

SAMPLING AND ESTIMATION DETAILS FOR THE DELAWARE PORTION OF  
THE NATIONAL INVENTORY OF SOIL AND WATER CONSERVATION NEEDS

BU-182-M

Thomas M. Beetle

July, 1965

Abstract

This paper provides some details on the sampling and estimation procedures for each county in Delaware. It is intended as a supplement to BU-180-M.

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In general, Delaware counties were stratified and sampled within land resource units, and estimates were computed using a separate expansion ratio for each land resource unit. An exception to this estimation procedure was the use of a single expansion ratio for estimating tidal marsh within a county. This procedure was followed in two Delaware counties.

The four numbers under the county name in the following tables denote sample design, sample unit size, sampling rate, and estimation procedure according to the following code:

First  
Number

Sample Design

1

Stratified within county

2

Stratified within land resource  
unit within county

3

Combination of Code 1 and Code 2

Second  
Number

Sample Size

1

100 acres

2

250 acres

3

400 acres

Third  
Number

Approximate sampling rate percentage

Fourth  
Number

Estimation Procedure

1

Single expansion ratio for entire  
county

2

Separate expansion ratio for each  
land resource unit in the county

Watershed tables were not printed for the State of Delaware, therefore the River Basin estimates were not available at this writing.

KENT COUNTY, DELAWARE

2, 1, 2, 2

<u>Adjusted Census Ac.</u>		<u>Adjusted Sample Ac.</u>			<u>Estimated Ac.</u>	
364,488		8,183			364,483	
<u>Land Use:</u>	<u>Cropland</u>	<u>Pasture</u>	<u>Forest</u>	<u>Other</u>	<u>Urban</u>	<u>Water</u>
<u>Estimated Ac.:</u>	209,482	3,294	91,367	54,169	3,809	2,363
<u>Excluded Acreage:</u>						
Federal land	16,312					

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NEWCASTLE COUNTY, DELAWARE

2, 1, 2, 2

<u>Adjusted Census Ac.</u>		<u>Adjusted Sample Ac.</u>			<u>Estimated Ac.</u>	
273,910		6,000			273,903	
<u>Land Use:</u>	<u>Cropland</u>	<u>Pasture</u>	<u>Forest</u>	<u>Other</u>	<u>Urban</u>	<u>Water</u>
<u>Estimated Ac.:</u>	110,510	21,239	50,558	46,093	39,123	6,380
<u>Excluded Acreage:</u>						
Federal land	5,770					

Notes: Tidal Marsh was expanded by a separate ratio.

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SUSSEX COUNTY, DELAWARE

2, 1, 2, 2

<u>Adjusted Census Ac.</u>		<u>Adjusted Sample Ac.</u>			<u>Estimated Ac.</u>	
603,440		12,932			603,459	
<u>Land Use:</u>	<u>Cropland</u>	<u>Pasture</u>	<u>Forest</u>	<u>Other</u>	<u>Urban</u>	<u>Water</u>
<u>Estimated Ac.:</u>	259,850	5,817	268,552	50,287	16,616	2,337
<u>Excluded Acreage:</u>						
Federal land	2,000					

Notes: Tidal Marsh was expanded by a separate ratio.