

PA State Historic Preservation Office (PA SHPO)

2019 Updates to PA's Agricultural History Project:

Additional Guidance for Using Pennsylvania's Agricultural Context

UPDATED November 2019

TABLE OF CONTENTS

Introduction	3
Using this Guidance	
Required Attachments, including Worksheets	
Model Historic Resource Survey Forms	
Determining Farm Production Levels after 1927	
Oral History Interview Questions	6
Interpreting Historic Aerial Photographs	(
Comparative Property Types	7

Appendix A: Agricultural Assessment Worksheets

Appendix B: Oral History Interviews

Appendix C: Interpreting Historic Aerial Photographs

Introduction

2019 Updates to PA's Agricultural History Project: Additional Guidance for Using Pennsylvania's Agricultural Context is intended to assist researchers, agencies, and the public use the Agricultural Resources of Pennsylvania historic context.

The Pennsylvania Agricultural History Project was begun in 2001 and completed in 2013. The project included the creation of a statewide agricultural context for the National Register evaluation of agricultural properties, entitled "Agricultural Resources of Pennsylvania, 1700-1960, Multiple Property Documentation Form (MPDF)". Sixteen agricultural regions were identified based on factors such as product mix, labor and mechanization, tenancy, cultural and ethnicity. Separate contexts, property types, and registration requirements were developed for each of the agricultural regions.

Since it has been officially in place, the statewide agricultural context has allowed for more consistent and expeditious National Register eligibility evaluations of over 1,900 agricultural properties. In 2017, the Pennsylvania Historical and Museum Commission, the Pennsylvania Department of Transportation, and Dr. Sally McMurry of Pennsylvania State University, with funding from the Federal Highway Administration, started a joint effort to develop more tools and guidance for using the state agricultural context. The result of this cooperative effort is this *Guidance for Using Pennsylvania's Agricultural Context* and related documents.

This update includes several components:

- Required attachments, including Agricultural assessment worksheets,
- Model historic resource survey forms for farms,
- Guidance for determining farm production levels after 1927 using oral interviews, aerial photographs, and comparative property types.

Using this Guidance

This document contains guidance and tools to assist in the research and evaluation of Pennsylvania's historic agricultural properties for the National Register of Historic Places. The following tools have been incorporated in the *Guidance* to help users:

- The Table of Contents is linked to the many sections in the *Guidelines* for easier navigation; simply put your mouse over the section in the Table of Contents chart, hold down the control button, and click with the mouse.
- For online viewers, links throughout the report will deliver you to the appropriate website.

Required Attachments, including Worksheets

As part of efforts to improve documentation of farms, SHPO will be requiring the following attachments for farms and/or farmsteads documented on a <u>Historic Resource Survey Form (HRSF)</u>:

- Agricultural Assessment worksheets.
- Site Plan: current aerial photograph with buildings labeled (historic function and date of construction and/or additions), landscape features noted, and a caption beneath the image. Buildings and features Less than 50 years old should be visually identified with hatching or different colorization.
- Photo location map (can be part of the aerial site plan).
- Historic aerials containing both a zoomed in and zoomed out picture, with changes to the built environment and landscape features (i.e. demolitions, additions, moved buildings) labeled and dated and with a caption beneath the image. Guidance for interpreting aerial photographs is included in Appendix C of this Guidance.
- Prior to 1927, agricultural census data presented in chart form, ideally both graphically (graphs) and numerically (table). Include a pie chart, bar chart, or other type of graph to show farm and township production averages in a scale that is readable. The same information can be presented in a table.

If the farmstead complex has significant concentration of buildings dating from 1960-1980, include the following relevant primary production data:

- Period aerials (1960-1980)
- Oral Interviews with current or former owners, if available. Guidance for conducting oral interviews is included in Appendix B of this *Guidance*.
- If period aerials and oral interviews do not yield sufficient information on production levels, it may be necessary to supplement with a comparison of similar property types in the surrounding area.

The worksheet and attachments should be referenced in the National Register eligibility assessment included in the <u>Historic Resource Survey Form (HRSF)</u>.

Model Historic Resource Survey Forms

Model historic resource survey forms (HRSF) have been provided as models for documenting agricultural properties on the HRSF form. The following two forms are good examples of how an HRSF should be prepared, specifically the site plan, historic aerial photographs, and presenting agricultural census data.

Rudy Farm

The Rudy Farm in York County is farmstead of nine buildings ranging in age from c 1789 to c 2000 and is a good example of a National Register eligible farm in the York-Adams Historic Agricultural Region.

The Rudy Farm HRSF (Key # 206387) can be viewed online through CRGIS.

Valley Run Farm

The Valley Run Farm in York County is an agricultural property with eleven buildings, which range in age between 1830 and 2011. While the farm is not eligible for listing in the National Register, the HRSF is a good example of the type of documentation and analysis required. This example includes an excellent interpretation of the building phases of the house.

The Valley Run Farm HRSF (Key # 207354) can be viewed online through CRGIS.

