

NEW CONSIDERATIONS FOR FARMLAND PRESERVATION TECHNIQUES

A RESEARCH PAPER

SUBMITTED TO THE GRADUATE SCHOOL

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE

MASTERS OF URBAN AND REGIONAL PLANNING

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JULY 2009

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## Introduction

*“A healthy farm culture can be based only upon familiarity and can grow only among a people soundly established upon the land; it nourishes and safeguards human intelligence of the Earth that no amount of technology can satisfactorily replace. The growth of such a culture was once a strong possibility in the farm communities of this country. We now have only sad remnants of those communities. If we allow another generation to pass without doing what is necessary to enhance and embolden the possibility now perishing with them, we will lose it altogether. And then we will not only invoke calamity—we will deserve it.”*

**-Wendell Berry, Author**

Across America, farmland has been disappearing at rapid rates for the past several decades. Suburban sprawl has opened up millions of acres of land that previously would have been viewed as too far from urban areas to welcome development. But, as highways systems have continued to expand into the countryside, technology has allowed for long distance communication, and cheap land outside of cities has come available so too has more farmland been exposed to development pressures. The conflict between farmland and impeding development will likely continue as long as there is growth and people will always be coming up with new ways to preserve the land. Development that destroys farmland will always be viewed as a negative, but it is also necessary. There must be ways to find a balance between the two and grow in effective ways that efficiently and smartly make use of resources.

This paper examines new ways to look at farmland preservation based on changes that are occurring in the agricultural landscape of America. It will look at techniques that have been and are being used to protect farmland and why they have or have not been effective. It will also examine the 2007 Census of Agriculture to get an idea of what changes are taking place with farming in America and the effect those will have on how we attempt to preserve farmland. This paper will then look at an example of a successful farmland preservation program and offer some recommendations for how farmland can be effectively preserved through some simple measures.

## **Literature Review**

Farmland preservation has been a popular topic for researchers. Much has been written about this topic because it is controversial, constantly changing, and there are many different philosophies on how it should be done. This literature review will cover the different techniques used to preserve farmland along with why we should be concerned with preserving farmland in the first place.

Farmland preservation is a specific type of open space preservation applied strictly to agricultural uses. Open space preservation is a broad term used to cover all policies that maintain natural areas as open and free of development. Open space can be protected using several tools, such as the purchase of the property, purchase of the development rights, favorable tax treatment of private property, and regulation of private property (Hollis and Fulton, 3). This generic open space classification can be broken down into more specific categories. The CEDAR Model can be used to classify and define distinct open space categories. These categories are cultural, ecological, developmental, agricultural, and recreational (Budesilich and Binger, 3). This paper will focus on the agricultural component of open space preservation. This brings about its own unique issues and constraints compared to open space preservation measures that do not have any economic production of the land associated with them. The many different

issues and constraints faced when dealing with farms in this country may help explain why there are so many different farmland preservation techniques.

### *Farmland Preservation Techniques*

Agricultural district programs are created voluntarily by farmers to protect their land from development and make them eligible for certain benefits. The specific benefits, the enrollment period, and minimum acreage requirements vary by state (Agricultural District Programs). This farmland protection program was pioneered by California in 1965, where around 15.9 million acres are currently enrolled for reduced taxation (Hollis and Fulton, 33). Sixteen states currently have agricultural district programs, although Indiana is not one of them (Agricultural District Programs).

Agricultural Districts are a cooperative way for the community and the agricultural industry to mutually benefit. The community has a relatively cheap way to preserve farmland and the farmers can take advantage of incentives like property tax breaks and cost sharing programs (Chase, 3). While these districts have been popular in rural areas, some of their downfalls are that they have not caught on in the urban fringe that faces the most growth pressure and there generally are no penalties for farmers that choose to remove their land from the district (Daniels, 220). Other drawbacks are that incentives may not be great enough to encourage enrollment and the creation of these districts can be time consuming and complex (Agricultural District Programs).

Agricultural protection zoning can take many forms with the intent of trying to limit development of farmland through land use regulation. This zoning can achieve its goal by specifying that only agricultural uses be allowed in the zone, setting minimum lot size standards, setting the number of non-farm dwelling units allowed, or establishing setbacks between farms and adjacent non-farm properties (Daniels, 217). Many states use these zones differently which is why the American Farmland Trust defines an agricultural protection zone as “ordinances that allow no more than one house for every 20 acres, support agricultural land uses, and significantly restrict non-farm land uses” (Agricultural Protection Zoning). Similar to agricultural districts, the support for this type of restrictive agricultural zoning is most widespread in rural areas that are far away from the development pressures closer to the metropolitan region (Arendt, 295). Problems with these zones are that they regularly get changed by rezoning and create disputes over because they can impact property values (Chase, 3). Another issue is land in a county agricultural zone will not stop annexation of land by surrounding municipalities (Agricultural Protection Zoning).

Cluster zoning or cluster development is a technique that allows homes to be grouped together on tracts of land, while maintaining a large portion of it open. Part of the farmland gets developed, but the remaining land is large and contiguous enough that it can still sustain viable farming activities. Even though this type of development is fairly high density it is seen by many as nothing more than “clustered sprawl” (Daniels, 219). However, the advantages are that it can maintain some of the rural character of the area through the design and it offers farmers an alternative to selling their entire land to

development (Daniels , *JAPA*). A “sliding scale” approach to this increases the number of allowable dwelling units based on the size of the entire tract of land. The rate of increase for dwelling units, still clustered together on specified lot sizes, slows down as the size of the property increases; for example “one dwelling unit would be allowed for the first five acres, another for the next 10 acres, a third for the next 20 acres, and a fourth for the next 30 acres” (Arendt, 296-297). This encourages large tracts of the property to remain open or in agricultural use, while still allowing for a concentrated development pattern. Issues can oftentimes arise with these types of developments because residential uses and agriculture do not necessarily work well side by side. People moving out to the country expecting fresh air and nice scenery have to deal with pesticide spray, the sound of machinery and the smell of manure. Farmers also do not want the residents near their crops because then they are forced have to deal with complaints, vandalism, and trash (Daniels, *JAPA*). Nuisance complaints become commonplace, but luckily for farmers there are many laws in place to protect them from this.

Agriculture is increasingly becoming an industrial process that makes it incompatible with residential uses because of the noisy machinery, the odors, and the spraying of chemicals (Arendt, 289). Right to farm laws are an effort to help farmers in these conflicts by giving them some protection from nuisance cases and unreasonable controls on their operations brought on by new residents to an area. Kansas passed the first right to farm legislation in 1963 to protect feedlots from litigation and since then every other state has passed some type of right to farm law (Right to Farm Laws). The laws are meant to give farmers a feeling of security that they are protected, to a point, by

the law and that the community values their work and wishes to preserve it (Chase, 4). However, even with right to farm laws in place some municipalities will pass nuisance ordinances in an effort to control farmers operations. With more regulations in place it becomes increasingly difficult for a farmer to be successful and makes the prospects of selling their land to developers more encouraging (Daniels, 221).

Agricultural conservation easements are a common way for farmland to be preserved. These conservation easements can either be voluntarily donated to or purchased by a qualified conservation organization, public agency, or municipality. The conservation easement is a deed restriction that can not only be placed on agricultural land, but also to preserve water resources, wildlife habitat, historic sites, and scenic views (Agricultural Conservation Easements). The easement essentially gives up or limits the property owner's right to development on the land. These restrictions stay with the land forever<sup>1</sup> and are passed on to future owners as well (Harrison and Richardson, 2). Purchase of development rights (PDR) or purchase of conservation easements (PACE) are the most common way for this preservation technique to occur. Purchase of development rights, or conservation easements, gives farmers incentives to continuing to farm their land and not give in to development pressures. The value of these development rights is determined by an appraisal process that determines the difference between the sales of comparable farms that retained their development rights and the sales of comparable farms that sold their development rights (Daniels, 221). Another way of explaining it is by saying the farmer is paid the difference between the value of the land

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<sup>1</sup> There are cases when it is only for a limited time frame but overwhelmingly they exist in perpetuity.

as restricted and its “highest and best use”, generally residential or commercial development (Purchase of Agricultural Conservation Easements).

Although purchasing development rights costs less than buying property outright, the costs to a community can still be great. The cost is the most significant problem with this farmland preservation technique and often times makes it unfeasible for a community to preserve contiguous tracts of farmland (Arendt, 287). If only a few scattered farms are preserved then the program may lead to the increased development of surrounding farms. Several farms that are protected will be left spread through the area with houses all around that will be popular because of permanent views of the farmland (Daniels, 224). This is when conflicts begin to arise between the new residents to an area and farmers. However, if done correctly this program does provide benefits for farmers, local residents, and the local municipality as well. It provides for the long term or, in most cases, permanent protection of farmland from development while still leaving ownership with the private landowner (Chase, 3). Fairness to farmers is the other great advantage to this program because it is an entirely voluntary process. Purchase of development rights programs avoid Fifth Amendment takings challenges for this reason because the landowner and government agency or conservation organization agree to a legally binding contract (Daniels, 223). The financial benefits that farmers receive can be enough to keep their farm viable in tough economic times, especially in areas close to urban development that can be expensive for farming activities (Purchase of Agricultural Conservation Easements).

