Recommendations for Expansion of the Minnesota Horticultural Peat Industry

June 1985

Prepared by: ARROWHEAD REGIONAL DEVELOPMENT COMMISSION
in conjunction with
NATURAL RESOURCES RESEARCH INSTITUTE

Prepared for: MINNESOTA DEPARTMENT OF NATURAL RESOURCES
in cooperation with
THE MINNESOTA PEAT ASSOCIATION

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PREFACE

Considerable potential exists in the State of Minnesota in the form of horticultural peat. Sphagnum peat moss deposits in the seven county region of northeastern Minnesota alone account for 103,400 acres with an estimated volume of 63 million tons. Of this, 22,500 acres are considered suitable for commercial operation with depths ranging from five to ten feet. These deposits, which are only a miniscule portion of the state's peat resources, are equivalent to the total current U.S. consumption for the next 160 years. In order to capitalize and expand upon this resource, increased production must be coupled with a market demand. The purpose of this report is to explore and identify marketing opportunities for Minnesota horticultural peat and to provide a foundation for marketing strategies that will act to establish Minnesota peat as a viable and quality product in the consumer's mind.

ACKNOWLEDGEMENT

This program was funded by the Minnesota Department of Natural Resources in conjunction with the Natural Resources Research Center and ARDC. It was conducted in close cooperation with the Minnesota Peat Association, which was formed as a result of early program efforts.

ARDC contracted for the services of Mr. Marvin Grant of M. L. Grant Advertising, Inc. to assist in the program. Mr. Grant had prepared Canada's highly successful peat marketing program and had served as executive director of the Canadian Peat Association. He provided valuable insights and comments on current and proposed efforts. More importantly, in a series of meetings, he outlined likely promotion campaigns, which suggestions are significantly included in this report.

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INTRODUCTION

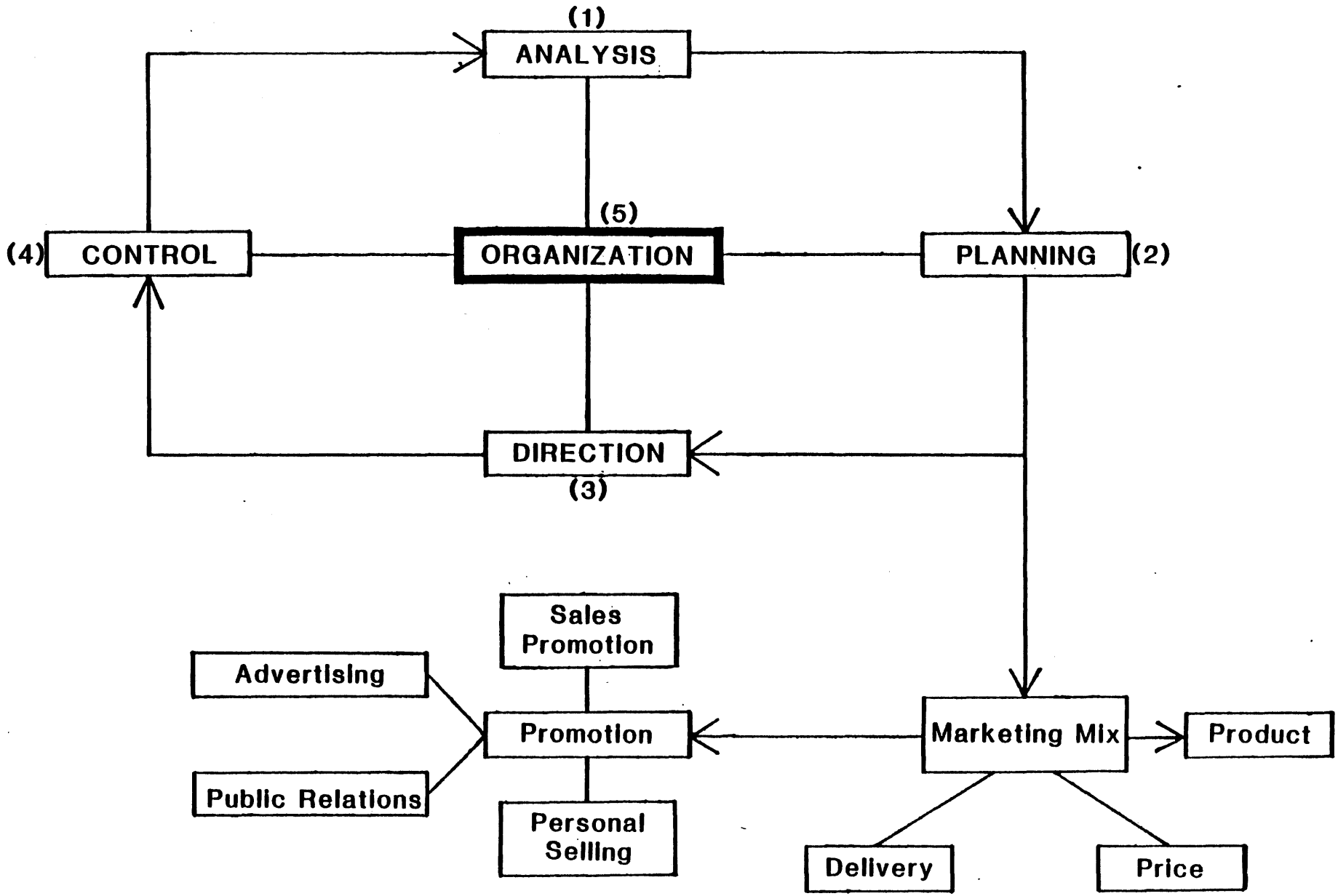
Every marketing effort starts and ends with its customers. The marketing process begins with the analysis of the market, definition of the target market, establishment of marketing goals, and design of a program that satisfies those markets and achieves initial goals. In order to further develop the Minnesota horticultural peat industry, a basic objective of this report, a process of strategic marketing planning is needed to match Minnesota peat resources with market opportunities.

The following report outlines such a strategic marketing planning process. Figure 1 illustrates the marketing planning process that was carried out. The systems cycle approach to marketing is comprised of five basic components; analysis, planning, direction, control and organization. This report concentrates on analysis and planning. The first section provides general background data on the U.S. peat industry. The second and third sections (analysis (1)) delineates a target market and analyzes consumer behavior, trends, and perceptions by survey. The final section outlines a marketing program (planning (2)) and provides recommendations that address expansion of the Minnesota horticultural peat industry.

The success of the Minnesota Horticultural Peat marketing program will largely depend upon internal factors as well as external factors. In order to successfully penetrate into the U.S. peat market and establish itself as a quality source, the peat industry must have a clear set of goals intact. Formation of the Minnesota Peat Association (MPA) was a big step in this process. The MPA members must now develop a coherent identity (apart from a logo) and have a clear vision of where the organization is heading. Private sector companies conduct internal audits to assess internal cultural factors that drive the company and to make sure that different parts of the company aren't working against one another. The Canadian peat industry was successful because of their cohesiveness and clear vision of where they were headed. The Minnesota Horticultural Peat industry must parallel this cohesiveness and clear vision in order to succeed in their expansion efforts.

Figure 1

SYSTEMS CYCLE APPROACH TO MARKETING



SECTION I - U.S. PEAT INDUSTRY DATA

The first section of this report highlights peat production and consumption in the United States. Figures provided consist of updates from an earlier ARDC report regarding development of the horticultural peat industry in Northern Minnesota. Information provided in this first section enables the reader to better understand the competition that exists in the U.S. horticultural peat industry and marketing concepts presented in the following sections.

A. PEAT PRODUCTION IN THE UNITED STATES

In 1983, peat was produced at 94 active peat operations in the United States. Total U.S. production of 704,000 tons in 1983 represented a 12% decline from 1982. The amount of peat production by states is summarized in Table 1.

TABLE 1: Volume and Value of Peat Produced in the United States by State, 1983

State	Quantity (short tons)	Value[1] (thousands)	Percent packaged
California	13	$ 612	72
Colorado	W	W	36
Florida	114	1,999	35
Georgia	W	W	99
Illinois	W	W	93
Indiana	81	1,973	85
Iowa	W	W	25
Maine	W	W	96
Maryland	4	W	12
Massachusetts	W	W	10
Michigan	215	4,286	80
Minnesota	W	W	84
Montana	W	W	93
New Jersey	W	W	42
New York	18	W	89
North Carolina	W	W	81
North Dakota	W	W	--
Ohio	W	W	89
Pennsylvania	22	628	25
South Carolina	W	W	96
Washington	W	W	--
Wisconsin	9	W	39
TOTAL	725	18,667[3]	69

W Withheld to avoid disclosing company proprietary data

1 Values are f.o.b. producing plant

3 rounding of figures

Source: U.S. Bureau of Mines

The largest peat producing state in 1983 was Michigan (26%). Minnesota was ranked sixth in 1982 at 29,608 tons (4%). The major type of peat produced in the U.S. was reed-sedge at 59% of the total volume; followed by humus, 25%; other unclassified, 8%; hypnum moss, 5%; and sphagnum moss, 3%.

The total value of peat produced in the U.S. in 1983 was approximately $18.7 million or a 7% increase from 1982. Approximately 47% of U.S. production came from eight large mines with annual capacities greater than 25,000 tons. These operations included three reed-sedge mines in Michigan, one reed-sedge mine in Florida, one reed-sedge mine in Indiana, one humus mine in Georgia, and one unclassified mine in Florida.

The production of U.S. peat is in both packaged and unpackaged products. Approximately 69% or 50,300 tons of U.S. peat sales were packaged in 1983. Packaged peat is generally in bales (the customary packaging method for sphagnum and hypnum mosses) or in bags generally used for reed-sedge, humus, and potting soil mixes. Reed sedge accounted for 74% of the packaged peat; humus 16%; sphagnum 5%; hypnum approximately 5%; and other unclassified for less than 1 percent.

The Arrowhead Region has three major operations. One is a reed-sedge potting soil operation while the other two operations deal with packaged and bulk sphagnum and reed sedge. Current Arrowhead production of approximately 30,000 tons represents 4% of the total U.S. production.

B. PEAT PRODUCTION IN CANADA

Canada produced 592,480 tons of peat in 1983. 1984 figures for Canadian peat production are estimated at 560,000 tons. Approximately 419,000 tons were exported to the U.S. in 1983 and 485,080 in 1984. Nearly all of these amounts were in the form of sphagnum peat moss. The provinces of Quebec and New Brunswick account for nearly 74% of this production. Manitoba and Alberta constitute the greater remainder of sphagnum peat moss production in Canada.

The Quebec and New Brunswick export tonnage into the United States (358,952 tons) approximates to 7,976,711 equivalent bales (e.b.s.). Export tonnage from Manitoba and Alberta approximates to 2,802,689 bales. Added together, the provinces of Quebec, New Brunswick, Manitoba, and Alberta in 1984 exported nearly 10,800,000 equivalent bales of sphagnum peat moss into the United States.

Exports of Canadian peat to the U.S. of 419,000 tons in 1983 had an approximate value of $52.1 million. The 1984 export tonnage from Canada of 485,000 tons had an estimated value of $57.8 million. That represents a 16% increase in export tonnage from Canada at $5.7 million for that period. Canadian imports contributed to about 37% of apparent consumption tonnage and 74% of apparent consumption value of peat in the U.S.

Tables 2 and 3 summarize the quantities and values of imports into the U.S. at major customs locations. Overall, 99% of all imports into the U.S. originated from Canada.

TABLE 2: Volume and Value of Peat Imports into the United States by Customs District (1983)

Customs district	Poultry and stable-grade		Fertilizer Grade		Total	
	Quantity (short tons)	Value (thousands)	Quantity (short tons)	Value (thousands)	Quantity (short tons)	Value (thousands)
Baltimore, MD	13	$ 16	--	$ --	13	$ 16
Boston, MA	3	3	5	2	8	5
Buffalo, NY*	19,948	2,846	5,977	674	25,925	3,520
Detroit, MI*	26,602	3,094	22,492	1,806	119,094	4,900
Duluth, MN*	--	--	441	97	441	97
Great Falls, MT*	--	--	37,041	5,552	37,041	5,552
Honolulu, HA*	1	1	33	5	34	6
Houston, TX	1	1	--	--	1	1
Los Angeles, CA	--	--	128	14	128	14
Minneapolis, MN	--	--	20	5	20	5
Norfolk, VA	2	25	--	--	12	25
Ogdensburg, NY	430	36	168,512	19,410	168,942	19,446
Pembina, ND	--	--	52,754	8,429	52,754	8,429
Philadelphia, PA	56	10	--	--	56	10
Portland, ME	18	3	26,973	3,217	26,991	3,220
San Francisco, CA	3	1	15	2	18	3
San Juan, PR	95	23	--	--	95	23
Seattle, WA	--	--	32,988	4,138	32,986	4,138
St. Albans, VT	20	3	24,109	2,649	24,129	2,652
Virgin Islands	18	4	--	--	18	4
TOTAL	47,220	6,066	371,486	46,001	418,706	52,066

* Canadian origin

Source: U.S. Bureau of Mines, 1983

TABLE 3: Volume and Value of Peat Imports into the United States by Customs District (1984)

Customs district	Poultry and stable-grade		Fertilizer Grade		Total	
	Quantity (short tons)	Value (thousands)	Quantity (short tons)	Value (thousands)	Quantity (short tons)	Value (thousands)
Boston, MA	3	$ 2	2	$ .6	5	$ 2.6
Bridgeport, CT	--	--	24	3	24	3
Buffalo, NY	18,739	2,616	8,723	890	27,462	3,506
Chicago, IL	22	5	--	--	22	5
Detroit, MI	12,538	1,649	43,922	4,046	56,460	5,695
Duluth, MN	--	--	949	176	949	176
Great Falls, MT	--	--	45,332	5,888	45,332	5,888
Houston, TX	2	.6	--	--	2	.6
Los Angeles, CA	--	--	142	17	142	17
Milwaukee, WI	--	--	33	3	33	3
New Orleans, LA	--	--	26	3	26	3
New York, NY	--	--	59	8	59	8
Norfolk, VA	--	--	159	32	159	32
Ogdensburg, NY	142	19	182,868	19,499	183,010	19,518
Pembina, ND	--	--	73,901	11,072	73,901	11,072
Philadelphia, PA	--	--	391	69	391	69
Portland, ME	157	19	33,882	4,024	34,039	4,043
San Francisco, CA	17	1	17	2	34	3
San Juan, PR	13	2	14	2	27	4
Seattle, WA	1	.4	39,109	5,148	39,110	5,138.4
St. Albans, VT	49	4	23,844	2,609	23,893	2,613
TOTAL	31,683	4,318	453,397	53,491	485,080	57,809

