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Nursery and Floriculture Industries in 1985

Michigan State University Agricultural Experiment Station and Cooperative Extension Service

Research Report

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# RESEARCH REPORT

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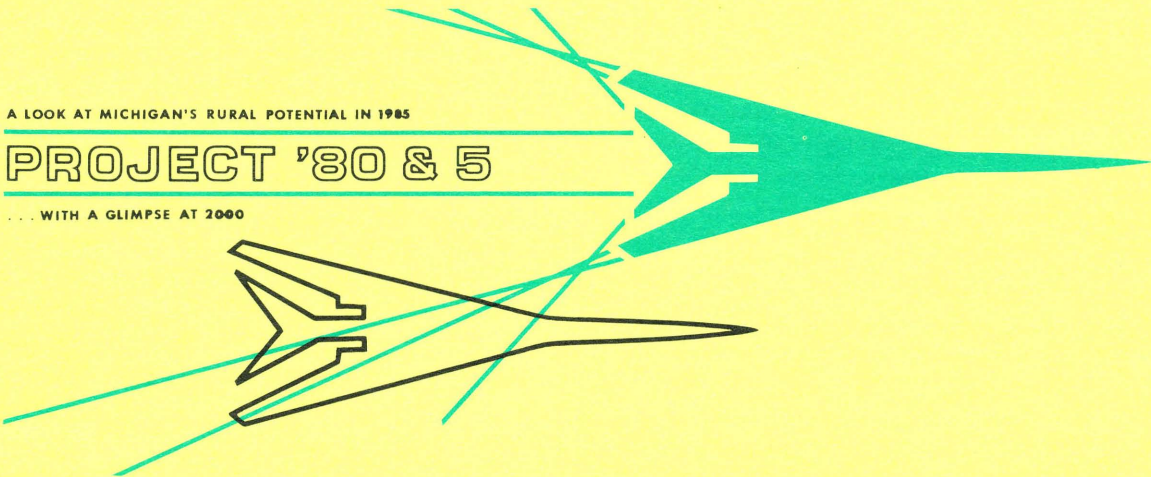
**AGRICULTURAL BUSINESS**

FROM THE MICHIGAN STATE UNIVERSITY  
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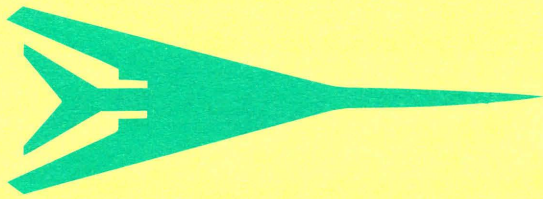
A LOOK AT MICHIGAN'S RURAL POTENTIAL IN 1985

## PROJECT '80 & 5

... WITH A GLIMPSE AT 2000



## **NURSERY AND FLORICULTURE INDUSTRIES IN 1985**



## FOREWORD

IN 1966 THE COLLEGE of Agriculture and Natural Resources completed a two-year study entitled *Project '80*—an analysis of Michigan's rural potential by 1980. Through broad involvement of individuals both within and outside the College and through wide publicity, *Project '80* caused things to happen. Its influence was felt not only in the programs of the College but also in the programs and activities of other organizations and individuals in the rural scene.

Since the mid 1960s, rural Michigan has changed dramatically as has almost every facet of life. *Project '80* correctly identified many of the developments which have occurred. Even so, a reassessment is clearly in order.

Such a reassessment was the purpose of *Project '80* & 5—a one year study focusing on the target year 1985. To provide guidance for the project, Dean L. L. Boger appointed a steering committee consisting of the Chairman H. John Carew, chairman of the Department of Horticulture; Dr. Raleigh Barlowe, professor of Resource Development; Professor Richard W. Bell, assistant director of the Cooperative Extension Service; Dr. Dale E. Hathaway, chairman of the Department of Agricultural Economics; Dr. Niles R. Kevern, chairman of the Department of Fisheries and Wildlife and Dr. Charles A. Lassiter, chairman of the Department of Dairy Science. Mr. Mark T. Allen served as editor and Dr. John N. Ferris was director of the project.

The project was divided into three phases. Phase I was designed to establish the general environment for rural Michigan in 1985—factors important to developments in rural areas but largely beyond their control—U.S. population and income, the general price level, international trade, market structures, federal farm programs, and so on. Phase II dealt more intensively with rural Michigan itself, its commodities, services and people.

