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Elements of ~~DISCARD~~ AGRICULTURAL MARKETING

For Use By Oregon 4-H Clubs

By Clifford L. Smith

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Why Our Present Marketing System?

MARKETING has grown with civilization. Robinson Crusoe had no marketing problem. He produced as many of the things he needed as he could, and what he could not produce he went without. Our ancestors on this continent were relatively self-sufficient. They milled their own wheat and corn into flour or corn meal. They tanned the skins of animals and made shoes and other garments. They made wool into yarn and wove by hand many items of clothing.

In later years farmers in common with other producers found profit in specialization. Some grew principally grain, others fruit, still others beef, hogs, and sheep, and so on. Farmer Brown who had a surplus of wheat traded with Farmer Jones who had a surplus of apples. Communities became known for their specialized production of wheat or fruit or beef cattle. Farmers then found it to their advantage to employ the services of others to assist in making exchanges of the things they raised for the many things needed by their families. The people employed to do this work, such as local grocers or seed dealers, are called middlemen.

As cities grew, the necessity for the services of present-day marketing systems increased. This statement may be more impressive if you will consider for a moment what would happen in New York, Chicago, or Portland if all those engaged in the various phases of marketing farm products were to cease doing business for 1 week. Various types of specialized marketing constitute the framework of modern cities and villages. Grocers, clothiers, hardware merchants, and countless others exist by marketing goods and services. When the farmer takes a load of produce to town, he and his family may visit a dozen different business concerns, buying gasoline at a service station, flour and sugar at a grocery store, nails and tools at a hardware store, clothing at a drygoods store, and lunch at a restaurant. Each specialized business obtains its supplies in turn from specialized manufacturers or producers. Thus specialization and developments in marketing methods go hand in hand.

Specialization makes possible the enjoyment of present high standards of living. Without specialization we should still be dependent for food, clothing, and shelter on things we could raise or those raised by our immediate neighbors. There would certainly be no automobile, radio, refrigerator, nor many of the countless necessities and conveniences that we now consider commonplace. Without our marketing systems and services we would revert to the days of barter and neighborhood exchange.

Elements of Agricultural Marketing*

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Part I

What Is Marketing?

Marketing includes all the processes and services that are performed in getting goods (or services) from the producer to the consumer. For example, the marketing of butterfat involves much more than delivering a can of cream to the nearest creamery. The cream must be pasteurized and churned into butter. The butter must be packaged, stored, transported, sold to the retailer, sold to the housewife, and in most cases delivered to her doorstep in 1-pound packages. All the services that are necessary in the marketing of butterfat or other products are called marketing functions. They will be discussed later.

The price that the producer receives is the amount that the consumer is willing and able to pay minus the various marketing charges. In the case of butterfat, the price of a pound of butter includes not only the amount paid to the dairyman for his product but the costs of assembling cream, pasteurizing, churning, packaging, storing, transporting, selling, and delivering as well. Efficient marketing will usually increase the farmer's income. First, the producer may get a larger part of the price paid by the consumer when the marketing services are performed effectively at low cost. Second, good marketing may bring the product to the consumer in better form so that the consumer will be willing to pay more, or buy larger amounts. Alert producers are interested, therefore, in the marketing of their products and in knowing whether or not the marketing services are done properly and at reasonable cost.

Changing modes of living are requiring changes in methods of marketing. Marketing agencies must now provide consumers with services that were unknown a few years ago. For example, fresh frozen fruits and vegetables are delivered to the doorstep of the city dweller any day in the year. In view of these new developments in

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marketing, it is important for producers to keep informed on many phases of marketing activity. Unfortunately, the interest and concern of many farmers end when their product is offered for sale and is sold at the farm or at the local market place. When this situation exists, there is slight opportunity for producers to exert influence for improving marketing methods.

The work of marketing any product is usually performed by a number of individuals or organizations. The price charged the consumer for each service is generally based on the expenses that the marketing agencies must meet. These items of cost will include labor, rent, taxes, interest, materials, and supplies. In some cases, however, marketing charges are excessive. When the producer understands the services that are necessary in marketing his product, he can often take steps that will increase his income. To the extent that a farmer has time and facilities to perform some of the marketing tasks he may sell his labor and thereby receive an additional share of the consumer's dollar. For example, grading and standardizing are often economically done by farmers before they sell certain commodities. Sometimes farmers organize cooperative associations for the purpose of marketing their products. In this way producers retain control of their products while part or all of the marketing services are performed. To the extent that cooperative effort results in savings in marketing costs, producers who market in this manner may obtain a greater net income.

WHAT IS THE MARKETING PROBLEM?

"I can grow the crop but there is no market," is a common expression. This statement may be entirely true. Very often, however, it needs considerable qualification. First, the farmer may not be willing to accept the price that is offered to him because it does not cover costs. Second, the outlet for a particular product may be temporarily suspended or permanently gone because of substitute products or because the market has been taken over by competitors. An Oregon product formerly sold at a profit in the eastern states may now return a price less than cost because satisfactory sources of supply have been developed that are nearer to market. The difference in freight rates between the two producing centers may make it unprofitable for western producers to continue raising the particular item for eastern shipment. Refrigeration and improved methods of transportation have also given communities access to new sources of supply for commodities that were previously deemed too perishable to ship.

Market demand for a particular farm product may change very materially in a short space of time as to variety, grade, form, or type.

Many factors must be considered before one accepts the statement, "There is no market." In fact, nothing is more marketable than the products of food and fiber that are grown on the more than six



Figure 1. One basic objective of 4-H Club work is to teach members to produce the type of livestock that the market demands. Here are groups of boys learning to judge and recognize desirable market types.

million farms in the United States. The fact that everyone eats, and every civilized person wears clothes assures a market for farm products, provided the farmer is willing to accept the prevailing market price. The problem may be stated more accurately as one of price. Price is largely determined by the operation of the forces of supply and demand. Local, national, and world conditions, and action taken by the several governmental bodies affect these forces and accordingly influence prices.

Four-H Club members and agricultural students in high schools have an excellent opportunity to learn the principles of marketing. These marketing lessons, as supplements to the student's crop and livestock production projects, should contribute to his future success in the farming business.