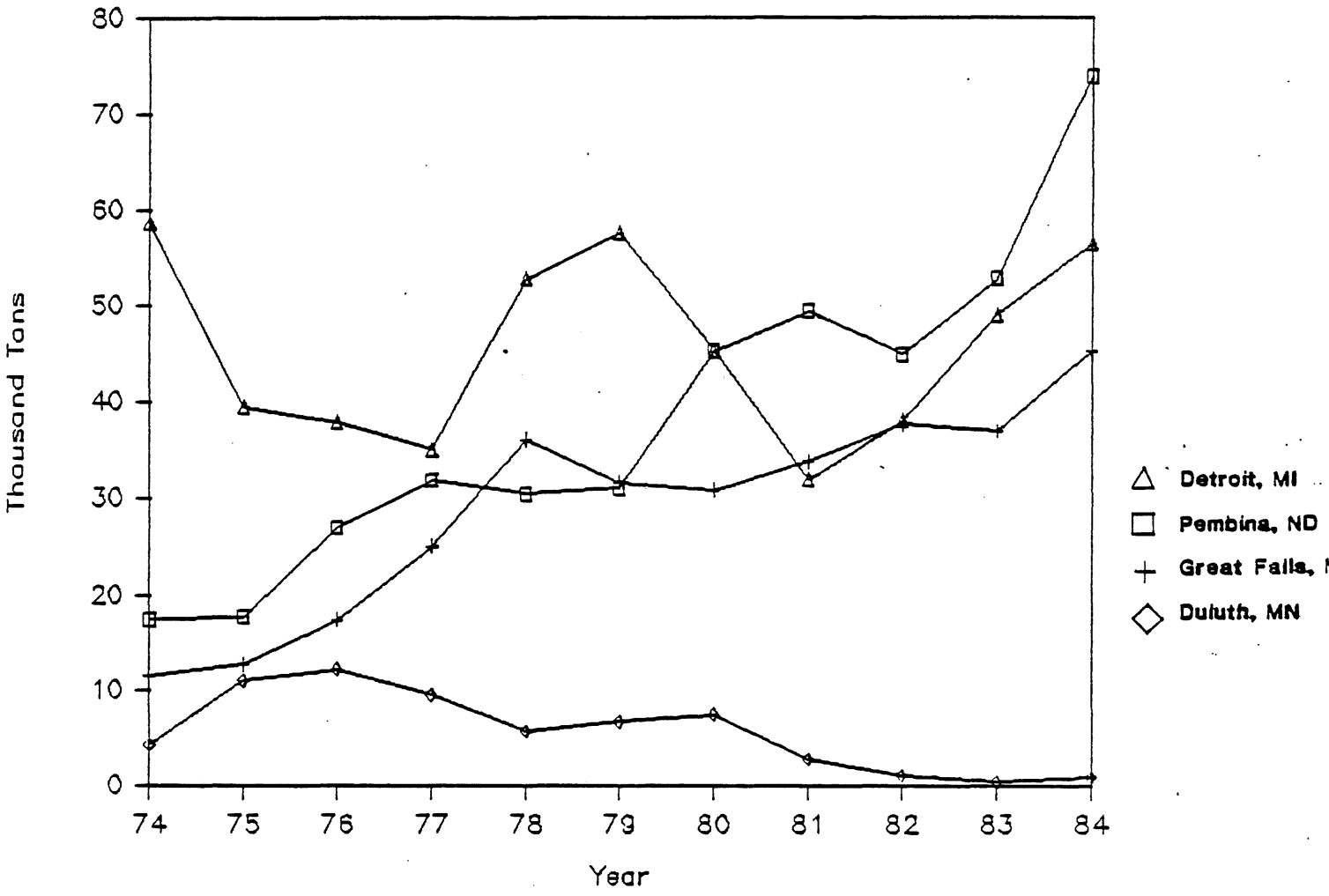
Source: U.S. Bureau of Mines, 1984

C. PEAT IMPORTS INTO THE CENTRAL UNITED STATES

The customs areas in the central states of Pembina, North Dakota; Great Falls, Montana; Detroit, Michigan; and Duluth, Minnesota registered 139,330 tons (3,096,222 e.b.s.) of imports in 1983 and 176,642 tons (3,925,372 e.b.s.) in 1984 for a total import increase of 27%. The import increase of 27% is largely in response to increases in production of sphagnum peat moss in the provinces of Manitoba and Alberta. That represents a value of $18.98 and $22.8 million respectively with a $3.8 million increase from 1983 to 1984.

This approximates to 33% of the total import volume and 36% of the total volume for 1983 and 36% and 39% respectively for 1984 in the category of total imported peat. Figure 2 shows the volume of imports for 1972 through 1984 at these four custom stations.

Figure 2: Volume of Sphagnum Peat Moss Imports from Canada into the Central United States by Customs District, 1974-1984

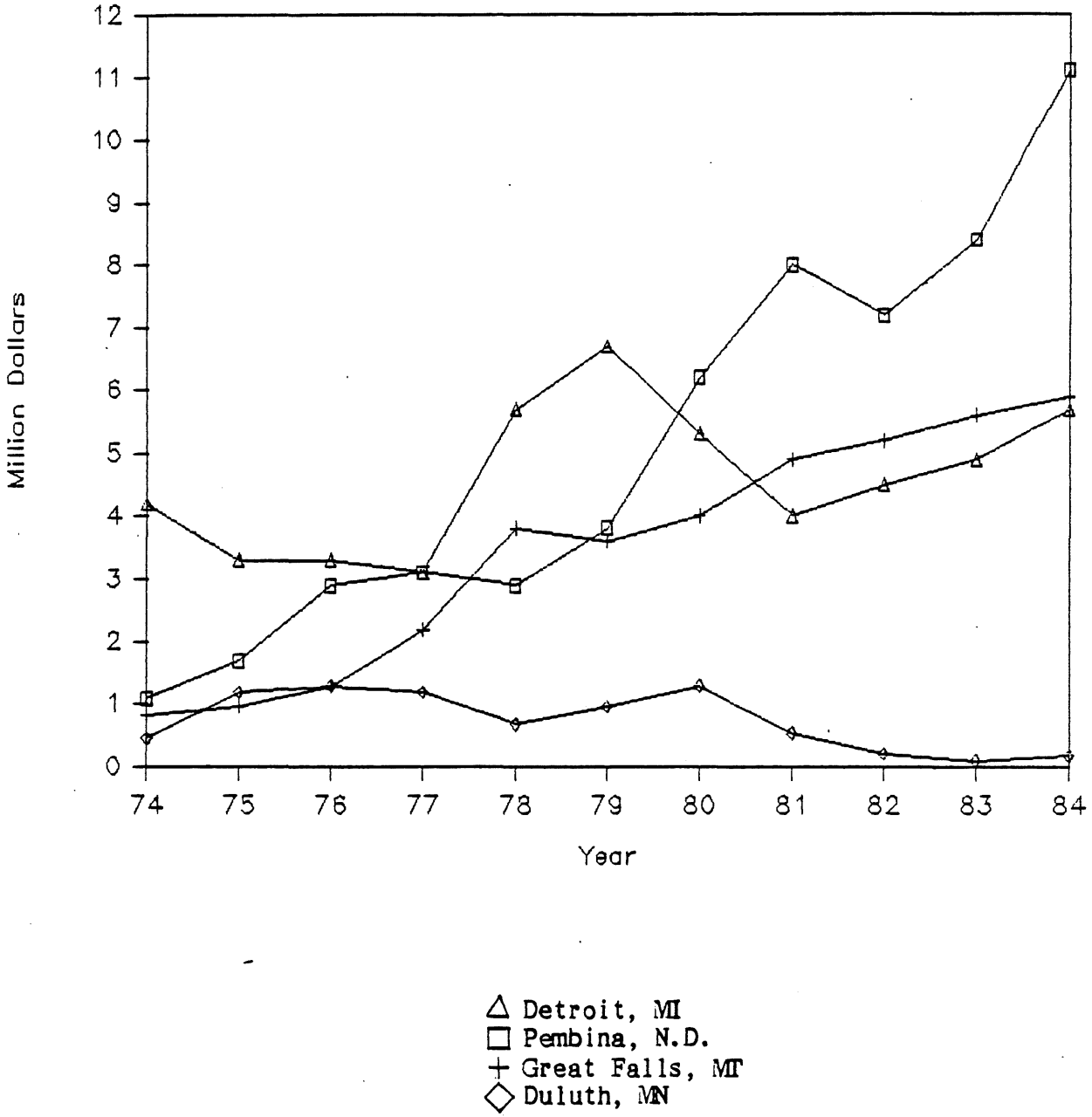


Source: U.S. Bureau of Mines

The largest area of peat imports at these four locations has generally been at Detroit and the lowest at Duluth. Since 1974, imports at Pembina and Great Falls have increased by 322% and 294% respectively, destined for distribution in the Mid-central and Eastern Mountain states. During this same time period overall Canadian imports increased by only 19%.

The value of imported Canadian sphagnum for these same four customs locations is shown in Figure 3 for 1974-1984. Except for a decrease at Pembina in 1982, the value of imports at Pembina and Great Falls have been increasing annually from $1.9 million in 1974 to $17.0 million in 1984. This increase of 795% in value compares to an increase of 137% of the total value of all peat imports for the same period.

Figure 3: Value of Sphagnum Peat Moss Imports from Canada into the Central United States by Customs District, 1974-1984



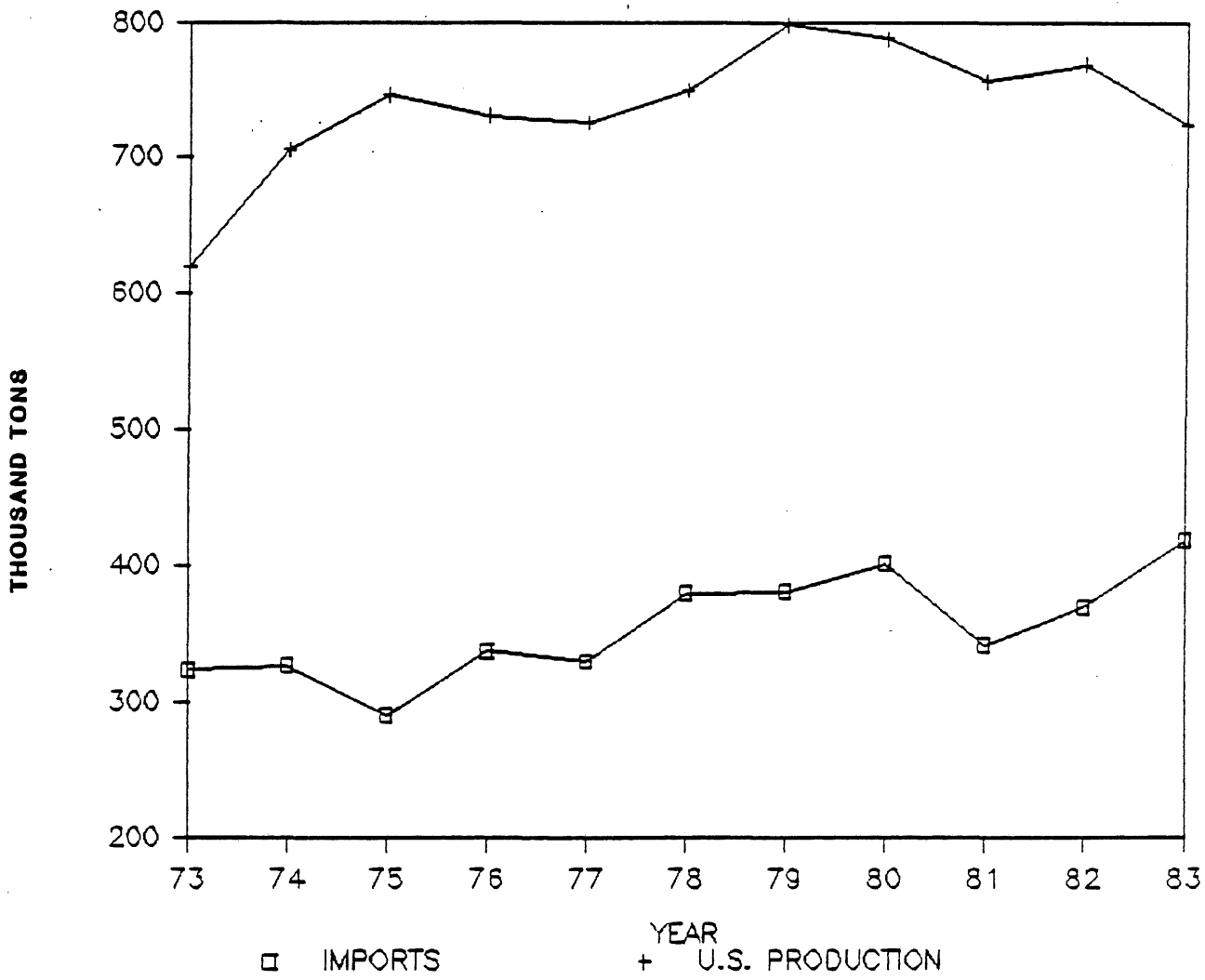
Source: U.S. Bureau of Mines

Imports, both in volume and value, have declined in Duluth through 1983 with a slight increase from 1983 to 1984. Imports registered through Duluth represented approximately .3% of the value and .2% of the volume in 1984 of all imports compared to 1% of value and 1% of volume in 1974.

D. CONSUMPTION OF PEAT IN THE U.S.

The commercial and residential consumption of peat in the U.S. remained relatively stable increasing from 1,139,000 tons in 1982 to 1,144,000 tons in 1983. While consumption tonnage was similar, value of consumption tonnage increased 16% from $25 million in 1982 to $29 million in 1983. (Figure 4 shows total sales by U.S. producers and imports consumed from 1973-1983.)

