

The Interrelationship Between Land Use Trends and Michigan Agriculture Policy and Effects of These on Sustainable Agriculture in Michigan

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The unique geographic qualities of Michigan encourage the production of a wide variety of agricultural crops. Michigan has relatively high-quality soils and a range of microclimates created by glacial landforms and the surrounding Great Lakes. These attributes enable varied agricultural production and make Michigan one of the most agriculturally diverse states in the nation. The same factors that result in Michigan's agricultural bounty also make the state a desirable place to live and to recreate. New housing construction, construction of secondary recreational residences, and homes for retirement have increased the rate of land utilization in the state, and are in direct competition for the same land currently used for farming.

Recent trends suggest that residences are being constructed on ever increasing lot sizes. Because of smaller household sizes and the desire for larger lots, greater land area is being removed from agricultural production than ever before, even though Michigan's population is increasing at a relatively slow rate. In addition to agricultural land loss, new residences in agricultural areas often result in conflicts between farm and nonfarm neighbors. Development of land adjacent to active farmland can reduce confidence in the future of farming and result in disinvestment in an agricultural operation. Disinvestment in the farm limits the productivity of the operation, reducing profitability and accelerating conversion of the land to nonagricultural uses. Therefore, because of the loss of the agricultural land base and the conflicts, the impact of new nonfarm development in agricultural areas can significantly affect the sustainability of agriculture in these areas.

BACKGROUND

A number of changes have occurred in Michigan's agricultural industry over the past several decades. Many of these changes are indicative of similar national changes in farming. In general, the average size of farms in the state has increased, with the average farm size in Michigan being 214 acres in 1997, compared to 201 acres in 1987. The number of farms in Michigan has decreased from 58,661 in 1982 to 46,027 in 1997 and is expected to continue to decline. Slightly less than one-half of those individuals now engaged in farming list farming as their principle occupation. The farming population has increased in age, moving upwards from an average of 49.5 years in 1982 to an average of 53.3 years in 1997.

In 1997, there were approximately 9.5 million acres of farmland in Michigan with 7.8 million acres of cropland. Michigan had 19 million acres of farmland in 1920. From 1954 to 1974, farmland acres decreased from 16.4 million acres to 10.8 million acres. This represents a loss of approximately 5.6 million acres and is the greatest loss of farmland that ever occurred in the state.

Acres of Farmland in Michigan			
1920	1954	1974	1997
19 million	16.4 million	10.8 million	9.5 million

Between 1982 and 1992, nearly 70 percent of the of the approximately one million acres of lost farmland occurred in those counties located in the southern Lower Peninsula of the state. The Michigan Land Resource Project projected that more than 10 percent of Michigan's farmland, or approximately one million acres, will be lost between 2000 and 2040. Although the rate of loss of farmland is projected to decrease between 2000 and 2040 the fragmentation of farmland during this time period will significantly impact the sustainability of agriculture in the state.

Michigan agriculture is among the most diverse in the nation. Farmers in the state produce more than 125 agricultural products and Michigan is second only to California in agricultural diversity. Agriculture is the second largest industry in the state, contributing more than \$37 billion to the economy. Despite the loss of farmland and the changes in agriculture that have occurred over the past two decades, increased yields per acre will more than offset reduced areas harvested, with few exceptions.

A number of factors have significantly increased the use of agricultural land for nonfarm development. Population statistics indicate that the number of households in the state is increasing, while at the same time, the average size of a household is decreasing. Former urban dwellers are moving out to the suburbs and into rural areas. The average lot size for new single-family residential dwellings in rural areas has steadily increased in recent years, leading to an ever increasing removal of agricultural land from production. Michigan also is second in the nation in the number of second homes owned by its citizens.

The increase in land utilization by nonfarm residents has resulted in fragmentation of agricultural land, a reduction in the agricultural land base, and an increase in the conflicts between farm and nonfarm neighbors. A key indicator of these conflicts is the number of "right to farm" complaints that are received per year in the state. In 1999, 100 complaints were received; in 2000, 141; in 2001, 157; and in 2002, 145 complaints were received.

Other indicators include problems associated with orchard fruit land. As orchard property is sold for development, new landowners often retain previous orchard trees for aesthetic purposes. However, these retained orchards become a breeding ground for insect pests and diseases because the trees are not maintained and sprayed. These retained orchards then become the focal point for transmittal of pests and diseases to adjacent commercial orchards. The Department of Agriculture is charged with assisting landowners in the removal of the retained orchards to stop the spread of disease. However, landowners

unwilling to comply with the removal and lack of funding have seriously hampered these efforts and may impact the sustainability of orchard lands.

Michigan has several programs that concern farmland preservation, improving marketability of agricultural products, and reduction in the conflict between farm and nonfarm neighbors. The following paragraphs describe several programs administered by the state.

