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Michigan's Horse Industry in 1985

Michigan State University Agricultural Experiment Station and Cooperative Extension Service

Research Report

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RESEARCH REPORT

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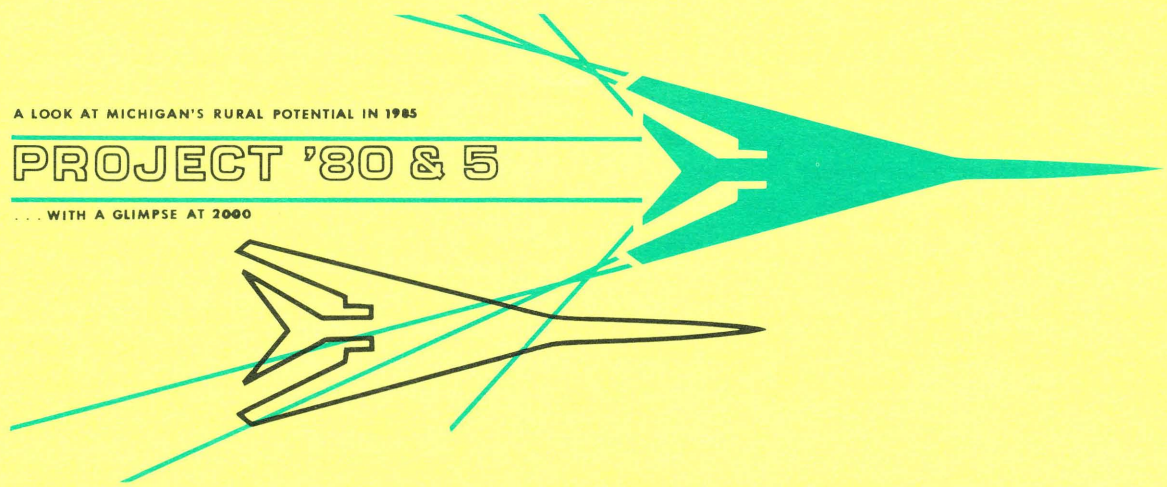
FARM SCIENCE

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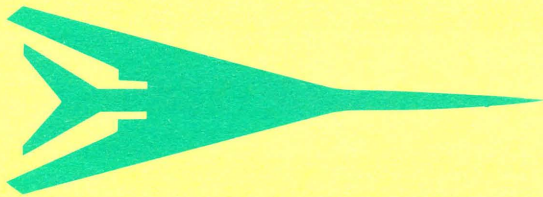
A LOOK AT MICHIGAN'S RURAL POTENTIAL IN 1985

PROJECT '80 & 5

... WITH A GLIMPSE AT 2000



MICHIGAN'S HORSE INDUSTRY 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 HORSE INDUSTRY IN 1985

Committee

Dr. Richard J. Dunn, Department of Animal Husbandry, Chairman; Mrs. Carolyn Bay, Extension 4-H Youth Agent, Midland County; Professor Robert Maddex, Department of Agricultural Engineering; Dr. Eugene Dice, Department of Natural Resources; Mr. Lane Rushmore, County Extension Director, Newaygo County; and Dr. Oscar Swanstrom, College of Veterinary Medicine.

PROJECTIONS REGARDING HORSES

MICHIGAN'S HORSE INDUSTRY is making a galloping comeback. Today's horses are no longer used primarily as a source of farm power, but for pleasure and recreation. The State's horse population has grown from a low of 34,000 in 1960 to around 171,000 according to the 1971 Michigan Equine Census conducted by the Michigan Cooperative Extension Service. Table 1 gives the Equine Census by Michigan Counties. A total of 45,527 respondents reported equine. Of the total equine in the state, there are 112,805 horses, 56,213 ponies, 1,343 donkeys and 724 mules (Fig. 1). The majority were on farms or in rural areas, but a surprising number were found in urban areas, riding stables, fairgrounds and boarding stables (Fig. 2).