Since the purchase of development rights can turn out to be too costly of an expenditure for municipalities, many encourage the donation of conservation easements. Donation of these easements can bring benefits to property owners in other ways, through tax benefits. Tax relief that can be gained by donated agricultural land is on the property owner's income tax, lower property tax as a result of a decreased market value, and exemption from Federal gift and estate transfer taxes (Harrison and Richardson, 2-4). The 2008 Farm Bill allows farmers to deduct the value of conservation easements up to fifty percent of their adjusted gross income (Agricultural Conservation Easements). The creation of a conservation easement may reduce value of the land to the point that it falls below the level that is taxable and thus eliminates the estate tax (Ibid). However, all of these tax incentives are usually not enough to convince farmers to donate their land to land trusts or public agencies. The financial benefits from development can be too great and the permanence of these restrictions are often difficult for farmers to accept.

Growth management laws are a more comprehensive approach to preserving farmland that direct development away from designated protection areas. This strategy differs from other open space preservation techniques in that it focuses on urban growth containment, generally on a statewide or regional level, to preserve threatened land. This technique is a preventative measures as opposed to most other techniques that are reactionary and attempt to "save" important land on a case by case basis as it becomes threatened by development (Hollis and Fulton, 25). The most famous growth management law was enacted by the state of Oregon and established the use of urban growth boundaries (Growth Management Laws). Since 1975, Oregon's statewide Land

Use Act has kept non-agricultural development confined to within growth boundaries that surround every town and city within the state. This helps minimize conflicts between the farming community and residents by keeping them physically separated (Arendt, 293). Urban growth boundaries typically cover enough land to allow for development over a twenty year period and are periodically reviewed to ensure enough land remains available for development (Urban Growth Boundary). Land within the boundaries are usually supported with access to necessary infrastructure and utilities, while land outside will not have access to discourage development (Ibid). Positive aspects of growth management laws are that they usually cross jurisdictional boundaries allowing for a cohesive regional or statewide goal, development can be encouraged to occur in areas already urban in character through incentives, and they can save municipalities money by eliminating the costs associated with sprawling development. However, growth management laws have limitations because politically it is very difficult to get statewide growth management laws passed, the laws take a long time to implement, and setting the size of an urban growth area can have negative effects on the economic viability of a city (Growth Management Laws).

Mitigation ordinances are a way to make developers pay for paving over farmland. In exchange for developing on some agricultural land, a developer must either pay for an agricultural easement to be placed on land somewhere else within the jurisdiction or pay some predetermined fee (Farmland Protection Toolbox). This is an effort to require developers to compensate for any loss of farmland they cause within a municipality. This technique has also been called a land conversion tax. This tax, or

standard fee, is meant to slow the rate of development within areas that were previously open space, forest land, farmland, etc. The funds collected from this program are meant to fund land preservation efforts within the impacted area. Like many of the farmland preservation techniques that have been used, this is a reactionary measure. The revenue is only raised if land gets developed on and so by the time funds are collected vital farmland may already have been lost to development (Daniels, 173). Also, in many cases the tax may not be high enough to discourage development in high growth areas. The benefits may be too high to stop this growth while limiting the growth in areas that were unlikely to have much pressure anyways. This also is why mitigation policies are likely to be more effective at the state level (Ibid, 174).

Several different tax incentive and tax relief programs are used in an effort to keep farmland preserved and economically viable. Every state has some type of preferential tax assessment for farmland and the most common of these is a differential tax assessment program. This allows officials to assess farmland at its agricultural use value, which in most cases will be lower than its fair market value. The agricultural use value represents what farmers would pay to purchase the land based on the “net farm income they expect to receive from it” (Differential Assessment and Circuit Breaker Tax Programs). This helps keep property taxes low because the property will be assessed based on its real use at the time and not at its “highest and best use”, which would be the land as a commercial or residential development.

Another program is called a “circuit breaker” tax incentive program. This allows farmers to receive a break on property taxes that exceed a certain percentage of their

income (Chase, 3). These two preferential tax programs have the same three main objectives. They intend to keep farmers in business by reducing their property tax burdens, to treat farmers fairly by assessing the land at its current use, and to protect valuable farmland by easing the financial pressures farmers have with the hopes that it will reduce the chance of them giving in to developers (Differential Assessment and Circuit Breaker Tax Programs). The intentions are good, but tax breaks for farmers have not been as effective at preserving farmland as anticipated. The tax breaks that farmers receive are usually very small in comparison to the large sums of money that developers are willing to pay for land, especially in metropolitan fringe areas. Also, these programs can cost municipalities large amounts of potential tax revenue and shift the tax burden onto non-farm property owners. This may eventually lead to the municipality searching for more development elsewhere to make up for this lost revenue, essentially putting farmland elsewhere at risk (Daniels, 217).

Transfer of development rights programs allow for the shifting of development pressures away from farmland, open space, and environmentally sensitive areas and towards the urban core. It is a way for a community to discourage development in areas they want to save, while increasing it in areas that it wants to grow (Pruetz, 29). This program allows property owners to separate from their “bundle of property rights” the ability to develop on the land, and sell that right to developers that wish to increase the density of their projects (Transfer of Development Rights). Transfer of development rights is a voluntary program that designates “sending” and “receiving” areas for development. A property in the sending location, in this case a farm, will be given a

determined number of development rights credits and then can sell these credits to a developer wanting to build in a receiving area (Chase, 3). By acquiring these credits in the receiving area the development is allowed to build at a higher density than would normally be allotted, usually one credit equaling one extra unit per acre. This program has become very attractive because, among other reasons, it allows communities to channel growth into areas that already have existing infrastructure and developers can pay landowners in the sending areas directly so that no public money is necessary for a transfer (Daniels, 225). The three main goals of the program are to limit the development of farmland, keep farmland affordable, and allow farmers the opportunity to make some extra money to keep their farm economically viable in exchange for development rights (Transfer of Development Rights).

Much has been written and discussed about transfer of development rights since it was first implemented by New York City in 1968 as a part of their Landmarks Preservation Law (Pruetz, 34). Despite the increasing popularity of the program, it will not work in every community because it requires a considerable amount of planning and research on the market conditions by a professional staff along with continued administration of the program, plus there needs to be clearly defined receiving areas for the development (Transfer of Development Rights). Many studies have been conducted that look at what makes transfer of development rights programs successful. Rick Pruetz and Noah Standridge looked at 20 publications on the largest TDR programs in the country and came up with 10 characteristics that make up successful TDR programs (Pruetz and Standridge, 79). They then ranked these factors based on how many

programs they were used in and came up with two essential factors. These are demand for bonus development and that the receiving areas are customized to the community (Ibid). Many other factors could be discussed about transfer of development and why they do or do not work, but for the purposes of this paper that will not be necessary.

### *Significance of Farmland Preservation*

Farmland preservation is an important issue that planners and political leaders should be concerned about at a local and regional level. Farmland is vital for many reasons and one of these is the impact viable agricultural land can have on the economy. The U.S. food and farming industry employs nearly 17% of the nation's labor force (Why Save Farmland?). Besides employing a large portion of our labor force, agriculture brings several other positive aspects to a community as well.

Working farmland also helps local economies because it brings in more revenue for communities than services required. Residential development, on the other hand, has been found to be a net fiscal loss for community's finances. Many studies, called costs of community services studies, have been conducted across the country to back this up. Residential developments have been found to cost a community between \$1.15-\$1.50 in services for every dollar they generate in tax revenue. Commercial and industrial uses along with farmland or open space are proven to be profit makers for communities. Commercial and industrial uses require only between \$.35-\$.60 in services for a community for every dollar they generate in taxes. Farmland and open space have been

found to require anywhere between \$.30-\$.50 in services for every tax dollar that they create(Daniels, 143). Since the mid-1980's, the American Farmland Trust has conducted around 128 of these studies on communities across the country and has come up with averages very similar to the ranges given before. According to their data, the median cost per dollar of revenue raised by commercial and industrial uses is \$.29, by working and open land is \$.37, and by residential land is \$1.19<sup>2</sup> (Cost of Community Services Studies). This would most likely come as a surprise to many rural communities that look to residential development to increase their tax base and bring revenue to the community. These studies are intended to inform leaders that residential development is not the way to generate more tax revenue. In fact, the other uses are necessary in order to balance out the fiscal deficit that the residential creates. Communities should not continue to look at agricultural land as an interim use that will eventually be developed upon. The "highest and best use" in many cases is not residential development, but actually farmland staying in its current state.

