used method for promoting this sense of a "difference", so the first reason listed is consistent with established marketing practice. The second reason supports the first, since such buyers are obviously convinced that their brand name has gained the confidence of their customers and they wish to extend that confidence to additional items.

The third reason, however, is largely a matter of individual taste. The printed label makes the bag more colorful, but sometimes the total printed area considerably reduces the customer's view of the fruit itself.

Those who packed in plain bags also mentioned three reasons:

1. The plain bags can be used for any buyer or any brand by using different insert slips on which are also indicated the variety, size and net weight when packed.
2. Plain bags cost about \$9.00 less per 1,000.
3. The shopper has an unobstructed view of the fruit itself.

Plain bags with different insert slips simplify the container purchasing and inventory problems for the prepacker. Much of the advantage of a branded bag can be retained by using an attractively colored insert slip which also includes the brand name. Such a practice would appeal even more to packers whenever printing cost for the insert slips would be less than the extra cost of printed bags. Those who favored printed labels on the bags pointed out that customers can easily inspect the apples by turning the package in their hands, while those who preferred the insert slips placed more importance on the less obstructed view of the fruit.

Master containers. All the prepacking firms, and seven of the ten growers used master containers. The remaining three growers in-

TABLE 2—Kinds of master containers used for Michigan apples by seven commercial prepackers and seven growers, 1953-54 season

Kind of master container	New containers		Used containers	
	Number of packers	Number of growers	Number of packers	Number of growers
Corrugated cartons.....	7	1	1	1
Owosso crates.....	..	..	2	..
Field crates.....	..	1	..	5

cluded in the survey sold directly to consumers, largely at the farm. The number of apple prepackers who used the various kinds of new and used master containers is shown in Table 2.

One of the packers bought back clean, sound corrugated cartons from some of his customers at eight cents each, compared with new ones at 20 or 21 cents. When carefully handled, he found that the containers could be used five or six times. Owosso or field crates were used by prepackers who delivered apples in their own trucks and could arrange to pick up the empty master containers used for a previous load.

The bags of apples must fit snugly in the master container, especially on long hauls, but at the same time must not be packed so tightly that the apples are bruised. Those who used corrugated cartons put from 10 to 13 of the 3-pound bags in each master container. Four of the six who packed 4-pound bags put 10 in a carton, and one of the remaining two who had been putting in only eight bags was planning to put 10 in each carton in the 1954-55 season. Eight of the 5-pound bags were usually put in a carton, although one packer put in only seven of that size. The Owosso or field crates were generally used to carry nine of the 3-pound bags, seven 4-pound units, or six of the 5-pound size.

One of the prepacking firms placed a large, colorful sticker on the top of each master container to encourage more careful handling between the packing house and the retail stores. The lettering on the sticker was bright blue with certain words underlined boldly in red, as shown below.

CAREFUL NOW!

These Are GOOD Apples

WHO ARE THE BUYERS?

Commercial packers vs. growers. Both the commercial pre-packing firms and the growers usually sold their apples to more than one type of outlet. Table 3 shows the number of times each type of sales outlet was mentioned by the seven packers and ten growers included in this survey.

TABLE 3—Number of commercial packers and growers who sold prepacked apples to various types of buyers, 1953-54 season

Sales outlets	Packers	Growers
Corporate chains.....	7	6
Voluntary chains.....	3	1
Wholesalers and jobbers....	1	3
Commission firms.....	2	..
Independent grocers.....	..	8
Consumers.....	..	1

The corporate and voluntary chain store organizations have thus far been the major sales outlet for Michigan apples prepacked at the farm or shipping point. The packers mentioned three factors that have apparently caused wholesalers and jobbers to be slower in adopting the practice of buying prepacked apples from growers or packers at shipping points.

1. Managers of chain stores apparently put more pressure on their district warehouse produce buyers to purchase prepacked apples than independent grocers put on their service wholesalers and jobbers for similarly packed apples.

2. Some wholesalers and jobbers may be trying to hold down their inventories by handling a minimum number of different packs of apples.

3. Some jobbers whose apples are displayed on the sidewalk or in an open-front store report greater pilferage loss from displays of prepacked apples than from bushel or box packs.