The emphasis in both Phase I and Phase II was on what will happen between now and 1985 if current trends continue, modified by judgement about how these trend lines might bend in the future. The intent was to give a realistic picture of what rural Michigan will be like in 1985. The projections are not inevitable and represent an appraisal of what likely will be, not what ought to be. This means that there are opportunities to alter the course of events if the projections are not in line with what people and their organizations want.

Phase III is directed toward the question of what should be done to shape the future as it "ought to be". This involves value judgements, and answers to this question are more difficult to obtain than are the projections of Phases I and II. Even so, drawing implications from the projections for action programs is the purpose behind making the projections in the first place. Phase III will be an on-going process within the College, and hopefully among the people and organizations of rural Michigan. The Extension, research and resident instruction personnel of the College are prepared to cooperate in this endeavor.

The projections of Phases I and II are being published in a series of 15 Research Reports from M.S.U. Some 44 papers included in these reports were prepared by a number of individuals and committee members whose original efforts were subjected to review by colleagues and key individuals from off campus. A one day meeting with nearly 200 selected rural leaders was held in February 1972 to discuss the projections and to consider some of the implications.

Some modifications in the papers were made as the result of this meeting and subsequent dialog with knowledgeable individuals. The resulting projections represent considered judgement about rural Michigan between now and 1985.

# MICHIGAN'S NURSERY INDUSTRY—NOW AND IN 1985

By Harold Davidson  
Department of Horticulture  
Committee Chairman

## INTRODUCTION

The production of ornamentals and fruit trees has increased considerably in Michigan. In 1971, there were 6,200 acres devoted to their production as compared to approximately 5,200 acres in 1960. However, total acreage of nursery stock has declined over the last 15 years (9,600 vs. 16,000 acres) reflecting the decrease in production of the small fruit plants and garden bulbs. For the past 10 years the State Department of Agriculture has issued an average of 1,200 licenses a year to nurseries.

The industry is divided into segments, including: production, construction, merchandising and maintenance. It is estimated that the landscape horticulture industries of Michigan generate in excess of \$140 million in annual sales (Table 1).

Table 1. Estimated sales (1971) for the landscape horticulture industries in Michigan

	Millions
Nursery Production	\$ 12
Landscape Construction	50
Garden Center	60
Landscape Maintenance (a)	20
	\$142

(a) Does not include golf course maintenance.

## THE NURSERY INDUSTRY

Numerous factors have and will continue to affect the growth and development of the nursery industry. These include: 1) demand for nursery products and services by the public; 2) availability of the product; and 3) certain economic factors.

In the early development of the state, the demand was primarily for fruit trees and small fruit plants to plant the developing orchards of the state and surrounding Great Lakes area. Since this need has been almost satisfied, production of this type of nursery stock has declined. There will always be a need for small fruit plants but the demand is for replacement rather than new plantings. However, as the state and

the nation mature, the demand for ornamental plants increases.

The population increase, especially in suburban areas, coupled with an increase in educational levels, leisure time and more money available for discretionary spending, has created a demand for quality ornamental plants and landscapes. This demand should continue for some years.

The present demand for a quality environment has had considerable impact on the demand for landscape plantings. As the public gains a better understanding of ecology, the demand for ornamental plants should increase rapidly. It is doubtful that nurserymen fully appreciate the impact the "green revolution" will have on the future demand for their products.

## Garden Centers

The garden center phase of the industry has been expanding and should continue to grow over the next 15 years, but at a somewhat slower rate. Sales from Michigan garden centers increased 300% between 1958 and 1967 as reported by the U.S. Census of Business. Sales during the last 4 years have increased substantially over the 1967 level. In addition, chain, discount and hardware stores claim a substantial portion of the garden center.

## Landscape Construction

Landscape construction has been increasing rapidly due to the increased demand for a quality environment. No data are available on the landscape maintenance business, but it has been active and the demand for quality maintenance has been continually increasing.

## Nursery Associations

Nursery associations at the local, state and national level will take a more effective part in creating a demand for nursery products. The AAN's "Green Survival" program is a strong beginning in this area.

However, state and local associations will have to supplement the program to gain full advantage of the motivation that national programs generate.

The industry has a great need for well done television programs that inform the general public on the value of plants and gardens. In addition, garden columns with "reader appeal" are badly needed to provide practical answers on garden questions. Emphasis must be placed on the advantages of plants and to associate these advantages with personal pleasures or values.