The basic marketing problem is the same for a 4-H Club boy, who has the option of choosing one or more of the several crop or livestock projects, as it is for his father, who must decide on a farm management program for a 100-acre farm. Since profit is one of the principal motives for production, successful farmers must have in mind the marketability of any product that is included in the farm program. All conditions for the production of a certain type of livestock or a particular crop may be ideal. The climatic and soil conditions may be suitable and the family labor supply adequate, but unless a suitable market outlet is available, time and expense of producing the commodity are wasted. Let us review briefly a few supply and demand factors that every producer must consider if he intends to remain in business.

WHAT ARE THE SUPPLY FACTORS?

Supply is the quantity of a commodity that will be sold or offered for sale at a certain time at a certain price. For any agricultural commodity a number of factors have a definite bearing on supply conditions. Sheep provide an example for a number of questions pertaining to supply that should be answered by the prospective producer. Are sheep or wool imported into the United States? If so, which types of each? This information will indicate whether or not the supply of sheep in any other country is of importance to domestic producers. What are the principal sheep-producing centers in the United States and in the state? Are sheep numbers in the United States more or less than the 5- or 10-year average? What is the trend in numbers of sheep in the country and in the western states?

Statistics show that during a period of years livestock numbers increase, then decrease. These up and down trends are often termed supply cycles. Other things being equal, the price of sheep or any commodity is generally higher when the supply is less than average. Operators who consider only the immediate price situation and buy large numbers of breeding animals at peak prices are often faced with comparatively unfavorable prices by the time the increase is ready to sell. Successful livestock men take advantage of the normal supply and price cycles and start expansion on a "buyers market" when prices are low. It is recognized that some breeding stock must be bought during periods of high prices. Four-H Club members and other producers, however, should analyze such purchases carefully.

Supply factors will vary with different types of commodities. Truck crops and so-called soft fruits and berries are usually not shipped great distances in fresh form. Hence local supply conditions assume greater importance than is the case with grain or other crops that adapt themselves to shipment and storage.

WHAT ARE DEMAND FACTORS?

Demand is defined as the quantity of any commodity that will be bought at a particular time at a given price. Two things influence demand; namely, the desire to acquire something, and the ability to pay for it. Production of any agricultural commodity is planned to meet a demand. Production of a home garden is to meet the household demands of the family for certain types of food. If the garden becomes a commercial enterprise, the operator must decide which of the several crops best adapted to his farm will be most profitable. A farm program that is devoted to the production of feed crops will usually contain one or more livestock enterprises. The farmer must decide whether his land, labor, and capital can be employed most profitably through raising cash crops or livestock. The basic features of a farm program should normally be followed for a period of years.

Many factors that affect farm income and costs are beyond the control of an individual farmer or any group of farmers. This makes it difficult and often impossible to predict prices 2 or 3 months in advance, to say nothing of 1, 2, or 3 years ahead. As an illustration, during periods of high national income when most people are employed, they eat more meat, eggs, fruit, and dairy products than they do in periods of depression. On the other hand, per capita consumption of potatoes and cereals does not fluctuate to any great ex-

tent with different levels of national income, since these foods are inexpensive sources of energy.

**LONG-TIME TREND IN PER CAPITA CONSUMPTION OF COMMODITIES
AFFECTS DEMAND**

Data compiled by the Department of Agriculture show conclusively that food habits are changing. People consume more vegetables, fruit juices, milk, ice cream, cheese, and poultry than they did 20 or 30 years ago. On the other hand, they eat less cereals, potatoes, and apples than formerly.* The probable reasons for these changes in consumer habits make a very interesting story. For example, a larger proportion of our population now lives in cities and follows occupations that require no hard manual labor. The phenomenal development in the use of machines and machine power in many industries has materially reduced the amount of physical labor necessary to perform certain tasks. The average age of our population has also increased during the last 30 years. In other words, there are now fewer children in proportion to the adult population. In addition to these factors consumer habits have undoubtedly been influenced by advertising and other forms of sales promotion work.

Knowledge of trends in per capita consumption of farm commodities is very important. When farmers are aware of these changes, they may adjust their farm production programs accordingly. Producers should also attempt to learn the reasons why the use of a product is increasing or decreasing. For example, changes in merchandising, including advertising and packaging, or changes in quality or price may be responsible. The importance of these aspects may mean little to farmers individually. If a group of farmers, however, becomes conscious of the fact that people are buying less of a product because of poor quality or unattractive packaging or because of wasteful methods of distribution, concerted action can be taken to improve the situation. Dairy producers and manufacturers have carried on a vigorous program to improve the quality of their products during the past several years. It is probable that the per capita increase in the use of dairy products is partly due to the material improvement in quality.

**MARKET DEMAND INFLUENCED BY TYPE, WEIGHT, PACK, GRADE,
AND QUALITY**

A number of products can be used to illustrate each of these points. In the case of hogs, does the market demand a fat, lardy type, or a relatively lean, bacon type of hog? What are the market

* Food Consumption Charts by Bureau of Agricultural Economics, U.S.D.A., 1941.

requirements as to size? Specifically, what weight hog brings the best price? An alert meat retailer can tell you the type and size of roasts and chops that his customers request. Packers know the type of hog that will produce these desired cuts. Successful farmers gauge their production accordingly.

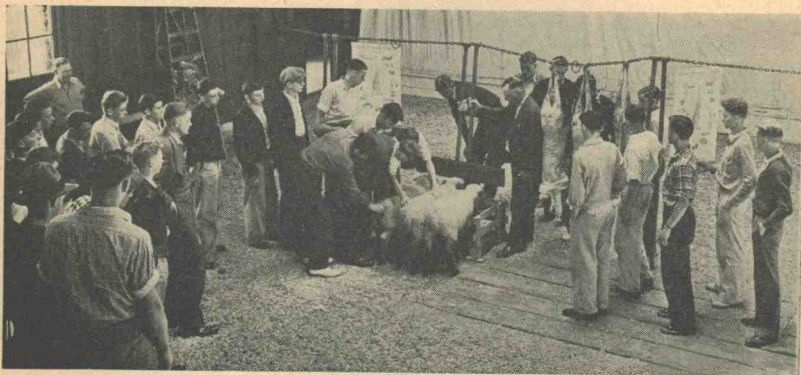


Figure 2. It is important to know the characteristics of lambs that yield choice carcasses. Prices vary for different grades of wool. Four-H Club members shown (a) judging lambs, live and dressed, and (b) learning market grades of wool and care of the fleece.