Figure 4: Volume of Peat Consumed in the United States, 1973-1983



Source: U.S. Bureau of Mines

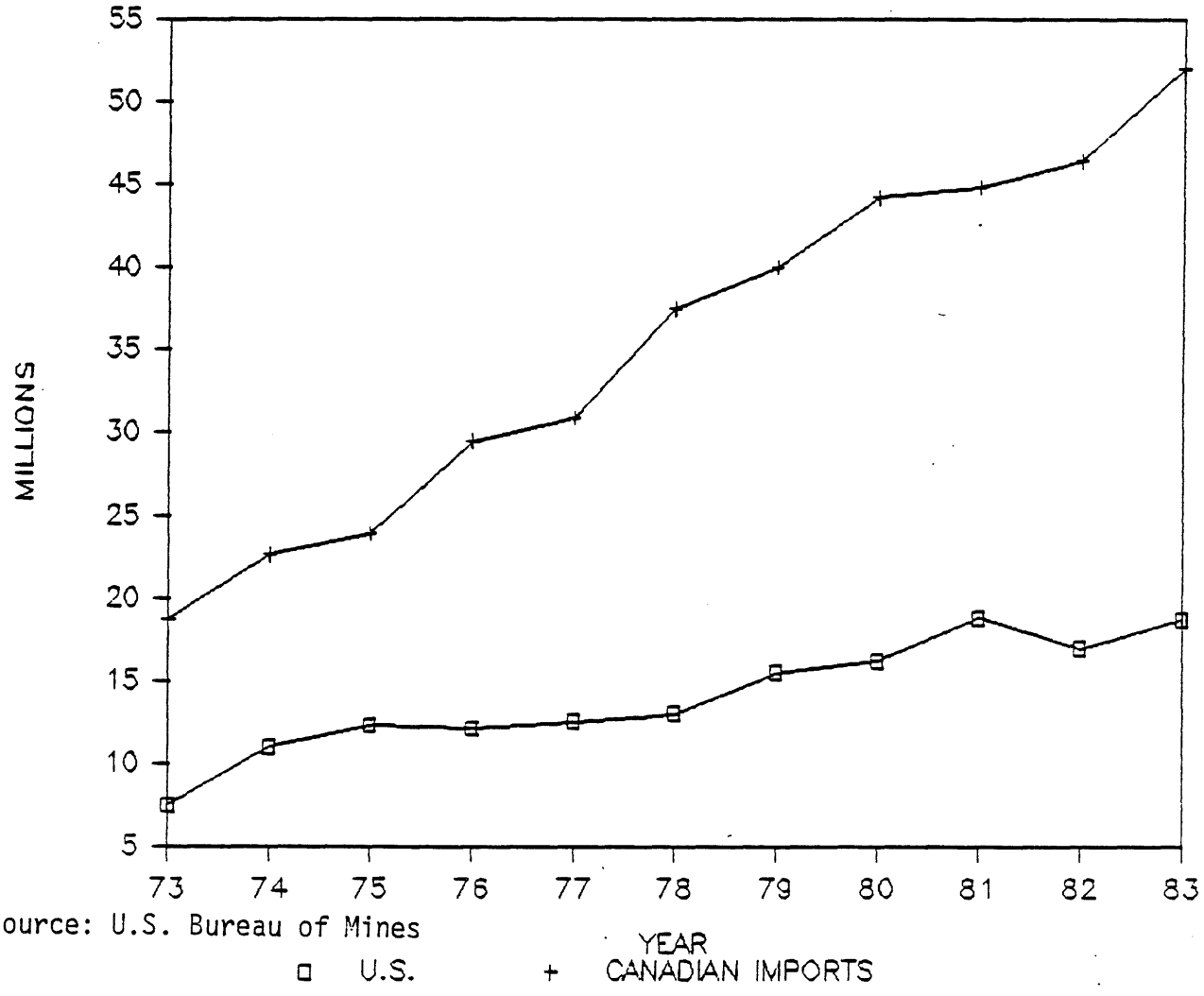
Consumption of U.S. produced peat has slowly declined from a high of 798,000 tons in 1979 to the current level of 725,430 tons. Most of this reduction in peat sales has occurred as a result of reduced sales of bulk peat. Packaged sales of peat products during this period rose slightly from 474,000 tons in 1979 to 503,000 tons in 1983, a 6% increase.

A 6% decline in U.S. domestic sales from 769,000 tons in 1982 to 725,000 tons in 1983 was largely a result of reduced sales (14% decrease) of bulk peat. Peat sold in packaged form was 69% of the total sales. This consisted of 74% reed sedge, 16% humus, 5% sphagnum, and 5% hypnum. Total packaged tonnage decreased from 511,000 tons in 1982 to 503,000 in 1983.

The value of peat products sales in the U.S. for 1973-1983 is shown in Figure 5. The total value of U.S. peat production was $18.7 million in 1983 compared to $7.5 million in 1973, an increase of $11.2 million. Peat imports during this same period increased from $18.7 million to $52 million in 1983, an increase of $33.3 million. The value of Canadian imports in 1984 were $57.8 million.

The figures presented in the previous paragraph, in fact, portray a larger value impact than what is true. Considering a three fold increase in cost of living since 1973, the total value of U.S. peat production in 1983 should equate to $22.5 million. The difference in value is so because the peat products market does not parallel yearly inflation increases to the same degree as other commodities. This situation is also true of the entire garden industry.

Figure 5: Value of Peat Consumed in the United States, 1973-1983



Source: U.S. Bureau of Mines

Since 1972, the difference in the total apparent value of Canadian imports and U.S. peat has increased from $11.2 million in 1972 to $29.7 million in 1982.

U.S. Bureau of Mines statistics for 1983 show that general soil improvement use of peat constitutes the largest type of total domestic sales by U.S. peat producers for consumption. General soil improvement use for 1983 was listed at 486,268 tons (69% of the total U.S. domestic sales) with an approximate value of $12 million. That represents a $2.4 million increase from 1982 value. Utilization as an ingredient for potting soils is the second largest use of peat in the U.S. with a 1983 annual consumption of 107,109 tons (15% of total U.S. domestic sales) valued at $3 million. The third largest consumer is the nursery growers. In 1983 this segment consumed 58,056 tons (8% of U.S. domestic sales) valued at $1.3 million. These three segments comprise 90% of the volume and 88% of the value of peat produced and consumed in the U.S. The remaining peat volume and value was evenly distributed among and used for golf courses, earthworm culture, mushroom bedding, packaging flowers, seed and other miscellaneous uses. Vegetable growing had the lowest volume and value for consumption.

Table 4: Peat Sales by U.S. Producers, 1983

Use	Sphagnum moss			Hypnum moss			Reed-sedge		
	Quantity		Value (thousands)	Quantity		Value (thousands)	Quantity		Value (thousands)
	Weight (short tons)	Volume[1] (cubic yards)		Weight (short tons)	Volume (cubic yards)		Weight (short tons)	Volume (cubic yards)	
Earthworm culture medium	90	300	$2	125	250	$2	330	728	$7
General soil improvement	17,973	158,794	1,131	21,532	54,522	812	371,138	815,939	8,649
Golf course	680	5,596	40	340	1,680	11	13,976	25,995	379
Ingredient for potting soils	500	4,996	35	1,751	4,190	21	34,474	79,178	1,474
Mixed fertilizers	500	4,996	35	--	--	--	--	--	--
Mushroom beds	2,998	29,976	210	900	3,000	45	3,249	5,957	30
Nursery	3,798	25,984	167	5,276	19,575	302	21,714	46,125	522
Packing flowers, plants, shrubs, etc	500	4,996	35	--	--	--	--	--	--
Seed inoculant	500	4,996	35	--	--	--	3,000	5,455	660
Vegetable growing	500	4,996	35	--	--	--	607	953	8
Other	--	--	--	--	--	--	4,320	8,000	200
Total[2]	28,039	245,630	1,725	30,424	83,217	1,193	452,808	988,330	11,930

Use	Humus			Other			Total[2]		
	Quantity		Value (thousands)	Quantity		Value (thousands)	Quantity		Value (thousands)
	Weight (short tons)	Volume (cubic yards)		Weight (short tons)	Volume (cubic yards)		Weight (short tons)	Volume (cubic yards)	
Earthworm culture medium	330	560	$3	225	500	$3	1,100	2,338	$17
General soil improvement	68,124	126,589	1,298	7,441	13,688	122	486,208	1,169,532	12,013
Golf course	6,926	12,336	125	--	--	--	22,422	46,107	555
Ingredient for potting soils	38,359	69,624	833	32,025	71,000	655	107,109	228,988	3,017
Mixed fertilizers	15,000	25,000	125	--	--	--	15,500	29,996	160
Mushroom beds	--	--	--	--	--	--	7,147	38,933	285
Nursery	24,768	43,063	300	2,500	5,088	48	58,056	139,835	1,340
Packing flowers, plants, shrubs, etc	6,390	10,680	54	--	--	--	6,890	15,676	89
Seed inoculant	507	696	125	--	--	--	4,007	11,147	820
Vegetable growing	8,386	14,441	77	--	--	--	9,493	20,390	120
Other	--	--	--	3,178	6,695	51	7,498	14,695	251
Total[2]	168,790	303,489	2,939	45,369	96,971	880	725,430	1,717,637	18,667

[1]Volume of nearly all sphagnum moss was measured after compaction and packaging.
[2]Data may not add to totals shown because of independent rounding.

Source: U.S. Bureau of Mines

Summary

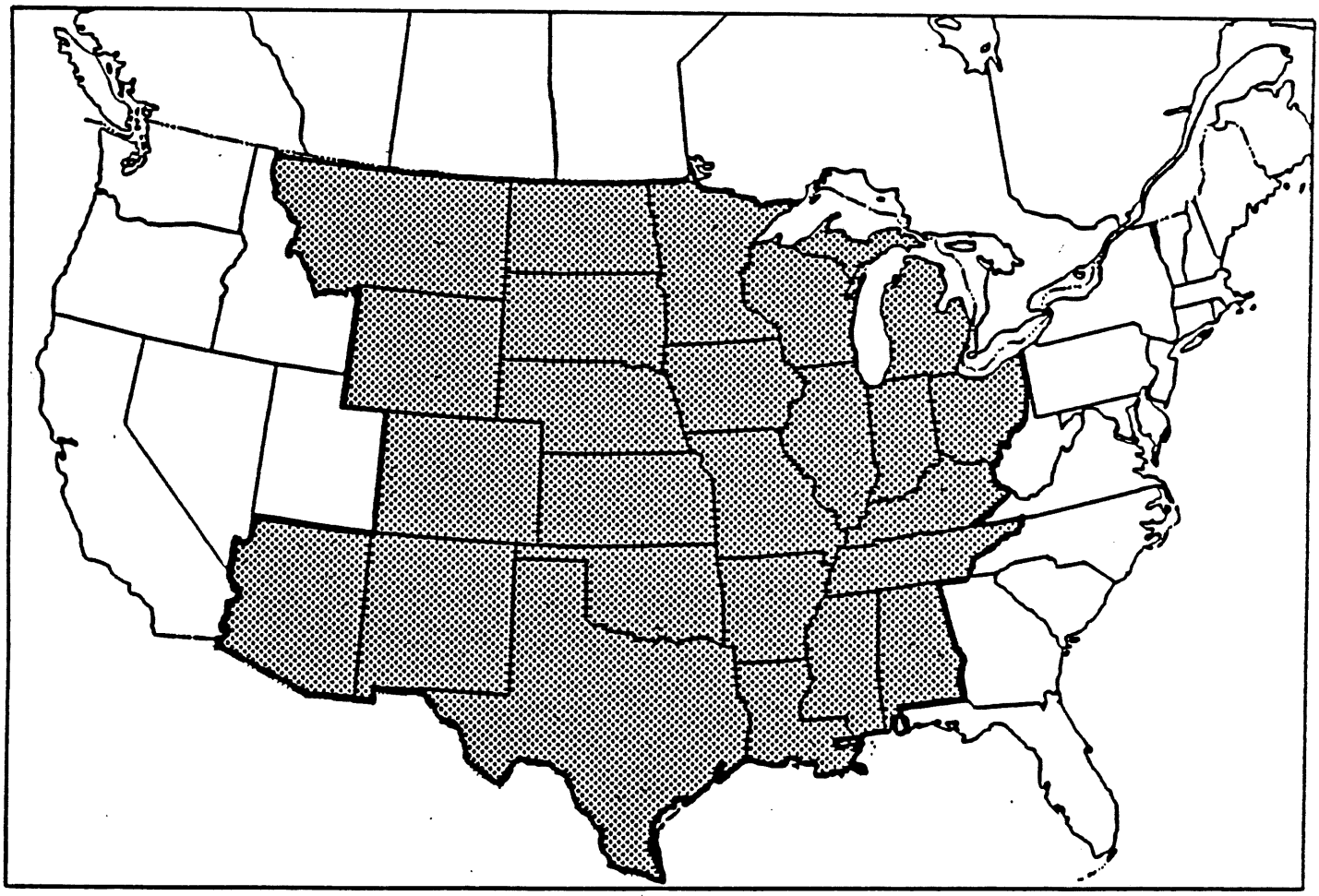
The numbers and figures in Section I show that the U.S. horticultural peat market is a stable market with steady or increasing demand. Most of this increased demand throughout the past decade has been met and captured by Canadian producers. Canadian sphagnum peat moss imports into the U.S. continue to increase in volume and value every year. It is necessary to assess these competitive factors in order to understand the general condition of the market and to develop an effective marketing program for Minnesota horticultural peat. Statistical assessment is the first step in the analysis stage of marketing planning. The next section of this report will further this market analysis by selecting and analyzing a target market.

SECTION II - TARGET MARKET

Market planning begins with an analysis of the market environment. The previous section explained the production, technological and competitive features of the market. This section selects and analyzes the target market. A target market is a group of customers at whom the organization specifically intends to aim its marketing effort. Careful selection and accurate definition (identification) of the target market are essential to the development of an effective marketing program.

The target market for Minnesota Horticultural Peat is illustrated in Map A. Selection of the central corridor states outlined is based upon the geographic distribution of peat producers in Canada and the U.S., demographic composition of the population in the region, and information obtained from wholesale and retail distributors operating in the central corridor area of the U.S.

Map A



Map B illustrates the spatial structure of U.S. and Canadian sphagnum peat moss producers. Quebec is the major producing Canadian province with approximately 40 production sites followed by New Brunswick with 13 sites, and Alberta with 5 sites. All these producers process and export sphagnum peat moss mainly to U.S. markets. Quebec exported 90% of its 204,000 metric tons of peat produced in 1984 to U.S. markets.

The proximity of Quebec and New Brunswick producers to the eastern U.S. market and western Canadian province producers to the western U.S. market provides significant advantage to capturing the U.S. peat market. This spatial situation, along with the high productivity of Canadian peat bogs and increasing U.S. demand, creates a stronghold for the Canadian producer.

The central corridor states area is the logical market position for Minnesota Peat products. This 20-25 state region extending from the Rocky Mountains in the west to the Mississippi and Ohio Rivers in the east can be labeled as an area of potential when considering proximity of U.S. and Canadian producers to the market. U.S. producers in Minnesota and Michigan are strategically positioned for this market vis-a-vis Canadian producers in that they are close. But considering that the largest single cost of peat is transportation (40% of the delivered cost) and the relative position of Manitoba and Alberta peat producers, the competitive edge that Minnesota producers possess is somewhat significant only from a shipping point and distance perspective.