Determining Farm Production Levels after 1927

For those years U.S. Agricultural Census data is available (1850, 1880, 1927), the statewide agricultural context uses federal census data to determine which farms possess agricultural significance. This involves a comparison of an individual farm's production to the average production level of farms in the township at the time. Unfortunately, after 1927, census data on agricultural production is not available at the farm level. Thus, there is a need for additional guidance to address how to determine production levels for those agricultural properties constructed after 1927.

To assist those using the <u>Agricultural Resources of Pennsylvania</u>, <u>1700-1960</u>, <u>Multiple Property Documentation Form (MPDF)</u>, new tools have been developed to help determine production levels for those agricultural properties constructed after 1927. Oral interviews and a careful comparison of historic and current aerial mapping can help to determine production levels for this period. If necessary, they can be supplemented by a comparison of similar property types in the surrounding area.

Note: While it can be helpful to understanding the development of a farm over time, use of one or more of these tools is only necessary if the farmstead complex has a significant concentration of buildings dating from 1927.

Oral History Interview Questions

An oral history interview with the owner or operator of the farm being studied is one way to gather additional information about farm production after 1927. Dr. McMurry has created a list of essential questions to ask the owner or operator of the farm. The questions focus on agricultural production and changes to the farm complex and landscape in recent memory.

This guidance for conducting oral history interviews is included in <u>Appendix B</u>. It includes information on the following:

- Conducting Oral Interviews for Agricultural Properties
- Essential Questions to Ask (required)
- Additional Questions to Ask (optional)

Interpreting Historic Aerial Photographs

A detailed tutorial on how to interpret farm production using historic aerials from the 1930s to the 1970s can also be useful when using this tool. Using historic aerial photographs to determine product mix may prove to be useful in the preparation of National Register nominations, especially when making inferences about agricultural production after c. 1960 or when explaining changes to farm production over time. Interpreting product mix from historic aerial photographs is not required for the purposes of project review under Section 106 or the State History Code.

Aerial mapping was flown statewide for the U.S. Department of Agriculture, Agricultural Adjustment Administration (now the Farm Service Agency) and is available on the PennPilot website at www.pennpilot.psu.edu. More recent aerial mapping is also available through Pennsylvania Spatial Data

Access (PASDA) at www.pasda.psu.edu; simply search through the "Imagery" data shortcut or through the keyword search.

The tutorial for interpreting historic aerial photographs is included in Appendix C.

Comparative Property Types

When agricultural census data and/or the former farm owner or producer is not available to answer questions about production, comparative property types is another tool that can be used. In the period after 1927, farms with buildings larger in number and size tend to reflect high levers of production. As part of the narrative statement of significance in the HRSF, compare how the 50-year-old buildings that make up the farmstead compare in size and scale to neighboring farmsteads. A maximum of a one-mile radius should be used for comparative property types.

Appendix A: Agricultural Assessment Worksheets

The <u>Agricultural Resources of Pennsylvania</u>, 1700-1960, <u>Multiple Property Documentation Form (MPDF)</u> outlines the qualities and characteristics agricultural properties need to have to be evaluated for and listed in the National Register of Historic Places.

To make it easier for researchers to understand and use the MPDF and consider all components of the registration requirements, worksheets have been developed for 16 regions and the 1960-1980 period. The worksheets are based on the information presented in the MPDF and the associated MPDF update "Narrative and Registration Requirements for Agricultural Properties Constructed between 1960 and 1980".

The worksheets must be provided with each Historic Resource Survey Form (HRSF) submitted for farms. They are a checklist tool and do not replace a thorough examination and application of the relevant narrative for each region.

AGRICULTURAL PROPERTY A	SSESSMENT WORKSHEET, A	ADAMS COUNTY FRUIT BELT*	
ME OF PROPERTY:	ADDRESSS:	DATE:	