Farmland preservation provides other services that have to do with the environmental quality of communities. Farmland can help control flooding, protect watersheds, maintain air quality, and provide habitat for wildlife( Why Save Farmland?). Although the environmental benefit of farmland has been highlighted by farmland advocates, this attribute does not apply to the large scale farming operations. These industrial farmland operations can have drastic impacts on the environment. According to renowned environmentalist Robert Kennedy Jr., "in terms of just damage to the

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<sup>2</sup> Although none of these COCS Studies were done in Indiana, there was one conducted in Butler County, Ohio by the American Farmland Trust in 2003. The revenue to expenditure ratios were 1 : 1.12 for residential, 1 : .45 for commercial and industrial, and 1 : .49 for working and open land.

ecosystems, of aquatic communities, of fish going extinct, there is nothing as bad as the factory farm operations, nothing” (“Poisoned Waters”). The large scale, industrial operations produce tremendous amounts of pollutants that damage the air quality and drain into waterways. So, with this in mind clearly the large farm operations, even when compared to development, are not desirable uses to bring about environmental benefit. But, when considering the small to medium sized farms and especially organic farming operations there will be significant environmental benefit as opposed to the development of the land.

Farmland left untouched is an important asset to a community because people view it positively. These land uses maintain the rural character of an area that many people find desirable. This has even been used to increase tourism in some communities. However, these reasons only make farmland preservation more difficult. People want to live in an area where they can look out their window and see only farmland, but it is this same desire that puts the land at risk. The developers are only trying to meet the demand for housing in areas like this, while in the process are pushing development farther away from the urban core and threatening the more farmland.

It may seem obvious that communities should be concerned with preserving farmland but it is not that easy. There are several challenges that get in the way of successfully preserving farmland. One of the constraints against implementing farmland preservation programs is that many agricultural land owners feel that their property rights are being infringed upon. Farmers can be skeptical of farmland preservation programs that take away their development rights because they want the option to do what they

want with their land. Having restrictions on their land that last in perpetuity can scare property owners away. Another concern is maintaining viable agricultural land near other uses. This can lead to problems of nuisance complaints and negative encounters between farmers and the neighbors. Farmer's rights are meant to be protected by right-to-farm-laws but there still can be problems. Another problem is the money required to implement many of the programs or purchase the farm land. Government may not be able to rationalize the use of tax payer money that goes directly to one landowner. As more and more people move into urban areas they become disconnected with farming and food production. Many people in this country take readily available, cheap food at the grocery store for granted and do not realize how it is made or where it comes from. This makes ignoring the loss of farmland in America that much easier because until it directly affects people it may not be seen as a priority.

## **Indiana's History of Farmland Protection**

Indiana has a rich and proud tradition of being one of the most important agricultural states in the country. According to the Purdue University Extension, the state has been blessed with some of the richest agricultural soil in the world and it ranks second in the nation with percentage of its land being prime farmland at 58%, right behind Illinois with 59% . Despite being the 38<sup>th</sup> largest state, the state is very competitive when it comes to productivity compared to states much larger in size. According the U.S. Department of Agriculture, Indiana ranked 10<sup>th</sup> among states for their value of agricultural exports in 2007 at over \$2.4 billion. Indiana ranked in the top ten among states for their exports of specific commodities including, soybeans, feed grains, live animals, and poultry. Indiana agriculture also has a major impact on the state economy by employing a large number of workers. Agricultural related activities accounts for nearly 1 in 15 Hoosier workers (Hoosier Chapter Soil and Water Conservation Society Fact Sheet). Based on the importance of agriculture to Indiana's economy as well as its influence on the cultural heritage of the state, one would think that preserving farmland would be an important agenda of Indiana lawmakers. However, this overwhelmingly has not been the case.

Despite the importance of farming to the state, Indiana has taken minimal measures to protect it. The USDA Farm and Ranch Lands Protection Program is a voluntary program to preserve agricultural land across the country. This program provides matching funds to State, Tribal, local governments, and non-governmental organizations to purchase conservation easements from farmers. The easements will stay with the land forever and are purchased from the landowner in a lump sum payment, not to exceed the appraised fair market value of the land's development rights. From 1996 through 2003, this program has protected over 300,000 acres in 42 states and Indiana is not one of them (FRPP Fact Sheet). The table below shows how surrounding states have taken advantage of this program, while Indiana has not and lost out on Federal money as a result. According to the Hoosier Chapter of the Soil and Water Conservation Society, Indiana did not take advantage of nearly \$2 million dollars in Federal money set aside for the state through this program. The lack of local sponsor funds has been the main obstacle to achieving any farmland protection through this program.

**Table 1: 2007 Participation in Federal Farm and Ranch Lands Protection Program**  
 Source: Natural Resources Conservation Service, US Department of Agriculture

	Easements	Acres Protected	Federal Money Obligated
<b>Indiana</b>	0	0	\$0
<b>Michigan</b>	4	463	\$1,599,075
<b>Ohio</b>	24	3,531	\$2,798,143
<b>Illinois</b>	2	313	\$1,414,296
<b>Kentucky</b>	16	3,150	\$2,912,295

Not only has Indiana failed to take advantage of Federal farmland preservation programs, but they have not initiated statewide programs. As of May 2008, 27 states had authorized a statewide purchase of agricultural conservation easement program and

Indiana is not one of them (Status of State PACE Programs). Agricultural district programs have been established by 16 states in order to support farmers through a variety of incentives and once again Indiana has not participated in this (Agricultural District Programs). According to the Farmland Information Center, there has not been a transfer of development rights program initiated in Indiana. Harrison County, Indiana has recently enacted a farmland protection program, which is an encouraging sign. However, the lack of a coordinated growth management plan or farmland preservation program on a statewide level remains a problem.

It is difficult to know why the state of Indiana has not made farmland preservation a priority. Much of it has to do with a lack of political will by government officials across the state. The most common farmland preservation tactics that are used are very costly and would require a lot of support from residents across the state. But, many view this as a waste of taxpayer money especially when the state has so many other issues to deal with on top of the financial concerns the state is currently facing. Many people do not understand the importance of farmland preservation because they are not faced with it on a daily basis. More and more people are moving from rural to urban areas, becoming further removed from the food production processes and as long as the supermarket has all the food they need they are content. With more voters living in urban areas, it has become an even more difficult sell for politicians who must convince Hoosiers that this should be given more attention in the state. However, there may be other ways to achieve farmland preservation in a state that does not make it a top priority.

## **Emerging Trends in Agriculture**

The agricultural practices in this country have been undergoing significant change in recent years. It used to be that farming was a small scale family operation, with land being passed down for generations. In many places this is no longer the case. Farming has become a major industry with large corporations buying up large tracts of land that were once owned by medium sized farmers. The consolidation of this land creates economies of scale for companies, allowing them to produce large quantities of goods in order to keep their prices low. However, more recently another interesting trend has emerged in the agriculture of America. This has been the increasing number of very small farms that do not rely on farming as their primary source of income. Many of these farms are emerging in response to the growing popularity of organic products. These developments and others are highlighted in the recently released 2007 Census of Agriculture Report.

The 2007 Census of Agriculture Report conducted by the US Department of Agriculture was released on February 4, 2009. Conducted every five years, the Census of Agriculture is the leading source of facts and figures about American agriculture. It is the only source to find comprehensive and accurate data (participation is required by law) on agricultural activities of every state and county within the country. The Census defines a

farm as “any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year” with government payments included. While this definition has been changed nine times since 1850, this same one has been used since 1974. This information will show these emerging trends in the agricultural community along with several others. This new information is vital to know when considering techniques for farmland preservation because many of the techniques used in the past are no longer applicable. The techniques that are implemented to preserve the vital land uses must reflect the changes that have occurred within farmland across this country.

**Table 2: Changing Agriculture Statistics**  
 Source: 2007 Census of Agriculture, US Department of Agriculture

		2007	2002	% Change
<b>Indiana</b>	<b># of Farms</b>	60,938	60,296	1.1%
	<b>Total Land in Farms</b>	14,773,184	15,058,670	-1.9%
	<b>Average Size of Farms</b>	242	250	-3.2%
<b>Illinois</b>	<b># of Farms</b>	76,860	73,027	5.2%
	<b>Total Land in Farms</b>	26,775,100	27,310,833	-2.0%
	<b>Average Size of Farms</b>	348	374	-6.9%
<b>USA</b>	<b># of Farms</b>	2,204,792	2,128,982	3.6%
	<b>Total Land in Farms</b>	922,095,840	938,279,056	-1.7%
	<b>Average Size of Farms</b>	418	441	-5.2%

Table 2 above highlights several points that can be drawn from the 2007 Census of Agriculture data. One is that while the total number of farms has increased on both a statewide level for Indiana and Illinois as well as a national level, the total amount of land in farms for all of these has actually decreased. Losing farmland to development is a

serious issue that must be dealt with and the data shows that the U.S. is continuing to lose significant amounts of it. On average, over 3 million acres of farmland were converted to developed uses each year from 2002-2007 across the country. But, the fact that the number of farms is still increasing tells us that while large and medium sized farms are being lost to development or acquired by industrial farming operations, the smallest classification of farms are increasing in number. These farms increase the quantity of farms on a statewide and national basis, but are not large enough in size to make up for the farmland being lost to development.