### **Transporting Nursery Products**

Availability of nursery stock is related to a time-distance-cost factor. For years the effective market-area-radius of a nursery was limited to the distance a man could travel with a horse and wagon. With the advent of railroads, the distance was extended but the costs involved limited, to some degree, the size and quantity of material that could be shipped any distance. However, with the development of rapid-truck transport and the excellent network of highways now crossing the nation, the market area of any nursery is now nationwide. Truck transport can provide direct pick-up and delivery—field to store—and will probably continue as the primary means of transporting nursery stock within the country. Transportation costs have become less of a factor in limiting market areas due to the lower cost of production in certain areas of the country.

Thus, Michigan buyers of nursery stock are no longer tied to local production sites. But production nurseries in Michigan need not depend on local markets. This situation has tended to create specialty production centers and specialty production nurseries. There has been a gradual decline in the large general nurseries. Nurserymen are producing only those species that can be grown economically due to the climatic conditions where they are located. This trend for specialty production is likely to continue. Michigan nurserymen will specialize in the production of caliper shade trees and larger sized evergreens.

Air cargo shipments of nursery products have been gradually increasing and probably will continue to increase for items that are needed in a hurry and those that are perishable or where a nurseryman might gain an economic advantage with air shipment. Air freight, like railroad transportation, requires extra loading and unloading and thus is more costly. But air freight can also be used for international shipments and thus extend the market area of nurseries. Air shipments from overseas production centers could have a major impact on the production nurseries in the United States. The first effect could be in the

area of propagation material and small lightweight materials such as lining out stock that are shipped free of soil.

## **NURSERY PRODUCTION**

### **Container-Grown Stock**

Production of container-grown nursery stock has been practiced on only a limited scale in Michigan until recently. However, it is anticipated that this practice will increase significantly since the key barrier to its production in Michigan—overwintering—has been solved by the use of polyethylene houses for the winter storage of evergreens.

### **Nursery Irrigation**

Many excellent means of irrigation are available to supply water. And various forms of slow release and soluble fertilizers are available to meet the nutrient needs of the plants. In addition, soil preparation and potting techniques have advanced over the past decade so that the maximum mechanization of the production process is now possible. Production has been limited to plants of relatively small size (1-5 gal containers), but in the future larger size plants will also be container-grown.

### **Packaging and Merchandising**

Improvements will be made in packaging and merchandising nursery products. The sales package will become more appealing, extend the shelf-life of the product and offer the customer advice on planting and care. Nursery suppliers are beginning to provide this service and, as it is extended, sales will be increased. Garden centers that create a pleasing environment, display knowledge of horticultural excellence, and provide service to their customers will prosper.

### **Labor Practices**

The nursery industry is highly dependent on labor at all levels from production through maintenance. However, during the last 20 years there has been a gradual shift from unskilled, part-time to skilled, full-time labor. Also, there has been a rapid development in mechanical equipment to help get the job done within the nursery industry. Hydraulic pressure has played and will continue to play an important part in nursery practices. It is used in planting, digging, lifting and packaging plants and, in the future, it will be used to transfer power in other operations. Mechan-

ization will probably continue to develop, making greater efficient use of labor in nursery production, landscape construction and garden maintenance.

Some attempts have been made to unionize labor in the nursery industry and in some areas landscape construction companies are unionized. However, agricultural laborers are exempt from the provisions of the Wagner Act and since nursery work is agricultural, nursery employees have not been affected. Recently, the National Labor Relations Board ruled that employees of Lights Tree Company of Richland are agricultural in so far as union recognition and representation are concerned and as such cannot demand mandatory union representation under the law.

By 1985, however, the labor force of the nursery industry will be unionized. This will be reflected in higher wage rates. It could also mean better control by management to utilize labor effectively. Hopefully, if and when nursery labor is unionized, it will be done nationally to equally affect all centers of nursery production. To do otherwise would have a drastic effect on the nurserymen required to pay union wage rates while their direct competitors in nursery production in other states do not.

#### **New Trends**

The 4-day, 40-hr work week, a trend in industry, will also have a direct and indirect effect on the nursery industry. With the increased leisure time, people will be able to devote more time to their avocation, part of which could be gardening. However, it is up to the nursery industry to promote the value of plants and gardens if they wish to capture a portion of the funds available for discretionary spending. It is doubtful that the 4-day, 40-hr work week

will be adopted by the nursery industry, but its adoption by industry could provide another source of part-time labor for the nursery industry. Migrant laborers want a 60-hr work week because they want to earn money; not sit around. They take their leisure in the winter months.

