

Mount Pleasant Township

Wayne County Agricultural Land Use/Land Cover Study

A study examining the change of agricultural land use and land cover
in Wayne County from 1959 to 2002

This is report M-16, Mount Pleasant Township; in a series of reports examining land use and land cover change in Wayne County's 28 municipalities, particularly agricultural land between 1959 and 2002. For a detail of the study procedures, see the Project Narrative.



Overview

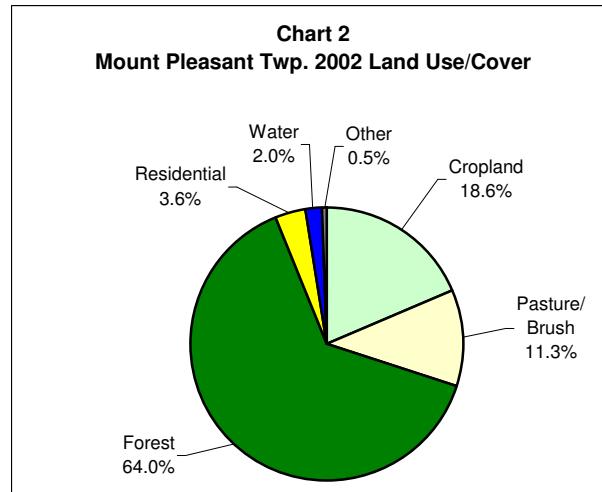
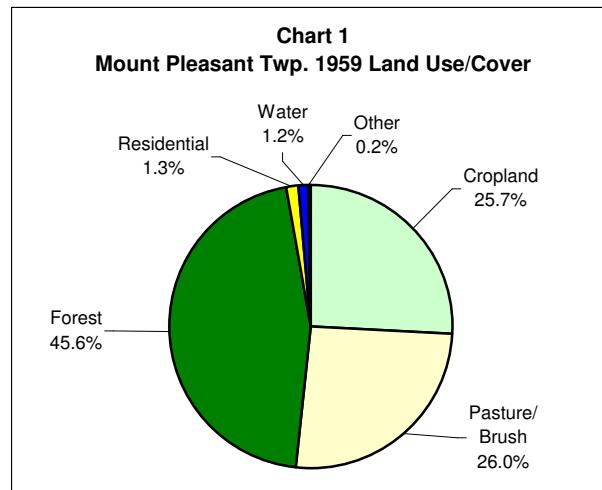
Mount Pleasant Township is located in the northwest part of Wayne County. It is the second largest municipality in Wayne County with a total of approximately 36,844 acres or nearly 58 square miles, which accounts for 7.7% of the County's land area. As can be seen in Table 1 {below} and Charts 1 and 2 {right}, the majority of Mount Pleasant Township was divided between forest, pasture/brush and cropland in both 1959 and 2002. The agricultural related land use/cover decreased by a certain extent over the forty-plus year study period while the amount of forest, residential, commercial and water land cover and land use classifications increased.

Table 1-Mt. Pleasant Twp Land Use/Land Cover

Land Use/ Land Cover	Mount Pleasant 1959 Acres	Category Percent of Total	Mount Pleasant 2002 Acres	Category Percent of Total
Residential	147.84	0.4%	1,094.10	3.0%
Commercial	10.88	0.0%	101.46	0.3%
Industrial	1.15	0.0%	12.35	0.0%
Transportation	2.38	0.0%	-	0%
Utilities	0.21	0.0%	2.29	0.0%
Religious	26.99	0.1%	27.28	0.1%
Government/Institution	39.80	0.1%	55.69	0.2%
Recreational	1.51	0.0%	2.42	0.0%
Cropland	9,475.06	25.7%	6,838.55	18.6%
Farmstead	324.37	0.9%	212.15	0.6%
Pasture/Brush	9,572.65	26.0%	4,167.58	11.3%
Forest	16,804.23	45.6%	23,593.64	64.0%
Water	436.63	1.2%	736.19	2.0%
Mining	-	0%	-	0%
Total	36,843.70	100.0%	36,843.70	100.0%

The table above shows the acreage and percentage for each land use/cover classification in Mount Pleasant Township for 1959 and 2002.

The charts below show the percent values for the land use/land cover categories in Mount Pleasant Township for 1959 and 2002. The residential category includes farmsteads in each chart's total throughout this report, and the category "other" includes the land use/land cover categories that were too small to illustrate individually.