The popularity of small farms has been increasing significantly for several years. Indiana alone saw a tremendous increase in farms under 10 acres, from 5,436 in 2002 to 9,720 in 2007, a 79% increase in 5 years (Slabaugh). Reasons for this boom in the number of small farms has a lot to do with the increasing popularity of locally grown food as many across the country have become more conscious of where and how their food is grown. A movement of people who call themselves “locavores” restrict their diets to food grown and produced within 100 miles of their home in order to be more environmentally friendly, support small family farms close to urban areas, along with eating healthy and more flavorful foods (Roosevelt). Eating organic foods and those grown locally are ways people feel they can make a difference and live a more environmentally friendly lifestyle. People are more concerned about their impact on the environment than ever before and are beginning to understand that food production drastically effects the environment. The intensive use of pesticides in our fields and animal factories that produce 1.3 billion tons of manure each year have polluted

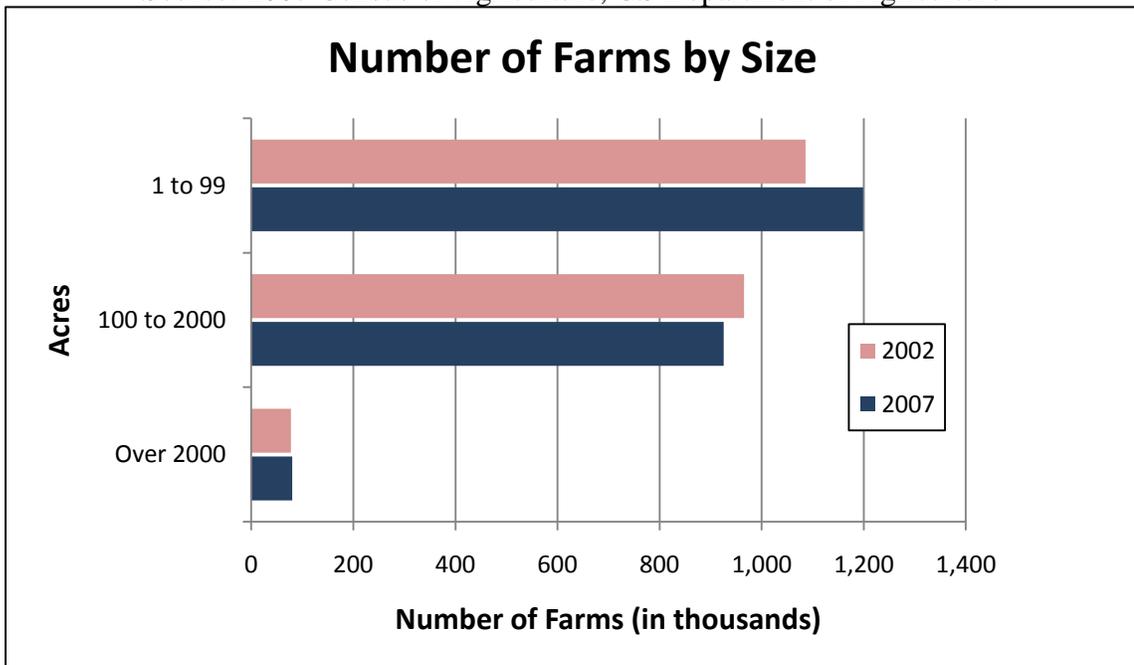
waterways, soil, and the air (Kimbrell, 54). Along with that the global food production exacerbated by agribusiness has resulted in the average American's plate travelling 1,300 miles from field to dinner table (Ibid, 55). The growing concern over these issues and more has helped create a niche market for small scale farming operations to sell directly to the consumer. Other small farms are being created because many baby boomers are reaching the retirement age and want to do something they enjoy. They open a small, organic farm with a niche product not because they need the money but because they see it as their retirement. While they are at it they can make a few extra dollars by selling their products at local farmers markets.

While still constituting a small portion of the total agricultural land in the country (less than 1% of farms in this country had land in organic production and sales around \$1.7 billion according to the Census of Agriculture), organic farms are frequently considered a "rapidly growing segment" of the industry. Much of the growth of small scale farms in this country could be attributed to the growth in these organic farming operations. The real impact of this organic farming industry will be clearer after the USDA conducts a 2009 census of organic farming and marketing with results expected by early 2010 (Abbott). But even without this data, it is clear that their popularity can be tied to consumer's preferences for more organic and locally grown food choices. Many new farmers are responding to this trend by selling directly to the consumer through farmer's markets, co-ops, roadside farm stands, and community supported agriculture programs. Community supported agriculture (CSAs) are where people buy "shares" of the farm before the season starts and receive a specified amount of produce when it

becomes available. It gives people a chance to get locally growth food and also allows farmers to share some of the risk with their consumers because if there happens to be a bad growing season they still receive money. However, even with many new farmers showing interest in this field, the supply of organically produced food has not been able to keep up with the demand for it according to the National Sustainable Agriculture Coalition. Farmers are discouraged from making the transition because of the high costs of converting to organic production along with the certification costs.

This Census of Agriculture showed a continuation of the trend of growth in not only small but also very large farms. Figure 1 below shows this trend with the increasing number of farms under 100 acres from 2002 to 2007, the decline in medium sized farms, and the slight increase of the number of farms over 2000 acres.

**Figure 1: Number of Farms in U.S. Based on Size**  
Source: 2007 Census of Agriculture, US Department of Agriculture



**Figure 2: Number of Farms and Sales as a Percentage of the Total**  
 Source: 2007 Census of Agriculture, US Department of Agriculture

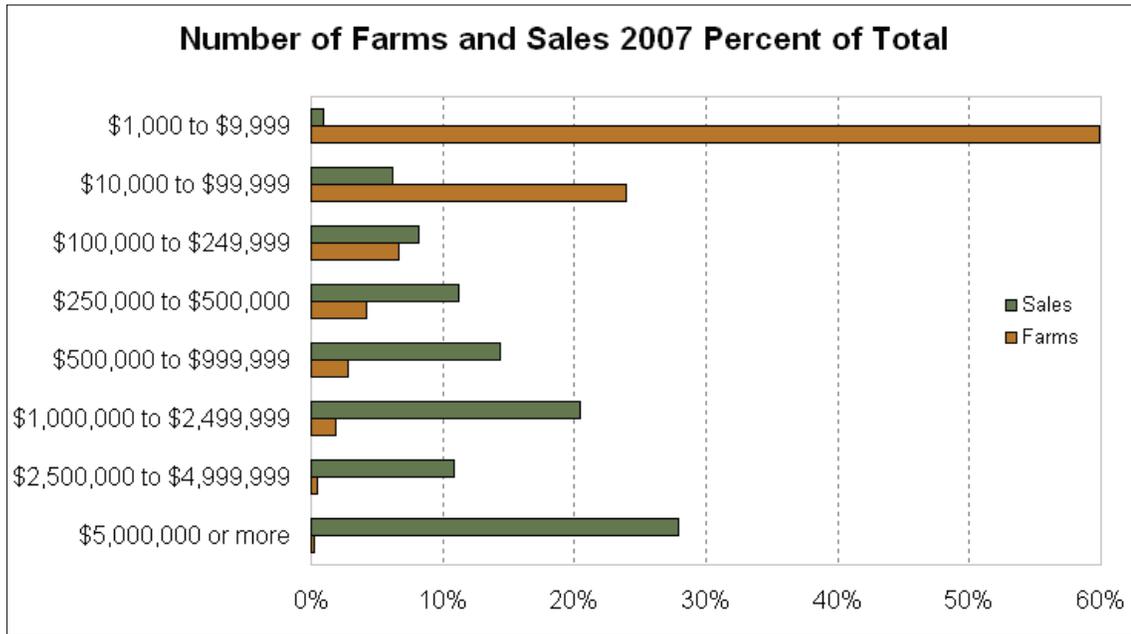


Figure 2 above exemplifies this point even further by showing how the agricultural production and sales have become dominated by large scale operations. In 2007, the American agricultural production that was produced by farms with over \$1 million in total sales was 59%. This was up from 47% of all production in the 2002 Census. Large scale, industrial farming now constitutes a majority of the agricultural production in the country.

The impact of industrialized agriculture can be seen all over America. The growth of the large operations have led to a myriad of negative side effects including soil erosion, polluted ground waters, food-borne illnesses, loss of biodiversity, inequitable social consequences, toxic chemicals in food, loss of wildlife habitats, and the destruction of beautiful landscapes (Kimbrell, xi). This industrialization of the national food supply

shows how little people know about how the food they eat is grown, produced, and packaged. The growth of agribusiness has changed the way farming operates in this country. People used to understand where their food came from because it was generally grown locally on a small or medium sized farm. Today, the disconnect between food production and consumer has grown immensely and many consumers only care that the food is at the grocery store at the lowest price possible. While rural areas still represent 83% of America, most families are at least five generations removed from living in a rural setting (dating back to their ancestors living in rural parts of Europe) and are so far distanced from these farming communities that do not understand their issues and how their food is grown (Richardson, 171). Our high tech, service based economy with a focus on maximum efficiency has only furthered this urban and rural disconnect because people have come to expect their food to be produced cheaply with minimal awareness of how it is done. This has led agribusinesses to come up with ways to consolidate their operations by acquiring more and more land in order to achieve the economies of scale necessary to deliver these low prices that consumers seek. The result has been to push many family-run farms out of business and buy their land once they realize they cannot compete. The large agribusinesses have been able to exert their power over these smaller operations by buying the commodities from the farmer at lower and lower prices until they are forced to adopt new technologies and increase the scale of their operations. The squeeze is put on the small farmer and they are told that they must either “get larger or get out” (Magdoff, Foster, and Buttel, 12).