Of Michigan's 83 counties, Oakland reported the largest number of equine — 8,931 head. Washtenaw was next with 6,081 head. Livingston, Genesee, Jackson and Allegan co's. all reported more than 5,000 equine. Only 19 head were located in Keweenaw — the smallest county total recorded.

As for Michigan's nine crop reporting districts, the three southern-most districts accounted for over two-

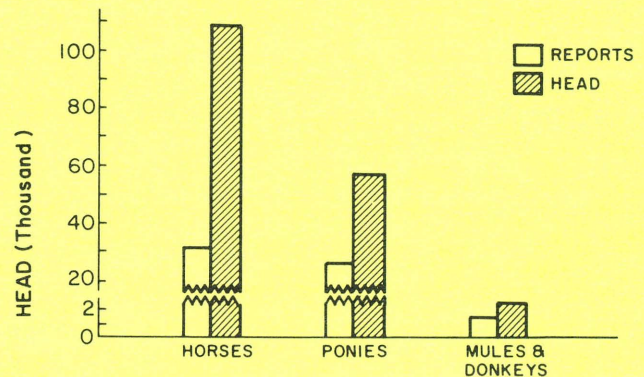


Fig. 1. Total number of equine in Michigan, by classes, August 1971.

Table 1 — Total number of equine in Michigan, by counties and classes, 1971

County	Horses		Ponies		Mules		Donkeys		Total Equine	
	No. Rpts	Head	No. Rpts	Head	No. Rpts	Head	No. Rpts	Head	No. Rpts	Head
Alger.....	38	95	27	37	.	.	..	..	54	132
Baraga.....	76	233	32	43	.	.	..	..	92	276
Chippewa.....	207	598	138	252	.	.	3	7	284	857
Delta.....	123	343	43	100	.	.	..	..	141	443
Dickinson.....	100	303	29	68	.	.	..	..	120	371
Gogebic.....	71	173	31	61	.	.	..	..	80	234
Houghton.....	97	322	47	107	.	.	..	..	114	429
Iron.....	100	272	46	93	.	.	..	..	123	365
Keweenaw.....	8	19	...	.....	.	.	..	..	8	19
Luce.....	27	93	21	51	.	.	..	..	35	144
Mackinac.....	71	951	47	102	.	.	..	..	97	1,053
Marquette.....	162	491	79	150	.	.	..	..	193	641
Menominee.....	205	714	103	208	.	.	..	..	258	922
Ontonagon.....	75	140	36	67	.	.	..	..	101	207
Schoolcraft.....	41	121	34	50	.	.	..	..	60	171
DISTRICT I.....	1,364	4,783	731	1,440	7	7	19	34	1,760	6,264
Antrim.....	115	421	9	16	.	.	..	..	122	437
Benzie.....	86	231	36	74	.	.	..	..	98	305
Charlevoix.....	202	801	129	267	6	8	..	..	260	1,076
Emmett.....	157	473	92	195	4	4	..	..	199	672
Grand Traverse.....	251	982	138	574	.	.	10	18	313	1,574
Kalkaska.....	85	206	61	108	.	.	3	3	116	317
Leelanau.....	133	506	79	145	.	.	..	..	175	651
Manistee.....	147	329	95	212	.	.	..	..	195	541

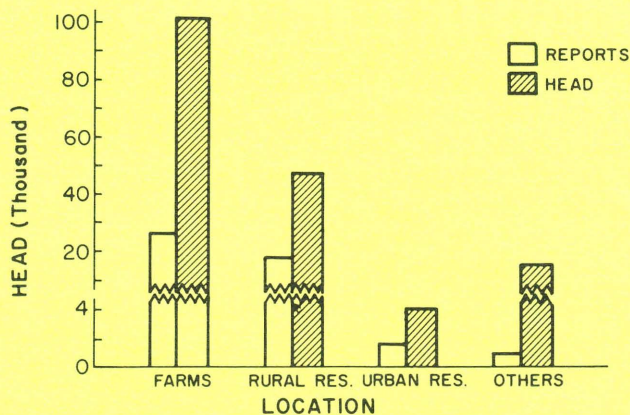


Fig. 2. Total number of equine in Michigan, by locations, August 1971.

thirds of Michigan's equine population (Fig. 3). District nine, with a total of 51,231 equine, constituted more than 30% of the total. District one, which includes the Upper Peninsula, had only 6,264 head.

