

Oregon 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-17, Oregon 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

Oregon Township is centrally located in Wayne County. The total land area of the Township is approximately 11,501 acres or about 18 square miles, which accounts for 2.4% of the County's total land area. A certain amount of decrease over the 40-plus year study period can be seen

for farming related activities. Table 1 {below} and Charts 1 and 2 {right} show the amount of cropland, farmstead and pasture/brush land use/land cover decrease between 1959 and 2002. It can also be seen that the acreage for residential and forestland use/cover increased during this time. Additional changes in land use/land cover that occurred are covered in detail on the following pages.

The charts {below} show the percent values for the land use/land cover in Oregon Township for 1959 and 2002. The category residential includes farmsteads in its total in each chart throughout this report, and the category "other" includes land use/land cover that had a low value and would be difficult to see individually in a pie chart.

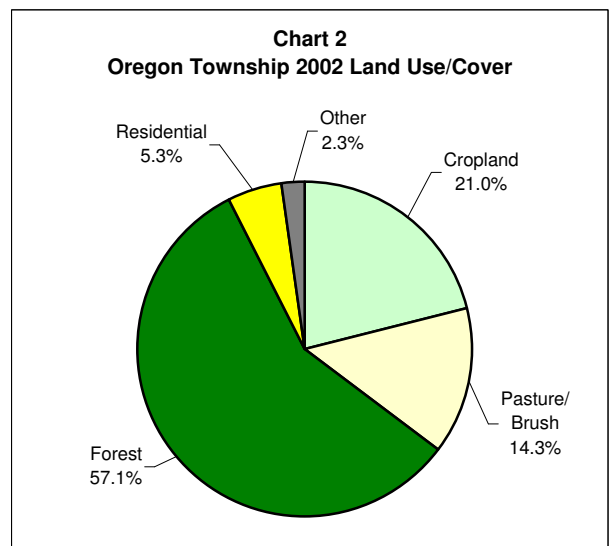
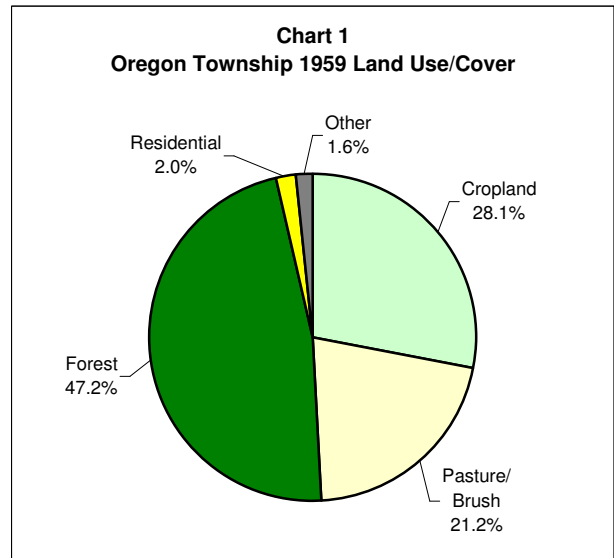


Table 1 – Oregon Township Land Use/Land Cover

Land Use/Land Cover	Oregon 1959 Acres	Category Percent of Total	Oregon 2002 Acres	Category Percent of Total
Residential	40.49	0.4%	503.31	4.4%
Commercial	31.93	0.3%	41.91	0.4%
Industrial	0.25	0.0%	-	0%
Transportation	-	0%	-	0%
Utilities	-	0%	-	0%
Religious	3.70	0.0%	3.70	0.0%
Government/Institution	0.52	0.0%	0.27	0.0%
Recreational	-	0%	-	0%
Cropland	3,226.38	28.1%	2,419.88	21.0%
Farmstead	190.47	1.7%	106.25	0.9%
Pasture/Brush	2,435.35	21.2%	1,643.47	14.3%
Forest	5,428.75	47.2%	6,564.98	57.1%
Water	143.09	1.2%	217.15	1.9%
Mining/Extraction	-	0%	-	0%
Total	11,500.93	100.0%	11,500.92	100.0%

The above table shows the amount of acres and percent for each land use/cover category in Oregon Township for 1959 and 2002.