Today, only 2.3% of American farms (around 50,000) account for 75% of the U.S. food production (Kimbrell, 55). However, there has been a growing resistance to this phenomenon. Many consumers have started to take note of where their food comes from along with health and safety aspects dealing with the foods they eat. This can be seen in the rise of organic farming and local food systems. As was noted earlier, farmers all over the country are finding other ways to stay viable once they realize they can no longer compete with agribusinesses control over the whole food production industry. Examples include, growing a specialty crop that few others are growing, starting their own processing business, selling directly to the community through farmers markets or community supported agriculture (Magdoff, Foster, and Buttel, 18).

This discussion so far has focused on how the agricultural landscape has been undergoing significant changes. The concept of a farm used to be easily understood and defined in this country because most functioned the same way with owners and operators that faced the same issues and owned similar amounts of land. This is no longer the case as many different types of farms have begun to emerge. In order to help clarify these and organize the census data accordingly, the Economic Research Service (an agency under the U.S. Department of Agriculture) came up with several different classifications of farm types. These typologies were established in order to classify farms with similar characteristics. They tell us something about the principal operator or owner of the farm and the farms financial productivity. Two major groupings for farms were established; the small family farm with sales under \$250,000 and other farms. The small family farm was divided into 5 subcategories.

- 1.) **Limited resource farms**- have agricultural products sales less than \$100,000 and total principal operator household income less than \$20,000.
- 2.) **Retirement farms**- have agricultural products sold that have a market value of less than \$250,000, and a principal operator who is retired.
- 3.) **Residential/lifestyle farms**- have agricultural products sold that have a market value of less than \$250,000, and the principal operator reports their primary source of income as other than farming.
- 4.) **Farming occupation/lower-sales farms**- have a market value of agricultural products sold less than \$100,000, and the principal operator reports farming as their primary source of income.
- 5.) **Farming occupation/higher-sales farms** –have a market value of agricultural products sold between \$100,000 and \$249,999, and the principal operator reports farming as their primary source of income.

Farms classified as ‘other farms’ are divided into the following three subcategories.

- 1.) **Large family farms**- have a market value of agricultural products sold between \$250,000 and \$499,999.
- 2.) **Very large family farms**- have a market value of agricultural products sold over \$500,000.
- 3.) **Non-family farms**- organized as non-family corporations, as well as farms operated by hired managers.

**Figure 3: Percentage of Farms by Type and Sales**  
 Source: 2007 Census of Agriculture, US Department of Agriculture

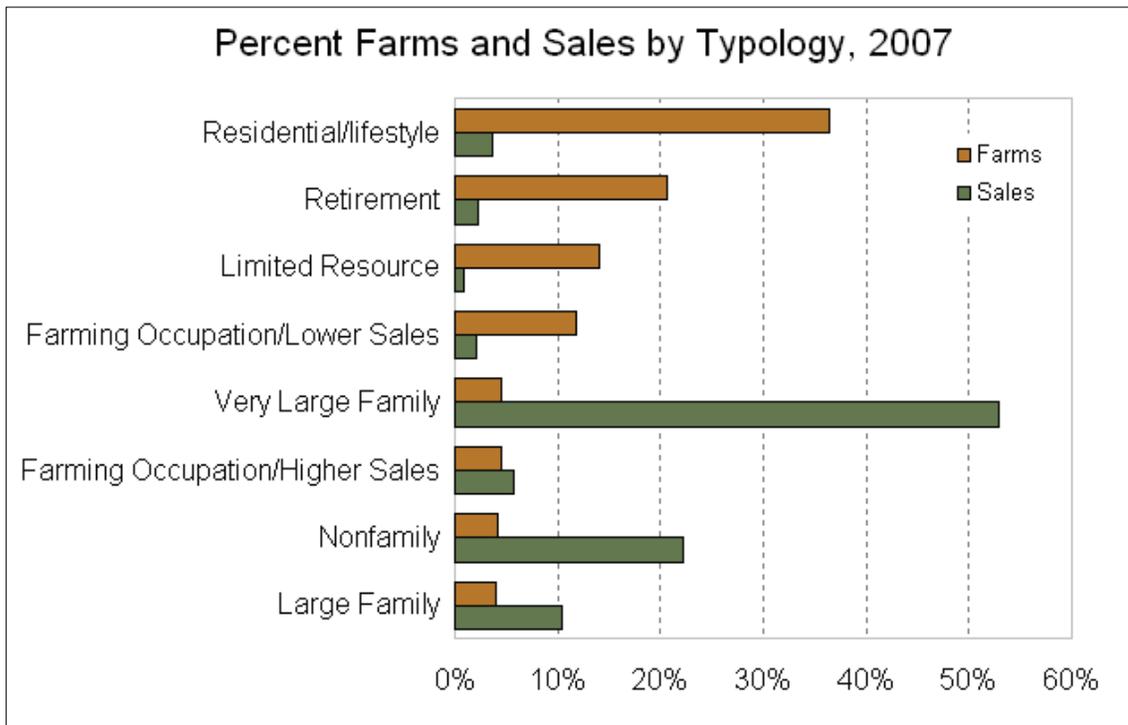


Figure 3 shows the percentage of total agricultural production and total percentage of farms that each typology makes up in American agriculture. While very large family farms, non-family farms, and large family farms make up only 12.6% of all the farms in America, they account for 84.8% of the market value of all agricultural products produced in the country. These farms are the largest land occupiers and highest profit makers in the country, but the retirement/lifestyle farms and retirement farms are the most common. These farms have been established in increasing numbers all over the country and together make up 57% of all the farms in the country in the 2007 Census.

This illustrates another interesting trend with today's farmer and that is that most of them no longer farm as their primary source of income. In some cases farming simply

does not bring in enough income to support their families and requires other incomes sources. According to the Census, only around 1 million out of 2.2 million farms (45%) reported a positive income from agriculture while the rest had to rely on other forms of employment to support their farming expenses and rural lifestyle. The majority of farms have turned into small, part time operations where now 65% of farm owners have off-the-farm jobs (up from 55% in 2002). This gives an idea of the type of financial pressure that is on farmers and why many choose to sell their land to development. The fact that many farmers are having difficulties supporting their families poses a problem for preservation of these lands because they may see selling off their development rights as being the only way to make ends meet. Other farms are just “hobby farms” that are operated by retirees or other casual farmers that do not need the extra income but do it for enjoyment.

The financial problems shared by many farmers across the country are a concern when considering ways to preserve farmland. There is an ongoing joke among farmers that goes something like this, “What would you do if you won a million dollars?” The answer: “Why, I’d just go on farming ‘til it’s all used up!” (Richardson, 169). While this should not be taken too seriously, it helps illustrate the point that many farmers struggle at times to bring in enough income to constitute the work they put in. This makes the prospect of cashing out and selling their land to developers increasingly attractive. The problem is that when one farmer makes the decision to sell their land it often leads to a snowball effect where other surrounding land owners will start to consider it as well. A rural area on the fringe of a metropolitan region can quickly turn into sprawling development because as the number of active farm acres dwindle the farm support

