Trends in Food Distribution--

Implications for the Potato Industry

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The Food Industry

Over the past 30 years, food distribution firms have become fewer in number and retail stores have continued to grow in size.

Chain stores are arbitrarily defined as those organizations which operate eleven or more stores. Those which operate less than eleven stores are divided into affiliated groups and unaffiliated. The affiliated group is made up of retailers who associate their business with a wholesaler. The unaffiliated group is composed of independent stores which are not identified with a wholesale food business.

Information in Table 1 summarizes what has happened to store numbers in the last 30 years. Store numbers have decreased sharply as larger stores have replaced the old corner grocery store and chain stores slowly increase their share of the food business. Table 2 indicates that chain stores have about 50 percent of the total retail food business and that unaffiliated retailers now have less than eight percent of the food business.

The most rapid growth among chain stores is among the small and medium size groups (Table 3).

Table 1. Years of Growth and Change

	STORE NUMBERS			
Year	Affiliated	Unaffiliated	Chain	Total
1942	100,000	284,000	36,400	420,400
1952	117,000	238,000	22,000	377,000
1962	75,500	138,000	20,420	234,420
1972	65,600	96,600	38,850	201,050

Table 2. Store Sales

Year	Affiliated	Unaffiliated	Chain	Total
	--------------- Billion Dollars ---------------			
1942	3.5	4.0	4.6	12.2
1952	11.7	9.6	11.6	32.9
1962	27.4	5.6	23.2	56.2
1972	44.7	7.3	49.7	101.7

Table 3. Smaller Sized Chains Are Growing Most Rapidly

Chains with Store Numbers	Annual Sales Gain
+ 500	9.0 %
250 - 499	4.8
100 - 249	10.9
50 - 99	8.4
25 - 49	12.5
11 - 24	10.2

This trend of store size and chain growth means there are fewer and fewer "decision makers" as buyers of products and as merchandisers to consumers.

In addition to this trend of larger stores, larger organizations, fewer buyers, fewer merchandisers, there are more products in stores for consumer choices. Table 4 indicates the growth of numbers of items in typical supermarkets by decades. Each decade has seen an approximate doubling of floor space in new supermarkets as the expansion in number of food products continues. In spite of the fact that in the newest model "super store" there are well over 12,000 individual products, no store is able to or needs to stock the estimated 60,000 food products available to buyers.

An exception to this trend to "bigness" is shown in the growth of convenience stores. In the last 15 years this development has been a major addition to food distribution and now accounts for nearly four percent of the food business.

Stores Grow in Size

	Typical Store, New Square Feet
1940's	6,000 - 8,000
1950's	10,000 - 15,000
1960's	15,000 - 20,000
1970's	30,000 - 40,000

Table 4. Number of Items Per Store

Year	Number of Items
1940's	4,000
1950's	6,000
1960's	8,000
1970's	12,000

Table 5. Exception--Convenience Stores!

Year	Number	Sales Million $
1957	500	75
1960	2,500	375
1967	5,000	720
1970	13,250	2,610
1971	15,075	3,110
1972	17,800	3,750

The trends of the wholesale level parallel those in the retail field and are summarized below:

Trends---Wholesaling

Similar to retail:

Fewer Wholesalers

Larger Wholesalers

Result:

Fewer Buyers

Supply Fewer but Larger Stores Where Customers Have a Much Wider Choice!

The causes of this structural change (numbers and concentration) are summarized here in an oversimplified summary.

<u>Causes of Structural Change in Food Distribution</u>

1. Widespread use of automobile
2. Refrigeration becomes commonplace
   - Home
   - Commercial
   - Transportation
3. Population mobility
4. Population concentration--market power in metro-areas
5. Growth in number of food products

With this background, let's look at the implications for potatoes and potato products. Potato consumption in the fresh form continues a downward trend while processed forms continue to increase (Table 6).