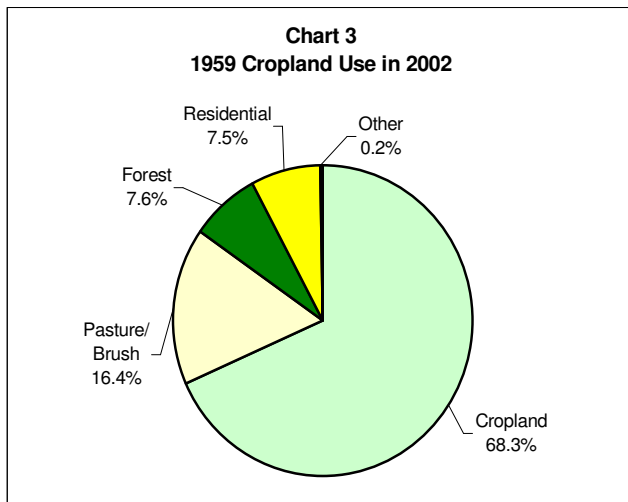
Notice the decrease in cropland and pasture/brush over this time period and at the same time the increase in forest cover and residential use.

Cropland

For the purposes of this study, cropland includes areas containing a number of agricultural products, including but not limited to hay, corn, fruit, and Christmas trees. In 1959, over 28% of Oregon Township was cropland. By 2002, cropland was reduced to 21% of the Township {see Table 1}. Table 2 and Chart 3 {below} illustrate what became of the 1959 cropland.

Table 2 –1959 Cropland Use in 2002

Land Use/Land Cover	1959 Cropland Classification in 2002	
	Acres	Percent
Residential	220.38	6.8%
Commercial	1.30	0.0%
Industrial	-	0%
Transportation	-	0%
Utilities	-	0%
Religious	-	0%
Government/Institution	0.03	0.0%
Recreational	-	0%
Cropland	2,204.55	68.3%
Farmstead	23.19	0.7%
Pasture/Brush	527.53	16.4%
Forest	244.62	7.6%
Water	4.78	0.1%
Mining/Extraction	-	0%
Total	3,226.38	100.0%



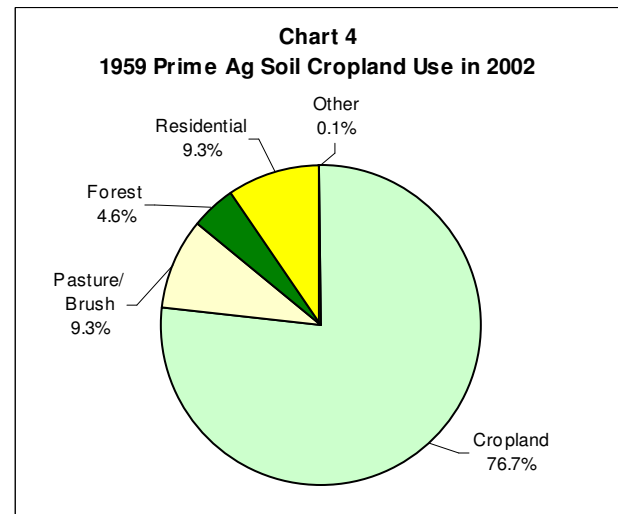
Of the 1959 cropland, over two-thirds (approximately 68% or 2,205 acres) remained as cropland in 2002. Oregon Township ranked fourth in the County for the percentage of cropland retention over the study period. The

largest change was the cropland that became pasture/brush by 2002, which amounted to over 16% of the total cropland area of the Township or 528 acres. Other significant changes were the approximately 8% or 245 acres which became forest and the approximately 7% or 220 acres that became residential. One item of interest is that over 92% of the 1959 cropland remained open area in 2002.

The United States Department of Agriculture 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 analyze soils from a prime versus non-prime perspective.

