# Cherry Ridge 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-5, Cherry Ridge 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

Cherry Ridge Township is located in south central Wayne County with Texas Township forming northern and eastern border. It is the fifteenth largest municipality in Wayne County with a total of approximately 14,245 acres or roughly 22 square miles, which accounts for nearly 3%

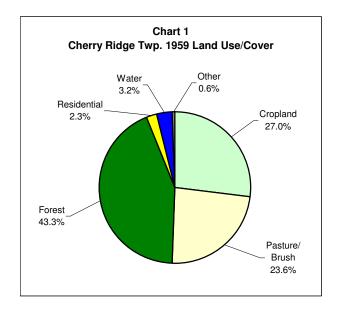
of Wayne County's total land area. As can be seen in Table 1 {below} and Charts 1 and 2 {right}, forest, cropland and pasture/brush covered the majority of the Township in both 1959 and 2002. The area of farming related activities decreased over the forty-plus year study period. Conversely, the amount of forest, residential and commercial land use/land cover increased.

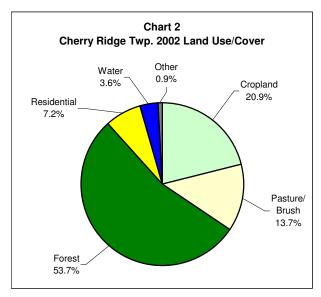
Table 1 - Cherry Ridge Twp. Land Use/Land Cover

Land Use/Land Cover	Cherry Ridge 1959 Acres	Category Percent of Total	Cherry Ridge 2002 Acres	Category Percent of Total
Residential	153.66	1.1%	917.09	6.4%
Commercial	24.98	0.2%	64.55	0.5%
Industrial	-	0%	4.77	0.0%
Transportation	55.03	0.4%	48.38	0.3%
Utilities	-	0%	0.23	0.0%
Religious	1.31	0.0%	2.80	0.0%
Government/Institution	2.74	0.0%	4.97	0.0%
Recreational	-	0%	-	0%
Cropland	3,841.86	27.0%	2,978.96	20.9%
Farmstead	179.09	1.3%	105.82	0.7%
Pasture/Brush	3,360.19	23.6%	1,945.45	13.7%
Forest	6,164.14	43.3%	7,652.78	53.7%
Water	461.61	3.2%	518.78	3.6%
Mining/Extraction	-	0%	-	0%
Total	14,244.61	100.0%	14,244.58	100.0%

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

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





Notice the decrease of both cropland and pasture/brush land over this time period and the increase of forest cover and residential land use. The amount of water coverage also increased slightly over the forty-three year study period.

## **Cropland**

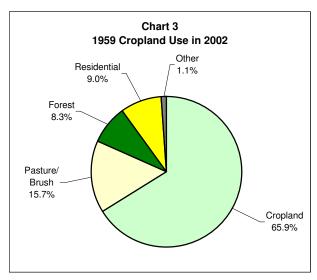
Cropland was the second largest land use in Cherry Ridge Township in both 1959 and 2002. In 1959, there was a total of 3,842 acres being used for cropland production. This acreage was equivalent to 27% of the Township's total land area. By 2002, the amount of cropland was reduced to nearly 2,980 acres or 20.9% of the Township {See Table 1}. Table 2 {below} and Chart 3 {right} shows what became of the 1959 cropland in the Township by 2002.

Table 2 - 1959 Cropland Use in 2002

	1959 Cropland		
	Classification in 2002		
Land Use/Land Cover	Acres	Percent	
Residential	321.93	8.4%	
Commercial	24.55	0.6%	
Industrial	2.02	0.1%	
Transportation	7.00	0.2%	
Utilities	-	0%	
Religious	-	0%	
Government/Institution	3.07	0.1%	
Recreational	-	0%	
Cropland	2,532.18	65.9%	
Farmstead	22.38	0.6%	
Pasture/Brush	602.33	15.7%	
Forest	319.67	8.3%	
Water	6.73	0.2%	
Mining/Extraction	-	0%	
Tota	3,841.86	100.0%	

Of the approximately 3,842 acres of 1959 cropland, a total of 2,532 acres or nearly two-thirds remained as cropland by 2002, which ranks sixth in the percentage of cropland retention within Wayne County over the study period. A total of 24% of the 1959 cropland converted to natural land cover types, namely pasture/brush (15.7%) and forest (8.3%). These two land covers accounted for 922 acres combined. Another 344 acres, equal to 9% of the 1959 cropland, was converted to residential.