Purchasers of berries and vegetables are extremely sensitive to quality and pack. There are a few producers in each community who consistently demand and receive a premium for these items because they know what the housewife will buy, and accordingly deliver an attractive, well-graded product to the wholesaler or retailer. The ability to judge correctly the grade of his own product gives a farmer increased bargaining power when he sells, and delivering a high-quality product is one important way for producers to increase demand.

MARKET DEMAND AS TO TIME

Seasonal price variations are normal for farm products. For example, market data show that hog prices are generally stronger in the late summer and early fall months. Early offerings of sweet corn, tomatoes, and other garden crops normally bring higher prices. Successful producers attempt to adjust their farm management programs to capitalize on this seasonal price advantage if production costs can be kept in line.

MARKET DEMAND AS TO PLACE

A farmer should know the prices being paid for his type of produce in the several markets that he can readily serve. The freight charges and other costs of reaching these markets should also be known. Prices farmers receive at local markets are often less than prices paid at a central market such as Portland or San Francisco. This difference, which is approximately equivalent to shipping costs between the local and central markets, may or may not be justified. In some cases farmers should receive a higher price than is being paid at a central market. Whether or not prices in local markets should be higher or lower than prices in central markets will depend on whether local supplies are more or less than local demand.

When buyers are unable to obtain their total needs for a certain commodity from local producers, the community is termed a deficit area for this product. When farmers produce more of a particular product than can be marketed and used within a certain area, the community is on a surplus basis. The distance and cost involved in moving the product in or out of the community very largely determine the importance of this situation.

An illustration may clarify the above discussion. Farmers in the coast counties of western Oregon during certain seasons of the year produce more lettuce than can be used by local markets. Under such conditions the local price may be as much under the Portland price as it costs to ship lettuce from the coast to Portland. During

certain months of the year producers in the coast counties raise less lettuce than local markets demand. During such times prices to local farmers should tend to be the price at Portland plus transportation and other charges necessary to move lettuce from Portland to the coastal market.

SELECT FARM PROJECT WITH KNOWLEDGE OF SUPPLY AND DEMAND

In the preceding paragraphs an attempt has been made to impress on the student the importance of considering supply and demand factors before he chooses a particular agricultural project or farm program. Supply and demand factors are so important that they must be reckoned with at market time—if not by the producer-seller, then certainly by the buyer.

MARKET INFORMATION AVAILABLE

Fortunately there are sources of reliable market information available to 4-H Club members and others in Oregon. The Market News Service of the U. S. Department of Agriculture issues many valuable reports. The Federal Cooperative Extension Service at Oregon State College broadcasts much of this information each day over radio station KOAC. Trade journals, newspapers, and other radio stations issue regular market reports. Many of the U. S. Department of Agriculture and State College reports are available through the local county agent in mimeographed and printed form.

Part II

Marketing Functions and Services

It is desirable for 4-H Club members who are enrolled in the marketing project to carry also a crop or livestock project. All students, however, will receive much benefit from learning certain marketing principles.

For the purpose of this study it is assumed that the club member has now decided which agricultural project he will carry and the work of raising crops or livestock may be under way. Within a few months there will be lambs, vegetables, or other products to market. The next phase of this discussion deals with the several functions and services that are usually required in the marketing of farm products. The subjects to be considered are assembling, inspecting,

sorting, grading, standardizing, transporting, storing, preserving, manufacturing, packaging, financing, risk bearing, insurance, buying, and selling. Some of these services are required for certain products and some for others. The marketing of still other products requires all of the services that are listed.

ASSEMBLING

Assembling is the bringing together of products or commodities for convenient buying, shipping, or processing. Farms in each community normally produce different amounts of any product. The assembling function is performed when these several lots of a commodity are collected at a central point by the producer or the buyer. In some cases production of individual farms is insufficient to be marketable except in combination with similar commodities from other farms. Agricultural products are assembled by means of trucks, automobiles, boats, barges, railroads, and pack animals. Sometimes livestock are driven to market.

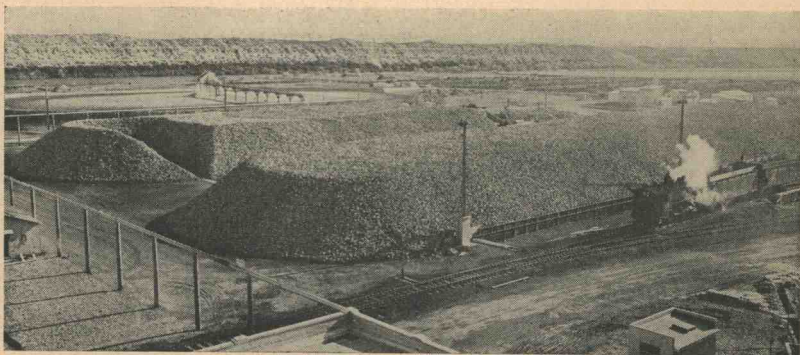


Figure 3. This picture of great piles of sugar beets, taken in Malheur County near the sugar beet factory at Nyssa, demonstrates the marketing function of assembling. These beets were hauled to the factory from hundreds of neighboring farms. They constitute a reserve supply of raw materials that will keep the factory in operation for several months.

Assembling methods vary. Different farm products are assembled in different ways. The assembling of cream for butter-making is a familiar operation to most 4-H Club members. Let us assume that 50 farmers in a certain community practice dairying. A producer with 20 cows may ship 10 gallons of cream daily; another with 5 or 6 cows may ship 5 gallons of cream every other day. A third operator with fewer cows may send 2 or 3 gallons twice a week. The creamery that serves the community sends trucks on

regular routes to pick up the cream and leave clean cans. Patrons' cans are properly identified and the product is weighed and tested on arrival at the creamery to determine the basis of payment. The cost of assembling cream is sometimes shown as a deduction on the patron's monthly statement. In other cases creameries pay for this service along with other cost items, but pay slightly less per pound for the butterfat. When the first plan is followed, dairymen sometimes deliver their cream, thus retaining for themselves the amount commonly deducted for assembly.