Small- and medium-scale growers find it practical to build up their sales to grocers in nearby towns and to consumers at roadside stands or farmers' markets. Large-scale producers and commercial pre-packers, however, must depend on the larger sales outlets.

WHAT HAS BEEN THE GROCERS' EXPERIENCE?

Some or all of the apples sold during the 1953-54 Michigan crop season by 25 of the 30 independent retail grocers included in this survey were displayed in prepacked form. Only five of the 30 grocers sold apples from bulk displays entirely, and 10 of the store operators normally offered all of their apples prepacked.

Sources of supply. Eleven of the 25 grocers who sold some prepacked apples bought the fruit in bushel and box packs, six bought their apples prepacked, and eight followed both practices. The sources of supply used by the 14 retailers who bought some or all of their apples prepacked are shown in Table 4.

TABLE 4—Sources of apples bought in prepacked form by 14 Michigan independent grocers, 1953-54 season

Supply source	Number of grocers
Growers only.....	4
Jobbers only.....	4
Growers and jobbers.....	3
Truckers only.....	2
Voluntary chains only.....	1

Containers used. "My customers select prepacked apples primarily on the basis of their quality and value," said 16 of the 25 store operators who sold prepacked apples.

"Quality and value are basic, but my customers do have definite preferences in regard to the type of container used," replied the remaining nine grocers.

Retailers who prepack some or all of their apples in their stores can select the type of bag they wish to use. Those who buy prepacked apples generally consider the quality and value of the fruit itself the primary factor, and in the majority of cases must accept the apples in the kind of container available from their supplier. The slightly milky plastic bags were used by more of the retailers than any other single kind of container, and the clear plastic bags ranked second, as shown in Table 5.

Medium-sized apples preferred. All but one of the 25 grocers who handled prepacked apples reported definite size preferences. The operators of 13 of these 24 stores said that their customers preferred

TABLE 5—Containers used for prepacked apples in 25 Michigan stores, 1953-54 season

Containers used	Number of grocers
<i>By those who used only one kind</i>	
Slightly milky plastic bags.....	8
Clear plastic bags.....	4
Open paper-handled bags.....	2
Paper cartons.....	2
Paper bag with clear window.....	1
	—
	17
<i>By those who used more than one kind</i>	
Clear plastic and paper bags with window.....	5
Milky plastic and cloth mesh bags.....	2
Milky plastic bags and paper cartons.....	1
	—
	8

"medium" sized apples, while eight other grocers gave essentially the same reply in the phrases, "2¼ inches and up" or "2¼- to 3-inch diameter". Only two grocers said their customers preferred large apples; and one reported a preference for small-sized fruit—for example, 2 to 2¼ inches in diameter.

Costs and margins. Only 17 of the 25 grocers who sold part of their apples prepacked were prepared to say how the apples they bought prepacked compared in cost with the total cost of fruit, containers, and labor when packed in their own stores. Of the 17 who replied, nine said the apples cost more when purchased prepacked; five reported equal costs either way; and three found it cheaper to buy apples already prepacked than to do it themselves.

A test experiment in one Chicago store reported in a U. S. Department of Agriculture study showed that the grocer could afford to pay ¾-of-a-cent per pound more for apples prepacked at the source, and still sell them at the same price as for comparable apples prepacked at the store.

The mark-up percentage used on prepacked apples was higher than for bulk display sales in 14 stores, the same rate for all apples in seven stores, and a lower rate in three stores. One of the grocers made no reply on this point.

It would be expected that retailers would sell a larger total volume of apples when they used a lower percentage mark-up, or at least the same mark-up on prepacked apples as on those in bulk displays. A

previous Michigan study has shown that apple sales increased one percent for each one percent reduction in price. A New York survey showed that apple sales increased more than proportionately with a given reduction in price.

A lower percentage mark-up on prepacked apples is generally possible because of reduced spoilage loss. An Ohio study showed that the "shelf life" of non-refrigerated prepacked apples was 11 percent longer than that of non-refrigerated bulk displays. Refrigerated prepacked apples had a shelf life nearly 50 percent longer than refrigerated bulk displays, almost one and a half times as long as the shelf life of non-refrigerated bulk apple displays.