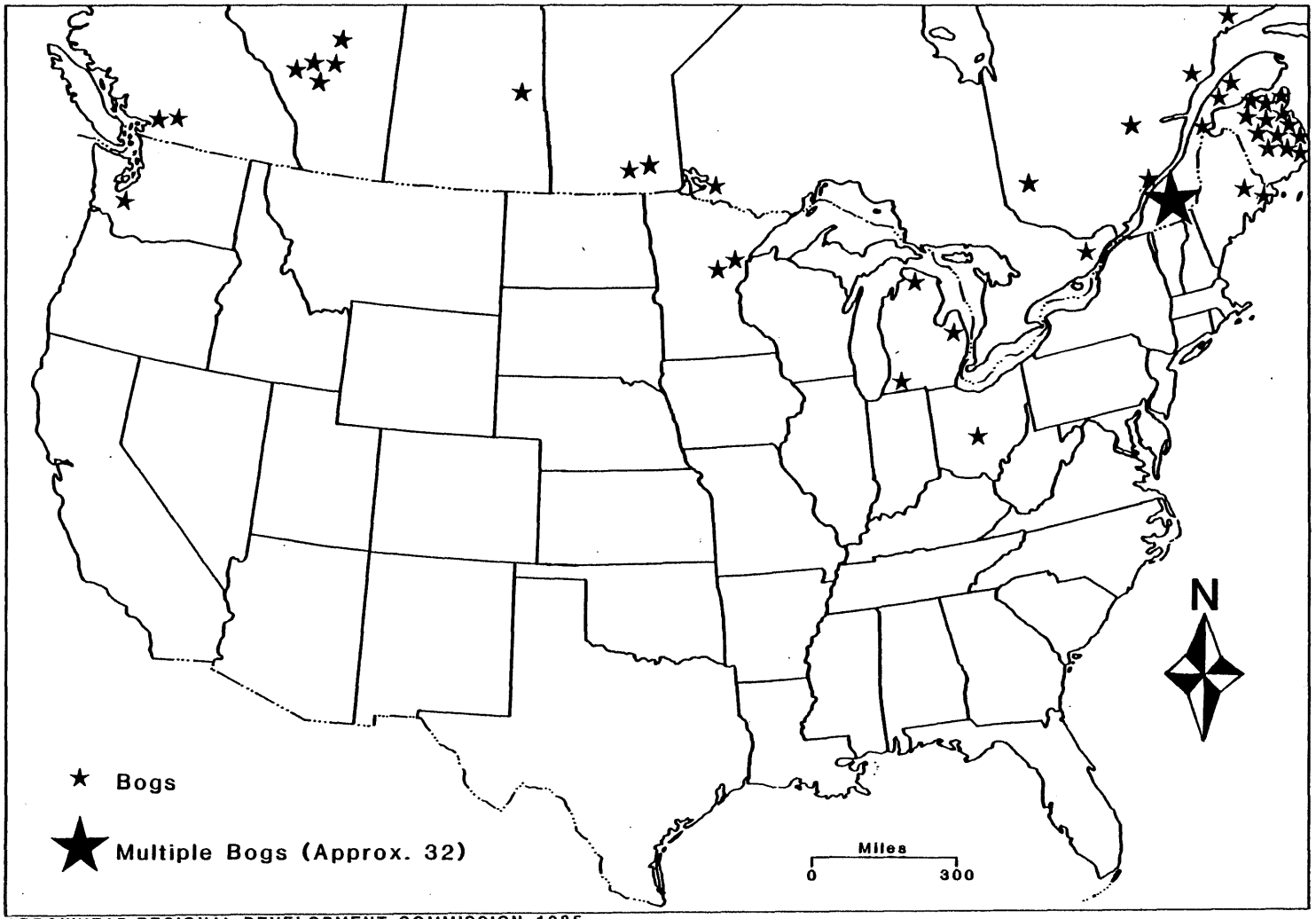
Working in favor of the Canadian peat producers is the current U.S.-Canadian exchange rate of 25%. A strong U.S. dollar decreases the spatial competitive edge of Minnesota producers, especially in comparison with Manitoba and Alberta producers. For example, it might cost $5.00 to produce a 6 cubic foot bale of sphagnum peat moss in Canada that sells for $10.00 retail. In the United States, with the existing exchange rate of 25% factored in, that same bale will retail for $11.25. Analysis of the U.S. transportation network, mileage costs associated with trucking, and the effect of monetary exchange rates on production and profit should be a priority in further marketing studies.

The competitive edge for Minnesota producers does exist in the hypnum market. The majority of hypnum producers in the U.S., as detailed in Map C, are located in Minnesota and Iowa. This fact, along with the lack of Canadian hypnum deposits, strengthens the potential for Minnesota hypnum products sales in the central and adjacent regions of the country. A wider geographic market can be captured with hypnum products. Although this report is not intended to differentiate among various peat products, it is clear that the potential for hypnum is significant.

NOTE: The term "hypnum" peat moss is used throughout this report because the retail market frequently identifies with that term. Proper terminology, for technical purposes, should be "brown moss peat".

Map B

SPHAGNUM PRODUCERS
(U.S. and Canada)



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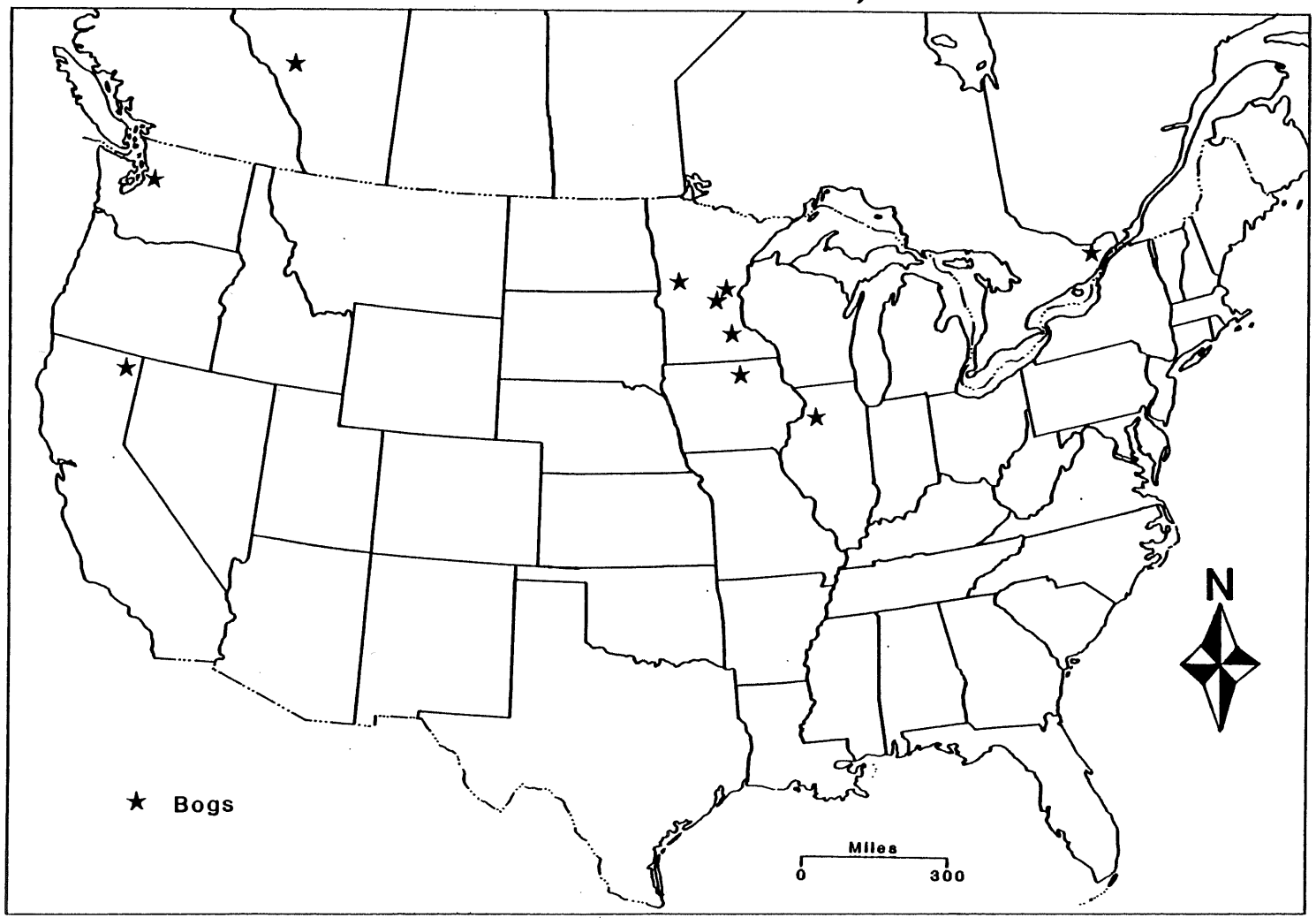
Map C

HYPNUM PRODUCERS
(U.S. and Canada)



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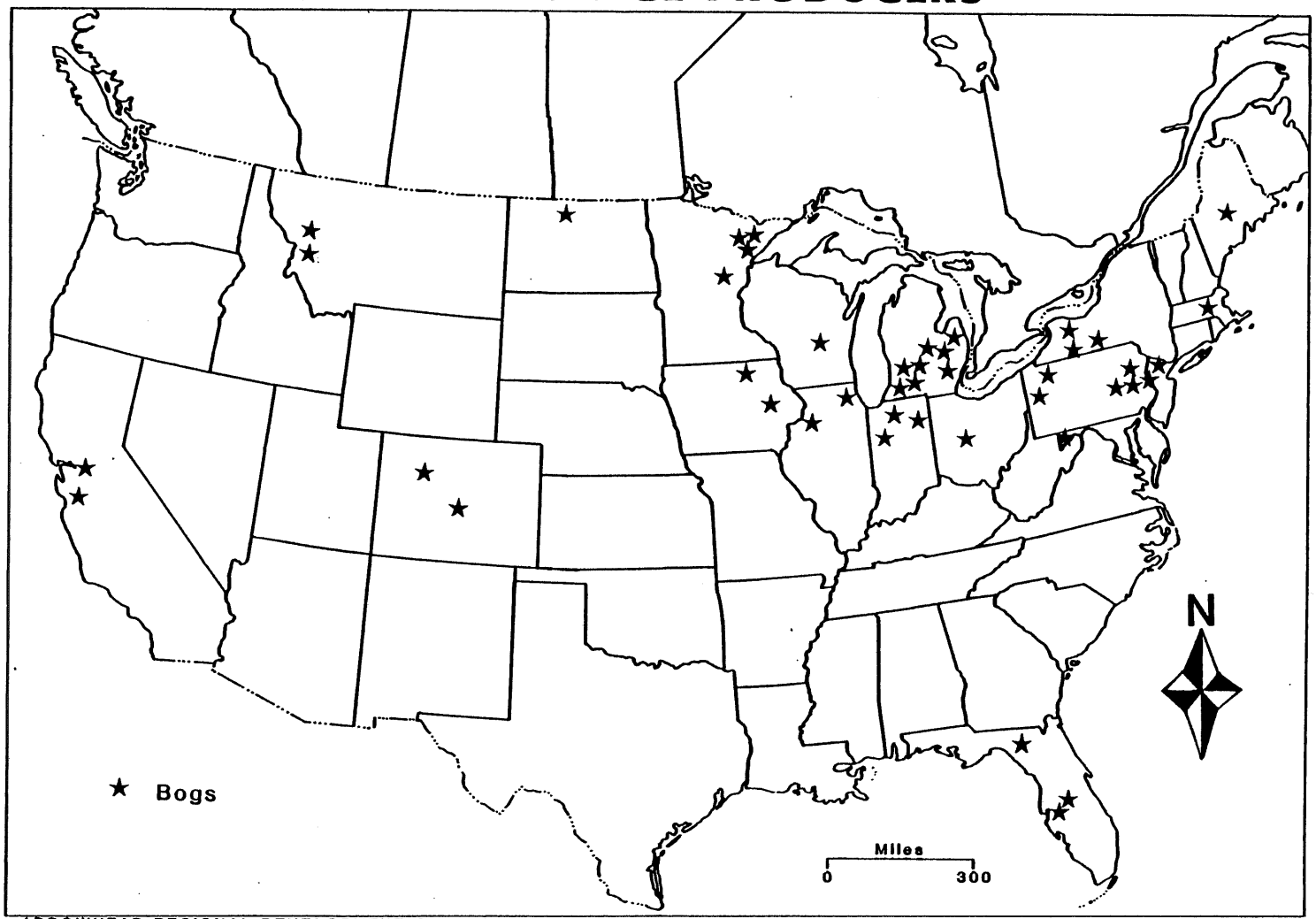
Map D

U.S. REED SEDGE PRODUCERS



ARROWHEAD REGIONAL DEVELOPMENT COMMISSION 1985

A. DEMOGRAPHICS (General)

The twenty-five states identified as our target market contain 46% of the U.S. population. The average gross income per household in the region in 1984 was $24,900. Retail expenditures in the same geographical region amounted to $14,800. The differential between average gross income and retail expenditures shows that households (in the target market) spent 59.4% of their gross family income on retail purchases. The fact that U.S. households, on the average, spent 51.4% of their gross family income on retail purchases illustrates that people in the central corridor of the U.S. tend to spend more on retail goods than on a national average. Why this is so is hard to answer, but it is indicative of a promising market.

This market additionally consists of the fastest growing geographical regions in the country. Table 5 illustrates population by region and state and the percentage change from 1970 to 1980. Figures show that the sunbelt regions (West South Central and Mountain) have increased significantly due to substantial in-migration. The populations of Texas, Arizona, New Mexico and Colorado have all increased by 25% or more.