Table 6. Potato Consumption, Index (1967 = 100)

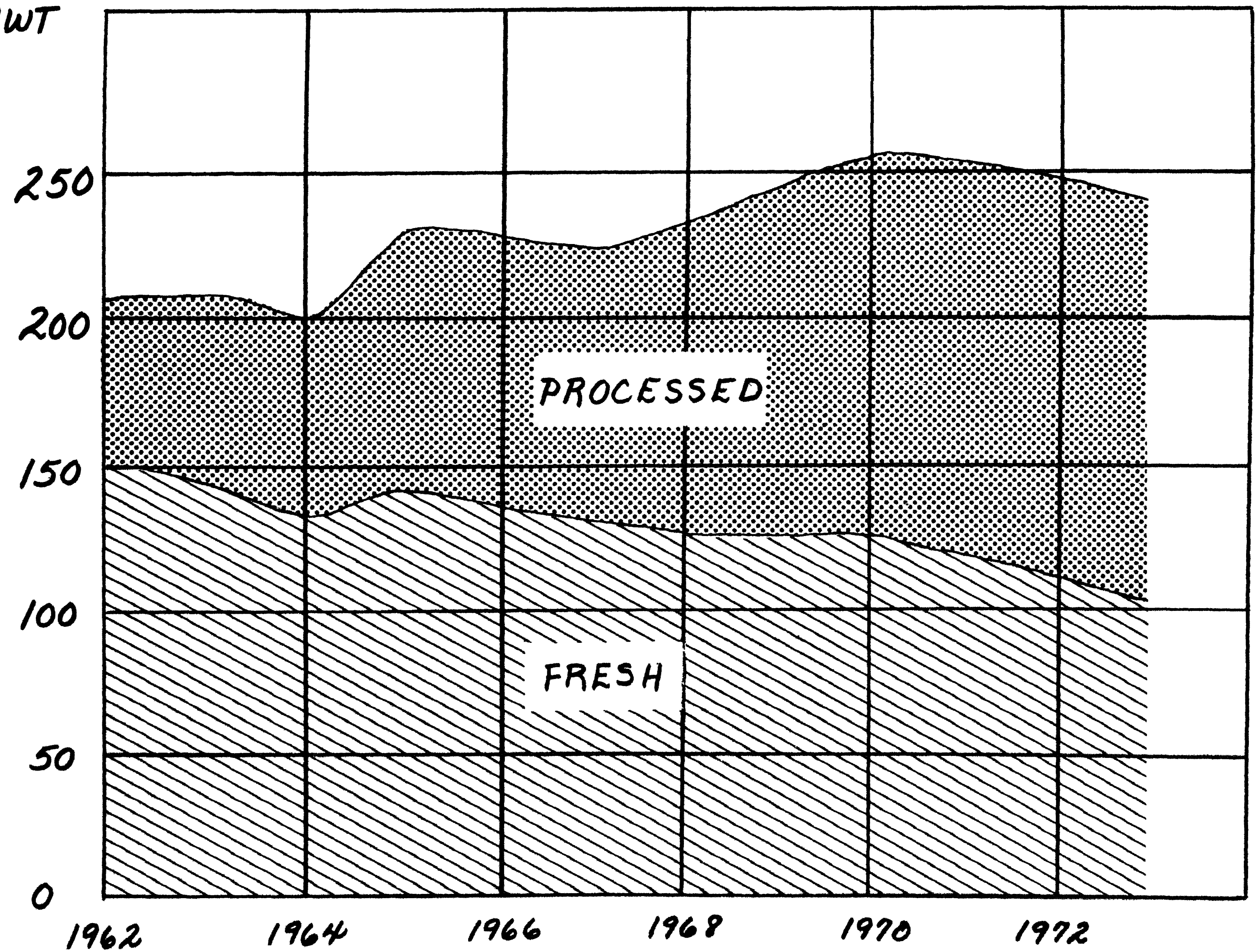
Year	Fresh	Processed
1970	91	121
1971	87	124
1972	80	126
1973	80	126

Total potato consumption decreased until the early 60's. The trend since then has been slowly upward. One product has been responsible for this trend of consumption--frozen french fries--and, this form of potato products now accounts for more than one sixth of the total potato production (Table 8). The chart below visualizes the trend of processed forms and fresh usage of potatoes in the U. S. market.