Prepacked sales growing. Twenty of the 25 grocers who sold some prepacked apples said that the total volume of prepacked apple sales in their stores had been increasing for the past three years. Three of the retailers said their prepacked apple sales had remained steady, while the remaining two grocers had only begun such sales during the 1953-54 season. An important factor in the steady growth of prepacked Michigan apple sales has been the limited number of commercial prepacking firms in the state. This has resulted in a greater standardization in prepacked apples than for the bushel packs marketed by a much greater number of sellers.

DOES IT PAY?

Commercial prepackers. The extra cost of prepacking apples compared with packing in bushel containers may be expressed in two ways. Some think of it as the extra cost of prepacking and handling the quantity of fruit that would have yielded a standard packed bushel. Others compare the packing and handling costs per pound of packed fruit, using the net weight of the fruit per bushel and per master container.

A representative comparison of the packing and marketing costs is presented in Table 6. The cost data were based on information supplied by one of the prepacking enterprises, and checked closely with less comprehensive figures supplied by other prepackers.

In the illustration in Table 6, it cost 33 cents more to prepack ten 4-pound bags, including an allowance of two pounds overage in the ten bags, than to pack a standard 48-pound bushel, or close to 0.7-of-a-cent per pound based on the packed weight of a bushel. It was concluded in a recent U. S. Department of Agriculture study that be-

tween ½- and ¾-of-a-cent could be invested in extra prepacking costs, and still permit the retailer to sell the prepacked apples at prices comparable to those for bulk apples.

When the extra marketing costs shown in Table 6 were computed on the basis of the cost per pound for the net weight of fruit in each type of container, the extra cost at the shipping point was 1.7 cents per pound.

A study of apple prepacking costs at Yakima, Washington, by the U. S. Department of Agriculture showed that the extra costs for labor and materials alone ranged from 18 to 28 cents for a master container of eleven 4-pound bags, compared with a difference of 18 cents for the same cost items shown in Table 6 for a carton of ten 4-pound bags.

The Michigan firms whose extra costs were less than 33 cents when based on the quantity of apples required for a packed bushel, generally reported either no difference in their allowance for overhead and margin on the two packs, less difference in the grading shrink, or both. The firms whose extra costs exceeded 33 cents reported a greater difference in the grading shrink or labor and equipment cost than shown in Table 6. The consensus of opinion among the commercial prepackers was that a firm whose extra costs during the 1953-54 season were less than 33 cents was unusually efficient, and that a firm

TABLE 6—Example of packing and marketing costs for Michigan apples packed in two ways, 1953-54 season

Cost items	Ten 4 pound bags in container	Bushel	Extra cost prepacked
Orchard-run fruit.....	\$2.00	\$2.00	.....
Grading shrink.....	.30	.20	.....
Container or basket.....	.20	.31	.....
Bags @ 2½ cents each.....	.25	.....	.....
Packing labor, equipment cost.....	.27	.23	.....
Overhead and margin.....	.20	.15	.....
FOB price.....	\$3.22	\$2.89	\$0.33
Transportation.....	.25	.25	.....
Receiver's margin*.....	.20	.15	.....
Price to retailer.....	\$3.67	\$3.29	\$0.38
FOB price per pound†.....	7.7 cents	6.0 cents	1.7 cents
Price to retailer per pound†.....	8.7 cents	6.8 cents	1.9 cents

*Brokerage in this case.

†42 pounds prepacked, allowing 2 pounds in 10 bags for overage, and 48 pounds per bushel.

whose extra costs were close to 50 cents was very likely to find the operation unsuccessful.