The charts shown above give a visual comparison of the land use and land cover changes over the past 43 years. Cropland and pasture/brush cover 7.1% less and 14.7% less of the Township, respectively. Forestland, however, now covers 18.4% more of the Township, accounting for 64.0% of Mount Pleasant Township's land area.

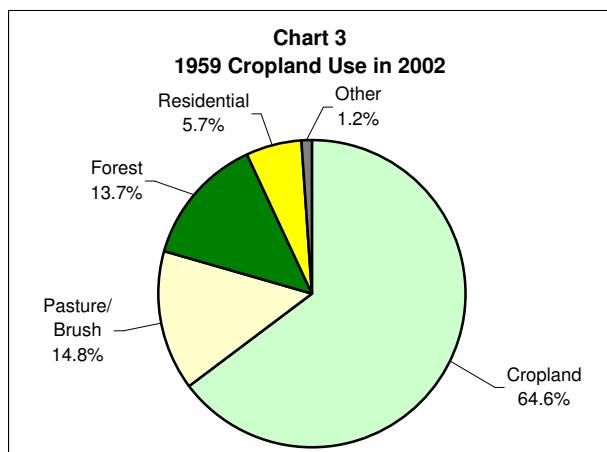
Cropland

In 1959, cropland covered 25.7% of the Township land area, which equaled 9,475 acres. By 2002, the amount of cropland had decreased by approximately 2,636 acres, which means it covers 7.1% less of the Township. Table 2 and Chart 3 {below} show what became of the 1959 cropland within the Township.

Table 2 - 1959 Cropland Use in 2002

Land Use/Land Cover	1959 Cropland Classification in 2002	
	Acres	Percent
Residential	470.05	5.0%
Commercial	62.64	0.7%
Industrial	11.49	0.1%
Transportation	-	0%
Utilities	-	0%
Religious	1.71	0.0%
Government/Institution	1.10	0.0%
Recreational	-	0%
Cropland	6,123.58	64.6%
Farmstead	69.70	0.7%
Pasture/Brush	1,398.97	14.8%
Forest	1,300.04	13.7%
Water	35.77	0.4%
Mining/Extraction	-	0%
Total	9,475.05	100.0%

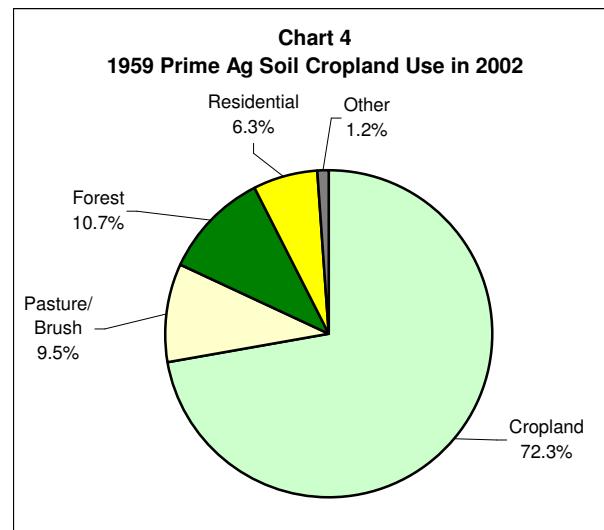
Of the 9,475 acres of 1959 cropland, almost two-thirds or approximately 6,124 acres were still being used as cropland in 2002. Nearly 2,700 acres of the 1959 cropland converted to natural land cover types by 2002, either as forest (13.7%) or pasture/brush (14.8%). Nearly 540 acres, equal to 5.7%, was converted to residential and farmstead use.



The United States Department of Agriculture (USDA) classifies soil as prime agricultural soil, farmland of statewide importance or non-prime soil. Details of the three classifications can be found in the County summary. The following sections will examine soils from a prime versus non-prime perspective.

Prime Agricultural Soil

In 1959, approximately 2,664 acres, equal to 28.1%, of the Mount Pleasant Township cropland was located on prime agricultural soil. By the end of the study period in 2002, over 1,925 acres or 72.3% was still being utilized for cropland production. Over 20% of the 1959 prime soil cropland converted to natural types of land cover, either as forest (10.7%) or pasture/brush (9.5%). These two land classifications accounted for almost 540 acres of the prime cropland from 1959. Another 168 acres was converted to residential use. Chart 4 {below} shows what became of the 1959 cropland located on prime agricultural soil.