The use of plastic plants in landscaping will have a direct impact on the nursery industry. They are currently being used by some large chain operated concerns. In some situations, they may be warranted but it would be unfortunate for nurserymen if the trend were to expand. Fortunately, most people like living plants. But it is up to the nursery industry to promote their virtues.

#### **SUMMARY**

Michigan's nursery industry is continually changing. Production of small fruit plants and bulbs has declined, but production of ornamental plants has increased and will expand. Production of plants in containers will also probably increase.

Landscape construction is related to building construction. Although there was a slight decrease during the past few years, it is increasing and should continue to do so. Landscape nurserymen will become more closely involved with the total outdoor environment. In many areas, this will mean preserving the natural environment by fitting the building and services to the area.

Garden center sales will continue to increase under the favorable impact of the drive for quality in the environment.

Landscape maintenance will also increase in scope. Many arboricultural firms will be licensed by the state for the application of restricted pesticides.

# THE MICHIGAN FLORICULTURE INDUSTRY —NOW AND IN 1985

**By William H. Carlson, Horticulture, Committee Chairman; Lloyd Thompson, Arcade Floral, Flint; Joe Vermulen, Floral Avenue Greenhouse, Mt. Clemens; James Krone, Michigan State Florist Association; Bill Wallner, Entomology; Paul Rieke, Crop and Soil Sciences; Vern Hinz, County Extension Director; Munns Caldwell, Extension Horticultural Agent; Gerald Draheim, Extension Horticultural Agent; Harold Ferris, County Extension Director; Doug Chapman, County Extension Director**

## INTRODUCTION

The floriculture industry in Michigan is increasing in size and has increased approximately \$2 million in wholesale value from 1964-69 from \$13.9-\$15.9 million according to 1969 census figures. At the same time, approximately 100 growing operations have ceased. The tendency for larger operations, more mechanized in nature is beginning to develop and should become more evident by the 1980's.

An estimate of our floriculture industry's value made by county agents and developed from data available from many sources indicates that its value is approximately \$20 million (Table 1).

**Table 1. Value of Michigan's floriculture industry as reported to ornamental crops industry committee (a)**

Crops	Value
Bedding Plants	\$ 7,000,000
Carnations	298,000
Chrysanthemums	347,000
Pompon Chrysanthemums	417,000
Roses	1,903,000
Gladiolus (field green flowers only)	311,000
Potted Chrysanthemums	985,000
Foliage Plants	529,000
Geraniums	1,500,000
Lilies	500,000
Poinsettias	1,000,000
Azaleas & Hydrangeas, etc.	1,000,000
<b>TOTAL</b>	<b>\$20,580,000</b>

(a) Values reported by John K. Trocke, District Extension Marketing Agent, Michigan State University, October 1969.

The field grown flower crops were estimated to be approximately \$3,000,000 in 1969. Perennials and gladiolus corm production account for most of this value (Table 2).

**Table 2. Value of Michigan's floriculture industry in 1985 as estimated in the ornamental section of Project '80 & 5 (expressed in terms of 1972 dollar value)**

Greenhouse	Value
Bedding Plants	\$14,000,000
Carnations	200,000
Chrysanthemums (Standard)	300,000
Pompon Chrysanthemums	400,000
Roses	3,500,000
Potted Chrysanthemums	1,500,000
Foliage Plants	600,000
Geraniums	3,000,000
Lilies	600,000
Poinsettias	2,000,000
Azaleas & Hydrangeas, etc.	2,000,000
<b>TOTAL</b>	<b>\$29,150,000</b>
<b>Field Grown</b>	
Perennials	\$ 3,000,000
Gladiolus (Flower only)	750,000
Gladiolus Corms + outdoor bulbs	2,000,000
<b>TOTAL</b>	<b>\$34,850,000</b>

The number of wholesale florist suppliers have remained about the same through the last 5 years while sales at this level have increased. Many of the flower products at this level are imported from other states, Canada or foreign countries.

The number of retailers has remained constant and sales volumes have tended to increase. Some retail outlets have opened shops or 'flower stands' in malls or in conjunction with chain store operations.