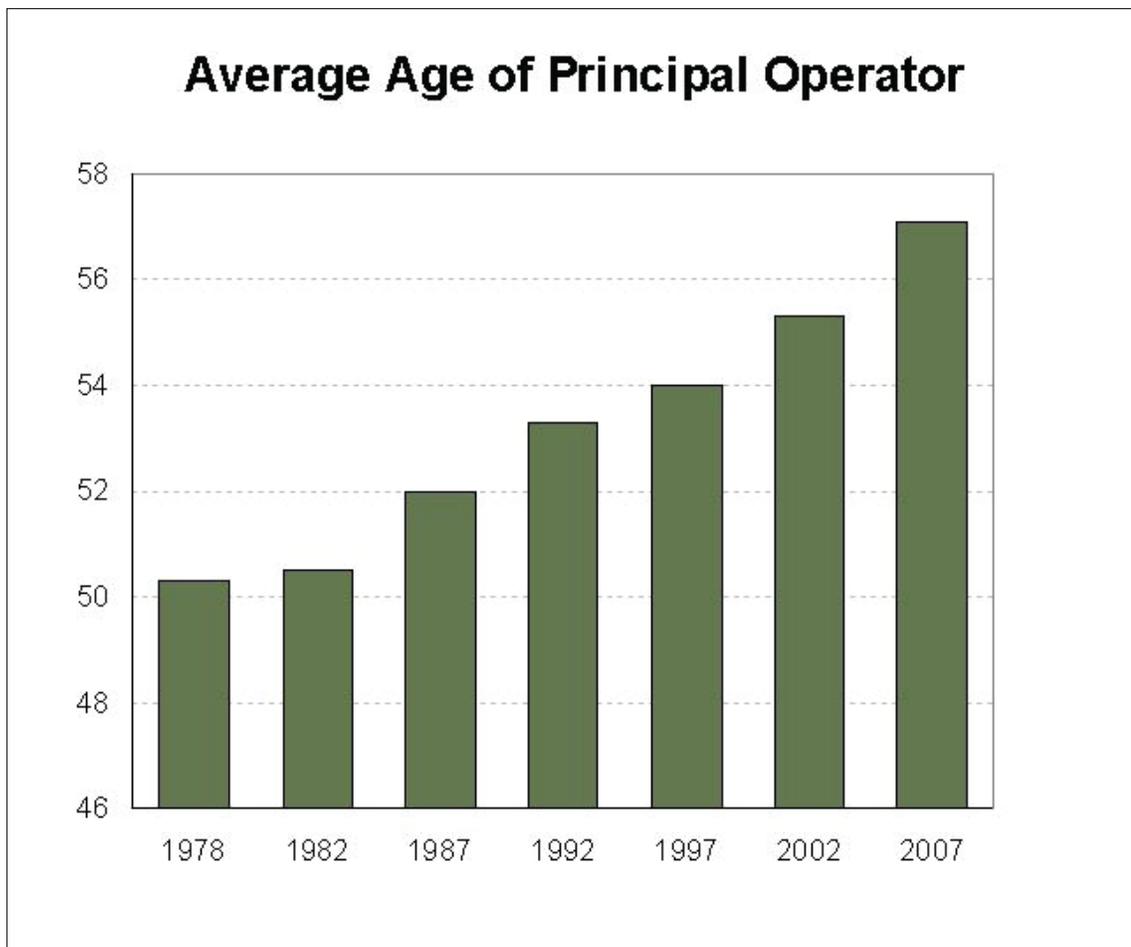
businesses like feed mills, machinery dealers, and processing plants will begin to leave as well. This will make it more expensive for the remaining farms to stay financially viable as it will be more difficult for them to run their operations and force them to travel farther for supplies and services (Daniels, 150). In essence, the threat of development only makes it more difficult for farmers to stay in operation when they were struggling to make ends meet even before the land surrounding them was sold. Another trend seen in farmers becoming surrounded by developments is their reluctance to reinvest in their own operations. This process is known as the “impermanence syndrome” (Daniels, 151). This occurs when farmers are faced with development pressures and lose their commitment to their agricultural practices because they see the selling of their land as inevitable. Farmers will stop buying supplies or repairing machinery because they think their farming practices are soon coming to an end after they see all their neighbors give in.

Another troubling trend for farming in America is the ever increasing average age of farm operators. The average age of U.S. farm operators increased in the 2007 to 57.1, up from 55.3 in 2002. Figure 4 (below) illustrates how for the past 30 years, the average age of farmers has steadily increased. This means that young people are not getting into the profession and that the same people are staying on as principal operators into the later stages of their lives. Some of this can be attributed to the fact that getting into farming requires a lot of upfront capital that young people eager to get into the field do not have. But, whatever the reasons are for this, the concern is that it could lead to more farmland being sold off as development. According to Kevin McNamara, a Purdue University professor in agricultural economics, as a result of the “increasing age of farmers, we can

expect to see more land transitions in the future, whether it's from one farmer to another, divided into small acres and sold or used for development”(Douglas). Farmers that are reaching the late stages of their life will begin to start scaling back the size of their farmland, by selling parts of it to developers and leaving the money to their children or simply subdividing the land and leaving their family to decide what to do with it. Along with the possibility of losing more land to development is the lost skill set that these older farmers have gained through the course of their career.

**Figure 4: Average Age of Principal Farm Operators for Past 30 Years**

Source: 2007 Census of Agriculture, US Department of Agriculture



## **Case Study: Kane County, Illinois**

*"The wealth of Illinois lies in her soil, and her strength lies in its intelligent development."*

**-Andrew Sloan Draper, University of Illinois President from 1894-1904**

Kane County, Illinois has developed a successful farmland preservation program that could serve as a model for counties across the Midwest. The county has taken a proactive approach to preserve farmland in the face of strong development pressures from the Chicago metropolitan region. By using some innovative techniques, Kane County has been able to keep farming viable and maintain its rural heritage while still allowing for growth where appropriate.

Kane County has undergone changes in the agricultural landscape that are similar to those seen across the country. The amount of land in farms has sharply declined since the 1940s and the county has lost nearly 50,000 acres of farmland to development since the early 1980s (2030 Land Resource Management Plan, 37). Following another national trend, the total number of farms has increased from 650 in 1997 to 759 in 2007. Even though farmland is increasingly threatened by development pressures, it still represents the dominant land use in the county. According to the Kane County Development Department, nearly 74% of the unincorporated land in the county is in agriculture. Kane

County consistently has been one of the most productive agricultural counties in Illinois, with a market value of the agricultural products sold over \$85 million per year since 1992 (Ibid, 37). The county has also been the state's leading producer of nursery, greenhouse, floriculture, and sod crops. However, being a part of the fast growing Chicago Metropolitan Area this county has seen tremendous growth putting pressure on its valuable agricultural land. Kane County grew by nearly 153,000 people between 1970 and 2000, and is expecting to grow by almost double that amount between 2000 and 2030 (Ibid, 21). Despite this growth the county has been able to preserve farmland when possible by using a comprehensive approach.

The county has recognized agriculture as being a vital aspect to the rural heritage of this area as well as making up a large part of the local economy. To go along with this understanding, Kane County has a proven history of farmland preservation. In 1980, Governor James R. Thompson passed the "Preservation of Illinois Farmlands" Executive Order. This Executive Order led to the Illinois Farmland Preservation Act that was a state policy meant to encourage the protection of farmland from conversion or degradation. Kane County quickly amended its 1976 Land Use in order to protect agricultural land uses and keep them economically viable land uses. In 1991, Kane County became the first county in Illinois to adopt a "right to farm" ordinance. This protected farmers in the county from nuisance lawsuits filed by encroaching residential neighbors that move into the area without an understanding of what it is like to live next to working farmland. The county would try to minimize these conflicts by discouraging the close proximity of incompatible uses that bring about nuisance lawsuits. In 2001, Kane County continued its

strong tradition of farmland preservation by being the first county in Illinois to establish a farmland protection program. This program acquires development rights through purchase or donation from farmers who wish to participate in the voluntary program (Ibid, 39).

Perhaps the most important aspect of Kane County's farmland preservation measures are how it has planned for growth on a regional level in order to limit farmland conversion. In Kane County's 2030 Land Resource Management Plan, the land within the county has been divided up into three distinct classifications and strategy areas for growth. The three strategy areas that are designated on the county's 2030 Conceptual Land Use Strategy Map are the urban corridor, the critical growth area, and the agricultural/rural village area (Ibid, 23). The urban corridor represents the eastern third of the county that is already urbanized and contains nearly 80% of the total population. The theme of this area is "Renaissance" because the plan encourages downtown revitalization, infill development, and other redevelopment projects that will work to contain the majority of the population within the already established urban areas. The critical growth area identifies the land directly to the west of this where development has begun expanding out into farmland and open spaces. This area has the theme of "Refinement" because it offers a location where development can be managed in a smarter and more sensible way. The county encourages the use of Smart Growth principles and clustered developments that locate houses at higher densities in order keep more land as open space or in farming. The agricultural/rural village area identifies the westernmost third of land in the county which is the least developed. This land was themed "Recommitment"

because it shows the county's desire to preserve the agricultural and open space uses prevalent in this area. By recommitting to protecting against the conversion of this land into housing, commercial, or industrial uses the county shows that it understands the importance of this land. Although much development pressure exists on the municipalities in the western part of the county, this plan remains dedicated to keeping farmland as the predominant land use.

Kane County has set high goals for the management of population growth within the county. In order to keep over 50% of the county land in agriculture or open space by 2030, almost all of the new population growth must be split between either urban corridors or critical growth areas (Ibid, 25). This can only be achieved through a commitment by the municipalities in the eastern portion of the county to focus on the infill, redevelopment, and revitalization. The current pattern of sprawl within the critical growth areas also must stop and new development decisions should be focused around 10 Smart Growth principles (see Figure 5). These principles outline a range of issues that will encourage controlled growth within the county. This long term plan will keep open space and farmland viable while also still absorbing the rapid population growth expected within the county by 2030.

**Figure 5: 10 Smart Growth Principles for Kane County, Illinois**

Source: Kane County 2030 Land Resource Management Plan

- 1.) Mix Land Uses**
- 2.) Take advantage of compact-building design**
- 3.) Create a range of housing opportunities and choices**
- 4.) Create walkable neighborhoods**
- 5.) Foster distinctive, attractive communities with a strong sense of place**
- 6.) Preserve open space, farmland, natural beauty, and critical environmental areas**
- 7.) Strengthen and direct development towards existing communities**
- 8.) Provide a variety of transportation choices**
- 9.) Make development decisions predictable, fair and cost effective**
- 10.) Encourage community and stakeholder collaboration in development decisions**

Kane County's 2030 Land Resource Management Plan shows a clear understanding of how farmland preservation efforts require a strong land use planning component. Along with advocating for Smart Growth Principles to be used on developments within the critical growth area, the plan identifies "Priority Places" where new development should be encouraged to locate (Ibid, 181). These locations are within the critical growth areas and have either existing or are planning to have infrastructure in place for sewer and water. They also are within areas that offer alternative transportation options as well as a walkability aspect with many uses located within a 5 to 10 minute walk. By planning for this future growth and offering incentives, like existing infrastructure, to locate where they want it to be the county takes some of the pressure off of farmland within the agricultural/rural village area. They understand and accept that growth is inevitable and instead of dealing with the consequences after it occurs in an ad

hoc manner, Kane County has been trying to manage the growth so that it happens where they want it to happen.