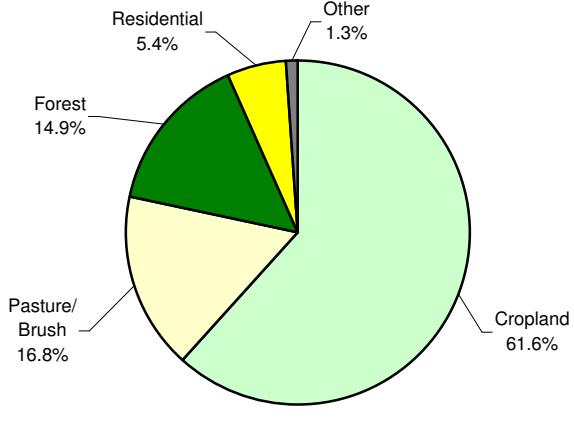
Of the 2,664 acres of cropland located on prime agricultural soil from 1959, approximately 1,926 acres remained as cropland in 2002, which was equal to 72.3%.

Non-Prime Agricultural Soil

In 1959, approximately 6,811 acres, equal to 71.9%, of the Mount Pleasant Township cropland was located on non-prime agricultural soil. By the end of the study period in 2002, a total of 4,198 acres, equal to 61.6%, was being utilized for cropland production. Over 2,160

acres of 1959 non-prime soil cropland had become either forest or pasture/brush. A total of 1,016 acres or 14.9% had changed to forest cover and approximately 1,145 acres became idle cropland and turned into pasture/brush, which was equivalent to 16.8% of the 1959 non-prime soil cropland. An additional 322 acres had been converted to residential use and nearly 50 acres of prior non-prime cropland had been utilized for farmstead expansion. Combined, these two land categories equaled another 5.4%. The remaining 1.3% changed to commercial and industrial uses and water coverage. Chart 5 {below} illustrates what became of the 1959 cropland located on non-prime agricultural soil.

Chart 5
1959 Non-Prime Ag Soil Cropland Use in 2002



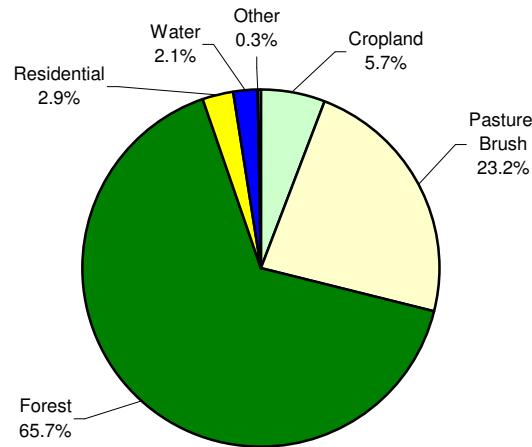
Of the 6,811 acres of cropland located on non-prime agricultural soil from 1959, nearly 4,200 acres remained as cropland in 2002, which was equal to 61.6%.

Pasture/Brush

In 1959, over one quarter of Mount Pleasant Township was categorized as pasture/brush {see Table 1}, which was slightly more than the amount of cropland at that time. By 2002, this land cover had decreased in excess of 5,400 acres, which equaled a reduction in total Township coverage of 14.7%. Over 11% of the Township's land area consisted of pasture/brush land in 2002. Of the 1959 pasture/brush acreage of roughly 9,573 acres, nearly two-thirds naturally converted into forest over this time period. Another 23.2% remained as the same land cover forty-three years later. Chart 6

{below} shows the conversion of the 1959 pasture/brush in Mount Pleasant Township.

Chart 6
1959 Pasture/Brush Use in 2002



Nearly 550 acres of the 1959 pasture/brush was converted to cropland and over 200 acres became water cover over the forty-three year period.