Period	1875-1905 Origins of the Adams County Fruit Belt	1905- about 1940 Consolidation and Leadership	1940-1960 Specialization and Vertical Integration
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Crops: w heat, corn, oats, potatoes, hay (pp. 16) Fruit increasing late in the period Livestock: primarily cattle, sw ine Butter	Crops: fruit, mainly apples; corn, oats, hay, some w heat, cannery crops (pp. 24-28) Livestock: hogs, beef cattle, some poultry (pp. 27-28)	Crops: fruit, mainly apples but also peaches and cherries Less corn, hay, and livestock than before
Labor System & Mechanization — □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family labor. Gender mixed (pp. 20)	Family and local wage labor (pp. 28) Modest mechanization	Migrant w orkers (pp. 47-48)
Land Tenure — □ Review 1850, 1880, and 1927 Agricultural Census	Mixed tenancy rates, no single pattern	Low tenancy rates	Musselman company ow ned farms and tenanted them with managers.
Culture and Ethnicity – Document where applicable	Varied, some PA German	Varied, some PA German	Migrant workers from varied backgrounds including the Caribbean and US South (African Americans)
Registration Requirements/Individual Periods	Farmstead: House typical of the period and region AND Barn OR outbuildings related to livestock raising and crop production AND definite architectural evidence of fruit culture" (barn modifications for packing, fruit storage, or container storage; house cellar for fruit storage; separate packing house; w orker housing in upper story of barn or tenant house (pp. 20-24) Farmstead Layout: Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND Some historically associated acreage remains Orchard acreage Remnant pasture, cropland, or w oodlot Note: Farms may retain evidence of labor systems, tenancy, and cultural/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region AND ☐ Architectural evidence of focused apple and other orchard fruit growing (at least one packing barn, migrant quarters, roadside stand, cold storage, (pp. 34-38) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ "Landscape evidence extant for apple culture" (orchard or remnants, and associated buildings), (pp. 38-42) Note: Farms may retain evidence of labor systems, tenancy, and cultural/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region AND ☐ "Architectural evidence of focused apple and other orchard fruit growing" (at least one of packing barn, migrant quarters, roadside stand, cold storage), pages 49-66 (These are newly drafted guidelines because they were omitted in the original context language.) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Orchard acreage. (These are newly drafted guidelines because they were omitted in the original context language.) ☐ Some historically associated acreage remains Note: Farms may retain evidence of labor systems, tenancy, and cultural/ethnicity as outlined above
Registration Requirements: Change over Time Architectural evidence showing the major changes over time	Key Changes: Crop/Livestock Farming plus orchard, to orchards with less important be Farmstead: □ "Architectural evidence of the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT specific reference for the major shifts over time." Examples: (NOT	quirements): 19th century house, late 19th-early 20th century barn renovated for fruit f	farming, packing house, migrant quarters.

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PR	OPERTY ASSESSMENT WORKSHEET, AL	LEGHENY MOUNTAIN REGION*
NAME OF PROPERTY: _	ADDRESSS:	DATE:

Period	1830-1850	1850-1920	1920-1960
1 01100	Diversified Farming and Small-Scale Industry	Diversified Farming and Large-Scale Industry	Dairy and Poultry Production for Local and Regional Markets
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Diverse small scale grains, hay, butter, forest products, potatoes Few livestock: cattle, swine (pp. 9-11)	Small Scale corn, oats, w heat, potatoes, hay Livestock: beef cattle, sw ine Coal Lumber (pp.15-18)	(Note: Production levels can vary significantly within region) Modest crops, mainly corn, hay, silage corn, oats, w heat, potatoes, truck crops Fluid milk Livestock: cattle, hogs (pp. 34-39)
Labor System & Mechanization — □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family labor, mostly women and children. Men employed off the farmpart of the year. Low mechanization (pp. 11-12)	Family labor, mostly women and children. Men employed off the farmat least part-time. Low mechanization (pp.19-20)	Family and hired labor. Family labor, mostly women and children. Men employed off the farmat least part-time. Higher mechanization (pp. 40-41)
Land Tenure — ☐ Review 1850, 1880, and 1927 Agricultural Census	Low tenancy rates.	Low tenancy rates generally, but a few pockets of tenancy in iron areas	Low tenancy rates.
Culture and Ethnicity – Documentwhere applicable	Various, no pronounced expressions	Various, new immigrant groups arrive, but still no pronounced expressions	Various, no pronounced expressions
Registration Requirements/Individual Periods	Farmstead: ☐ House typical of the period and region (pp. 12-14) AND ☐ Outbuilding dating from the period. Examples: smokehouse, springhouse, pigsty (pp. 15) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Significant acreage w ith at least traces of field patterns, fencing, boundaries, pathw ays, streams or woods Note: Farms may retain evidence of labor systems, tenancy, and cultural/ethnicity as outlined above	Farmstead: □ House typical of the period and region OR older house (pp.12-14, 22-26) AND □ A barn typical of the period (pp.26-29) AND □ At least tw o outbuildings typical of the specific area and dating to this or earlier period (pp. 30-32) (Examples: smokehouse, spring house, summer kitchen, privy, pigsty, root cellar, coal shanty, corncrib) (Note – at least one building must date to this period) Farmstead Layout: □ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4) Farm Above AND □ Acreage of the original farmtract □ At least tw o relict landscape elements such as traces of field patterns, mine shafts, fencing, boundaries, streams, or w cods. (pp. 32-34) Note: Farms may retain evidence of labor systems, tenancy, and cultural/ethnicity as outlined above	Farmstead: House typical of the period and region OR older house (pp. 41) AND A barn typical of the period OR older AND At least one outbuilding or structure. (Example: corncrib, chicken house, root cellar, summer kitchen (pp. 44-47)) For farmsteads associated historically with dairying in urban milksheds, dairy barns, alterations, and milk houses should be present (pp. 41-43, 46) Farmstead Layout: Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm Above AND: Some historically associated acreage remains "landscape features such as treelines and fields." (pp. 50-54) Note: Farms may retain evidence of labor systems, tenancy, and cultural/ethnicity as outlined above
Registration Requirements/Change over Time Architectural evidence showing the major changes over time	Key Changes: Diversified very small scale to dairy/poultry/truckfarming, still on a modest s Farmstead: □ Architectural evidence of change over time. See examples on page 62. Farmstead Layout: □ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farm: Above AND □ Some historically associated acreage remains □ "Could have consolidation of fields; introduction of mine shafts; renegotiation of bounds	scale. Note: in general, changes are less dramatic than in other regions. (See exa	