Livestock marketing practices in certain parts of the state necessitate other assembling methods. A number of farmers may bring hogs to a central point so that they may be shipped to market in carload lots. In this instance assembling is performed by the producer. In other cases a group of farmers may employ a trucker to call at their farms and transport the hogs to the local shipping point. When this is done, the producer has determined that he can more profitably employ his time and equipment on the farm; consequently, he hires someone to help him market his hogs.

The producers of cannery crops—berries, fruits, and vegetables—are faced with the problem of assembly. Strawberries have no value to a cannery operator unless by one method or another they are made available for processing at his plant. The producer must arrange, therefore, to bring his crop to the cannery for combination with similar berries from other farms.

Assembling function involves expense. Assembling of agricultural products involves expense regardless of who performs the task. When the cost of assembly is paid by the processor, this expense is included in the spread between the price received by the producer and the price paid by the consumer. The producer may deliver his product to the factory or shipping point, and increase his net earnings, if the total cost to him is less than others charge for the service.

Suggested questions to aid discussion:

How are the principal products from your farm taken to a processing plant, shipping point, or market place?

What does it cost per pound to deliver milk or cream from your farm to the nearest creamery?

INSPECTING

Inspection is the examination of commodities to determine their suitability for sale, or eligibility for a certain grade. Most

agricultural products are inspected at least once before they reach the consumer. Buyers may inspect certain products before they leave the farm so that payment can be made according to quality. Milk and butter may be inspected at the processor's plant. The score or grade is determined by this inspection. State or federal inspectors often perform this service for the seller and the buyer. Seed crops are usually so inspected at the shipping point. The grade or quality is determined by this inspection so that the buyer knows what he is getting and the seller is protected as well. Veterinarians of the Bureau of Animal Industry, U. S. Department of Agriculture, inspect carcasses in packing plants. This accounts for the familiar stamp on the outside of beef, mutton, and hog carcasses, "U. S. Inspected." This inspection assures the consumer that the product is from a healthy animal. Federal and state inspectors examine representative samples of potatoes that are sacked for shipment to determine whether or not they are correctly graded and branded as U. S. No. 1, U. S. No. 2, etc.



Figure 4. The germination test is one of the most important steps in seed grading. A seed analyst is shown counting the sprouted seeds in a particular sample of Austrian field peas.

Inspectors employ many methods for inspecting different products. The senses of sight, taste, smell, and touch come into play. Various laboratory tests are made as part of the inspection of some products.

Suggested question to aid discussion :

Give at least two reasons why farm products are inspected.

SORTING, GRADING, AND STANDARDIZING

The processes of sorting, grading, and standardizing are interdependent. Since they are so closely related they will be discussed in the same section of this study. Grading is done according to certain standards and these standards must be established before the grade of any product can be determined. Standardizing, or a standardized product, results from the grading process. Sorting is the physical task of separating products into several lots. It is illustrated throughout the discussion of grading and standardizing.



Figure 5. Sorting farm flock wool. Each patron's shipment is segregated into appropriate grades and weighed. Payment is then made accordingly.

Grading is the process of sorting products according to quality or type and giving proper designations to different lots of these products. Grading may be done by the producer or it may be done by the processor, wholesaler, or retailer. Farmers who sell graded products may benefit in two respects: first, they save the cost of freight on inferior goods that cannot be sold at profit; second, well-graded products present a better appearance and will usually command a higher price.

Graded farm products sell better. Farm products at harvest or market time normally lack uniformity. Potatoes from the same hill will vary in size and shape. Apples grown on the same tree differ in size and color. Hogs from the same litter vary in type and finish. Even wheat or corn is often of better quality at one end of a field than at the other. By grading these products, lots that possess similar characteristics are grouped together. When potatoes or apples that are large or small, smooth or scabby, and of various colors are mixed together and offered for sale, dealers usually pay a low price. Consumers often make selections on the basis of appearance; therefore, an ungraded product will be attractive to them only at reduced prices. Graded products are also more likely to meet the individual desires and purchasing habits of different consumers.

A producer who has lambs for sale will usually find it to his advantage to do some grading before he sells, otherwise the price of the entire lot may tend to be determined by the poorest animals. If half his lambs have a desirable finish, these may be sold, and the remainder may be kept until they will qualify for a higher grade. It is not always possible or practical for the producer to grade certain of his products. When he sells, however, he will probably have increased bargaining power if he can correctly judge the grade of these commodities. The specifications for the state and federal grades of most agricultural products may be obtained from the State Department of Agriculture, Salem, Oregon.

Standardized articles meet definite specifications. Standardizing is accomplished by grouping commodities according to certain measures or characteristics. A standard article, then, is one that conforms to uniform specifications. In a broad sense, grading is a standardizing process. A carefully graded lot of wool that contains fibers of uniform length and thickness is said to be standardized.

State and federal laws specify the requirements that certain commodities must meet. For instance, there are definite standards as to germination, purity, and freedom from weed seeds for certified

alfalfa seed. The law prescribes the composition of butter as follows: It must contain not less than 80 per cent butterfat, the remaining 20 per cent is composed of moisture, salt, and milk solids not fat. Creamery butter, therefore, is a standardized product.

Certain agricultural marketing groups apply very rigid standards to products that carry a particular brand. The advantage of marketing a standardized article results from the reputation it earns with consumers over a period of time. Buyers are usually willing to pay better prices for standardized products because they can depend on the quality.

Suggested questions to aid discussion :

*What products are graded on your farm before they are sold?
How does the grading of farm products benefit the producer?
Explain why creamery butter is termed a standardized product.*

TRANSPORTING

Transportation as a marketing term means the physical movement of goods or commodities from one place to another. Products are transported from the place of production to the place where they are processed, packaged, or stored. They are then transported to wholesalers, retailers, and consumers. The service of transportation makes it possible to offer goods for sale at places where they are in demand. Economists call this "place utility."