Table 7. Per Capita Potato Consumption (Fresh Equivalent)

Year	Pounds
1947-49	114
1957-59	107
1961	109
1963	111
1965	107
1967	108
1969	117
1971	119
1973	118

POTATO USAGE



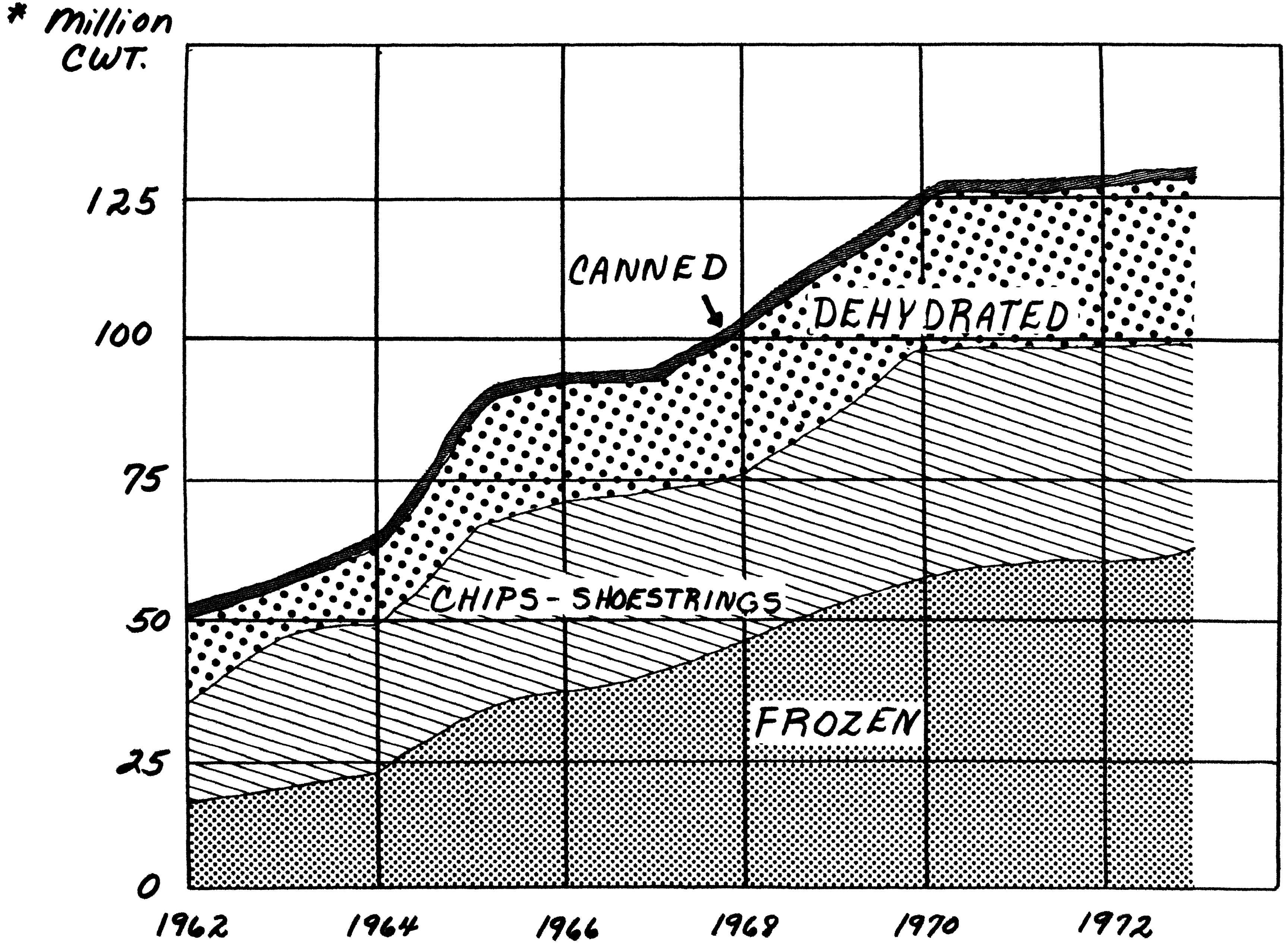
* Fresh Equivalent

Table 8. Utilization of White Potatoes

Use	Percent of Crop
Table Stock	37.6
Chips & Shoestrings	11.1
Dehydration	8.5
Frozen French Fries	17.1
Other Frozen	2.4
Canned	.8
Other (Hash, Stews, Soups)	.6
Starch & Flour	2.4
Livestock Feed	2.2
Seed & Non-Sales	8.0
Shrinkage & Loss	11.6

A different set of facts related to shifts in potato product consumption is indicated in Table 9. In the last decade note the sharp increase in consumption of the dehydrated, chips and frozens. Frozen consumption is still on the uptrend while dehydrated and chip use seems to have reached a plateau, as indicated in the following chart.

POTATOES - PROCESSED



* Fresh Equivalent

Table 9. A Decade of Change

Potatoes Used for Processing	Million Cwt.--Fresh Equivalent 1962	1972
Canned	3	5
Dehydrated	16	28
Chips-Shoestrings	13	37
Frozen	18	64

Information in Table 10 gives some indication of the nature of successful new products in supermarkets in a typical recent year. Note that potato products could be a part of the first two categories that account for over 50 percent of the most successful new products.

Table 10. Most Successful New Products--1972

Item	Percent
Prepared Dinner Mixes	34.5
Snacks	20.3
Panty Hose	4.5
Soft Drinks	4.1
Cake Mixes	3.6
Soups	3.1
Diapers	3.1
Pet Foods	2.8
Soaps, Detergents	2.6
Cereals	2.6
Frozen Food	2.2
Coffee	1.6
Diet-Health Foods	1.6
Cooking Bags-Wraps	1.4
Single Serving Desserts	1.2

Implications for the Potato Business

In the supermarket industry, potatoes and potato products are bought and merchandised by as many as four different groups of people within retail organizations.

Supermarkets:

Fresh Potatoes--Produce Department

Chips--Snack Foods (Perhaps Grocery)