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, CENTRAL VALLEYS *

NAME OF PROPERTY:	ADDRESS	S:	DATE:

Period	1830 to about 1880	c. 1880-1920	1920-1960
	A High-Powered Cash-Grain and Livestock Economy	A High Powered Feed Grain and Livestock Economy	Continued Reorientation of the Livestock Economy
Product Mix –	Field crops (wheat, rye, corn, oats, hay)	Field crops (corn, wheat, oats, hay)	Field crops (feed corn, silage corn, hay, small grains)
☐ Review Agricultural Census	Livestock (cattle, hogs) Self-provisioning (Vegetables, meats, root crops) (pp.10-14)	Livestock (cattle, hogs) Self-provisioning (Vegetables, meats, root crops) (pp.39)	Truck crops (less important)
Data and Historic Aerials.	Sell-provisioning (vegetables, fleats, root crops) (pp. 10- 14)	Seir-provisioning (viegetables, meats, root crops) (pp.39)	Livestock: cattle (beef and dairy), hogs Poultry
(Historic Aerials apply only to period c. 1930-1960. For			Fluid Milk (pp. 46-49)
guidance in interpreting them,			
see Researcher's Guide.)			
Labor System &	Family and hired labor. Summer kitchens, root cellars, springhouses, bake	Family and hired labor. Gender mixed, but summer kitchens, root cellars, springhouses, bake	Family and Hired Labor. Gender distribution changes with mechanization and off-farm
Mechanization –	houses, butcher houses are generally women's work spaces. However, women work in the field also.	houses, butcher houses are generally women's work spaces. High mechanization (pp.39-40)	employment. High mechanization (pp.49-51)
☐ Review Agricultural Census,	High mechanization (pp. 14-17)	(FF-00-10)	т.д (РР. 10 с 1)
Buildings, Site plan, and Historic Aerials.			
Land Tanina	High tenancy rate.	High tenancy rate	High tenancy rate)
Land Tenure – □ Review 1850, 1880, and 1927	riigir terianoy rate.	Tight chancy rate	riight terrainey rate)
Agricultural Census			
Culture and Ethnicity –	Heavily PA German. See Central Valleys Context document pages 10, 15-17, 21,	Heavily PA German. See Central Valleys Context document pages 10, 15-17, 21, 29, 32-3, 77-	Heavily PA German, but national forms becoming more important.
Document where applicable.	29, 32-3, 77-81.	81.	
	Three-, four- and five-bay squarish dwellings with productive spaces such as basement kitchens; smokehouse, pigsty, summer kitchen, root cellar. Tenant	Three-, four- and five-bay squarish dwellings with productive spaces such as basement kitchens; smokehouse, pigsty, summer kitchen, root cellar. Tenant house (pp. 20-21, note 29 page 115)	
	house (pp. 20-21, note 29 page 115)	Shokehouse, pigsty, summer kitchen, root cellar. Terlant house (pp. 20-21, hote 23 page 113)	
Registration	Farmstead:	Farmstead:	Farmstead:
Requirements/Individual	☐ House typical of the period and region (pp. 17-21) AND	☐ House typical of the period and region OR older house (pp. 40) AND	☐ House typical of the period and region OR older house (pp. 52); AND
Periods:	□ PA Barn (pp. 21-26)	☐ PA Barn, OR Extended forebay or Basement Barn, OR Three-Gable Barn; (pp.40-42)	☐ "A barn that either dates to the period OR older barn that contains alterations typical of the
	AND	AND	period" (pp. 52-57)
	☐ "At least two outbuildings relating to the cash-grain and livestock economy and	☐ "At least two outbuildings relating to the feed-grain and livestock economy and illustrating	AND
	illustrating shared family labor, mechanization, and/or tenancy." Examples: spring house, summer kitchen, smoke house, machine shed, root cellar, corncrib, hog	shared family labor, mechanization, and/or tenancy" from this or earlier period (pp. 40) Examples: spring house, summer kitchen, smoke house, machine shed, addition to barn that	☐ "At least two outbuildings or structures that illustrating the shifts in production mix and methods (as described and including shifts in the gender distribution of w ork)"
	house, ice house, combination structure, tenant house. (pp. 26-34)	could have accommodated machinery, root cellar, corncrib, hog house, ice house, combination	Examples: milk house, machine shed, addition to barn that could have accommodated
	Farmstead Layout:	structure, tenant house. (pp. 26-34, 42-3) (Note – at least one building must date to this period)	machinery, silo, poultry housing, corncrib (pp. 57-70)
	□ Retention of historic relationship betw een buildings	(Note – at least one building must date to this period)	Farmstead Layout:
	Note: Additions/new construction larger in size and scale and located within the	Farmstead Layout:	☐ Retention of historic relationship betw een buildings
	historic farmstead detract from integrity of design (Statement of Integrity pp. 4)	Retention of historic relationship between buildings	Note: Additions/new construction larger in size and scale and located within the historic
	Farm:	Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity of design (Statement of Integrity pp. 4)	farmstead detract from integrity of design (Statement of Integrity pp. 4)
	Above plus		Farm:
	☐ Some historically associated acreage remains	Farm: Above plus	Above plus
	☐ "At least remnants of landscape features characteristic of the period such as paths, roadw ays, treelines, small fields, w oodlots" (pp. 37) Cropland and w oodlot	□ Some historically associated acreage remains	☐ Some historically associated acreage remains ☐ "Landscape features characteristic of the period." Examples: farm pond, contour strips,
	predominate in Central Valleys.	☐ "Small fields, w oodlots, paths, roadways, treelines, and the like" (pp. 44-45). Cropland and	consolidated crop fields. Cropland predominates in Central Valleys. (pp. 70)
	Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity	w oodlot predominate in Central Valleys	Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined
	as outlined above.	Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.	above.
Registration	Key Changes: Grain crops and livestock and self-provisioning, 1830-1920, to dairy/	poultry, 1920-60. High mechanization throughout. PA German throughout.	
Requirements: Change	Farmstead: ☐ "Illustrate the changes in production, farming methods, and labor systems (included)	ling gender patterns and farm tenancy)". For examples see narrative page 83-84. See individual tim	e periods for details on w hich resources show grain/livestock, self-provisioning, and dairy/poultry.
over Time			
Architectural evidence showing the major changes over time	Farmstead Layout: ☐ Retention of historic relationship betw een buildings		
the major changes over time	Note: Additions/new construction larger in size and scale and located within the his	oric farmstead detract from integrity of design (Statement of Integrity pp. 4)	
	Farm:		
	Above AND		
	Some historically associated acreage remains	ton cores that ratains a paylore abone any addlets and senter of fields " / nn 04\	
	☐ "Might have a fenceline along an original boundary; one or two fields of about	ten acres that retains a square snape; a w oodiot; and contour fields." (pp. 84)	