Prime Agricultural Soil

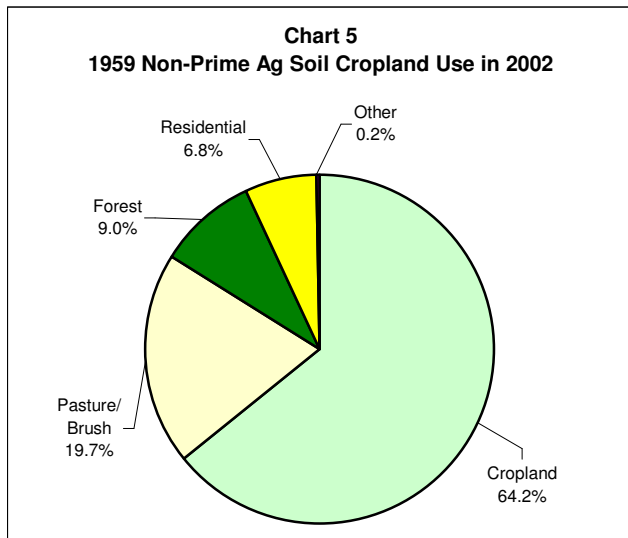
In 1959, a total of 33% or approximately 1,065 acres of the cropland in Oregon Township was utilizing prime agricultural soil. Of the original 1,065 acres, almost 77% or 816 acres was still being utilized as cropland in 2002 {see Chart 4 below}. Of the remaining percentage of the



1959 cropland utilizing prime agricultural soil, over 9% or 99 acres became pasture/brush, over 9% or 99 acres became residential, almost 5% or 49 acres became forest and a couple of insignificant acreages accounted for the remaining area. Chart 4 {above} illustrates what became of the 1959 cropland that was utilizing prime agricultural soil.

Non - Prime Agricultural Soil

In 1959, a total of 67% or 2,161 acres of the cropland in Oregon Township was utilizing non-prime agricultural soil. In comparison to the prime agricultural soil cropland, a lesser percentage (approximately 64% or 1,388 acres) of the non-prime agricultural soil was still being used as cropland in 2002 {see Chart 5 below}. This illustrates the willingness of farmers to let go of the less desirable soil for cropland production. The most significant change of land



use/land cover for the non-prime agricultural soil was the almost 20% or 427 acres that became pasture/brush. Other significant changes included the 9% or 195 acres that became forest and the approximately 7% of the non-prime agricultural soil, or 147 acres that changed to residential land use. The remaining acreage (less than 5 acres) changed to water land cover.

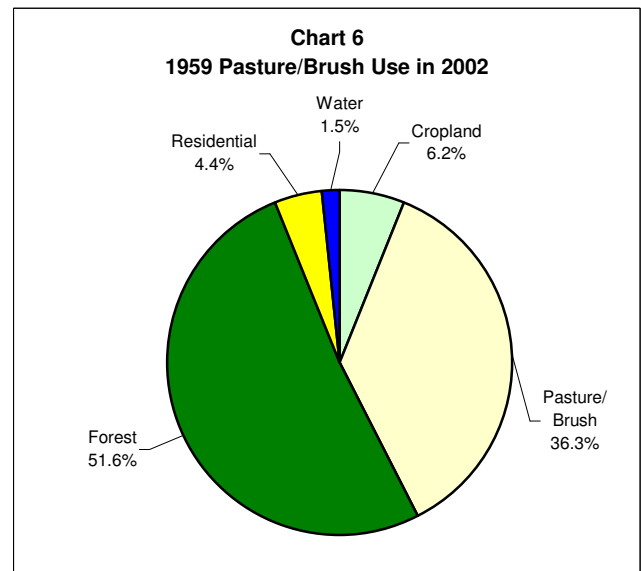
Pasture/Brush

In 1959, pasture/brush accounted for about 21% or 2,435 acres of the total land area of Oregon Township {see Table 1}. The pasture/brush land cover classification is land that is in the early reforestation process or is used for agricultural support operations, such as livestock grazing. By 2002, the amount of pasture/brush decreased to approximately 14% or 1,643 acres, which represents a decrease of 792 acres or about 7% of the total land area of the Township. A total of about 36% or 883 acres remained as pasture/

brush over the 43-year study period. The majority of the pasture/brush naturally grew into forest by 2002. Almost 52% or 1,256 acres became forest by 2002. Of the remaining area of 1959 pasture/brush, about 6% or 150 acres became cropland, just over 4% or 100 acres became residential, 1.5% or 38 acres became water and a third of a percent or approximately 8 acres became used as a farmstead. Table 3 and Chart 6 {below} indicate what became of the 1959 pasture/brush in Oregon Township.