## PRODUCTION

### Cut Flowers

The production of cut flowers has decreased during the last 10 years in Michigan due to competition from other states and Canada. This trend should continue and competition from foreign countries as well as other states should make it extremely difficult to remain competitive. The retail grower, however, should

still be in a position to produce needed cut flowers. If a cut flower grower is to remain competitive he will probably act as a wholesaler as well as a grower in order to compete for a share of the market. Michigan should remain about the same in rose production while decreasing in chrysanthemums and certain other cut flower crops.

### **Potted Plants**

Potted plants have increased in sales over the past 10 years with poinsettias, pot mums and lilies leading the field. Azaleas have remained the same or slightly increased in sales. Demand for foliage plants has increased. Potted plants generally are marketed from grower directly to the retailer. More and more pot plants are being sold through mass outlets. This trend should become more evident in the 1980's. There may also be a tendency to produce more plants in smaller pot sizes for mass marketings at lower prices.

### **Bedding Plants**

Bedding plant sales have increased approximately 10% each year for the last 25 years and if the population continues to grow sales should continue at this rate until the 1980's. There is a high percentage of sales to mass market outlets and this should increase. However, good garden centers will still handle a sizable quantity in the 1980's. The formation of small grower cooperatives will continue or small growers will find it difficult to compete. Growers will become larger in size and small growers will retail their own product to remain in business.

### **Wholesalers**

The role of the wholesaler is changing. In the past, wholesalers sold flowers for local growers and acted as their marketing agents. Only a small amount of their material was shipped from distant markets. Now more and more flowers are shipped from distant markets.

In the future, the wholesaler may serve as a flower jobber to the mass market with a larger supply of flower material from other states or foreign countries. This trend has already started but should increase in the 1980's.

In a recent survey, 17 of 90 wholesalers were also involved in production operations within the United States. To insure their flower supply in the future this trend should increase during the next 20 years. In the same survey only 3 of 90 wholesalers were involved in full service type retailing and indications are there will be no marked increase in this trend.

There should be fewer city wholesale commission florists, but more wholesale grower florists. There will also be more wholesalers who sell to other wholesalers. This restructuring of the wholesale segment is presently underway and should continue into the 1980's.

### **Retail Florists**

There has been an average of one retail florist per 10,000 people. Today there are approximately 210,000,000 people and approximately 26,000 retail florists. This ratio should remain about the same.

Funeral flowers represented a large portion of the retail business. This segment of the business will decrease with the increase in cremations and different funeral services.

There will also be less occasion oriented buying; however, the use of everyday flowers will increase. The retail florist will retain his position because of the service he provides. As long as the public requires this service this segment of the floriculture industry will remain strong.

As people become more ecology minded and as more discretionary dollars become available more flowers and plants will be used in homes, increasing sales for retail florists.

### **Trade Associations**

These organizations are taking a more active role in promoting the flower sales. The national TV promotional campaign of AFMC as well as their many other promotional activities should increase. However, state and local associations will have to supplement this program to gain full advantage of this national program.

The industry needs to evaluate and streamline their associations before maximum benefits can be obtained by their members. The goals of each group should be evaluated and groups with similar goals should be combined.

### **Production and Technical Trends**

Efforts have been made to reduce the cost of labor. Advancements have been made in automatic watering, mechanical soil filling devices and material handling. In the future it will be necessary to make further attempts in this area. The employee production ranges will need to be highly skilled and well versed in electronics, and plumbing as well as plant production. Fewer employees per given volume will be needed to pay wages comparable to other industries.



Computerization may be used in the larger ranges to schedule crop production and maximize profits by the 1980's. Linear programs may be adapted to aid with management decisions.

There may be a trend toward smaller pot sizes for chain type operation so plants can be sold at lower prices.

Flower arrangements may be made up at the producer or wholesaler level and supplied to the chain outlets or to retail florists. Perhaps by the 1980's an assembly line type flower arrangement will be available.

### SUMMARY

To remain competitive Michigan growers must stay alert and adopt new technology as soon as it is proven

to minimize labor costs. They will have to observe the most profitable way to market his crop and be flexible enough to change if conditions dictate.

The wholesale florist will have to observe the trends developing and be able to supply the flower products to not only the retail florists but to other outlets where large quantities of flowers are used.

The retail florist must be aware of changes in consumer buying habits and realize the change from occasion to non-occasion buying. He must also decide if he is to enter the mass marketing concept or remain a service oriented business.

Those firms that can foresee the trends and be flexible enough to change will find growing and marketing flowers in Michigan as profitable if not more profitable than it is today.