TABLE 5
DECENNIAL RATES OF CHANGE IN POPULATION
(1970 to 1980)

STATES	1980	1970	% CHANGE
East North Central	**58,865,670**	**56,590,294**	**3.5**
Ohio	10,797,630	10,657,423	1.3
Indiana	5,490,224	5,195,392	5.7
Illinois	11,426,518	11,110,285	2.8
Michigan	9,262,078	8,881,826	4.3
Wisconsin	4,705,767	4,417,821	6.5
West North Central	**17,183,453**	**16,327,547**	**5.2**
Minnesota	4,075,970	3,806,103	7.1
Iowa	2,913,808	2,825,368	3.1
Missouri	4,916,686	4,677,623	5.1
North Dakota	652,717	617,792	5.7
South Dakota	690,768	666,257	3.7
Nebraska	1,569,825	1,485,333	5.7
Kansas	2,363,679	2,249,071	5.1
East South Central	**14,666,423**	**12,808,077**	**14.5**
Kentucky	3,660,777	3,220,711	13.7
Tennessee	4,591,120	3,926,018	16.9
Alabama	3,893,888	3,444,354	13.1
Mississippi	2,520,638	2,216,994	13.7
West South Central	**23,746,816**	**19,326,077**	**22.9**
Arkansas	2,286,435	1,923,322	18.9
Louisiana	4,205,900	3,644,637	15.4
Oklahoma	3,025,290	2,259,463	18.2
Texas	14,229,191	11,198,655	27.1

Mountain	**8,167,320**	**6,028,875**	**35.5**
Montana	786,690	694,409	13.3
Wyoming	469,557	332,416	41.3
Colorado	2,889,964	2,209,596	30.8
New Mexico	1,302,894	1,017,055	28.1
Arizona	2,718,215	1,775,399	53.1

Source: 1980 U.S. Census of Population

The target market also contains 28 out of the 50 largest cities as of the 1980 census. Cities in the south central and southwestern states of Texas, New Mexico and Arizona were not even ranked in the top 50 in 1970. Some of these cities include Tucson, Arizona; Austin, Texas; and Alberquerque, New Mexico, while some of these emerging markets are situated at a considerable distance. Minnesota products still possess a straight line and over-the-road competitive advantage in transportation costs. A significant amount of these transportation costs could be eliminated with backhaul commodities agreements.

Statistical facts point to a continued growth and migration to the Sunbelt regions. This growth will continue to impact horticultural industries and demand for horticultural products as consumers create garden space and needs for landscape greenery. This situation, accompanied with high retail expenditures in the region, means continued need for peat products in the target market.

TABLE 6
PEAT SALES BY REGION
(Short Tons)

	REGION	1982	1983	% Change
1.	Midwest	464,475	438,400	- 6%
	(a) West North Central	40,475	38,400	- 5%
	(b) East North Central	424,000	400,000	- 6%
2.	Northeast	96,000	59,000	-39%
3.	South	144,000	165,000	+15%
4.	West	67,000	64,000	+ 4%
		769,000	725,000	

Table 6 examines peat sales by region. The figures show that the greatest increase in sales occurred in the southern region of the United States. A large part of this increase was in the West South Central states of Texas, Oklahoma, Arkansas, and Louisiana. Peat consumption increases in the region are mostly due to situational factors such as heat, dry climate, and hardpacked clay soils. Larger quantities of peat are needed to condition the soil showing that peat moss is highly beneficial to warmer climate regions. The West South Central states are also one of the better market regions in the country because of the growing population and household starts.

B. DEMOGRAPHICS (Detailed)

This section takes a more detailed look at population and growing consumer needs through retail market data and surveys conducted by different sectors of the U.S. horticultural industry.

Meaningful market research determines who and where the customers are, what they value, what they need, and how they buy. Although population trends provide a general overview of where the consumer is located, they do not look at the consumer in any detail. In order to better understand the individual consumer, it is necessary to study the buying behavior of the targeted consumer. The following section examines retail sales and sales volume projections for the U.S. horticultural industry and homeowner gardening activities and trends, of which peat is a basic component.

A 1984 Gardens for All/Gallup Survey measured the amount consumers said they spent on the purchase of products for gardening and landscaping activities. Results show a 21% dollar volume increase in 1984. This increase reflects retail sales volumes only, not expenditures for service. Table 7 details retail sales for seven horticultural product categories. The figures note that six of seven product categories increased substantially from 1983 to 1984. Leading was the category described as "Landscaping, Tree Care, Shrub Care and Ornamentals with a $1 billion increase.

TABLE 7

Retail sales: 1983 and 1984

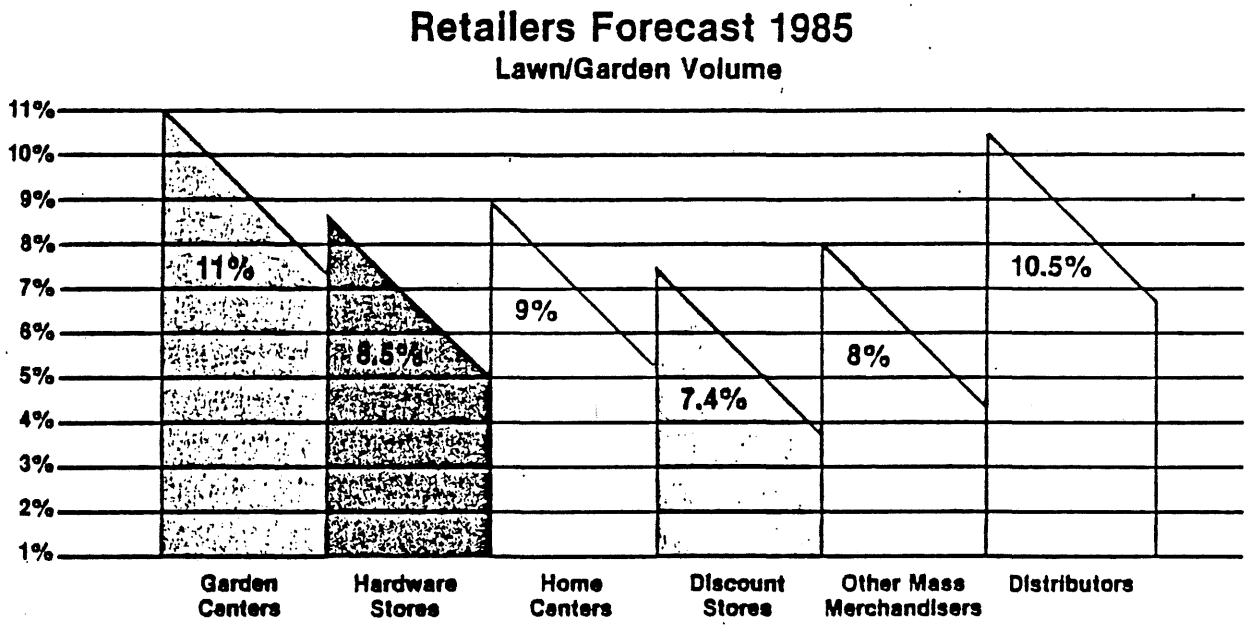
Activity:	Retail Sales 1983 ($ Billions)	Retail Sales 1984 ($ Billions)	'83-'84 % Change
Lawn Care	3.6	4.4	+22
Landscaping, Tree Care Shrub Care, Ornamentals	3.5	4.5	+28
Flower Gardening	1.8	2.1	+17
Vegetable Gardening	1.8	1.8 (est.)	0
Indoor Houseplants	.7	.9	+28
Insect Controls	.7	1	+42
Fruit Trees/Berries	.5	.6	+21
TOTAL	$12.6	$15.3	+21

Source: Gardens for all/Gallup

Additional surveys conducted by Lawn and Garden Marketing magazine show that retail sales in nine product lines (e.g. horticultural chemicals, garden tools, etc.) increased significantly in the summer of 1984 compared to the summer of 1983. Regional impact was greatest in the North Central and Southern states.

Another survey, conducted by Lawn and Garden Marketing Magazine in September of 1984, examined retailers' forecasts for 1985 concerning lawn and garden sales volumes. Garden centers and wholesale distributors of lawn and garden products foresee a "significant increase in sales volumes." Table 8 shows projected increases among all retailers and distributors.

TABLE 8



Source: Lawn and Garden Marketing Magazine

Garden centers were the most optimistic of the five classes of retailers surveyed with a forecast of an 11% increase in overall product mix. All retailers, according to Lawn and Garden Marketing magazine, expected increases in sales of lawn fertilizers and related horticultural products (inclusive of peat moss). These increases amount to 12% by mass merchandisers, 11% by home centers, 10% by garden centers 10%, and 9% by discount stores.

Although more indirect, sales of living plants can also act as an indicator of consumer buying behavior. An American Association of Nurserymen survey of its 1,600 nation wide members show that 66% of those completing the survey (retail nurserys) reported a significant increase in their purchases of living plants from 1983 to 1984. The retailers reported 10.1% more plants purchased in 1984. The Southern region of the U.S. reported the highest increase at 23.2%. This region consists of the states of Texas, Louisiana, Oklahoma, Arkansas, and New Mexico. Other regions around the country, including the Midwest, reported a range of purchase increases from 6.6% to 12.3%.

Statistics specific to peat sales and consumption, other than regional or national, are unobtainable. The numbers here provide the "next best thing" and act as lead indicators of horticultural peat consumption. Increases in retail sales of related horticultural activities indicate a promising market for peat products. The fact that the spring of 1985 was the best garden year in 25 years additionally supports this assumption.

C. GARDENING

Gardening, in a general sense, ranks as the number one leisure activity among U.S. households. Gardening is more popular than golf, jogging, tennis, and swimming. Gardens for All/Gallup surveys show that eight out of ten American households are involved in one form of indoor or outdoor gardening.

There were a total of 85.4 million households in the United States in 1983. This total is broken down regionally in Table 9

TABLE 9

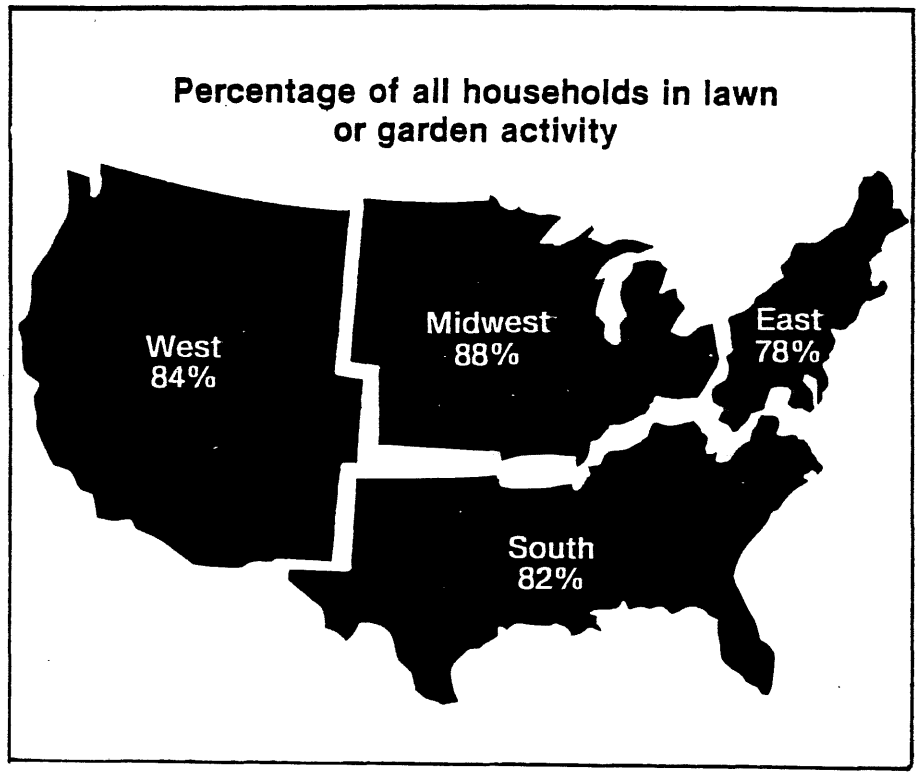
TOTAL U.S. HOUSEHOLDS

Midwest	22.0 million
South	25.2 million
East	21.6 million
West	16.6 million

Source: Lawn and Garden Marketing magazine, Nov/Dec 1984

Figure 6 shows a percentage breakdown by region of U.S. households involved in lawn or garden activities.

FIGURE 6



Source: Gardens for All/Gallup

In the Midwest, 88% of all households were involved in lawn and garden activities. The Midwest consistently ranks as the nation's No. 1 gardening region. The remaining regions of the country include the South with 82%, the west with 84%, and the east with 78%.

Based on the total number of households in each region specified, the percentage of households with vegetable gardens and the percentage of households with flower gardens is as follows:

TABLE 10

GARDENING HOUSEHOLDS

	Vegetable	Flower
Midwest	43.2%	53.5%
South	35.8%	40.9%
East	42.1%	46.3%
West	33.5%	48.7%

Source: Lawn and Garden Marketing, January 1985

Regionally, these percentages convert into 10 million vegetable and 12 million flower gardeners in the Midwest; 9 million vegetable and 10 million flower gardeners in the South; 9 million vegetable and 10 million flower gardeners in the East; and 6 million vegetable and 8 million flower gardeners in the West. That's a total of 34 million total vegetable and 40 million total flower gardeners in the U.S. in 1983.

Growth patterns in total U.S. households and housing starts suggest a growing market in lawn and garden activities. Total U.S. households increased from 82.5 million in 1982 to 85.4 million in 1983, a 4% increase. Housing starts, which only increased from 1.26 million in 1981 to 1.32 million in 1983 (a 5% increase), reflect a resurgent housing market with 1.61 million starts in 1983, a 22% increase.

The net conclusion from these facts is a continued and heightened interest by the American public in a wide variety of home horticulture and gardening activities. They also reflect a better economic climate in many market areas. Horticultural peat sales, a basic ingredient to home horticulture and gardening activities, should parallel this growing trend in the target market.

In summary, the central corridor states of the U.S. provide a logical market position for Minnesota Peat products mainly because of better proximity to the market (which reduces transportation costs), a growing populace in the targeted states, and favorable retail sales in related horticultural activities. These facts provide the first step in the marketing of Minnesota Horticultural Peat. The Minnesota Horticultural Peat industry must now attempt to understand the perceptions and attitudes that exist in the established market position and the potential consumers' needs. This is essential to the final positioning strategy.

SECTION III - DISTRIBUTOR MARKET INFORMATION

Knowing the "ins" and "outs" of the market is essential to the success of a company's product. No matter how high product quality is, it will not succeed unless the market environment in which it is being sold is well understood. This section of the report looks at consumer needs, perceptions and attitudes by examining horticultural peat characteristics and trends in the marketplace.