Table 3 – 1959 Pasture/Brush Use in 2002

Land Use/Land Cover	1959 Pasture/Brush Classification in 2002	
	Acres	Percent
Residential	100.25	4.1%
Commercial	-	0%
Industrial	-	0%
Transportation	-	0%
Utilities	-	0%
Religious	-	0%
Government/Institution	-	0%
Recreational	-	0%
Cropland	150.43	6.2%
Farmstead	7.69	0.3%
Pasture/Brush	883.22	36.3%
Forest	1,256.03	51.6%
Water	37.72	1.5%
Mining/Extraction	-	0%
Total	2,435.34	100.0%



The above chart illustrates what became of the 1959 pasture/brush by 2002. Over half of the 1959 pasture/brush grew naturally into forest by 2002, which was equivalent to 1,256 acres.

Forest

The largest category of land use/land cover in both 1959 (approximately 47% or 5,429 acres) and 2002 (approximately 57% or 6,565 acres) was forest {see Table 1}. As seen in Chart 6 {previous page}, a significant amount of the increase in forest is attributable to the area of pasture/brush that became forest over this period of time. This was a common type of change that was often seen in many areas of the County over the study period. Table 4 {below} lists what use the 1959 forest became by 2002. Of the approximate 5,429 acres, almost 93% or 5,043 acres remained forest. Of the remaining area of 1959 forest, approximately 4% or 200 acres became pasture/brush, less than 2% or 85 acres became residential and several insignificant acreages accounted for the rest of the changes.

Table 4 – 1959 Forest Use in 2002

Land Use/Land Cover	1959 Forest Classification in 2002	
	Acres	Percent
Residential	85.44	1.6%
Commercial	10.73	0.2%
Industrial	-	0%
Transportation	-	0%
Utilities	-	0%
Religious	-	0%
Government/Institution	-	0%
Recreational	-	0%
Cropland	49.86	0.9%
Farmstead	2.56	0.0%
Pasture/Brush	199.70	3.7%
Forest	5,043.01	92.9%
Water	37.45	0.7%
Mining/Extraction	-	0%
Total	5,428.75	100.0%

Residential

Residential land covered 4% more of the Township by 2002 {see Table 1}. The majority, about 44% or 220 acres, of this change came from cropland. Additionally, other sources of residential were almost 20% or 100 acres from pasture/brush, 17% or 85 acres from forest, and 12% or 60 acres from farmsteads. The final acreage included over 7% or 36 acres that remained residential and several insignificant acreages of other land use/land cover types.

Protected Agricultural Land

Oregon Township has 4,683 acres of land that is designated in the Agricultural Security Area Program, which is equivalent to over 40% of the Township's total land area. None of this area has been placed in the Agricultural Conservation Easement Purchase Program as of the end of the study period. Also, there are 1,913 acres in Oregon Township with a preferential assessment under the Clean and Green Program. These 1,913 acres represent 16.8% of the taxable acreage in the Township and this tax designation reduces the assessed value of Oregon Township by \$3,075,600 or 4.2%.

Summary

This study showed a decrease in cropland and pasture/brush of 1,598 acres combined while forest increased 1,136 acres. Both cropland and pasture/brush each experienced an approximate 7% decrease in the total land area they occupy in the Township. However, agriculturally related land use/land cover remained a significant part of the Township since it ranked fourth in the County with the retention of over 68% of the cropland over this period of time. Forest accounted for the largest increase by the addition of approximately 10% of the total land area of the Township to this category. Residential land use saw a large increase in acreage (463 acres), but this increase only represented 4% of the total land area of the Township. The combined area of open land (cropland, pasture/brush, forest, and water) still accounted for over 94% of the total land area of the Township in 2002.

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.

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