TABLE 7—Examples of prices received by 10 Michigan growers for prepacked apples and for same varieties, grades and sizes in bushel containers, 1953-54 season

Variety	Prepacked			Bushel containers			Extra price per pound for prepacking	
	Bag size	Price per bag	Price per pound	Type	Price per bushel	Price per pound		
Delicious.....	5 lb.	\$.27½	\$.055	Basket	\$2.00	\$.041	\$.014	
	4 lb.	.36	.090	Carton	4.50	.094	.004	
	4 lb.	.36	.090	Crate	5.00	.104	.014	
	12 lb.	1.10	.091	Basket	4.00	.083	.008	
	4 lb.	.42	.105	Basket	4.25	.088	.017	
	4 lb.	.45	.112	Basket	3.75	.078	.034	
	12 lb.	1.35	.112	Basket	5.00	.104	.008	
	4 lb.	.46	.114	Basket	3.75	.078	.036	
	4 lb.	.46	.114	Carton	4.00	.083	.031	
	4 lb.	.50	.125	Basket	4.50	.094	.031	
	4 lb.	.50	.125	Crate	4.50	.094	.031	
		Average		.103	Average		.086	.017
	Jonathan.....	5 lb.	\$.27½	\$.055	Basket	\$2.00	\$.041	\$.014
4 lb.		.29	.072	Basket	3.00	.062	.010	
4 lb.		.33	.082	Crate	3.25	.067	.015	
4 lb.		.33	.082	Carton	3.25	.067	.015	
3 lb.		.25	.083	Carton	2.90	.060	.023	
4 lb.		.36	.090	Carton	3.25	.067	.023	
4 lb.		.36	.090	Basket	3.00	.062	.028	
4 lb.		.40	.100	Basket	3.50	.073	.027	
		Average		.082	Average		.062	.020
McIntosh.....		5 lb.	\$.27½	\$.055	Basket	\$2.00	\$.041	\$.014
	4 lb.	.30	.075	Basket	2.85	.059	.016	
	3 lb.	.25	.083	Basket	2.60	.054	.029	
	4 lb.	.36	.090	Crate	3.00	.062	.028	
	4 lb.	.36	.090	Carton	3.25	.067	.023	
	4 lb.	.40	.100	Basket	3.25	.067	.033	
	3½ lb.	.392	.112	Crate	3.25	.067	.045	
		Average		.086	Average		.060	.026
	Northern Spy.....	12 lb.	\$1.10	\$.091	Basket	\$4.00	\$.083	\$.008
4 lb.		.38	.095	Crate	3.75	.078	.017	
4 lb.		.392	.098	Crate	3.50	.073	.025	
4 lb.		.45	.112	Basket	4.00	.083	.029	
4 lb.		.45	.112	Crate	4.00	.083	.029	
12 lb.		1.35	.112	Basket	5.00	.104	.008	
		Average		.103	Average		.072	.031

Growers. The 10 growers included in this survey supplied 32 records of price comparisons for apple sales in prepacked form compared with bushel baskets. The examples in Table 7 are for the same varieties, sizes and indicated grades. In the case of grades, however, it should be remembered that while both packs may be marked *U. S. No. 1*, the prepacked fruit usually exceeds the minimum grade requirements to a greater degree than the bushel packs.

The price premiums per pound in the prepacked sales represented in Table 7 averaged 1.7 cents for Delicious, 2.0 cents for Jonathan, 2.6 cents for McIntosh, and 3.1 cents for Northern Spy. It should be noted, however, that in five of the eleven examples for the Delicious variety the extra price per pound was less than the representative cost-differential of 1.7 cents shown in Table 6. Among the price comparisons for the other three varieties, there were four out of eight instances in which the price premiums were below 1.7 cents per pound for Jonathan apples, two out of seven for McIntosh, and two out of six for Northern Spy.

In 19 of the 32 cases reported by these ten growers, the price-premium per pound exceeded the extra-cost figure of 1.7 cents per pound, while in 13 cases the extra price per pound was less than 1.7 cents. The average price premium for all four varieties of apples prepacked in the various containers reported in Table 7 was 2.35 cents per pound, or .65 of a cent above the extra cost figure of 1.7 cents.

There were considerable differences, however, in the cost-price relationship, depending on the apple variety and size of consumer unit involved. For example, all reported sales in 5- and 12-pound

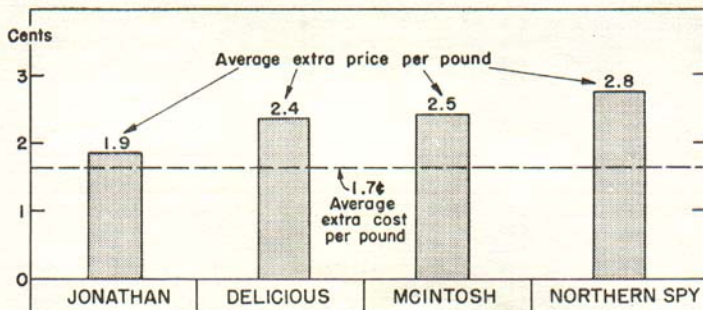


Fig. 1. Average price premiums compared with extra prepacking costs per pound for four apple varieties in 4 pound bags, 1953-54 season.