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, GREAT VALLEY*

NAME OF PROPERTY: _____ ADDRESS:_____ DATE:____

Period	Mid-18th to early 19th Century Diversified Small-Scale Farming and Wheat for Export	c. 1830-c.1900 Diversified Grain and Livestock Farming	c. 1900-1940 Diversified Crops, Livestock, and Poultry	c. 1940-1960 Specialization, Petroleum-Based Production, and Off- Farm Labor
Product Mix ☐ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Crops: grains, (w heat, rye, corn, oats) Livestock: small numbers (pp. 12-13)	Crops: w heat, feed corn, hay, diverse other (pp. 26-29) Livestock: cattle, sw ine Butter Diverse other for self-provisioning and local market (pp. 32-34)	Crops: w heat, corn, oats, rye, hay Livestock: cattle (dairy and beef), sw ine Fluid Milk Poultry Products Fruit Self-Provisioning and Local Market (pp. 64-75)	Crops: corn, w heat, silage corn, hay Livestock: cattle (dairy), swine (pp. 118- 22)
Labor System & Mechanization – □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family labor, bound labor (pp. 14-15)	Family labor hired labor (pp. 35) Gender mixed, but summer kitchens, root cellars, springhouses, bake houses, butcher houses are generally women's work spaces. How ever, women also work in the field. High mechanization (pp. 35-36)	Family labor, hired labor. Tractor slow ly replaces horse power, increasing expenditure on machinery	Family labor, hired labor, off-farm labor producing household income. Tractor era in full sw ing. Machinery costs high. (pp. 122-126)
Land Tenure — □ Review 1850, 1880, and 1927 Agricultural Census	Significant tenancy but not quantified	High tenancy	High tenancy	Tenancy diminishing
Culture and Ethnicity – Document where applicable	Mixed	Heavily Pa German. (pp. 33-37, 44-45, 56) Three-, four- and five-bay squarish dwellings with productive spaces such as basement kitchens; smokehouse, pigsty, summer kitchen, root cellar. Tenant house (See Central Valleys narrative page 115, note page 29 for documentation tips)	Heavily PA German Three-, four- and five-bay squarish dwellings with productive spaces such as basement kitchens; smokehouse, pigsty, summer kitchen, root cellar. Tenant house (See Central Valleys narrative page 115, note 29 for documentation tips)	PA German, but diminishing
Registration Requirements/Individual Periods	Farmstead: ☐ House typical of the period and region (pp. 15-18) AND ☐ At least one outbuilding reflecting architectural evidence of diverse production dating to the period (pp.19-23). This would include barns. Farmstead Layout: ☐ Retention of historic relationship between buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Remnant crop fields or woodlot Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.	Farmstead: ☐ House typical of the period and region OR older house (pp. 38-45) AND ☐ A barn typical of the period (pp. 47-52) OR older barn AND ☐ At least one smaller outbuilding typical of the period: Examples: summer kitchen, springhouse, smokehouse, bake house, pigsty, machine shed, machinery bay in barn, root cellar (pp. 48, 53-61) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Crop land at least some historic field size or boundary (pp. 62-63). Cropland predominates in the Great Valley. Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.	Farmstead: House typical of the period and region OR older house (pp. 79-81) AND An older barn show ing twentieth century adaptations; (pp. 81-85) AND At least one summer kitchen, smoke house OR butcher house; fromthis or earlier period (pp. 86-87) AND At least one outbuilding reflecting architectural evidence of poultry raising, hog raising, or dairying; (pp. 81-88) AND At least one outbuilding fromthis or earlier period reflecting architectural accommodation for farmmachinery. (Examples: machine shed, machinery bay in a barn) (pp.101-103) Farmstead Layout: Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4) Farm: Some historically associated acreage remains Cropland (pp. 115). Cropland predominates in the Great Valley. Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.	Farmstead: ☐ House typical of the period and region OR older house, (pp. 126-129) AND ☐ Barn dating fromthe period OR a barn w ith adaptations dating from the period; (pp. 129-133) AND ☐ At least one outbuilding reflecting architectural evidence for dairying and/or poultry raising; (pp. 134-138 AND ☐ At least one outbuilding from this or earlier period reflecting architectural accommodation for farm machinery. (pp. 137, 139) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Cropland ☐ Pond and contour strips enhance significance. (pp.139-141) Cropland predominates in the Great Valley. Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.
Registration Requirements: Change over Time Architectural evidence showing the major changes over time	Farmstead: ☐ "Architectural evidence of the major shifts over tir resources related to other production patterns from Farmstead Layout: ☐ Retention of historic relationship betw een building	gs scale and located w ithin the historic farmstead detract fromintegrity of design (St	ements of each period. Normally a mix showing change over time in this region	hree periods then declines in the last.