The state total is projected to be 400,000 by 1985 (Fig. 4). The horse population should grow significantly in the next 15 years because of:

- 1) More leisure time for recreation and hobbies.
- 2) A trend towards suburban living.
- 3) A greater emphasis on family togetherness.
- 4) Respect and love of horses.

Some possible factors that might slow down the horse population growth are:

- 1) Pollution problems (disposal of animal wastes, odors, etc.).
- 2) Urbanization (lack of land to keep horses on, high cost of land, zoning, lack of suitable places to ride).
- 3) New tax developments (increased land taxes, I.R.S. rulings, regulations, guidelines).

Characteristics of the owners of these horses are expected to be as follows:¹

- 1) There will be about 160,000 horse-owning families.
- 2) About 75% of the horse owners will be pleasure horse owners, with the other 25% including horse breeders, race horse owners, etc.

¹ Estimates are based on a study of Today's Horseman by M. Dallas Powell, Merck and Co., Inc., 1970.

3) About 60% of the pleasure horse owners will be over 20 years old. In this group, about 60% will be men.

4) In the 4-H Horse Project, about 70% will be girls.

5) About 40% of the horse owners will be located in rural areas, and around cities of less than 50,000 population, but few of these will be farmers. The other 60% will be located in, and around metropolitan areas such as Wayne, Kent, Oakland, and Genesee Cos.

6) The average horse owners income will closely parallel the Michigan average income in 1985.

7) About 10% of the 400,000 horses in 1985 will be owned by 4-H members. The 4-H horse will continue to be Michigan's largest 4-H livestock project, and will grow at least as fast as it has in recent years. The projected 4-H horse enrollment in 1985 is expected to be 23,500 (Fig. 5).

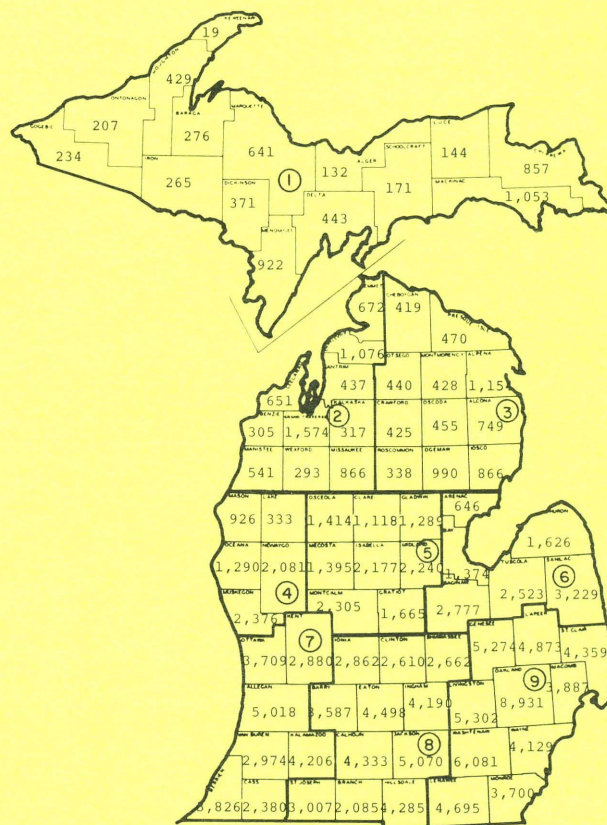


Fig. 3 Michigan county and district equine census, August 1971.