Forest

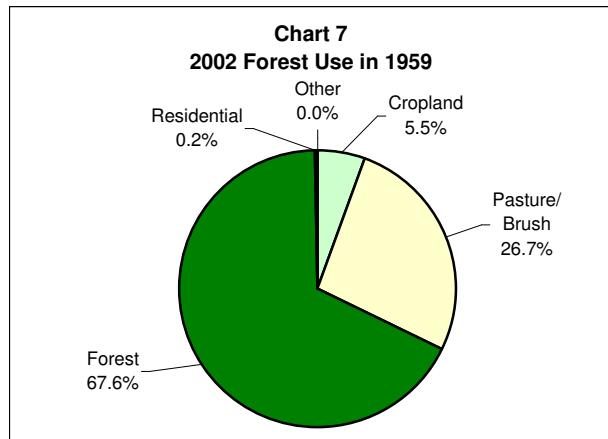
In 1959, there were over 16,800 acres of forest, which accounted for 45.6% of the total land area of Mount Pleasant Township {see Table 1}. By 2002, the forest cover had increased by an additional 6,790 acres to a total of approximately 23,590 acres, which was equivalent to 64% of the Township's land area. Of the additional forest acreage gained over this time period, almost 6,300 acres came from prior pasture/brush land and another 1,300 acres came from former 1959 cropland. Also, nearly all of the 1959 forest in the Township remained as forest by 2002. Of the 16,800 plus acres of 1959 forest, a total of 15,950 acres remained by 2002, which equaled 94.9% and ranked Mount Pleasant Township sixth in the percentage of forest retention within the County over the study period {see Table 3 on next page}. Of the 5.1% that actually did change to a different land category, a total of 3.4% converted to other natural land covers, namely pasture/brush (2.9%) and water (0.5%). These two land covers accounted for approximately 570 acres. Another 144 acres or 0.9% was converted to residential use and 125 acres or 0.7% became utilized for cropland production over this time period.

Table 3 - 1959 Forest Use in 2002

Land Use/Land Cover	1959 Forestland Classification in 2002	
	Acres	Percent
Residential	143.59	0.9%
Commercial	3.26	0.0%
Industrial	-	0%
Transportation	-	0%
Utilities	1.01	0.0%
Religious	0.28	0.0%
Government/Institution	2.08	0.0%
Recreational	0.91	0.0%
Cropland	124.88	0.7%
Farmstead	4.38	0.0%
Pasture/Brush	488.51	2.9%
Forest	15,951.78	94.9%
Water	81.33	0.5%
Mining/Extraction	-	0%
Total	16,802.01	100.0%

The table above shows the acres and percentages of the 1959 forest in Mount Pleasant Township and what it became by 2002. Notice the percentage of forest that was retained over the study period, which ranked 6th in the County.

In 2002, nearly 23,600 acres or 64% of Mount Pleasant Township was forest; Chart 7 {below} shows how this forest acreage existed back in 1959 by percentage.



A total of 94.3% of the 2002 forest was natural land cover back in 1959, namely forest with approximately 15,950 acres and pasture/brush with nearly 6,300 acres. A total of 1,300 acres, equaling 5.5% of the 2002 forest cover, was previously used as cropland back in 1959 and less than 20 acres was used for residential purposes.

Protected Agricultural Land

Mount Pleasant Township had a total of approximately 13,076 acres of land enrolled in the Agricultural Security Area Program by 2002, which is equivalent to over 35% of the Township's land area. Additionally, there were 1,080 acres enrolled in the Agricultural Conservation Easement Purchase Program by 2005. This perpetually preserved land accounts for nearly one quarter of the total acreage that has been placed in the County's easement program to date. There were also approximately 9,925 acres of land accepted into the Act 319 (Clean & Green) Program, which accounts for 28.4% of the taxable acreage within Mount Pleasant Township. This tax designation reduces the assessed value of the Township by 12,118,800 or 8%.

Summary

Mount Pleasant is second only to Damascus Township in the total number of cropland acres in both 1959 and 2002. Also, during this period forest increased its coverage to approximately 23,594 acres or 18.4% more of the Township and now accounts for 64% of Mount Pleasant Township's land area. Pasture/brush land was reduced during this time period and covers 14.7% less of the Township. There was also a decrease of cropland, which covers 7.1% less of the Township. The residential land utilized an additional 2.6% of the Township over the study period, but accounted for only 3% of the Township's total land area by 2002. Cropland still covers nearly one-fifth of the entire Township.

Wayne County Agricultural Land Use/Cover
This project was funded in part by the Wayne County Commissioners and by a grant from the Pennsylvania Department of Community and Economic Development. This study examines the change in agricultural land use/cover over 43 years (1959-2002). The base data is 1959 USDA aerial photos which were registered to the state plane coordinate system by Wilkes University's Center for Geographic Information Sciences. This enabled comparison with the 1997 aerial photos taken by Wayne County. To aid in the analysis of the data, local municipal volunteers worked with planning department staff members in reviewing the aerial photos and resulting land use maps. A complete list of those community volunteers who aided in the completion of this report can be found in the report summary.