Developments in transportation methods. The earliest method of transporting goods was on the backs of men and women. After the invention of the wheel, which many historians claim is the

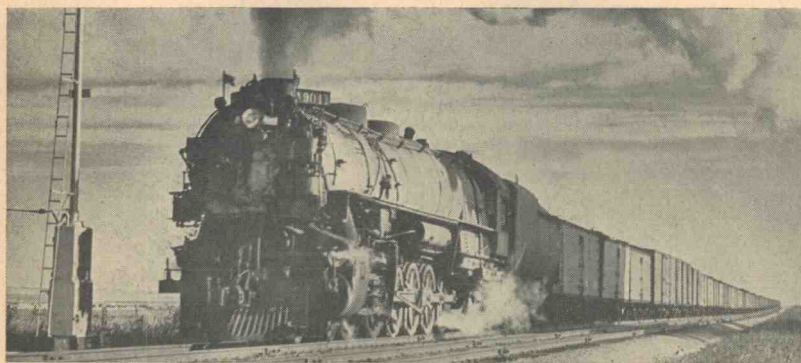


Figure 6. More farm products are carried from agricultural areas to large consuming centers by railroads than by any other method.

world's greatest single invention, crude carts and other vehicles drawn or pushed by manpower and by beasts of burden were used to relieve men and women of some of the drudgery. Boats of various types have been used for many centuries. Great development in methods of transportation came after the invention of the steam engine. Still greater advancements followed the discovery of electricity and the invention of the gasoline engine. With these various forms of power, our modern ocean liners, railway systems, trolleys, trucks, automobiles, and airplanes were made possible.

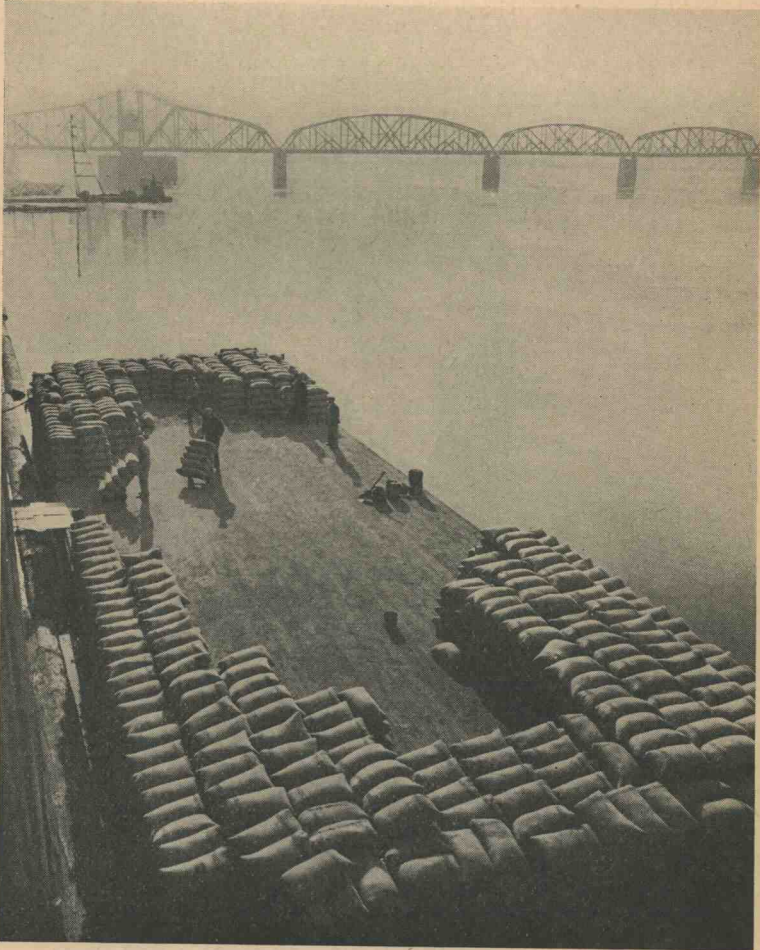


Figure 7. Wheat being unloaded from a barge on the Willamette River at Portland illustrates transportation by water-borne craft.

More freight is carried by railroads than in any other way. The use of trucks to transport farm products, however, has gained considerable importance in recent years. Trucks can reach many points not served by railroads; these two methods of transportation, therefore, supplement each other. Airplanes now carry express and freight. Agricultural goods regularly carried by air are mostly perishable items that have high unit value in proportion to their weight. Air transportation is also used to carry samples of cotton, wool, grain, seeds, fruit, and other products to prospective buyers. This reduces the time necessary for producers to contact distant markets.

Population centers must have transportation. The customs and needs of modern society are inseparably linked with transportation. About two-thirds of the people in the United States live in towns and cities. These people are dependent on adequate transportation facilities for their supplies of farm products. We find most large cities located, therefore, where there are certain transportation advantages. In the West, Portland, Seattle, San Francisco, and Los Angeles are served by ocean vessels as well as by rail and highway vehicles. This is also true for most of the important eastern, southern, and north central cities.

We have become so accustomed to regular transportation service that considerable inconvenience and often hardship results from even temporary suspension of this service. Many 4-H Club members can recall such instances when highway or railroad travel has been delayed by storm or landslides.

Specialized agriculture dependent on transportation. Transportation facilities make it possible for different districts and areas to follow specialized agriculture. Some areas specialize in fruit, others in wheat, potatoes, vegetables, seed crops, livestock, or livestock products. Farmers are willing to follow certain lines (specialize) because they are assured of transportation service for their produce. With the advent of specialized farming many special transportation services became necessary. There are railway cars for grain and livestock. Refrigerator cars are used to haul fruit, vegetables, meat, fish, and poultry. Trucks and boats are also equipped to provide refrigeration service during the transportation of perishable farm products. Glass-lined tank cars and trucks are used to carry milk to some of our large cities.

The marketing of butterfat offers an example of the multiple points at which transportation is indispensable. A can of cream produced in one of our coastal valleys of western Oregon may be marketed in the form of butter in Honolulu, Hawaii. The following

situation is slightly unusual but is described because it also emphasizes the interdependence of different methods of transportation.

The dairyman takes the cream to the river and a small boat then transports it to the docks in the town where it will be churned.



Figure 8. Freight trucks are becoming increasingly important in transporting farm products.

It is moved by truck from the river to the creamery. After the butter is made and packed in paraffined boxes, it is taken by truck to the railway depot where it is loaded on the freight car and shipped to Portland. At the depot in Portland it is taken by truck to the cold storage plant of a wholesaler, where it is cut into 1-pound prints and packaged. By truck it is moved to the docks along the Willamette River in Portland and placed under refrigeration in a boat for shipment to Hawaii. Upon arrival at Honolulu, the butter is trucked to a wholesale or retail establishment. From the retail store it is carried in delivery cars to homes throughout the city.