Frozens--Frozen Food Department

Dried--Grocery Department

These buyers and merchandisers are constantly looking for new products and brands which may increase their sales base.

Convenience Stores:

These stores have many fewer products but will have one or two products of fresh, dried, frozen, and snack forms of potatoes. They are oriented to the snack food market and are ready to pick up any product that has already been proved in food store sales performance.

Fast Foods:

This growing part of the food business (Typified by Col. Saunders) is a large user of frozen and chip forms of potatoes. In the future, this group may also be the one which will reconstitute dried potato products into a substitute for chips.

The need of the food industry may be summarized as a continuing desire for more variety of food products and for uniformity of those products from one time period to another.

The message from food distribution is that the potato industry <u>must</u> accelerate product development to keep pace with the competition in offering:

(1) more variety--products and packages

(2) more forms--frozen, dried, fresh, snacks

(3) more choice

(4) something new

The whole industry has a stake in this interest. Growers, processors, and, yes, the university community all have a responsibility toward getting across the idea of cooperation--working together in doing a job in solving industry marketing problems. No longer can growers afford the luxury of condemning companies--processors--for introducing and successfully selling new products. There is opportunity for everyone involved in growing and marketing potato products.

(1) nutrition research and education

(2) new product development

(3) test markets

(4) marketing and distribution

(5) production efficiencies

Can people in the industry create an atmosphere where those with talent in production, research, education and marketing become charged with a sense of discovery and enthusiasm?