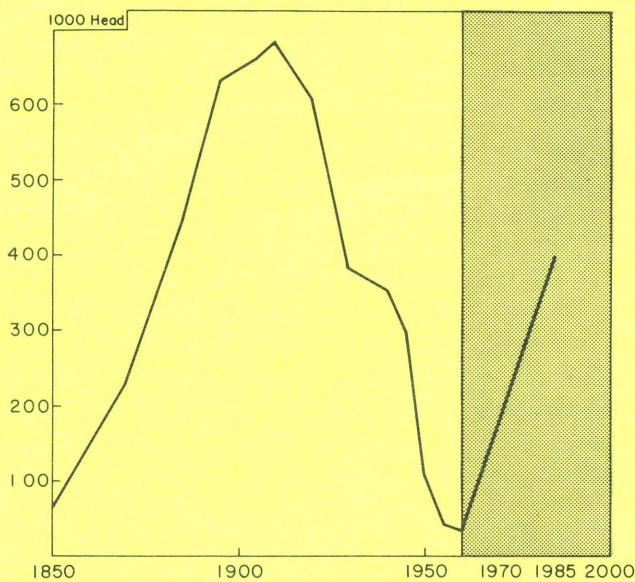


Fig. 4. Michigan horse numbers 1850 – 1971 and 1985 projected number.

Horse Racing Industry

Michigan's horse industry will continue to have a significant influence on the state's economy (Table 2). The horse racing sport and industry has grown rapidly. In 1971 the total attendance was 3,962,318, the pari-matuel handle was \$333,182,520, and the total revenue returned to the state was \$24,499,748. This has increased in the last 15 years from a total at-

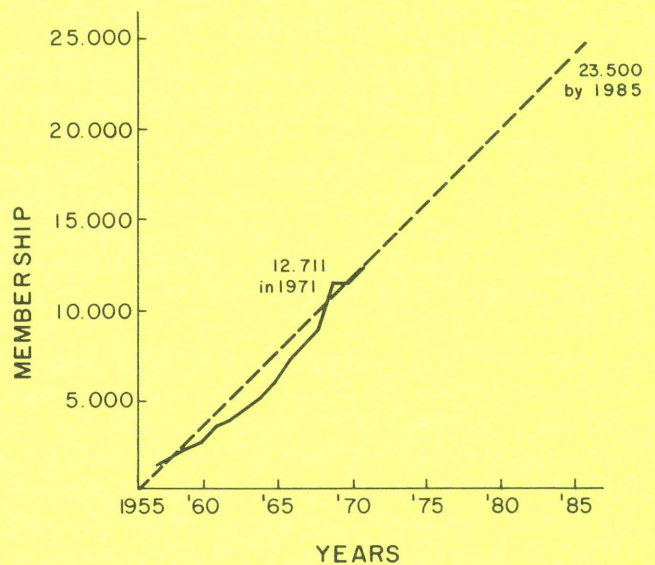


Fig. 5. 4-H horse project enrollment 1957-71 and 1985 projected enrollment.

tendance of 2,010,795, a total pari-mutuel handle of \$112,712,977, and a total revenue returned to the state of \$7,038,099.

The number of racing days increased from 425 in 1970 to 563 in 1971. There are prospects for two new pari-mutuel tracks by 1985 (one in eastern Michigan, and one in western Michigan), but total attendance, pari-mutuel handle, and total state revenue is expected to level off in future years due to competition from other activities.