Oregon's agricultural program affected by transportation costs. The costs of transportation have a direct bearing on the type of agriculture that is practiced in any section of the United States. Since the great centers of population are in the eastern states, the

principal markets for many farm products are there also. Farmers in the west are faced with higher unit freight costs in supplying New York, Boston, and Philadelphia with products than farmers in the central states. Oregon producers have long recognized this handicap and have taken action to alleviate the situation. Beginning in 1923 leading farmers cooperated with the Extension Service in developing for the state an agricultural program, which recommended the production of commodities that have a high value per pound. Certain grass, legume, and vegetable seed crops, butter, cheese, and meat are examples of comparatively high unit value products. The program also provides for no further expansion in the production of certain bulky products such as apples and pears for fresh shipment.

The cost of freight is likely to be more important for a product that brings 2 or 3 cents a pound than it is for a product that sells for 10 to 20 cents a pound. Many localities are well adapted to growing commodities that cannot be profitably marketed because the price structure is not sufficiently high to cover transportation and other costs. Similarly, many products must be carefully graded or processed to obtain greater value per pound so that they will stand the cost of shipment. Examples are the grading of apples and the processing of milk into butter and cheese. Fresh fruits and vegetables may be dried, preserved, or canned to increase the unit value and/or to reduce net weight. If freight rates on grain or hay are too high for profitable shipment, these products may be fed to livestock and then marketed in the form of dairy products or meat. Many other examples could be cited to illustrate the action taken by producers to adjust their production and marketing program so that their produce will bear the cost of transportation and leave a profit.

Suggested questions to aid discussion :

By what methods are farm products transported from the principal towns in your county to larger market centers?

What products that are raised in your community are shipped to (a) California? (b) eastern United States? What effect has transportation had on the type of agriculture that is practiced in your community?

STORING AND PRESERVING

Storage is the market function of holding goods from the time of production until they are needed in channels of trade. This service gives commodities "time utility." Many products are produced mainly at one season of the year but are used throughout the entire

year. For instance, grain is harvested in the United States during the summer and early fall. It is used as food for man and feed for livestock each month. It must be preserved, therefore, for continual use by various storage methods. Corn is often stored on the cob in slatted containers called cribs. Wheat and other small grains are stored in bins of various sizes and types.



Figure 9. Special cellars are constructed for storing potatoes in the producing area. Hundreds of carloads of potatoes are stored in frame and dirt constructed cellars on Oregon farms.

Storage helps prevent seasonal surpluses. Dairy products are produced in greatest volume during the spring months when feed and weather conditions are most favorable. During those months butter, cheese, and condensed milk go into storage. Later in the year when production drops, these products are withdrawn from storage and placed on the market. Many fruits are now offered for sale in fresh form during a large part of the year as a result of improved methods of storage.

The storage function facilitates orderly marketing. In other words, producers can sell large quantities of seasonal goods without glutting the market, since all goods in excess of immediate needs may be stored until they are in demand. Consumers are likewise benefited

by storage. They are assured of adequate supplies of most commodities any month in the year at fairly uniform prices.

Storage is usually performed by processors, wholesalers, or retailers after goods leave the hands of producers. Certain goods may be stored by the producer on his own farm or they may be stored by him in a community warehouse. If farmers who harvest potatoes in October hold them in a cellar on the farm until February, they will normally expect a higher price since they have assumed certain risks and costs of storing.

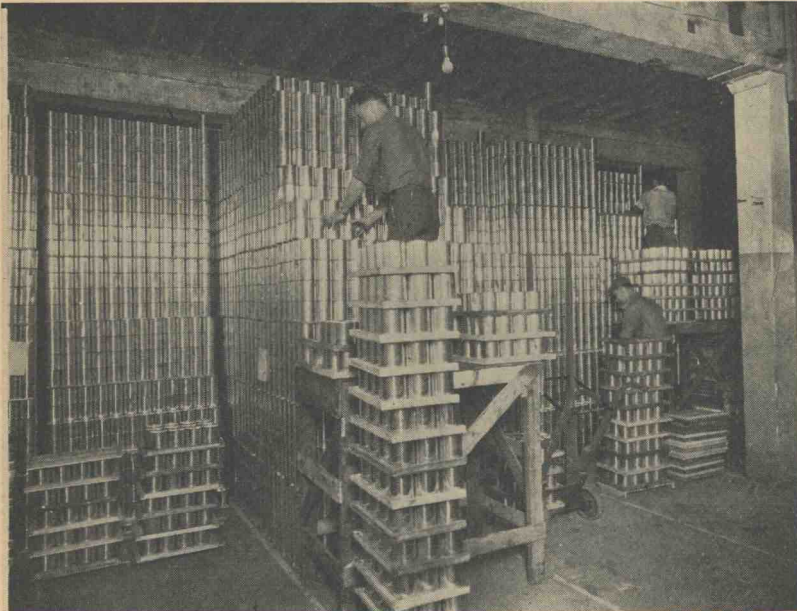


Figure 10. Warehouses for storing canned goods usually adjoin the canning plant.

Agricultural products vary in their storage requirements. Perishable goods such as fruits, butter, eggs, and meat are stored at low temperatures. Other products such as hay, grain, canned goods, and wool may need only protection from the elements.

The cost of storage varies in accordance with the facilities and services that are necessary. Goods that must be kept in refrigerated warehouses at below freezing temperatures incur more storage expense than those that require protection from rain and sun only.

Butter, cheese, and canned milk require different storage conditions. Butter must be stored at approximately 0° F. if its

quality is to be maintained for several months. For short time storage (less than 1 month), butter may be held at approximately freezing temperature.

Cheese is stored at 45° to 50° F. for 2 to 6 months after manufacture. Storage at this temperature permits the ripening process that is necessary before the cheese has proper flavor and texture. After cheese is sufficiently aged, it is held at lower temperature (about 40° F.) pending sale to consumers.



Figure 11. Cheese requires special storage conditions where temperature and moisture are carefully controlled to permit proper development and protection of the flavor and texture.

Canned condensed milk presents quite a different storage problem. In this case the product may be held in any warehouse that provides protection from moisture and excessive temperatures.