(8 quart) bags brought a lower premium than 1.7 cents. Variations in the profitableness of prepacking different varieties were illustrated by the sales reported in four pound bags, as shown in Fig. 1.

There were also considerable differences between the minimum and maximum price-premiums per pound received by these ten growers for each of the four leading Michigan apple varieties. Although the average price-premium for all sales in 4-pound units was above 1.7 cents for each variety, the minimum price-premiums were appreciably below 1.7 cents, particularly for the Delicious and Jonathan varieties, as shown in Fig. 2.

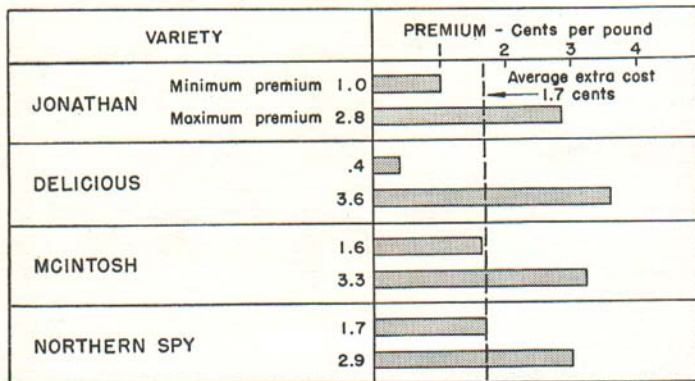


Fig. 2. Comparisons of price premiums per pound for four apple varieties prepacked in 4 pound bags, 1953-54 seasons.

The rather limited information available on the extra costs of apple prepacking, compared with the price-premiums obtained by commercial prepackers and growers, suggests the following conclusions on this point for the 1953-54 Michigan season:

1. The commercial prepackers, as a group, have been more successful in obtaining price-premiums sufficient to equal or exceed the extra prepacking costs than the growers included in this survey.

2. Apples prepacked in 4-pound bags brought a sufficient price-premium to equal or exceed the extra costs, while sales in 5- and 12-pound units did not.

3. Prepackers whose extra costs were 30 cents or less per bushel, as compared with a bushel container, were quite likely to find apple prepacking profitable during the 1953-54 season.

4. The extra cost per pound of prepacked apples, about 1.7 cents at the shipping point in the 1953-54 season, was high enough to raise the question of the profitability of the practice in years when lower consumer purchasing power and/or an unusually large crop results in substantially lower retail apple prices.

ADVANTAGES AND DISADVANTAGES

Advantages. The increasing volume of apple prepacking at Michigan farms and shipping points during the past three years indicates that the advantages of this practice, generally speaking, outweigh its disadvantages.

The two benefits most frequently mentioned by the prepacking firms and growers included in this survey were: (1) that the selling prices were enough higher to equal or exceed the extra costs, and (2) that the market demand for prepacked apples was increasing. Unless the labor and material costs of prepacking apples can be reduced in the future, it may be that the premium on prepacked apples will not fully repay the extra costs during seasons of low consumer purchasing power or substantially larger apple production than prevailed in the 1953-54 season.

Under the rather favorable marketing conditions during the 1953-54 season, all the prepacking firms indicated that selling prices of prepacked apples were high enough to equal or exceed the extra packing costs. Three of the ten growers, however, reported that the prices they received did not cover their extra costs.