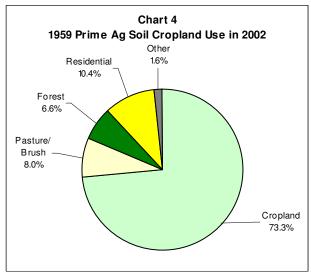
The United States Department of Agriculture (USDA) classifies soil as prime agricultural soil, farmland of statewide importance or non-prime soil. Details of the three classifications can be found in the County summary. The following sections will examine soils from a prime verses non-prime perspective.



Nearly two-thirds of the 1959 cropland remained as cropland forty-three years later in 2002 and slightly more land converted to residential use than forest cover.

# **Prime Agricultural Soil**

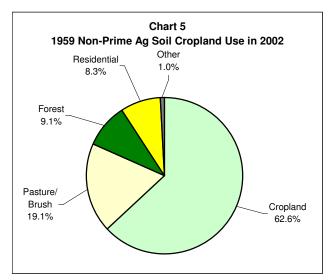
In 1959, approximately 1,186 acres or nearly 31% of the cropland in Cherry Ridge Township was located on prime agricultural cropland soil. Of that prime soil cropland, a total of 870 acres equaling 73.3% was still being utilized for cropland production by 2002. Almost 174 acres or 14.6% converted naturally to other land covers, either as pasture/brush (8%) or forest (6.6%). Another 124 acres, equaling 10.4%, was converted to residential land, which includes the farmstead category. Chart 4 {below} shows what became of the 1959 cropland located on prime agricultural soil.



Nearly three-quarters of the 1959 prime agricultural soil cropland remained as cropland by 2002.

# **Non-Prime Agricultural Soil**

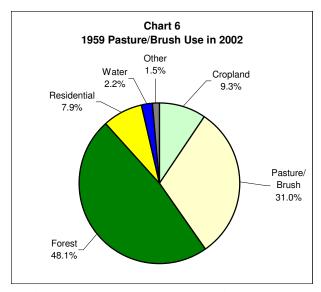
In 1959, approximately 2,656 acres or 69% of the cropland in Cherry Ridge Township was located on non-prime agricultural soil. Of that non-prime soil cropland, nearly 1,663 acres or 62.6% was still being utilized for cropland production by 2002. A total of 748 acres or 28.2% of the 1959 non-prime cropland soil had converted naturally to other land covers, either as pasture/brush (19.1%) or forest (9.1%). Another 221 acres, equaling 8.3%, was converted to residential land use, which includes the farmstead category. Chart 5 {below} shows what became of the 1959 cropland located on non-prime agricultural soil.



Approximately 1,663 acres or 62.6% of the 1959 non-prime soil cropland remained as cropland by 2002.

#### Pasture/Brush

In 1959, pasture/brush accounted for 23.6% or 3,360 acres of Cherry Ridge Township's total land area {See Table 1}. By 2002, this land cover had decreased by approximately 1,415 acres to 1,945 acres and equaled 13.7% of the Township. Of the 1959 pasture/brush, a total of 1,042 acres or 31% remained as such by 2002. Nearly 1,615 acres or 48.1% had grown into forest, 314 acres or 9.3% was converted into cropland and 267 acres or 7.9% became used as residential land, which includes the farmstead category. Another 75-plus acres or 2.2% became water cover. Chart 6 {upper right} shows the 1959 pasture/brush land and what it became by 2002.