Plants and animals illustrate importance of storage. Storage and preservation are particularly interesting subjects since nature provides many everyday examples. Most plants and animals live from year to year because they store food or energy in a certain season for use in other seasons.

Plants store their energy in tubers, roots, bulbs, stems, fruit, and seeds. Certain animals and insects fill their storehouses when food is abundant so that there may be plenty to eat during seasons of scarcity. Animals that are not endowed with storage instincts put on surplus fat during the summer to help them survive the winter when food is hard to get.

The habit of storing energy for future use has of course gone farther with man than with any other living thing. Man is always planning for the future. The goods he produces today are in one way or another stores of energy that he may use tomorrow or in months or years to come. In fact, because man saves part of the fruits of present labor for future consumption, civilization progresses.

Suggested questions to aid discussion :

What are two reasons for storing farm products?

Name the common types of storage places or warehouses in your county. What farm products are stored on your farm for future use or sale?

How do animals or plants store food or energy?

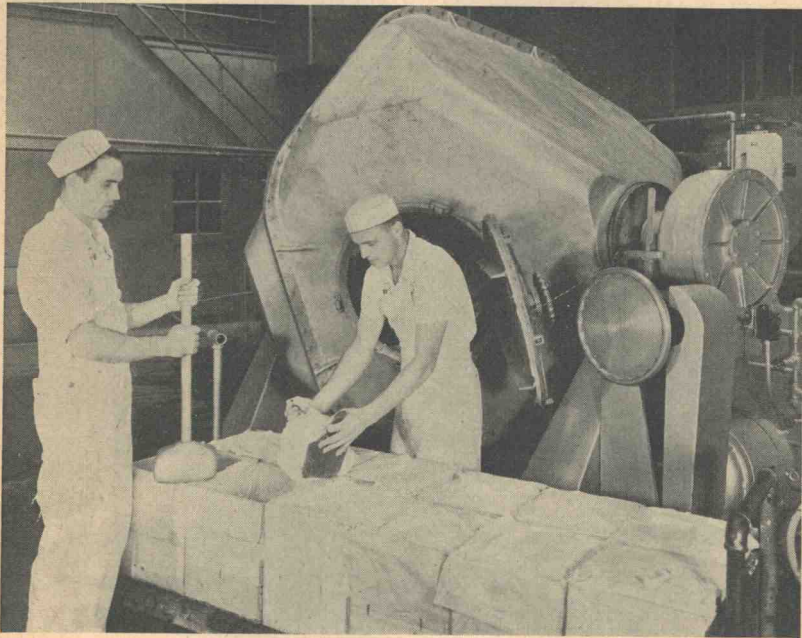


Figure 12. Butter making illustrates the processing of an important agricultural product. Butter is removed from the churn and packed in parchment-lined boxes. The boxes are covered and placed in cold storage until needed. Each box contains sufficient butter to make 68 1-pound packages.

MANUFACTURING

Manufacturing, or processing, includes those operations that change the form of any farm product. Most agricultural products are processed in one way or another before they are sold to the consumer. The change is relatively simple for some products, whereas others undergo a series of changes before a final item of food or clothing is available in the retail store.

Familiar examples of processing are churning cream into butter, making milk into cheese, canning fruits and vegetables, and the manufacture of numerous meat products—bacon, ham, wieners, dried beef, and sausage. Even cutting a beef carcass into steaks, roasts, etc., can be termed a process that changes the form for more convenient retailing.

Other products undergo several separate processes before sale to the housewife. Wool is spun into yarn, the yarn is woven into cloth, and the cloth is used to make various items of clothing. Wheat is first milled into flour and the flour is then used to make bread and other food products.

The American Indian made cornmeal with a mortar and pestle. This is an example of manufacturing as it relates to farm products. This simple operation could be termed a forerunner of the American milling industry of today. The drying and smoking of meats and fish was a common practice in most homes when Oregon became one of the states of the Union. From this small beginning has grown the enormous meat packing industry of today. The home tanning of hides for shoes is vastly different from the methods of our great shoe factories of today. The manufacturing carried on by early white settlers as well as the Indians was a necessary part of the self-sufficient agriculture that was common in the early days. Most of this manufacturing was carried on by each family for the purpose of supplying its own wants.

The establishment of central shops in towns and villages followed the development of machines. A bootmaker, by using mechanical devices, could manufacture many pairs of shoes during the time required to manufacture one pair when all the work was performed by hand. It was perfectly natural, therefore, that the bootmaker invested in this equipment so that he might specialize in making shoes for his neighbors. Skilled tradesmen with efficient machinery could make better shoes at less cost than was possible in the average home.

As new and more complicated machines were invented, the processing of farm products and the manufacturing of various com-

modities became more specialized. Thus manufacturing became one industry, and farming another.

Without the manufacturer, a large part of our commercial agriculture could not exist. The farmer needs to have his wheat transformed into flour and bread, cotton and wool into cloth and clothes, hogs into ham and bacon, sugar beets and sugarcane into sugar. The manufacturer is dependent on the farmer for many of his raw materials. He is also dependent upon the farmer for a market for many of the commodities that he makes.

Suggested questions to aid discussion :

What fruits and vegetables grown in your community are (a) canned? (b) dried? (c) frozen?

How many different kinds of dairy products are made in your county?

PACKAGING

Most of our agricultural products must be packed in convenient containers before they are ready for sale. Packaging is frequently done by the producer before the product leaves his farm. For instance, the farmer sacks potatoes and onions, and places berries in



Figure 13. Austrian winter field peas sacked in cotton bags ready for shipment to the southern part of the United States. Each sack bears a label stating the germination, purity, and presence of other seeds, if any.

boxes and crates. One of the very familiar methods of commercial packaging is by the use of cans. Large quantities of berries, fruits, and vegetables are handled in this way. Waxed paper containers are now extensively used for fruits and vegetables that are held in frozen form until delivered to consumers. Meat and meat products are packaged in several ways—bacon is wrapped in cellophane; dried and corned beef are placed in glass and metal containers; sausages, frankfurters, and bologna are often stuffed in cellulose tubes.

Cotton and burlap bags are used to package many Oregon grown seeds and grains.