It was rather surprising that only two of the prepackers mentioned the advantage of being able to include the 2¼- to 2½-inch sizes with

TABLE 8—Advantages of marketing apples prepacked at the farm or shipping point

Advantages	Times mentioned	
	Packers	Growers
Selling price high enough to equal or exceed extra costs. . . .	7	4
Demand for prepacked apples is increasing.	1	8
Same net returns, but easier to sell prepacked. . . . .	..	3
Chain stores prefer to buy prepacked when possible.	1	..
Can sell 2¼-2½ inch sizes at same price as 2½ inch and up. . .	2	..
Can build up a large, steady outlet through season.	1	..
Can use available labor more days of the year. . . . .	..	1
Returnable master containers lower net cost. . . . .	..	1

larger apples in their prepacked sales. Other advantages mentioned by the prepackers and growers are also included in Table 8.

Disadvantages. Three growers were handicapped in their prepacking operations by labor shortages, and three others were not able to get a sufficient premium to cover their extra costs. Two growers and a commercial prepacker called attention to the inability to prepack apples ahead of orders as is possible in the case of bushel packs. Additional disadvantages cited by both groups are also included in Table 9.

TABLE 9—Disadvantages of marketing apples prepacked at the farm or shipping point

Disadvantages	Times mentioned	
	Packers	Growers
Labor shortage for packing crews.....	..	3
Must pack as orders are received instead of being able to pack ahead, as for bushels.....	1	2
Selling price too low to cover extra costs.....	..	3
Some growers basing their prices on less than their true or full extra costs.....	1	..
Buyers think they should be able to buy at same prices as bushel packs just because they can afford to retail them at same price per pound to consumers.....	1	..

Another disadvantage has been the relatively small sales of prepacked apples to wholesalers and jobbers, as previously mentioned in the discussion of sales outlets. This outlet is potentially very important. It should expand rapidly when more prepacked apples are made available to retail grocers at the same or less cost-per-pound than it costs to prepack the fruit in their own stores.

SUMMARY

What kind of apples for prepacking?

Red varieties of good quality are particularly suited to prepacking.

Michigan apple prepackers labeled their fruit U. S. No. 1, but the packs were essentially a combination of U. S. Fancy and U. S. No. 1 grades.

The market prefers medium-sized prepacked apples, generally 2¼ to 3 inches in diameter.

What containers are used?

The most widely used consumer units were 3, 4 and 5 pound polyethylene bags, chiefly the 4 pound size.

Four of the seven prepacking firms used both plain bags and bags with a printed label, while the other three used plain bags only.

Corrugated cartons were the most widely used master containers, with some use being made of Owosso and field crates.

The usual practice was to put 13 of the 3-pound bags in a corrugated carton master container, or ten 4-pound bags or eight 5-pound units.

Who are the buyers?

Commercial apple prepackers sold chiefly to corporate and voluntary chain store organizations, with smaller sales to wholesalers or jobbers.

Growers sold prepacked apples chiefly to corporate chains and independent grocers, with some sales to wholesalers and jobbers.

What do grocers report on prepacked apples?

Some or all of the apples handled by 25 of the 30 grocers interviewed were sold in prepacked form.

Prepacked apple sales have been increasing in 20 of these 25 stores during the past three years.

The quality and value represented by the apples were a more important sales factor than the kind of bag used, in the opinion of the 25 grocers.

Nine out of 17 grocers said that it cost more to buy prepacked apples than to prepack the fruit in their stores, five reported costs about equal for either method, and three found it cheaper to buy apples already prepacked.

Out of 24 grocers who replied, 14 used a higher mark-up on prepacked apples than on those sold from bulk displays, seven used the same percentage mark-up on all apples, and three used a lower mark-up on prepacked apples.

Does apple prepacking pay?

During the 1953-54 season it cost 33 cents more to prepack 42 pounds of apples in a master container than to pack a standard 48-pound bushel from the same quantity of orchard-run fruit. This extra cost amounted to approximately 1.7 cents per pound of prepacked fruit.

Growers who sold apples prepacked in 4 pound bags obtained price premiums that averaged more than the extra prepacking costs, but 5- and 12-pound units failed to bring a sufficient premium to pay the extra costs.

There was a considerable difference among the apple varieties in the size of the price-premiums obtained over the extra prepacking costs.

Generalizations on the relationships of price premiums to the extra prepacking costs for apples are risky because of the wide variations among prepackers, varieties, sizes and types of consumer packages, and other marketing factors.

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