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, LAKE ERIE FRUIT REGION*

NAME OF PROPERTY	ADDRESS	DA	TE
THE OF THOSE BILLS	11D D REBU _	DI	· и

Period	1850-1925	1925-1960
	Diversified Livestock, Field Crops, Fruits, and Vegetables	Diversified Fruit Culture
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Crops: corn, hay, oats, fruit (grapes, tree fruit, small fruit), vegetables Livestock: cattle, sw ine, poultry (pp. 10-15)	Crops: Fruit (mainly grapes); apples, peaches, and cherries; truck crops Few er field crops and livestock than before (pp. 25-30)
Labor System & Mechanization — □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family and seasonal workers. The latter from the region and mainly women, resident during the season (pp. 15-17) Low mechanization	Family and seasonal workers. The latter from the region and also an increasing proportion of migrant workers from outside the region Greater mechanization but still a lot of hand labor (pp. 31-35)
Land Tenure — □ Review 1850,1880, and 1927 Agricultural Census	Average tenancy	Average tenancy
Culture and Ethnicity – Documentwhere applicable	N/A	N/A
Registration Requirements/Individual Periods	Farmstead: ☐ House typical of the period and region AND ☐ Barn OR outbuildings related to livestock and crop production in the broader northw estern PA region AND ☐ Definite architectural evidence of fruit culture: barn modifications for packing, fruit storage, or container storage; house cellar intended for fruit storage; separate packing house; w orker housing (pp. 19-22) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Orchard and vineyard acreage ☐ Remnant pasture, cropland, or w oodlot Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.	Farmstead: House typical of the period and region OR older house At least one outbuilding reflecting architectural evidence of diversified fruit/vegetable growing. (Example: packing barn, migrant quarters, roadside stand, cold storage (pp. 35-38)) Farmstead Layout: Retention of historic relationship between buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4) Farm: Some historically associated acreage remains Landscape evidence extant for more than one fruit or vegetable culture (pp. 38-39) Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.
Registration Requirements: Change over Time Architectural evidence showing the major changes over time	Key Changes: from crop/livestock farming plus fruit culture, to diversified fruit culture highlighting grapes plus some true Farmstead: Clear architectural evidence showing the major changes over time. Examples: packing house from first period, convertine and Layout: Retention of historic relationship between buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity farm: Architectural features plus a mix of orchard, vineyard, and pasture or cropland Some historically associated acreage remains	verted to migrant quarters in second; livestock barn w ith conversions for fruit