The Farmland and Open Space Preservation Program was established in the state in 1974. This program, which is frequently referred to as *PA 116*, allows for a farmland owner to enter into a temporary restrictive covenant with the state in which they agree not to develop their land. In exchange for enrolling in the covenant, the landowner is exempt from various special assessments and landowners may receive a tax credit through their state income tax to assist in the payment of property taxes. Currently, there are approximately 50,000 farmland development rights agreements in Michigan restricting the development of more than 4.3 million acres of agricultural land, which equals approximately 45 percent of Michigan's farmland acres. In 2000, tax credits issued under the program through the Michigan Department of Treasury totaled approximately \$20 million. This figure is expected to increase for the 2001 tax year because of improved incentives granted by legislative action passed and signed into law in 2001.

Since 1994, the state has actively been purchasing the development rights of unique and critical farmland acres. Authorization to purchase the development rights of farms, using recapture money from expiring PA 116 agreements, was granted in the same legislation that created the PA 116 in 1974. However, sufficient funds were not available to begin meaningful acquisitions until the early 1990s. Under this program, the state purchases the development rights of a farm at fair market value and in exchange for the cash payment, landowners enter into a permanent restriction on the land in which they agree not to develop the land forever. Since 1994, the state has purchased the development rights on 53 farms comprising approximately 13,000 acres. The cost for these acquisitions was slightly over \$26 million, or an average price of \$2,000 per acre. In addition to the 53 development rights easements purchased, the state has also received eight development rights easement donations for a total of approximately 1,200 acres. The state has also obtained about \$3.6 million in matching funds under the USDA Farmland Protection Program.

In 2000, the **Michigan Agricultural Preservation Fund** was created by legislative action. This fund, which comes from recapture money from the PA 116 program and money received from lands developed under PA 260 of 2000, is to provide matching funds to local units of government to assist in the purchase of development rights of unique and critical farmland. Over the past 18 months, the Michigan Agricultural Preservation Fund Board has been developing standards, guidelines, an application procedure, and a scoring system to award grants. Also during the past year, approximately 16 local governments have developed, or are in the process of developing, local programs in anticipation of possible funding. The recapture money from PA 116 currently generates between \$1.5 and \$2.0 million per year. No dollars have been

received under PA 260 of 2000 as of this date. Because of funding, the earliest that the Board may entertain grants under the program would be in 2004.

In 2000, legislation was passed and signed into law allowing for local units of government to establish **Agricultural Processing Renaissance Zones (APRZ)**. This program allows for a local unit of government to create a zone within which new value-added agricultural processing companies may be developed and existing agricultural processing facilities may be expanded. Taxes are reduced significantly for valued-added agricultural processing facilities located within the renaissance zones. Nine APRZs have been established in the state. These nine APRZs are expected to create more than 930 new jobs and to result in \$487 million in private investment over the next 15 years. As of this writing, no new APRZs will be established in the state because the legislation contained a sunset date for establishing the zones of December 31, 2002.

The Michigan Department of Agriculture also provides “Backgrounder” reports regarding several other Michigan programs established to enhance the marketability of Michigan Agriculture. Programs outlined in the Backgrounder reports include (1) the Economic Development and Value Added Agricultural Program; (2) various Market Development Programs; (3) the Commodity Coordination and Agriculture Tourism Program; (4) the Specialty Crop Block Grant Program; and (5) the Buy Michigan Program, commonly known as the Select A Taste of Michigan Program. In addition, the state also provides assistance in the marketing of Michigan agricultural products internationally.

The Michigan Department of Agriculture also staffs two programs that target the interface between farm and nonfarm residents. Under the Michigan Right to Farm Program, the department responds to complaints. Based on Generally Accepted Agricultural Management Practices, or GAAMPs, established by the Commission of Agriculture, the department examines the farm operation for compliance with the particular GAAMPs and advises the landowner regarding correction of any problems.

A second program developed by the department is the Michigan Agricultural Environmental Assurance Program. Under this program, the department provides direction and advice to farmers regarding management practices that will assist in avoiding conflict with neighbors and eliminate possible environmental impacts of the farming operation. The program has primarily concentrated on farming operations involving the raising of livestock and dairy. However, the program is expected to begin work in farming operations involving row crop and other planted agricultural products in the near future.