Another innovative concept in Kane County's long term plan is detailed in an amendment to the 2030 Land Resource Management Plan. This approved amendment allows for a "Protected Agriculture-Limited Development" land use in parts of the county where appropriate (Hill). This development is a variation of conservation design that clusters homes in a higher density allowing for more land to be set aside for open space. The other aspect of this development is a working farm to be within this open space left in the development that can provide a place for residents to purchase produce along with fostering a community interaction by encouraging participation in the food growing process. Generally, the farm that is left in operation will have some sort of community supported agriculture component that residents can be a part of and help support. Organic and specialty crops work well in this setting as do small equestrian facilities that will not be too disruptive to the surrounding residential areas. The county has several requirements that must be met in order for this land use to be approved. One is that the development requires an agricultural conservation easement be placed on the remaining farmland on site in order to guarantee the agricultural land will permanently stay in that use. Another requirement is that the location of the property must be in a transitional zone between the critical growth area and the agricultural/rural village area. There must be sufficient development pressure on the property owner for this land use to be approved, to be determined on a case by case basis.

**Figure 6: Site Plan For Serosun Farms, Kane County, Illinois**

Source: [www.serosunfarms.com](http://www.serosunfarms.com)



This site plan shows how Serosun Farms plans to cluster the homes along the major roads in order to keep the maximum amount of open space and working farmland.

One of the prime examples of a development of this kind in Kane County is Serosun Farms. This proposed development (construction scheduled to begin in Fall of 2009) is located near the towns of Hampshire and Burlington on around 410 acres. Over 75% of the land will remain undeveloped as open space or working farms, with 114 homes clustered over the rest of the land. The majority of farmland and open space will be dedicated to a farmland preserve to ensure that this land will stay undeveloped in perpetuity. What makes this development unique is that an organic farming operation and equestrian center will be located onsite. Two preserved farmsteads will remain within the

development and will foster a sense of community for the area by hosting farmers markets, farm tours, and cooking classes. Organic farming will occupy nearly 160 acres of the site and focus on hay and silage production, grass fed beef operations, orchards and berry operations, organic vegetables, and prairie seed production (Serosun Farms).

The development is also being marketed as sustainable because of its plans to use alternative energy sources, water conservation practices, waste recycling systems, habitat restoration, biodiversity development, and green building practices (Serosun Farms). If successful, Serosun Farms could serve as a model development for how to protect farmland within residential development. This not only encourages the preservation of smaller tracts of farmland to serve as focal points of a community but it helps maintain the rural character of this part of Kane County. The county's strong land use plan makes a development like this possible because they understand the importance of farmland to this area while still accepting that growth will occur.

The aggressive steps taken by the county in order preserve farmland have yielded several successes. Since the program began in 2001, the Kane County Farmland Protection Program has purchased the development rights on 4,673 acres over 34 total farms(Hill). This is no little accomplishment considering the rising land values in the county have made purchasing these development rights increasingly expensive. With both local and Federal matching funds (through the Federal Farm and Ranch Lands Program) there has been \$29,443,587 invested in the protection of farmland in the county through this program (Hill). Another great aspect of the plan is that the cost will not be felt by taxpayers as the local funding for the program is financed through money received

at the Grand Victoria Riverboat Casino in Elgin. The casino commits 7.5% of its net operating income to Kane County, and the agricultural easement acquisition program has received an average of \$2.5 million a year from this (Purchase of Agricultural Conservation Easements: Sources of Funding). While the purchase of development rights and fee simple purchases of farmland are an important component of the overall farmland protection goals of the county, the managed growth strategy and intergovernmental cooperation may be even more important.

Cooperation between municipalities allows for more sensible growth and land use decisions that align with countywide objectives. Kane County currently has more municipal boundary agreements per capita than any county in the state of Illinois (Ibid, 164). The county understands that outward growth by municipalities through annexations is a major problem. Growth needs to be managed on a countywide level as opposed to the past where each municipality was only concerned about growing to increase their own tax base. This pattern of development has consumed large amounts of resources and destroyed large tracts of valuable farmland within the county. By encouraging intergovernmental cooperation, like municipal boundary agreements, the county is attempting to put an end to this. Kane County needs all the municipalities to be supportive of their plans because they have only so much control over how growth occurs.

Kane County has showed a strong commitment to farmland preservation and their plans could serve as a model to many counties across the Midwest. Indiana and Illinois have historically been lacking in their farmland preservation efforts and could learn from Kane County's 2030 Land Resource Management Plan. Their focus is not solely on

protecting farmland through measures that work to save one farmstead at a time, but rather on managing the growth throughout the entire county to limit their premature conversion. Kane County realizes that it is located in an area that will continue having rapid growth because of its ideal location close to many urban centers while still maintaining a rural heritage. Many people wish to live in this type of setting and the county does not plan to halt new developments in order to preserve farmland and open space. Instead, Kane County encourages growth to occur in a smarter manner within urban areas and places where the infrastructure already exists for growth. Farmland preservation goes along with this because continuing to develop on these fields is inefficient, costly, and unhealthy for the future of this area. What is being done here would not be difficult to duplicate in other places across the country, it just requires an understanding that this is a better way to grow and a smarter way to plan.

## **Recommendations**

*“The great cities rest upon our broad and fertile prairies. Burn down your cities and leave your farms, and your cities will spring up again as if by magic; but destroy our farms, and grass will grow in the streets of every city in the country.”*

**-Nebraska Congressman William Jennings Bryan, speaking at the Democratic National Convention of 1896**

For many decades farmland preservation has been at the center of the battle for land on the metropolitan fringe. As urban areas have continued to sprawl outwardly into these previously undeveloped lands the conflict has grown. Many have called for the protection of farmland because of its importance to the local economy, cultural and aesthetic value, and most obviously food production. Developers and land owners talk about an individual's rights to do what they want with their land and the seemingly infinite amount of farmland in this country. The debate has continued for a long time, yet very little has changed. However, new trends are emerging in agriculture. These trends, seen in the 2007 Census of Agriculture data, along with the growing number of American's concerned with how and where their food is produced have created an opportunity to rethink the way we protect our farmland.

The most common techniques that have been used to preserve farmland across the country have generally been the programs that cost municipalities the most money. Purchase of development rights (or conservation easements) and fee simple purchases of agricultural land have been two of the most widely used ways that government agencies or conservation organizations attempt to stop the development of farmland. These techniques are attractive because they are effective, straight forward, and they last forever. The problem is that these are also the most expensive techniques for cities and require tremendous political will for them to be enacted. Even states with a strong agricultural heritage like Indiana have lacked the political will to commit funds to one of these programs. Agricultural preservation programs that rely mainly on governmental financial support will always have a difficult time because in a struggling economy they can be the first programs to lose funding. Also, many see new development as a way to spur more economic activity, with little concern for how or where this development occurs. These reasons help highlight why it is important for government agencies and conservation organizations to focus on new ways to deal with farmland preservation. While the prevalent ways to handle this issue will still remain common, there may be new ways to supplement these actions. Alternative ways to protect farmland may be the answer in the Midwest that has been generally lacking in commitment to the current techniques available.

Farmland preservation measures need to focus on techniques that do not require vast amounts of public funding and respond to the changing agricultural climate. A technique underutilized is the transfer of development rights. This program allows for

municipalities to encourage growth in the urban core and push it away from farmland. In this case the private developers are the ones that actually purchase the development rights away from farmers in order to build in an increased density in the “receiving area”. While these programs can be complicated and difficult to get started, they require minimal governmental funding. It may come as a surprise then that as of April 2008, neither Illinois or Indiana had enacted one of these programs (Transfer of Development Rights). Illinois would seem to be an ideal state for a transfer of development rights program with tremendous growth pressure on the Chicago metropolitan region and valuable farmland located just outside these urban areas. Indiana could definitely benefit from trying one of these programs. The cash strapped state points to a lack of funds when denying calls for farmland preservation, but that will not work in this case. It is another example of a lack of commitment to planning and protecting its agricultural heritage across the state.

One of the problems with transfer of development rights programs is that they do not work everywhere. They require the intense development pressures along with an urban core where the increased density will be desirable to enough developers. These development pressures exist in the Indianapolis region, all that is needed is leadership to step up and show a commitment to preserving agricultural land.

While farmland preservation has been known as anti-development, there are some development patterns that could actually protect farmland. An example would be conservation design subdivisions with clustered houses. A development of this type maximizes the amount of the land that will be left to either open space or farmland, while densely locating (“clustering”) the housing units. These developments are essentially a

compromise. The growth is accepted as inevitable, but is done in a smart way that conserves the natural resources. Municipalities need to realize that they will not stop all farmland from being destroyed and developed on.