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, LANCASTER PLAIN*

NAME OF BROBERMY	ADDDECC	D A ME	
NAME OF PROPERTY	ADDRESS	DATE	
THE OF THOSE BILLS	TDDRESS	DITIL_	

Period	c. 1730- c. 1780	c. 1780-1865	c. 1865-1920	c. 1920-1960
	Diverse Production for Diverse Uses	Diversified Production, Intensification, and Livestock Raising	Crops, Livestock, and Tobacco	Livestock, Tobacco, Truck Farming, and Poultry
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Crops: w heat, corn, hay; other grains, diverse small production of vegetables, fruits for self-provisioning and local exchange Livestock: few (pp. 12-16)	Integrated crop and livestockfarming: w heat, corn, oats, hay, other crops; , diverse small production of vegetables, fruits for self-provisioning and local exchange Livestock: cattle, sw ine Butter (pp. 21-29)	Further diversified integrated crop and livestock regime (crops and livestock as before, beef more important than dairy) with tobacco now taking a prominent role;, diverse small production of vegetables, fruits for self-provisioning and local exchange (pp. 46-57)	Less diversified than before crops: corn, hay, w heat, tobacco, truck crops Livestock: swine, dairy and beef cattle, poultry (pp. 92-105)
Labor System & Mechanization — □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family labor. Gender mixed. Low mechanization	Family and wage labor gender mixed, but summer kitchens, root cellars, springhouses, bake houses, butcher houses are <i>generally</i> w omen's work spaces. How ever, w omen w ork in the field also. High mechanization	Family labor, wage labor. Gender mixed. High mechanization	Family labor, w age labor; more off-farm employment; some migrant w orkers High mechanization
Land Tenure — ☐ Review 1850, 1880, and 1927 Agricultural Census	High tenancy rates, various forms (pp. 16-17)	Tenancy common but not quantifiable until 1880 (pp. 29-30)	High tenancy, often kinship based (pp. 57-62)	Tenancy still present but declining
Culture and Ethnicity – Document where applicable	Diverse, with emerging PA German presence	Stronger PA German presence	Strong PA German presence	Some Plain Sect presence but overall ethnic forces on the decline (pp. 105-108)
Requirements/Individual Periods	Farmstead: ☐ House typical of the period and region (pp. 17-19) AND ☐ Early barn OR outbuilding (pp. 17-20) (Note: Kitchen ell or basement cellar = outbuilding) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Remnant cropland and w oodlot Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.	Farmstead: House typical of the period and region (pp. 30-33) AND PA Barn (33-38) AND At least two outbuildings reflecting production and mechanization (Examples: spring house, smoke house, corn crib, machine shed, or carriage house (pp. 33, 38-42)). Farmstead Layout: Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND Some historically associated acreage remains Cropland, pasture land Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.	Farmstead: □ House typical of the period and region (pp. 62-64) AND □ PA Barn fromthe period or with period alterations (pp. 64-70) AND □ Architectural evidence for tobacco, either tobacco barn OR modifications to another building (pp. 70-76) AND □ At least one outbuilding reflecting production and/or mechanization from this or earlier period (Example: machine sheds, addition to barns that could have accommodated machinery, hog houses, smoke houses, spring houses, poultry houses, and corn cribs strengthen the case for significance.) (pp. 76-87) (These are newly drafted guidelines because they were omitted in the original context language.) Farmstead Layout: □ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above buildings AND □ Some historically associated acreage remains □ Cropland Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.	Farmstead: ☐ House typical of the period and region OR older house (pp. 108) AND ☐ PA Barn OR stable barn OR tobacco barn depending on property history (pp. 108-113) AND ☐ At least two outbuilding reflecting production and/or mechanization: One outbuilding must reflect the properties production history (Example: If poultry w as emphasized, there should be a poultry house). Other outbuilding can reflect mechanization from this or earlier period (Example: machine shed, additions to barn that could have accommodated machinery, garage, and corn crib) (pp. 113-129) (These are newly drafted guidelines because they were omitted in the original context language.) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above buildings AND ☐ Some historically associated acreage remains ☐ Cropland Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.
Registration Requirements: Change over Time Architectural evidence showing the major changes over time	Farmstead: No exact combination of resources can be named, but each 1920-1960. Farmstead Layout: □ Retention of historic relationship betw een buildings	nt and corn to Civil War, tobacco added after Civil War and truc in period's key products should be represented, i. e. crops in co	kfarming and poultry added c. 1920-60 Plonial period, crops/livestock 1780-1865, integrated crop/livestock	olus tobacco 1865-1920, crops/dairy or poultry plus tobacco or truckfarming
	Farm: Above AND Some historically associated acreage remains	ia located within the motorie famblead deli actifolillitegrity o	i doorgin (ordinant of integrity pp. 4)	