DISCUSSION

Given that statistics indicate increased yields per acre will more than offset reduced areas harvested, one may ask whether Michigan should be making an effort to preserve farmland at all. There are several arguments for the preservation of farmland and continuation and enhancement of efforts currently present in the state. These include:

1. *To preserve the best farmland in the world.* Even though in the short run it appears that agriculture will continue to increase in productivity, in the more distant future the availability of adequate water resources will play a critical role in providing food and fiber to the world's ever increasing population. Given its location adjacent to abundant fresh water, Michigan's agriculture will only continue to increase in importance in future years.
2. *To protect the agricultural economy of the state.* Agriculture is the second leading industry in the state, contributing more than \$37 million to the state's economy annually, and it is the most stable of the major industries in the state.
3. *To retain natural systems.* Agricultural land provides a number of benefits to the environment by providing stormwater retention, flood control, groundwater recharge, and areas of wildlife habitat. Once the land surface is developed with buildings and pavement, these benefits are lost.
4. *To retain open space areas and the character of Michigan's landscape.* Michigan is known for its recreational opportunities and amenities. Part of those amenities includes views of agricultural lands as one travels to various recreation spots. Changing that experience for those recreationists by developing farmland could have a significant impact on the third largest industry in the state, tourism.
5. *To reduce premature disinvestment in agriculture.* As farmland is developed, it fragments the agricultural landscape and creates uncertainty for adjacent farmers. Because of this uncertainty, farmers adjacent to developing and developed land typically choose not to invest in new equipment and structures that would improve the profitability of the farming operation. Once disinvestment occurs, it is a relatively short step to conversion of the farmland to nonagricultural use because of low profitability.
6. *To reduce conflict between farm and nonfarm neighbors.* As farmland develops and fragments, conflicts arise between farmers and nonfarm neighbors. This conflict can lead to an eventual loss of profitability of the farming operation and the further conversion of the farmland to nonfarm use. Also, the resolution of these conflicts can be at a significant cost to both state and local governments in terms of staff time and legal expenses.

Despite the overall efforts of the state to preserve farmland in Michigan and to improve the marketability of agriculture in the state, farmland continues to be converted to nonagricultural uses. This conversion appears to be in part the result of a number of factors, some of which are beyond the control of state government. For example, a mobile population—which in part is caused by relatively low gas prices and the interstate highway system, and the ease with which people may obtain residential mortgages (FHA, FMHA, etc.)—results in new home construction (often for a second home) that uses more and more of the state's agricultural land.

Although the forces that drive development of agricultural land may seem insurmountable, there are actions that can be taken that would help to stem the tide. As previously stated, much of the new residential development in Michigan is occurring on larger and larger lots—a trend that can be reversed with appropriate land use regulation and planning. Revisions to the state Land Division Act, such as limiting the number of nonplatted divisions and streamlining the land platting process would be appropriate to help reduce the amount of fragmentation of agricultural land in Michigan.

Michigan has a tradition of strong local government control of land use, most notably at the township level of government. Because of changes in township election law in the 1980s, all township board members come up for re-election every four years. Consequently, all board members may be replaced in office in a given election year, with a resultant loss of institutional memory regarding land use planning and regulation. Consistent education efforts for local government officials regarding land use planning and regulation would greatly improve the ability of local governments to effectively manage growth in their communities.

Michigan's Farmland and Open Space Preservation PA 116 has been a relatively effective tool in preserving Michigan's farmland. Unfortunately, the program protects slightly less than one-half of the state's agricultural land and most of that protected land is located some distance from major urban centers in the state. According to the 1997 Census of Agriculture, more than one-half of the individuals farming in Michigan are not considered to be full-time farmers. In other words, these individuals farm smaller parcels of land and work in off-farm jobs. Since the credits received under the PA 116 program are income based, individuals working off-farm jobs typically don't qualify for the tax credits under the program and therefore do not participate. Enhancing the PA 116 program to target those individuals that do not farm full time could significantly improve the state's efforts toward farmland preservation.

In the past, the state Purchase of Development Rights Program has had significantly more demand for development rights acquisitions than there are funds to complete the purchases. For example, in the three years that applications were accepted for this program, more than 1,300 applications were received for more than 125,000 acres. However, funds were only available to purchase development rights on 53 of the applicant parcels. It is expected that the demand for funding for purchase of development rights will significantly increase with the creation of a number of local purchase of development rights programs. Obtaining a consistent funding source for this program will significantly aid in the preservation of farmland in the state.

The ability to add value to Michigan agricultural commodities will continue to be key in keeping farmers profitable and farmers on the farm. Incentive-driven value-added programs for farmers will enhance the ability of the state to increase the profitability of farmers and thus preserve farmland.

Several other techniques have been recommended to help improve the sustainability of Michigan agriculture. The Michigan Farmland and Agriculture Development Task Force

Policy Recommendations and Options for the Future Growth of Michigan Agriculture included the following:

1. Establish agricultural security areas with significant incentives for participation.
2. Institute tax reforms and use-value assessment for farmland.
3. Provide support to the agricultural processing industry.
4. Promote programs assisting young farmers.
5. Encourage partnerships to enhance environmental stewardship.
6. Provide incentives for environmental stewardship and development of new technologies.

Additional discussion of these recommendations is provided in the Executive Summary of those recommendations (attached).

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