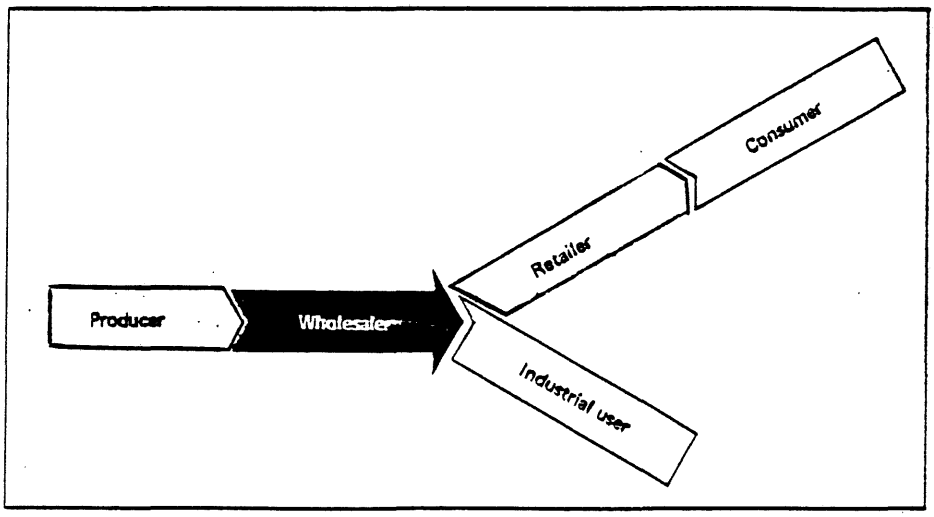
The qualitative information on the market gained by ARDC is to be blended with that of the state's producers. Combined, this provides a realistic view of the market and its workings.

A. WHOLESALE AND RETAIL DISTRIBUTORS

A major portion of ARDC's qualitative information comes from a phone survey of wholesale and retail distributors. They move large quantities of peat products and act as the "middleman" in the marketplace. Figure 7 shows the wholesalers relative position in the distribution channel. The wholesaler is, in many cases, the dominant force in the distribution system. They deal with the peat market every day and retain a sound perception on what is moving and why, where the market is active, and how efforts for marketing Minnesota Peat can best be applied.

FIGURE 7

MARKET DISTRIBUTION SYSTEM



Approximately 25 wholesale and retail distributors throughout the central corridor of the United States were contacted. Those distributors and their distribution regions are detailed in Table 11.

TABLE 11
WHOLESALE AND RETAIL DISTRIBUTORS
(Phone Survey Contacts)

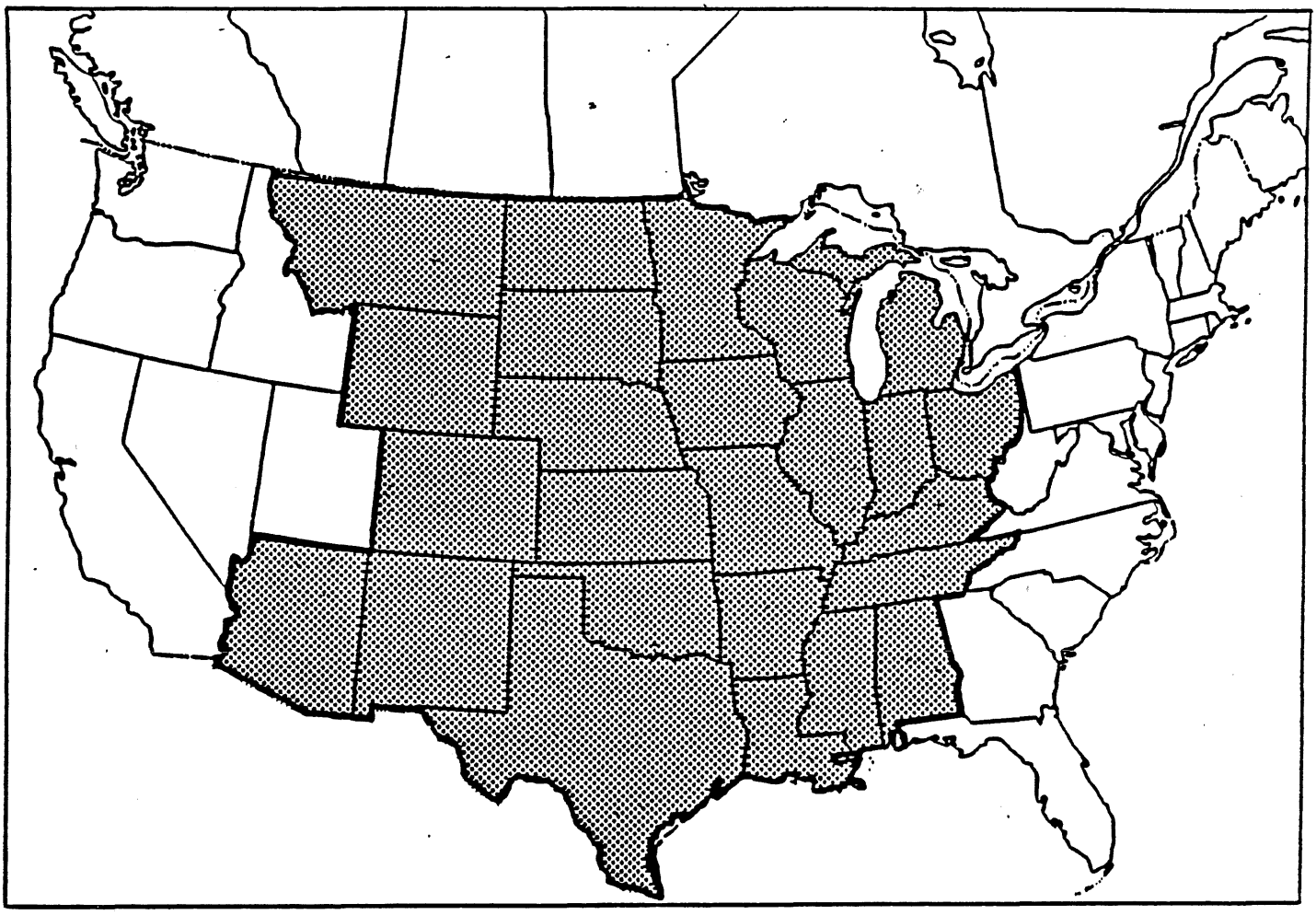
NAME	LOCATION	REGION SERVED
Amos Enterprises, Inc.	Rogers, AR	AR, MO, East OK
Barnhart Garden Center	Atwood, KS	Kansas
Barzen International Inc.	Minneapolis, MN	National
Clark County Wholesale Inc.	Las Vegas, NV	Nevada
C&R Supply	Sioux Falls, SD	SD, IA, MN
Denver Wholesale Florists	Denver, CO	CO, ID, NV, NM, TX KS, NE, SD, WY
Eames Distributor Co.	Morris, MN	West Minnesota
Gateway Seed Co.	St. Louis, MO	MO, TN, OH, IN
Harpool Seed Inc.	Denton, TX	Dallas, Houston
Horn Wholesale	Oklahoma City, OK	OK, West AR
Klier's Nursery & Garden Supplies	Minneapolis, MN	Minnesota
Lawn & Garden Supply Co.	Phoenix, AZ	Arizona, Nevada
Lawn & Garden Supply Co.	Tucson, AZ	Arizona, Nevada
Loveland Lawns	Omaha, NE	Nebraska, Iowa
Magnolia Seed Co.	Dallas, TX	TX, LA, AR, OK, NM
Mangelsdorf Seed Co.	St. Louis, MO	St. Louis Area
Montgomery Seed Co.	Montgomery, AL	AL, MS
Muskogee Seed Co.	Muskogee, OK	OK, AR
Olathe Grass Pad Warehouse	Olathe, KS	Missouri, Kansas
Planters Seed Company	Shreveport, LA	AR, LA, TX, AL, MS
R.L. Gould Distributors	Minneapolis, MN	Midwest
Schumacher Inc.	St. Paul, MN	MN, IA, WI, SD, ND
Slugg, W.G., Seed & Fertilizer Co.	Milwaukee, WI	IL, WI, MN, MI
Tessman Seed & Chemical Co.	St. Paul, MN	MN, ND, WI
Turf Products Company	St. Louis, MO	St. Louis Area
Valley Garden Supply		
J. R. Johnson Wholesale Supply Co.	Roseville, MN	ND, SD, MT, MN, ID

Distributors were asked general questions about the horticultural peat industry and various questions that pertain to their market and their constituents. In addition to wholesale and retail distributors, market information was obtained from the American Association of Nurserymen and various state affiliates, the Associated Landscape Contractors of America, the Horticultural Research Institute in Washington, D.C., and other associated interests with knowledge of peat and peat products. Of extreme value was information obtained from large retailers such as Target Stores and Wolfe's Nurseries, one of the largest retail nurserys in the southern U.S.

It is important to note that information obtained from these sources is largely qualitative. Very few statistical studies have been done in this area concerning peat products movement and are difficult to obtain. The majority of distributors surveyed also would not provide sales figures.

The central corridor area includes the outlined area detailed in Map E.

Map E



Distributors contacted provide an evenly distributed representation of the target market area. Information received from this broad geographical area acts to strengthen conclusions made about the marketplace.

B. SELECTED SURVEY RESULTS

1. Type of Peat

An overwhelming majority of those distributors contacted stated that Canadian sphagnum peat moss is the number one product in the marketplace. This opinion was expressed throughout the central corridor region. It is even stronger in the south central states. The most common carried brand name is the Fisons-Western peat product line out of Canada. Their Sunshine brand is extremely popular throughout the market region and the rest of the United States. Premier products and Michigan Peat products constitute the greater portion of the remainder of the sphagnum peat moss market.

Responses were typically the same when buyers and sales managers for wholesale and retail distributors were asked why Canadian sphagnum peat moss was so appealing. The responses were categorized as follows:

1. Uniform Composition
2. Coarser (better texture)
3. Less decomposed with good water retention
4. Light brown color (appealing)
5. Stable pH
6. Lighter weight (good compression ratio)
7. Cleaner bales with no sticks

Several answers were in response to comparison with Minnesota sphagnum products. A buyer in Oklahoma noted that "growers like the light brown, coffee colored peat with the more intermediate texture." One Minnesota distributor stated that Canadian peat was more of a concentrate while Minnesota Peat is closer to a soil. A Kansas distributor had a different notion of why Canadian sphagnum peat moss has such a stronghold on the market. He stated that "Canadian sphagnum is 'the product' because it has been shoved down our throats for a long time. Excellent promotion has established its market, no more or no less."

2. Bales

Peat materials are shredded, sieved, or compressed into poly covered bales of one, two, four, five, or six cubic foot. The two and four cubic foot bales are the most popular form of product among retailers and appeal to the gardner because of its ease in handling.

The five foot cubic bale is the most common commercial form of peat moss. The commercial growers, landscapers and larger nurseries, who constitute truckload volume demand, state that the truckload of four and five foot cubic bales, particularly when they are palletized, make for a convenient and economic purpose.

3. Price of Bales

Many distributors were reluctant to disclose price information. Figures detailed in Table 12 on price per bale of sphagnum peat moss by region were obtained from other sources.

TABLE 12
PRICE PER BALE (1985)

MIDWEST REGION

Bale Size (ft^3)	Delivered Price	Wholesale	Retail
2	2.75 - 3.00	3.50 - 3.90	4.50 - 5.00
4	3.75 - 4.00	4.50 - 5.50	7.00 - 8.00
6	5.60 - 6.00	7.00 - 7.50	9.00 - 10.00

SOUTH-CENTRAL REGION

Bale Size (ft^3)	Delivered Price	Wholesale	Retail
2	3.30 - 3.80	4.30 - 4.80	6.35 - 6.75
4	5.00 - 5.50	6.50 - 7.00	9.95 - 10.95
6	6.50 - 7.00	8.50 - 9.00	11.00 - 12.00

Source: Michigan Peat Company

It is important to note that the figures detailed in Table 12 are a generalization of the price structures that exist in the target market. Actual price per bale may vary from state to state as other factors (i.e. transportation costs) are considered.

4. Bags

Loose peat material designed for home use is commonly sold in poly bags of various sizes and volumes. Among loose filled bags, the 40 lb. and 20 lb. bags seem to be most common among retail consumers. The bagged Michigan Peat product does especially well in the 40 lb. bags all throughout the central corridor states.

5. Hypnum (Brown Moss)

Answers to questions concerning hypnum peat provided a variety of responses. Hypnum peat, commonly called "black peat" among users in the southern U.S., seems to be on the increase in popularity and use but only in a few select places. Hypnum peat products were carried by few distributors throughout the area surveyed. Midwest distributors were the main carriers of hypnum peat products. R.L. Gould and Schumachers, Inc. noted that hypnum products were doing well but only in a few places. The popularity is mainly among growers, especially growers in the Ohio Valley and Florida regions. Other distributors contacted in the central and southern states noted either that they hade never heard of hypnum peat (especially so in the south central states) or thought it was very competitive.

Much of this confusion is a result of lack of familiarity. Even though hypnum peat has comparable worth and characteristics, most consumers have never been exposed to it before. Growers do not know hypnum qualities yet and thus are not comfortable with it. They remain tied to sphagnum because it is familiar and it works. On the retail side consumers have stated that they dislike the fine sandy texture and dark color. They reject the product because they have not been educated on its qualities and its work as an alternative to Canadian sphagnum.

6. Southwestern Market

The Southwestern market for peat products is restricted for a number of reasons. Several of the larger distributors stated that Arizona and adjacent areas are not viable markets for Minnesota peat products. The biggest problem appears to lie in supply and the accompanying high cost

of transportation from production areas in Canada and Minnesota. Officials from Lawn and Garden Supply Company in Phoenix and Tucson stated that the area doesn't have the nurseries, growers or chain stores present capable of handling large volumes of peat moss. Without large volume demand, cost factors become too overwhelming (especially with backhaul cost) to make purchases feasible. This explains why major distributors in this area have discontinued their peat product lines.

Other factors such as storage facilities and bark from California are significant to declining volumes of peat moss in the Southwest United States. Baled peat requires proper care and protection from the sun and heat. Little capital has been spent on storage facilities and thus little protective storage is available for large volume shipments. Regional officials in the peat industry stated that no more than five to ten truckloads of sphagnum peat moss was sold in Arizona in 1984. Declining volumes of peat moss consumption in the area are also due to the increasing popularity of tree bark as a soil conditioner and the closing of Fison-Western production facilities in Vancouver, British Columbia.

Colorado peat has some appeal to this region of the nation because of its proximity to market and ensuing lower freight costs. It is a lower grade of peat moss but cost factors outweigh this characteristic.

C. RETAIL MARKET vs. COMMERCIAL MARKET

The horticultural peat market consists of two distinct uses: (1) its use as a soil conditioner, which is largely a homeowner market, and (2) for use as a soiless growing medium by the commercial professional grower. The soil conditioner markets for consumers largely changes hands through the retailer (e.g. chain stores, garden centers, hardwares, retail nurseries, etc.).