Table 2 – Estimated value of investment in horses and facilities – 1971 and 1985

1971 Type of Investment	1971 Estimated Value	1985 Investment	1985 Estimated Value
Horses (171,000 @ \$750/head).....	\$128,250,000	(400,000 @ \$850/head)	\$340,000,000
Housing (171,000 @ \$200/head).....	34,200,000	(400,000 @ \$250/head)	100,000,000
Tack and Equipment (171,000 @ \$300/head).....	51,300,000	(400,000 @ \$400/head)	160,000,000
Breeding Farms (90).....	13,500,000	(215)	37,625,000
Pari-Mutuel Tracks (4).....	30,000,000	(6)	45,000,000
County Fair Tracks (34).....	3,300,000	(30)	3,500,000
Riding Stables (90).....	3,150,000	(215)	10,750,000
Boarding Stables (170).....	5,950,000	(400)	20,000,000
Dude Ranches (20).....	700,000	(50)	2,500,000
Arena Operations (35).....	1,225,000	(85)	4,250,000
Horse Auction Facilities (5).....	500,000	(5)	600,000
Other investments (feed, veterinary, blacksmith service)	2,925,000		3,275,000
TOTAL.....	\$275,000,000		\$727,500,000

Source: Estimates developed by Dr. Richard J. Dunn, Department of Animal Husbandry, Michigan State University, January, 1972.

Feed Required

The estimated 400,000 horses in 1985 will require approximately 3 tons of hay and 1½ tons of grain per head per year. The rations will probably be supplied in a complete pelleted feed, and include at least 90% farm grains that could be produced in Michigan. Therefore, an acreage of cropland necessary to supply this amount of feed should be included in the total crop production totals for the state (Table 3).

Feed, one of the major expenses, will probably not be grown on the farms where the horses are kept and, therefore, will provide a market for hay and grain produced by farmers. In addition to the feed costs, owning a pleasure or racing horse results in other expenditures for fence, stable, shoeing, saddlery, veterinary service and medications, special clothes, transportation, taxes and insurance. Also, there are service expenses such as labor, training, stud fees, instruction and exercising.

Table 3 — Farm enterprise worksheet Project 80 & 5

Item	Basic Unit	Production Unit 1985	Total 1985
Basic Production Unit (acres, head, etc.)....	1,000 head	1	400
Other Input Requirements Land (indicate class if relevant)			
Row crops.....	acres	700	280,000
Forage crops.....	acres	850	340,000
Pasture—open.....	acres	1,000	400,000
Feeds			
Feed grain (purchased & raised)...	tons	1,350	540,000
High protein feeds (44% S.O.M. equivalent).....	tons	150	60,000
Hay.....	tons	3,000	1,200,000

Yearly Average Expenses

The following figures are estimates of the average yearly expenditures for horses in the United States for feed, tack and medications:

Feed — for all feed (grain, hay, pasture)	\$360.00
— Grain and hay (both farm grown and purchased, exclusive of pasture)	\$264.00
— Purchased feeds	\$ 52.80
— Pasture	\$ 96.00
Tack	300.00
Medications	75.00
Total	\$735.00

Thus, using these figures, a conservative estimate of the average yearly expenditures for horses in Michigan in 1985 is \$294,000,000.

An introductory study of the Commercial Horse Enterprises in Michigan was completed in 1971 by Dr. E. F. Dice and G. R. McClenaghan of the Department of Park & Recreation Resources, Michigan State University Cooperative Extension Service. These enterprises include boarding, training, riding instruction, feed processing, arenas, veterinary care, transportation, tack, breeding service, and others. These enterprises represent a considerable investment, as well as an outlet for available family and paid labor. The flow of dollars in the sale of horses is also considerable.

Tables 4 and 5 contain estimates of current and 1985 projections. The 1971 figures were obtained by arbitrarily adding 40% to the survey responses. Estimates for each of the six categories of enterprises were then multiplied by growth levels of 5%, 10% and 15% of the 1971 estimates for the 14 years between 1971 and 1985.