Conservation developments must follow an intense site analysis in which the most important ecological features of the site are identified and labeled on a map. Randall Arendt, a national expert on conservation design, outlines four easy steps to arrange the development site. The first step is to identify all potential conservation areas taking into account unbuildable areas and buildable areas that are either environmentally, culturally, or historically significant. This could include farmland that would be saved and kept as an amenity to the site. The second step is to locate the house or building sites in a manner that maximizes their view and/or access to the natural areas. The third step is to design the street and trail layout in a way that maximizes efficiency and accessibility. The fourth step is to draw the lot lines (Conservation Design Strategy Paper, 4). Any built features on the site are meant to be placed in a way that will cause minimal disruption to the natural areas. Any plans for development on farmland should research the soil types that exist on the land and identify which types should be left undisturbed. The prime agricultural soils should remain free of development and could be where a small farming operation on site will be located. The Natural Resources Conservation Service offers a web soil survey where the different soil types on a proposed development site could be identified. A city or county plan review process could require this analysis in order to gain approval and recommend options for developing in a way that conserves land with the most productive soils.

For newcomers to living in rural areas, living next to a farm is usually not what they expected. People are drawn to this setting because of quiet, undisturbed living with beautiful views. They do not realize how noisy, smelly, and dirty many of these operations can be. This can be a major hindrance to preserving farmland in a conservation development. Although further research is needed on this topic, it is generally accepted that many of the problems that residents have with farms come from large farming operations and not the small scale farms. The growth of small scale farms, shown in the 2007 Census of Agriculture, creates an opportunity for more conservation design developments to be built around working farms. Many of the small scale farms are organic (will not be spraying pesticides), do not use heavy machinery (will make less noise), and produce locally grown food. Locating these two uses close together makes perfect sense because it not only preserves farms but it creates an amenity for this new community.

This type of development pattern takes advantage of the changing preferences of consumers. Many consumers are beginning to show opposition to the current agribusiness, industrial farming food production system. People want food that is produced locally for reasons related to health, the environment, and the community. Developments with a working farm within the subdivision can fill this need for residents. This small scale farming that brings together local residents and sells directly to consumers is defined as civic agriculture(Cohen, 55). Farming on this level not only can meet some of the basic nutritional requirements of the residents but help create a sense of community. Residents can be involved in the food production process and get to know

neighbors while working in the field. The food produced can be sold directly to consumers through community supported agriculture, cooperative production and distribution, or a farmers market. Community supported agriculture can be initiated at the local farm that gives people the opportunity to buy “shares” in the farms in exchange for produce during the harvest. Residents have a stake in the welfare of the farm and are more likely to get involved in the hands-on farming operations. While community supported agriculture essentially focuses on connecting local farming operations to nearby residents in a business partnership, development supported agriculture is establishing the relationship between development and agriculture.

Development supported agriculture is the type of development Kane County wishes to foster through their “Limited Development/Protected Agriculture” amendment to their 2030 Land Resource Management Plan. This type of growth attempts to conserve open space and agriculture at metropolitan fringe areas. It requires a large portion of the site be set aside for agricultural purposes and protected through conservation easements. Along with the Serosun Farms development, discussed earlier, Prairie Crossing is another development in the Chicagoland area that follows this approach. Located in Grayslake, Illinois, Prairie Crossing has one of the most critically acclaimed conservation developments in the country. The development has followed the clustering of homes pattern to preserve many of the natural amenities originally on the site. An organic farm covers over 90 acres within the site, along with a stable, and a barn, built in 1885, that serves as a community center. Sandhill Organics, the name of the organic farm onsite, has a community supported agriculture component, along with a learning farm, and a

farmers market. Community supported agriculture shares make up approximately 60% of the farms \$300,000 annual revenue and farmers' market sales account for about one third (Cohen, 56). The learning farm is a place to educate the public about "environmental stewardship, sustainable growth, and organic agriculture" (The Prairie Crossing Learning Farm). There are a variety of programs offered through this farm that are meant to teach kids and adults alike about how farming works. This addresses the problem of people being disconnected with the food production in this country. Without educating both children and adults about how their food is made, they will not have an appreciation of farming. This lack of understanding can lead to the feelings of apathy that most people have when they see yet another farm being destroyed to make way for a new development.

Along with educating visitors about farming, Prairie Crossing has an incubator program meant to help young farmers get into the field. This program offers young, interested farmers the opportunity to gain experience as well as learn about the business side of the profession. Still in the early stages, the program so far has 5 farmers enrolled that are currently working on small parcels of around 5 acres each (Cohen, 56). Programs like this are necessary given the ever increasing average age of farmers in this country. Unless young farmers are given the opportunity to get into the field and start their own operations, many old farmers may sell their land to development and retire. For this reason, new farmers need to be encouraged to get into the profession. The extremely high overhead costs involved in farming are one obstacle that they must overcome. This

program at Prairie Crossing should be followed in more developments across the country as a way to save more valuable farmland.

Developments that are concerned with having working farms onsite are growing in popularity. While the names range from conservation developments to eco-villages to development supported agriculture to civic agriculture, the ideas are consistent. These developments promote sustainable agriculture offering a locally grown food source to residents. These farms also can foster community interactions through a variety of opportunities for residents to get involved in the food growing process. The idea is that residents will get to know their neighbors while also learning about agriculture. The other goal that these developments share is farmland preservation. These developments deal with growth in a different way than conventional practices. They view farmland as an important amenity worth protecting as opposed to the conventional view that farmland is simply land waiting to be developed. While these developments are ideal for transitional zones between suburban and rural areas, they will not work everywhere. They can be effective to serve as a sort of buffer between these areas, but they will not be able to preserve all farms that are under development pressures.

Financial problems make development pressures felt by farmers increasingly difficult to resist. As was mentioned earlier in the paper, farming is becoming more and more of a secondary occupation. For many farmers their work in the fields must be supplemented by additional incomes sources in order to make ends meet. These difficulties only make it easier for developers to convince farmers to sell their land. According to Bob Wagner, senior director for farmland protection programs with the

American Farmland Trust, “When farming is not economically sustainable, we know that farmers leave agriculture and are much more likely to sell their land” (Morrill). Based on this, effective farmland preservation programs must deal with finding a way to keep farmers financially viable. There needs to be agricultural economic development initiatives that help farmers stay on their land and keep it productive. Examples of ways that this could be done are agritourism, direct marketing, and branding. Agritourism is essentially any way that a farm attempts to attract visitors. Some ways that farms could promote agritourism include offering visitors the chance to pick their own food, wineries with tastings, or gift shops selling locally made products. These types of farms are growing in popularity and there are a variety of other ways that agritourism can be used to bring in some extra income for farmers. Direct marketing means farmers selling their products directly to the consumers. This could be done through ways mentioned earlier, such as farmers markets, community supported agriculture programs, along with selling directly to local restaurants and grocery stores. The concept of branding deals with the farmer changing the food they grow or coming up with new ways to market it. Many medium sized farmers grow commodity crops that are difficult to make a profit on because of the competition from the large industrial farming operations. Instead of continuing on this path, farmers could begin growing crops that will differentiate them from others. They could become an organic operation or even just grow some unique crop that very few in the area grow. The product could be marketed in a new way by being labeled as “organic”, “locally grown”, or “farm fresh”. These are several ways that could help small to medium sized farms stay financially viable.

The farmland preservation techniques that are most often used are the programs that attempt to protect farms on an individual level. The most common practice is for the focus to be on saving a single farm at a time from development. This technique is flawed in that it does not handle land use issues or attempt to manage growth on the regional level. When only one city in a county, region, or state is committed to preserving farmland the problem cannot be solved. Real estate developers will simply move to the areas that have less stringent growth restrictions. As with almost all planning, economic development and environmental issues, if we really want to make a difference we must broaden our scale. Farmland protection programs should be controlled by regional, county, or state planning associations. They should focus on coming up with a unified vision that covers not only agricultural issues, but more generally growth management. The growth should be encouraged in a smart manner that conserves the resources of the area. It will be the job of the regional, county, or state planning association to ensure that all the individual municipalities buy into this vision and agree to follow it. Kane County, Illinois has taken this approach by finding ways to persuade communities to enter into municipal boundary agreements. They have also come up with a focused and clear vision of where they want future growth within the county to occur. These actions are intended to help prevent the future conflicts to between farmland and development from happening. It is these types of preventative measures that save communities from having to purchase farmland or development rights down the road when it is often times too late and far too expensive.

The changing agricultural landscape brings on new and exciting challenges to anyone concerned about the future of farming in this country. The discussion about all the new and innovative ways to preserve farmland could go on for days. Ultimately, however, the issue comes down to one factor. That is whether or not the commitment to farmland preservation exists on either a city, county, state, or federal level. The political leadership, planners, farmers, and general public must show that they are willing to fight to protect these important resources. Many states have taken drastic steps to dealing with this issue and the work is beginning to pay off. Others are lagging behind and eventually will have to deal with the consequences. The issue is complex and complicated but needs to be dealt with before it is too late.

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