1. Consumer Behavior

The commercial grower market is a difficult one in which to become competitive. Commercial growers know quality and operate under brand name recognition. They are cognizant of the generic product and the value added enhancement effect on their greenery and cash crops because of the dependability they have come to know in their production. Most importantly, they recognize Canadian sphagnum peat moss as "the" quality peat on the market and the inherent physical qualities that are advantageous in comparison to U.S. sphagnum peat moss. Wholesale and retail distributor buyers contacted by ARDC stated that they are instructed to purchase sphagnum peat only if the label says product of Canada.

Minnesota peat producers could individually break into or expand their penetration into the grower market, however, as a group under a coordinated program, the Minnesota producers are not yet ready to do so since no uniformity of product among producers exists. In order to break into the commercial market, Minnesota peat would have to operate under strict quality control after the establishment of proper testing criteria. Therefore, attempts to capture part of the commercial grower

market should be delayed until quality control procedures are intact.

The retail market consists of a different consumer. The average customer entering a chain store or retail garden center does have a quality perception but not a quantifiable or technological quality perception. Rather, the average consumer has a problem solving or task perception. Customers attach value to products in proportion to the perceived ability of those products to help solve their problems. All the product has to do is perform to the customer's expectations. This is very indicative of peat sales among retailers. A Dayton-Hudson executive in charge of national distribution of garden products for Target Stores stated of peat products, "If it does what it is supposed to do, it will sell. If the consumer likes the quality, they will buy it."

The commercial market requires uniformity; no group promotion for Minnesota peat can insure this. Thus, we will aim coordinated marketing strategies at the retail market. Directing our efforts at the retail market will enable the Minnesota horticultural peat industry to begin to establish an identity and reputation that will, in the long run, help Minnesota peat become competitive in the commercial grower market.

2. Price Characteristics

A large promotional campaign initiated in the 1960's by Canadian producers is responsible for the dominate position of Canadian peat in the marketplace. Canadian producers combined aggressive marketing efforts with new harvesting technology and tougher standards to effectively capture the North American peat market.

Promotion has now climaxed and has established Canadian sphagnum peat moss as a top-of-the-line product among distributors. Canadian sphagnum peat moss is the premium quality peat in the marketplace.

Market domination subsequently allows Canadian producers to demand a premium price and increase their profit margin. Evidence provided by wholesalers, retailers, and horticultural research specialists in the market shows that market domination may lead to price dissatisfaction among average consumers.

The ordinary consumer no longer responds to the Canadian sphagnum quality rating to the same degree as they first did. The consumer still perceives that Canadian sphagnum is quality product and will still make an effort to buy Canadian. That does not mean, though, that Minnesota peat is not quality peat. Consumers recognize, through education of product, that there are alternatives that can serve their needs just as effectively as the premium quality and premium priced Canadian sphagnum.

Evidence of price dissatisfaction among the average consumer could be emerging because of market saturation. There are few alternatives or substitutes that are comparable and readily available in the marketplace to compete with Canadian peat products. Many Minnesota distributors, such as R. L. Gould, only buy and distribute Canadian sphagnum.

Mass merchants have become more aware of consumer dissatisfaction. The situation is such that as more and more mass merchants take a larger share of the garden products market, the high priced Canadian product may be found in fewer and fewer places. Thus, it is in the interest of all mass merchants to buy in low price and to sell in low price since their objectives are to make profit with high volume and smaller profit margin.

The developing trend in the retail market and increasing mass merchant appeal to the consumer provides an excellent opportunity for the Minnesota horticultural peat industry to intervene and capture a fair share of the retail market. The question must now be asked concerning what needs do consumers have that Minnesota peat can provide. Minnesota can provide:

1) A comparable alternative for Canadian Peat; and
2) An alternative source of peat that is also a quality peat but at a value price.

This does not mean that Minnesota peat should ingnore the high quality garden center and not increase the price for certain products.

Subsequently, one can only speculate on how the market will react with the entrance of Minnesota peat products. The best way to obtain an indication of how the market will react is to look at the history of previous products that have entered the peat market. For example, Michigan Peat has become popular in the marketplace among consumers and distributors because it has been promoted and advertised through public relations and is sold for the most part, in lower price for comparable size, visa vie Canadian producers. In addition, many of the distributors surveyed commented that Michigan Peat products do well because of their competitive price structure.

Thus, based on the price factors previously explained, there is room at every price point for Minnesota peat moss. Because of the variety of producers in the state and the various types and levels of peat moss available, there is the possibility of meeting all price competition be it high, medium or low.

3. Product Recognition

Canadian market domination is partially due to a lack of organization and aggressive pursuit in the marketplace among U.S. horticultural peat producers, which includes Minnesota producers. This situation, in turn, leads to lack of product recognition. In Minnesota, all market development has been done by the manufacturers. While each firm has done excellent work in promoting and developing markets for their own particular product lines, the overall image of Minnesota as a producer of quality peat products, a step essential to further development by new industry and the expansion of existing industry (a State Minnesota Peat Industry goal), has not taken place. An example of this lack of recognition was found in the 1983 survey by ARDC of U.S. peat producers. When asked to rate sphagnum peat from various areas of North America, only 55% of the U.S. producers were even aware enough of the characteristics of Minnesota sphagnum to rate it. This situation has not changed

in 1985 among U.S. distributors. When asked about Minnesota peat and its reputation and quality, a majority of those distributors surveyed stated that they had no quality opinion because of limited exposure to Minnesota product. This lack of recognition is more common further south in the designated target market. A Missouri distributor noted that "nobody has ever pushed Minnesota peat down here, especially sphagnum peat moss." He also noted that this was the first year that this operation has been approached by Michigan Peat for sphagnum products.

For all practical purposes, this lack of recognition can be used by Minnesota producers as an advantage. Previous information presented, such as emerging price dissatisfaction among consumers and the relative neutral perception of Minnesota peat in the market amongst the middlemen, creates an excellent opportunity for Minnesota peat to fill a market void. Many distributors noted that the potential for the Minnesota horticultural peat industry should be fantastic as long as it is accompanied by significant amounts of promotional dollars, a uniform logo, and quality product.

Summary

This section of the report examines consumer trends, behaviors, and perceptions in the target market. Analysis of information obtained from wholesalers and retailers of peat products shows that there is room for Minnesota Peat in the marketplace. Price characteristics in the retail market indicate potential for Minnesota Peat as a viable substitute for Canadian Peat. The immediate task is to develop a marketing program that will position Minneosta Peat in the target market. An essential element of the program will be creation of a product image. The product image must match the needs of the ultimate marketing goal, the consumer. The Minnesota Horticultural Peat Industry can establish a quality product image among consumers by relying on its own products' characteristics as they appeal to the consumer. To the buyer of photographic film, Kodak promises just one thing, the satisfaction of enduring remembrance, memories clearly reserved. Wisely, Kodak says almost nothing about superior luminescence of its pictures. The product is remembrance, not film or pictures. Similarly, Minnesota Peat must establish a quality product image by stressing what Minnesota peat can do for the consumer. The Minnesota Horticultural peat industry must stress the intangible feeling that, "Minnesota peat is dark, rich, organic peat from America's heartland and that it makes your garden grow better than ever." Minnesota peat cannot establish a sound product image by comparing itself to Canadian peat (e.g. lower ph, better water retention, etc.). The generic products are not equal and many consumers (retail and commercial) realize this. Quality product image is addressed in detail in section IV.

SECTION IV - RECOMMENDED MARKETING PROGRAM

INTRODUCTION

Prior to reviewing the recommended marketing program, it is imperative to review several essential aspects of this effort. Of primary importance is the fact that this program is aimed at promoting Minnesota horticultural peat as a generic item, in all of its forms marketed at the retail level. In addition, the program seeks to create a lasting, long-term positive image of Minnesota Peat.

This orientation clearly directs the proposed program into certain areas of marketing and away from others. In particular, it leads to a focus on product positioning and public relations. It leaves to the individual producers such areas as pricing, short-term sales promotion, and distribution. This approach also concentrates attention on the Minnesota Peat Association.

Implementation of the recommended program will present a challenge to both the MPA and the individual producer. For the MPA, the challenge will be to assume a more vigorous role in peat promotion and to evaluate the ability of the MPA, or spin-off functions, to carry it out. For the producers, the challenge will be to agree to the joint program, devise their own efforts to complement it, and to commit the time and dollars to insure success.

OBJECTIVES

The objectives of this marketing program are:

1. to increase production and retail sales of Minnesota horticultural peat; and

2. to establish a long-term product image in the consumers' minds that Minnesota peat and satisfaction of their needs are synonymous.

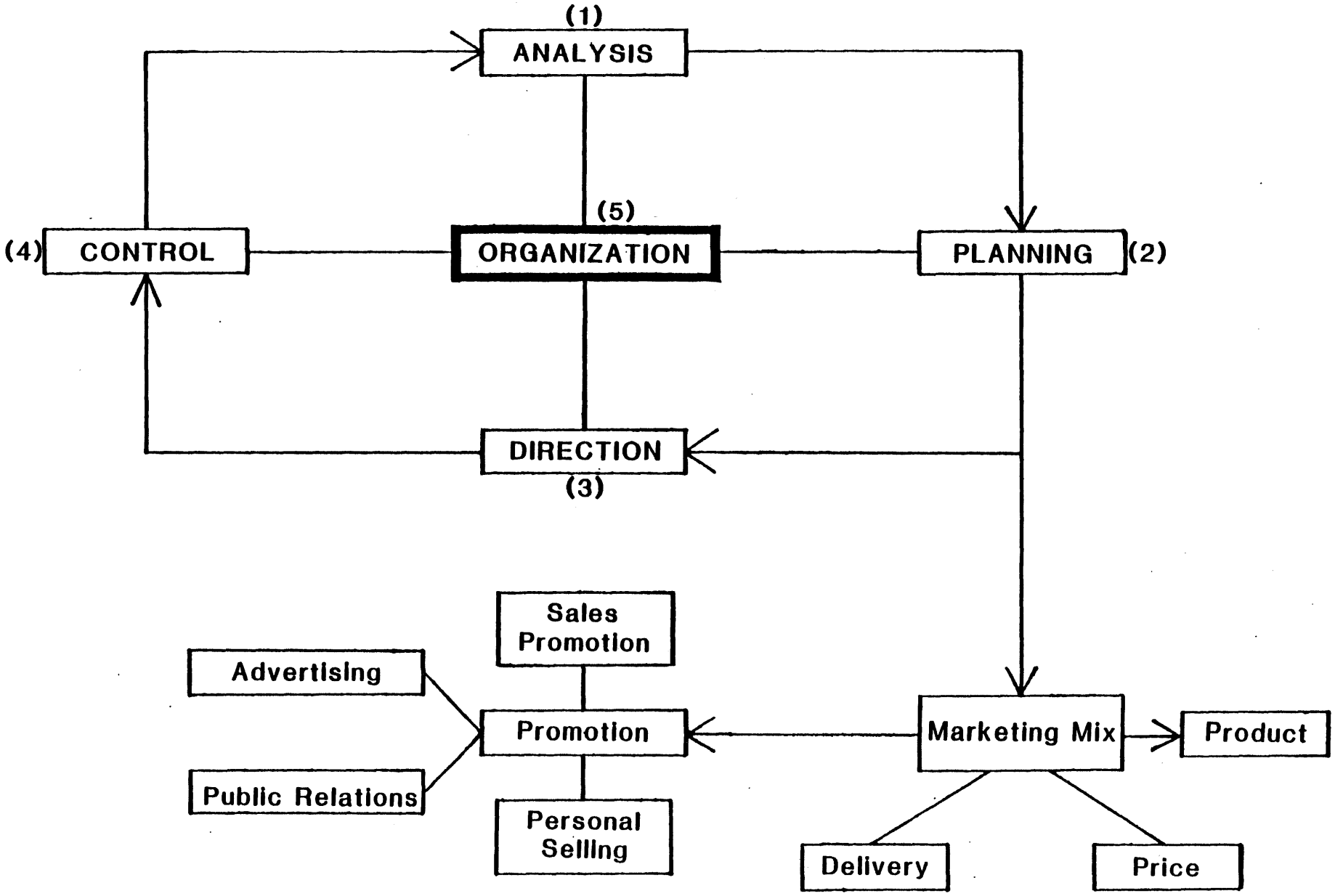
MARKETING PROCESS

Development of this program followed the basic line of the marketing process outlined in Figure 8. Prior chapters have dealt with the analysis of products, peat production and the marketplace. The following marketing program stresses the planning phase.

Direction (implementation) and control are aspects of the process for the most part beyond the bounds of this document. The program recommends that the MPA assume the organizational responsibility for the effort. If this is the case, then responsibility for directing the program and then evaluating its effectiveness (control) will be up to the MPA. In all likelihood, it will be a combination of the MPA and the individual producers.

Figure 8

SYSTEMS CYCLE APPROACH TO MARKETING



MARKETING PROGRAM

A. PRODUCT POSITION

The first and most important aspect of a marketing program is to position the product. Product positioning outlines the decisions and activities involved in developing the image of a product in relation to competitive products. In other words, how to approach the market. The following strategies address this concept.

Minnesota peat does not have an inherent physical advantage over its competitors - it has no quality advantage. Thus, quality cannot and should not become an issue. Associations such as the National Coffee Association, American Egg Board, National Dairy Board, and the Beef Industry Council do not make quality claims in their advertising and promotional activities. The National Coffee Association says, "drink coffee, you'll love it and it's good." The American Egg Board advertises "the incredible edible egg." The National Dairy Board says, "milk is a natural" while the Beef Industry Council states that "beef give you strength and it helps you do it." The unifying thread among these industry claims is that there is no mention of quality.

Minnesota peat must develop a similar "ticket" into the marketplace. The Minnesota horticultural peat industry can say that, "Minnesota peat is great for everything you grow and the more you use, the better you will like it." They cannot say, and should not say that, "Minnesota peat is better quality" or that, "it is richer, darker or lighter." Quality comparisons should not become an issue in the initial stages of state's horticultural peat expansion program at anytime. It is up to the producer, not to uphold quality, but to extoll the quality of his or her product versus others.

Peat from Minnesota must also be marketed as a generic commodity. There are various kinds of peat in the state (i.e. sphagnum, hypnum, reed sedge) each possessing viable uses and various levels of quality. Additionally, the various producers produce differing kinds, sizes, and packages of peat. Although all this disparity exists, the fact remains that peat is the most beneficial product in lawn and garden enhancement. Very little else is as important or in demand for this purpose than peat. The gardener does not know the physical characteristics of peat. He or she only knows that peat or peat moss feels good and it does wonders for their gardens. To take advantage of this intangible, Minnesota peat must be marketed not as Minnesota sphagnum or Minnesota hypnum, but as Minnesota peat or peat moss.