Nearly 314 acres equal to 9.3% of the 1959 pasture/ brush was converted into cropland by 2002, which by percentage, ranked second only to Damascus Township.

### **Forest**

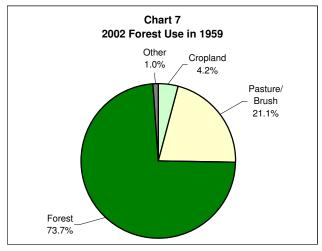
In 1959, a total of 6,164 acres or 43.3% of Cherry Ridge Township was covered by forest. Table 3 {below} shows the 1959 forest and what it became by 2002.

**Table 3 - 1959 Forest Use in 2002** 

	1959 Forestland		
	Classification in 2002		
Land Use/Land Cover	Acres	Percent	
Residential	133.77	2.2%	
Commercial	3.50	0.1%	
Industrial	-	0%	
Transportation	13.58	0.2%	
Utilities	-	0%	
Religious	-	0%	
Government/Institution	-	0%	
Recreational	-	0%	
Cropland	109.39	1.8%	
Farmstead	4.79	0.1%	
Pasture/Brush	200.18	3.2%	
Forest	5,637.30	91.5%	
Water	61.59	1.0%	
Mining/Extraction	-	0%	
Tota	al 6,164.10	100.0%	

Nearly 110 acres of the 1959 forest was converted to cropland, 200 acres became pasture/brush and nearly 139 acres was changed to residential land, which includes farmsteads. Approximately 5,637 acres equaling 91.5% remained as forest over forty-three years later.

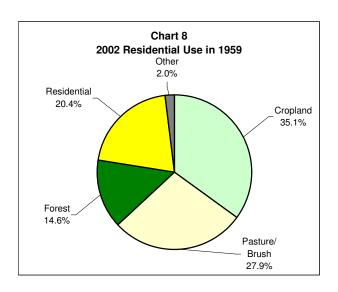
Over the forty-three year study period, the amount of forest increased by roughly 1,490 acres to a total of 7,653 acres. By 2002, 53.7% of Cherry Ridge Township was covered by forest. As one might expect, a large amount of the additional forest came from prior 1959 pasture/brush land. Chart 7 {below} shows the 2002 forest and how it existed back in 1959.



Nearly 320 acres of the 2002 forest was previously cropland in 1959 and over one-fifth was pasture/brush land, which was equivalent to almost 1,615 acres.

#### Residential

In 1959, there were 154 acres of residential land in Cherry Ridge Township, which was equal to 1.1% of the Township's total land area. By 2002, the residential acreage increased by an additional 763 acres to approximately 917 acres and accounted for 6.4% of the Township. Chart 8 {below} shows, by percentage, how this residential acreage existed back in 1959.



# **Protected Agricultural Land**

Cherry Ridge Township had a total of approximately 4,992 acres enrolled in the Agricultural Security Area Program by 2002, which is equivalent to 35% of the Township's land area. Additionally, there were 233 acres enrolled in the Agricultural Conservation Easement Purchase Program. There were also approximately 6,201 acres of land accepted into the Act 319 (Clean & Green) Program, which accounts for 44.7% of the taxable acreage within Cherry Ridge Township. This tax designation reduces the assessed value of the Township by \$8,629,700 or 6.3%.

# **Summary**

The most notable change in the Township during the study period was the decrease of agricultural related land use/cover, namely the cropland. pasture/brush and farmstead classifications. However, even though cropland covers 6.1% less of the Township since 1959, there is still approximately 2,980 acres of cropland, which accounts for over one-fifth of the Township's land area. A total of 85% of this cropland was already being utilized for agricultural crop production back in 1959. Forest increased by nearly 1,490 acres and now covers 10.4% more of the Township. Well over half of Cherry Ridge Township is now forested. Residential land also increased by 763 acres during the study period, and covers 5.3% more of the Township. A total of 917 acres is being used for residential purposes. Commercial land increased by nearly 40 acres. The area of water also increased and now covers nearly 520 acres or 3.6% 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.

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