Economics, interest in competitive events, and other factors will influence the growth of these en-

Table 4 — 1985 numbers with different growth levels

Based on Primary Activity	Estimate 1971 No.	Increase of 5%/year on 1971 level	Increase of 10%/year on 1971 level	Increase of 15%/year of 1971 level
A. Dude Ranch.....	20	34	48	62
B. Breeding Stud.....	85	144	204	263
C. Boarding Business.....	130	221	312	403
D. Instruction.....	20	34	48	62
E. Riding Stable.....	70	119	168	217
F. Arena Operation.....	10	17	24	31

Table 5 — 1985 numbers with different growth levels

Based on Total Offerings of Activities	Estimate 1971 No.	Increase of 5%/year on 1971 level	Increase of 10%/year on 1971 level	Increase of 15%/year on 1971 level
A. Dude Ranch.....	20	34	48	62
B. Breeding Stud.....	90	153	216	279
C. Boarding Business.....	170	289	408	527
D. Instruction.....	100	170	240	310
E. Riding Stable.....	90	143	216	269
F. Arena Operation.....	35	59	84	108

terprises. Most of these enterprises are family operations. About one-third of the 1971 enterprises had paid employees, most being seasonal workers. These averaged 4.3 paid employees. The largest number of employees were associated with riding stables and show arenas. The average number of employees per enterprise is not expected to increase between 1971 and 1985.

These enterprises are estimated to involve 35,000 acres. Much of this acreage is used for trails and training purposes. This acreage should increase to about 80,000 acres by 1985. These enterprises used approximately 7,000 boarding stalls last year. This number is expected to increase to 17,000 by 1985.

In 1960, about the only "horse doctors" were those located at, or near, race tracks. In 1971, Michigan had 50 members of the American Association of Equine Practitioners, and about 8 veterinarians who specialized only in horses. Many others are doing some horse practice. Both of these numbers should increase significantly by 1985.