In positioning a product, it is essential to keep in mind the ultimate user, the consumer. The previous analysis of the target market illustrated that the average retail consumer may have some quality perception and thus it is only necessary for the Minnesota horticulture peat industry to list Minnesota peat's benefits without comparison to other peats.

Listing the benefits of Minnesota peat, as follows, will create a quality image in themselves:

1. Peat from Minnesota is an American Natural Resource.
2. Minnesota peat is beautifully textured.
3. Minnesota peat is naturally water retentive.

4. Minnesota peat binds sandy soils and aerates hard-packed clay soil.
5. Minnesota peat works wonders in lawns and vegetable and flower gardens.
6. Minnesota peat is perfect for making your own potting soil
7. Minnesota peat grows everything better.

Again, there are no quality words in these claims. Rather, these statements focus on the consumers' primary question - "what will Minnesota peat do for me?" In fact, this approach is no different from the marketing programs utilized by the Canadian Peat industry.

One claim that the Canadians did not and could not make was that their product "was made in America." Currently, the United States is on the leading edge of a "buy American" theme. Minnesota peat can capitalize on this national trend by stating that Minnesota peat is "an American natural resource for American gardens." The 24 state area identified as our target market may be more responsive to this kind of theme because these people constitute the heartland of America. Utilizing an American self image will make product image that much easier to obtain.

B. MARKETING MIX

When a marketing strategy (product position) has been outlined, the next step is to decide how to implement that strategy. This is where the marketing mix comes into play. A marketing mix is a combination of four elements - product, pricing structure, delivery or distribution, and promotional activities. These elements constitute the core of an organization's marketing system.

1. Product

First and foremost, it must be remembered that this effort is limited to the retail market. Secondly, this effort must involve all peat products.

All retail peat products from Minnesota must be promoted as "Minnesota Peat" and identified as such. This will involve preparing a uniform logo or seal of approval that portrays a "made in America theme." This logo will act as an identifying agent. This step is essential in establishing the product identification desired by the Minnesota horticultural peat industry. The logo or seal should be integrated into all packaging of all peat moss and other assorted horticultural medium originating from Minnesota. Creation of an identifying logo is the most crucial step in the promotional activities that are outlined in this report.

2. Pricing Structure

The price of a product is a major determinant of the market demand for an item. Price affects the producer's competitive position and its share of the market. It is not in ARDC's interest or realm of knowledge to recommend a specific pricing structure for Minnesota peat. Pricing structure decisions should be made by the individual producer in line with their own production costs and marketing needs.

On the other hand, ARDC has developed a feel for a general pricing strategy based on the market analysis and assessment of consumer trends

and attitudes in the target market. ARDC recommends marketing Minnesota Peat at a price that can be high, medium, or low. This pricing structure should be below the premium price demanded by Canadian firms but high enough to imply quality and to insure profitability. This competitive pricing structure will act to provide an economically viable alternative to Canadian peat.

3. Delivery

It is the responsibility of individual producers, with, perhaps, increased support and guidance from the MPA, to develop distribution channels for their products. Producers deal with the physical infrastructure (i.e. shippers) and the market intermediaries (i.e. distributors, brokers, etc.) of the horticultural peat industry on a daily basis. They have better knowledge of selection and management of trade channels.

4. Promotion

The fourth, and for this program, the most important element of the marketing mix is promotion. Promotion is the key element that will be utilized to inform and persuade the market regarding Minnesota horticultural peat. Public relations, advertising, personal selling and sales promotion are the four basic components in a promotion mix.

The major portions of funding obtained for promotion should be spent on public relation efforts to create an awareness and a positive image of Minnesota Peat. This parallels earlier Canadian promotion activities. The following list outlines the tasks recommend by ARDC to be implemented:

a. **Extensive newspaper publicity.** This is the prime activity to pursue. It would involve contacting all garden writers, columnists and house editors of major newspapers in the 24 state area. Because these people are not directly identified with the MPA, they therefore would represent an unbiased and credible view of Minnesota Peat in the consumers' minds.

b. **Establish a Minnesota Peat Information Bureau.** The Minnesota Peat Association or a subsidiary created by the MPA would be the logical facilitators of this activity. The information bureau should have a telephone number and designated address to answer all inquiries about Minnesota peat. It should be the distribution point for films, slide shows and literature.

   - **Produce and distribute a full range of literature about Minnesota Peat** (i.e. types of products, their uses, etc.). This literature should be in the form of brochures, pamphlets, flyers, and the like.

   - **Put together a garden club slide show for distribution.** Initially, this would involve contacting all garden clubs in the 24 state area. The slide show could be loaned out with or without audio tape. The slide show should be highly

technical, with precise visuals. A script should also be included in the package.

- **Informational films on Minnesota Peat.** These films should be issued to local media as well as schools, clubs, church groups, etc. This activity is less important because of high cost. Other steps in this promotional scheme basically cover its purpose.

c. **Direct mailing of specifically designed informational material to distributors, wholesalers, and key buyers of peat products throughout the 24 state area.** Mailing should be followed up by personal contact.

d. **Media Tours:** Hire a full time garden expert who will act as a spokesman for the Minnesota Peat Association and Minnesota horticultural peat in coordination with the Minnesota Peat Information Bureau. This spokesman will disseminate information via lawn and garden shows through television and radio.

e. **Attend major trade shows.** This will include designing a booth for exhibiting at the trade shows such as the Texas Association of Nurserymen and National Hardware Show. This activity helps get an image out to areas where Minnesota Peat is unknown as well as allows direct contact with the market. The booth should be equipped with films/slide shows and brochures depicting Minnesota peat products.

f. **Direct mailing of informational material to county extension agents and other concerned bodies involved with peat products.** This step can be tied in with mailings to garden columnists. These types of people are effective in that they are opinion shapers.

g. **Informational radio promotion.** This would involve 30-45 second clips on how to plant and prepare your vegetable or flower garden with Minnesota peat.

The purpose of advertising is to create awareness of product and its supplier and to stimulate desire. Keeping in mind that this program is intended to generate interest in Minnesota Peat in general, ARDC recommends that the following elements of an advertising campaign be implemented:

a. **Special placement of ads** (visual and verbal) in magazines and Sunday paper supplements. The Minnesota Peat logo should be emphasized in these ads. Products must be available in the area before placement of ads occurs.

b. **Buy space in major trade publications** such as Lawn and Garden Marketing and Garden Supply Retailer which are aimed at distributors and retail purchasing agents. The purpose of this activity is to create the preferred image of Minnesota Peat in

the middleman's mind. Ads should be in full page and full color.

Creation of an identifying logo for Minnesota Peat and contacting garden columnists are the most essential activities. Both are inexpensive but extremely important to a coordinated campaign. Initial concentration upon public relations and advertising will also create a positive base for later sales promotion and personal selling efforts by the individual firms.

It is important to note that, coupled with promotion and broadened interest, producers must realize that they have to pay more attention to how they produce, package, price, and how they sell. This ultimately means increased cost of production.

A three year program will be required to properly establish the products position in the 24 state area. The total cost of a three year promotional campaign is approximately $600,000. (Source: M. L. Grant Advertising, New York, N.Y.) The first year of the program is the most important and expensive because of start up costs. It is preferable to carry out all recommended promotion activities. Naturally, a smaller program may be accepted but will obviously be less effective.

C. DIRECTION, CONTROL AND ORGANIZATION

To reach the target market, all elements of the campaign must be highly coordinated with other elements of the marketing mix. Coordination in the system analysis diagram (see figure 8) includes direction and control. Direction entails supervision of the tactics and program elements outlined in the market program. Control involves assessing and reviewing tactics and program elements implemented and how they address or deviate from the original goals set in the marketing process.

ARDC recommends that the Minnesota Peat Association act as the central body or organization that provides direction and control for the expansion of the Minnesota horticultural peat industry. A comprehensive market analysis and market program strategies have been laid out. The MPA, in conjunction with individual peat producers, must take the initiative in obtaining funding for the strategies outlined in this report. It is beyond ARDC's role and abilities to oversee direction and control of the implementation of marketing strategies. Traditionally, this step in the systems approach to marketing has been the responsibility of the producer and organizational management.

IMPLEMENTATION OF MARKETING STRATEGIES

Essential to program implementation is agreement among the Minnesota Peat Association and Minnesota Peat producers on a marketing program, either using this one in whole or parts of it with other ideas. If this recommended program is followed, then the next initial steps should be:

1. Identify evaluate, and secure funding. If funding is available, then initiate the recommended program as funds allow. Priorities, such as the identifying logo, should take precedence in allocation of monies.

2. If current funds are insufficient, then target sources and pursue them. Substantial funding may be available from a variety of government sources and private interests. Individual peat producers must be prepared to assist in financing.

3. Establish Minnesota Peat Information Bureau.

4. Hire an advertising firm or at least identify one to work with and provide expertise.

    a. Fine tune a promotional campaign.

    b. identify how individual peat producers in the state can combine their promotional programs with this one.

These steps will be the deciding factors in furthering the expansion of the Minnesota horticultural peat industry.

APPENDIX A

Survey of Members
of the
MINNESOTA PEAT ASSOCIATION
Regarding
Future Development Activities

APRIL 1985

Prepared by
The Arrowhead Regional Development Commission
With the
Natural Resources Research Institute

MPA PEAT SURVEY
(1985)

Purpose

This paper summarizes and reviews the responses to a recent survey issued to Minnesota Peat Association (MPA) members. Approximately 35 members responded to the questionnaire. MPA members constitute a group of producers, researchers, suppliers, and wholesale buyers of peat products. Information obtained in this survey is being used to further evaluate potential development in the Minnesota Peat Industry. This process will help the industry focus on areas of concern and provide direction in marketing strategies for Minnesota peat.

Findings

A majority of those members surveyed stated that their primary interest in the peat industry is in production activities. Research was the next largest contingent of interest. Two respondents stated that their primary interest in the peat industry was in fuel research. Most of the respondents indicated that they had a horticultural type of operation with botanical origins in sphagnum, sphagnum/reed sedge or hypnum/reed sedge. Bulk, bagged or baled products were the most common form of product among producers. Other products produced included wood fiber and ragstack mats. Semi-trailer or dump truck was the most common mode of transportation in getting the product to market.

When asked what new geographical markets they were interested in, the majority of MPA members surveyed indicated an interest in large scale markets (e.g. regional, national and international) as opposed to local or statewide markets. Nationwide markets were the most dominant response. This desire to enter large scale markets is similiar to existing distribution of product among producers. Eight respondents stated that the distribution of their product was nationwide while five stated that their distribution of product was international or regional. Only two members responding to the question indicated a statewide distribution.

MPA members responding to the survey also indicated that their main targeted consumer is the wholesale distributor. Home gardeners, greenhouses, landscape firms and nurserys were equally emphasized amongst remaining respondents as targeted consumers. Michigan Peat, Colby Peat, Anderson Peat and Markum Peat were noted as main competitors in their consumer markets.

A substantial majority of those surveyed indicated that they planned to diversify their product lines and peat production activities. Some of these activities included value added specialty mixes, packaging, and development of new product lines and equipment. Respondents also indicated that additional market information was needed in the areas of distribution, promotion, advertising and consumer expectation. Horticultural products were

highly emphasized when MPA members were asked what new products should be considered for research and development in the Minnesota Peat Industry. Peat mat and fiber mat were also indicated by MPA members as good products for research and development efforts. One respondent noted that more work was needed in product quality and standardization.

INSTRUCTIONS: Please circle one or more answers per question and comment as you wish.

(Number of responses for each question category are indicated)

What is your primary interest in the peat industry?

producer	sales	equipment	research	regulatory	distributor	other
14	7		5	1	3	9

What type of operation do you have?

fuel	horticultural	agricultural	other
4	13	2	7

What is the kind (botanical origin) of your peat?

Sphagnum	Sphagnum/Reed-sedge	Hypnum	Hypnum/Reed-sedge	Reed-sedge	Peat Humus
6	6	3	9	2	1

What form of peat product do you produce?

bulked	bagged	baled	briquetted	pelletized	extruded	other
8	4	4	1	1	3	6

What mode of transportation is used to get your product to the market?

dump truck	semi trailer	railway car	other
7	13	3	1

What is the distribution of your product?

local	statewide	regional	nationwide	international	other
3	2	5	8	5	1

What new geographical market are you interested in?

local	statewide	regional	nationwide	international	other
2	5	5	7	4	1

What/who is your targeted consumer?

home gardener	greenhouse	wholesale distributor	landcape firm	nursery	fuel user
6	7	12	9	8	2

other 4

What are the products competitive to yours ?

please specify Indicated in report

Do you plan to diversify your product lines or activities and what are your options?

Yes 11 No 4 Maybe 3

please specify

On which market segment is more information needed?

distribution	promotion	advertizing	consumer expectations	other
13	13	10	9	2

What new products should be considered for research and development?

fuel	horticultural	other
9	15	2

Indicated in report

THANK-YOU FOR YOUR COOPERATION

MINNESOTA PEAT ASSOCIATION QUESTIONNAIRE

INSTRUCTIONS: Please circle one or more answers per question and comment as you wish.

What is your primary interest in the peat industry?

producer sales equipment research regulatory distributor other

---

What type of operation do you have?

fuel horticultural agricultural other

What is the kind (botanical origin) of your peat?

Sphagnum Sphagnum/Reed-sedge Hypnum Hypnum/Reed-sedge Reed-sedge Peat Humus

---

What form of peat product do you produce?

bulked bagged baled briquetted pelletized extruded other

What mode of transportation is used to get your product to the market?

dump truck semi trailer railway car other

What is the distribution of your product?

local statewide regional nationwide international other

What new geographical market are you interested in?

local statewide regional nationwide international other

What/who is your targeted consumer?

home gardener greenhouse wholesale distributor landcape firm nursery fuel user

other _____

What are the products competitive to yours ?

please specify _____

Do you plan to diversify your product lines or activities and what are your options?

Yes No Maybe

please specify _____

On which market segment is more information needed?

distribution promotion advertizing consumer expectations other

---

What new products should be considered for research and development?

fuel horticultural other _____

THANK-YOU FOR YOUR COOPERATION

APPENDIX B

The Natural Resources Research Institute, in conjunction with the Arrowhead Regional Development Commission, has, by matching grant, developed a publication entitled Commercial Classification of Minnesota Horticultural Peat. Actual publication and distribution of the document will occur in the first part of November, 1985.