There have been many new developments in packaging methods. Some of these serve the convenience of the consumer, others are designed to improve the appearance and salability of certain commodities. Small sacks of potatoes weighing 10 or 15 pounds are preferred by the cash and carry shopper, apartment-house dwellers, and others with limited storage space.

Experienced retailers find that many buyers make their purchases on the basis of eye appeal. In other words, attractive labels,

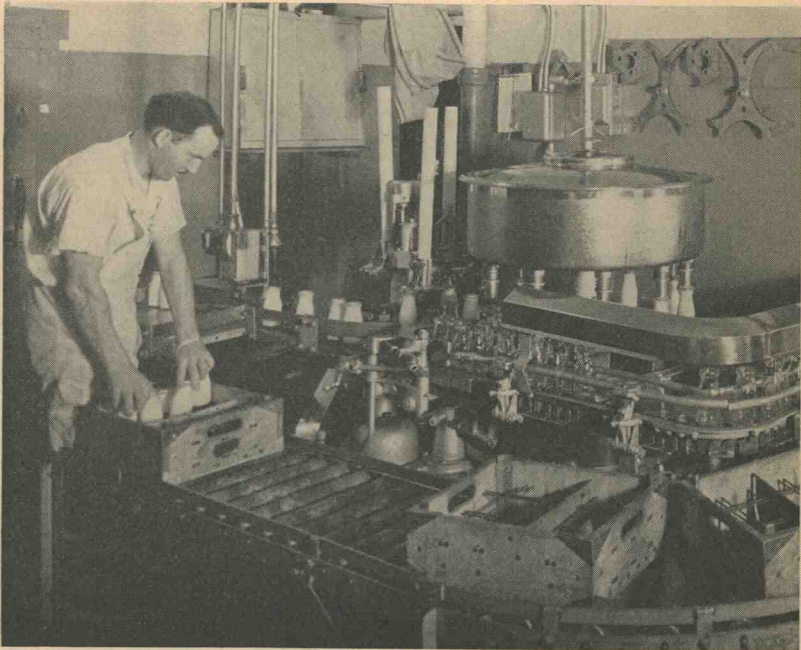


Figure 14. Packaging operations for market milk are done entirely by machinery in a modern dairy plant. Milk is placed in glass containers, capped, and made ready for delivery to homes throughout the city.

or cellophane wrappings that will improve the appearance of the product, catch the shopper's eye. Proper packaging may be listed as one of the important ways of improving the marketability of many products.

Suggested questions to aid discussion:

Name at least two common ways of packaging Oregon fruits and berries.

Why are potatoes packaged in 10- and 15-pound sacks as well as in 50- and 100-pound sacks?

What kind of containers are used for (1) milk? (2) dried prunes? (3) onions? (4) strawberries? (5) eggs? (6) apples?

FINANCING, RISK BEARING, AND INSURING

As goods move from one purchaser to another, money or credit is necessary to complete the business transactions. Providing the funds to carry on these business operations is known as financing. This function, therefore, is an important part of our marketing program. When a producer sends a carload of hogs to market, he expects to be paid on delivery. The wholesale purchaser may then sell the hogs to various retailers from whom he expects immediate payment. The retailer collects his investment gradually as pork and pork products are sold during the following days, weeks, or months.

Financing is recognized as an important link in the marketing chain. Those who purchase farm products for resale to others are able to pay for them on delivery by using their own savings or by the use of borrowed money. Very few businesses operate entirely on savings of the owners. Hence the use of borrowed money is a vital necessity. There are certain costs that accompany this marketing service. For instance, the use of money involves the payment of interest.

Those who buy and sell farm products assume some risk or possibility of loss. Losses that may occur are due principally to three causes: (1) changes in price; (2) uncollectible accounts; and (3) deterioration of product in storage or loss by fire, flood, etc. Dealers in farm products normally set aside certain reserves to be used when unavoidable losses occur.

The importance of the risk-bearing function will vary with different products and with different methods of doing business. Staple

food items that are sold immediately after production require dealers to assume a minimum of risk. The risk is relatively high in the case of products that move slowly or necessitate considerable expense for sale to consumer.

Insurance provides a method of shifting some of the business hazards to risk-bearing organizations. The majority of operators realize, however, that there is no insurance against certain types of losses. While insurance does not eliminate the risk, it does provide a means for individuals to bear losses cooperatively. Many pay a small amount so that the few who suffer from fire or flood will receive compensation. The cost of the premiums must be sufficient to pay operating expenses of the insurance company and pay all losses as they occur.

Suggested questions to aid discussion :

How does it benefit the producer when the buyer of his goods is able to borrow money?

What are the principal risks that are assumed by buyers of farm products?

Does insurance for those who deal in farm products benefit the producer?

BUYING AND SELLING

Buying and selling are considered by some authorities as the most important of all marketing functions. Many 4-H Club members have had some experience in this field. The importance of buying and selling farm products may be emphasized by considering for a moment the extent of these activities in any community.

Before a purchase is made, the buyer has certain problems. First, he must determine his needs. The average buyer finds keen competition for the money he has to spend and unless he exercises considerable prudence he may find that he has satisfied certain impulses at the expense of definite needs. Second, he must find a seller. This involves locating a suitable source of supply where he can depend on the quality as well as the quantity.

The seller is faced with certain problems. First, he has a part to play in creating demand. He or his salesman calls the attention of prospective buyers to the goods he has to sell and attempts to create a desire for these goods. Advertising in newspapers, magazines, and by radio is designed to help create demand. Second, the seller is often called upon to advise buyers about the use and care of prod-

ucts. Many organizations maintain service departments and employ trained persons to demonstrate proper methods of using certain goods.

The buyer and seller have certain common problems. First, they must negotiate price and terms. A decision must also be made as to when and where the goods will be delivered. Second, the buyer and seller must effect transfer of title. For many every day purchases, title is transferred merely by the physical act of delivery. More important transactions are accompanied by bills of sale, notes, mortgages, or conditional sales contracts. Third, the two parties involved must arrange for payment or agree on credit terms. In the first instance, payment may be made by currency or check at time of delivery, and in the second, an agreement is made for payment at a future date.

Suggested questions to aid discussion :

Why are buying and selling important to farmers as well as those engaged in other businesses?

What is the principal activity of your neighborhood grocer?

What agricultural products grown on your farm are advertised in national magazines?

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