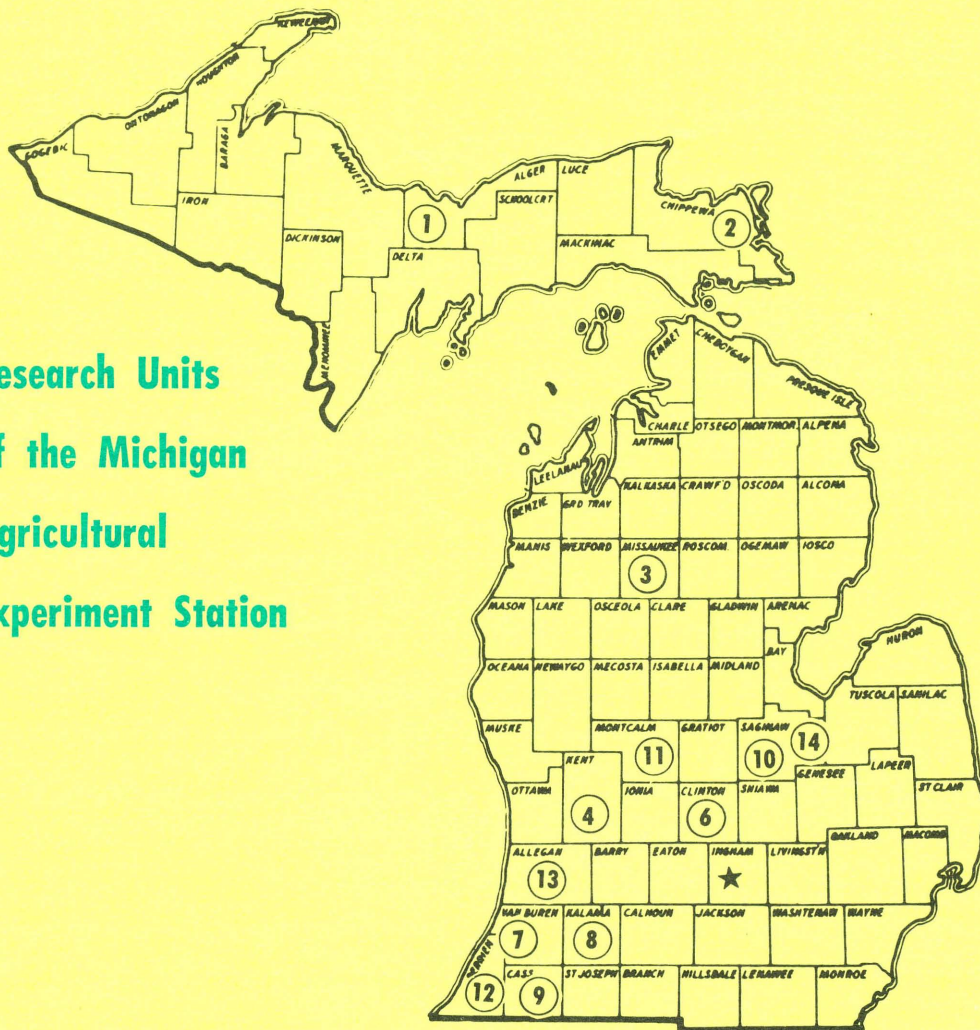
Long Range Planning

The following objectives for long range planning for the Michigan Horse Industry were brought up at the Project 80 & 5 Horse Industry Committee Meeting on February 29, 1972:

- 1) Organize the Michigan horse associations into one organization to provide a united front for handling problems facing the horse industry.
- 2) Study zoning regulations relating to horses and propose guidelines.
- 3) Coordinate representation of the horse industry before the legislature. Encourage positive legislation, and keep the industry notified of new legislation that may affect it.
- 4) Encourage a statewide system of horse identification for disease control problems, equine research, and horse shows. Encourage a standardized system of records, including a standard health record.
- 5) Propose guidelines for licensing horse boarding stables.



Research Units of the Michigan Agricultural Experiment Station



- ① Upper Peninsula Experiment Station, Chatham. Established 1907. Beef, dairy, soils and crops. In addition to the station proper, there is the Jim Wells Forest.
- ② Dunbar Forest Experiment Station, Sault Ste. Marie. Established 1925, forest management.
- ③ Lake City Experiment Station, Lake City. Established 1928. Breeding, feeding and management of beef cattle; and fish pond production studies.
- ④ Graham Horticultural Experiment Station, Grand Rapids. Established 1919. Varieties, orchard soil management, spray methods.
- ★ Michigan Agricultural Experiment Station, Headquarters, 101 Agriculture Hall, MSU, East Lansing. Established 1888. Research work in all phases of Michigan agriculture and related fields.
- ⑥ Muck Experimental Farm, Laingsburg. Plots established 1941, crop production practices on organic soils.
- ⑦ South Haven Experiment Station, South Haven. Established 1890. Breeding peaches, blueberries, apricots. Small fruit management.
- ⑧ W. K. Kellogg Farm and Bird Sanctuary, Hickory Corners, and W. K. Kellogg Forest, Augusta. Established 1928. Forest management, wildlife studies, mink and dairy nutrition.
- ⑨ Fred Russ Forest, Cassopolis. Established 1942. Hardwood forest management.
- ⑩ Ferden Farm, Chesaning. Plots established 1928. Soil management, with special emphasis on sugar beets. (Land Leased)
- ⑪ Montcalm Experimental Farm, Entrican. Established 1966. Research on crops for processing, with special emphasis on potatoes. (Land Leased)
- ⑫ Sodus Horticultural Experiment Station, Sodus. Established 1954. Production of small fruit and vegetable crops. (Land Leased)
- ⑬ Trevor Nichols Experimental Farm, Fennville. Established 1967. Studies related to fruit crop production with emphasis on pesticides research.
- ⑭ Saginaw Valley Beet and Bean Research Farm, Saginaw. Established 1971. Studies related to production of sugar beets and dry edible beans in rotation programs.