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, LEHIGH COUNTY POTATOES*

NAME OF PROPERTY	ADDRESS _	DATE_	

Period	1850-1910		
1 01100	Potatoes as One Component of a Diversified Farming System	Potatoes as a Primary Cash Crop with Diversified Complements	
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Crops: corn, oats, w heat, hay, with rye and potatoes more than average Livestock: cattle, sw ine, poultry; average numbers Diverse orchard and garden production for self-provisioning and market (pp.9-14)	Crops: potatoes, field crops Livestock: swine, poultry, cattle Diversified self-provisioning and local market production (pp. 30-38)	
Labor System & Mechanization — □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family labor primarily, with loose age and gender labor division. Gender mixed, but summer kitchens, root cellars, springhouses, bake houses, butcher houses are <i>generally</i> women's work spaces. However, women work in the field also. High mechanization (pp. 15-17)	Family and local labor, with loose age and gender labor division. Gender mixed, with tasks shifting as processes mechanize and self-provisioning declines in the later years. High mechanization (pp. 38-40)	
Land Tenure — □ Review 1850, 1880, and 1927 Agricultural Census	Average tenancy (pp. 15- 17)	Average tenancy (pp. 38-40)	
Culture and Ethnicity – Document where applicable	Strong PA German presence	Strong PA German presence	
Registration Requirements/Individual Periods	Farmstead: House typical of the period and region OR older house (pp.18-19) AND PA barn (pp. 21-23) AND At least two of: corn crib, root cellar, smoke house, pigsty, butcher house, spring house, summer kitchen. (pp. 23-29) Farmstead Layout: Retention of historic relationship between buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND Some historically associated acreage remains Cropland with some evidence of historic field and property boundaries Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.	Farmstead: House typical of the period and region OR older house (pp. 41-42) AND Architectural evidence of potato growing and storage as demonstrated by at least one of the following: PA barn altered as discussed on pp. 43-52; potato cellar; evidence for home cellar potato storage AND At least three other outbuildings related to the period farming: butcher house, summer kitchen, granary, milk house, poultry house, combination building, or others named in narrative (pp. 52-74) (Root cellar, summer kitchen, butcher house, and smoke houses may date to earlier period pp. 57-59) Farmstead Layout: Retention of historic relationship between buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND Some historically associated acreage remains Cropland AND Pond OR evidence of contour plow ing or strip cropping Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.	
Registration Requirements: Change over Time Architectural evidence showing the major changes over time	Key Changes: Diversified farming with potatoes as one component, to potatoes as primary cash crop within diverse context. Farmstead: Subsistence (self-provisioning) buildings (root cellar, smoke house, summer kitchen, butcher house, etc.) Architectural evidence of potato storage (PA barn altered as discussed on pp.43-46; potato cellar; evidence for home cellar potatory PA barn Farmstead Layout: Retention of historic relationship between buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity of design of the farm: Above AND Croplands Some historically associated acreage remains	ato storage)	

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, NORTH AND WEST BRANCH*

NAME OF PROPERTY	ADDRESS	DATE

Period	c. 1840-1860	1860-1940	1940-1960
	Diversified Production on Highly Mechanized farms	Diversified Production for Local Markets	Fossil Fuel Powered Diversified Production
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Crops: w heat, corn, hay, oats Livestock: milk and beef cattle, sheep, sw ine Production for multiple uses including on-farm, local trade, cash markets (pp. 12-14)	Crops: corn, w heat, buckwheat, oats, potatoes, hay Livestock: swine, poultry Market produce and fruits Limited dairying (pp. 24-28)	Crops: corn, oats, w heat, hay; some cannery crops Livestock: poultry and eggs; sw ine
Labor System & Mechanization – □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family and neighbor labor. Cooperative labor; w omen in poultry, dairy High mechanization (pp. 14-15)	Family and neighbors. Cooperative labor; w omen in poultry, dairy High mechanization (pp. 28-31)	Family and neighbors. Men take over poultry. Wage labor more important; some migrants High mechanization (pp. 56-57)
Land Tenure – □ Review 1850, 1880, and 1927 Agricultural Census	No notable tenure patterns	Tenancy rates high in pockets but overall not significantly above average	No notable tenure patterns
Culture and Ethnicity – Document where applicable	Mixed and locally focused	Some PA German pockets, ex. Mahontongo Valley and Snyder County. Pockets of Eastern Europeans in Columbia County. Quakers near Catawissa. Not all groups have associated landscape influence.	Ethnic influences on the decline
Registration Requirements/Individual Periods	Farmstead: □ 3, 4, or 5 bay house (pp.15-18) AND □ PA barn (pp. 18-20) AND □ At least tw o outbuildings related to township production profile, mechanization, and culture (pp. 20-21) (Mechanization is reflected in barns accommodation for draft horses and machinery bays pp. 20) Farmstead Layout: □ Retention of historic relationship between buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND □ Some historically associated acreage remains □ Surviving tree lines □ Wood lots □ Roads and paths □ Fields Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: □ 3, 4, or 5 bay house OR older 3, 4, or 5 bay house (pp. 31-35) AND □ PA barn OR three-gable barn (pp. 32-34) AND □ At least tw o outbuildings reflecting architectural evidence of high mechanization and diversified production. Outbuildings should represent at least tw o enterprises such as poultry raising, hog raising, small dairying, or crop farming. (pp. 35-50) (Smoke house and spring house may date from this or earlier period pp. 37) Farmstead Layout: □ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND □ Some historically associated acreage remains □ Existing Registration requirements do not explicitly mention fields and w oodlots but they are assumed □ Other features such as windbreaks, tree lines, ornamental plantings are desirable. Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region or older house (pp. 58) AND ☐ Older barn with dairy and/or poultry alterations OR Large barn (probably threegable) show ing centralization and diversification (pp. 58-59) AND ☐ At least two outbuildings reflecting architectural evidence of poultry raising and mechanization. (Examples: corn crib, machine shed, garage, large poultry house, brooder house) (pp. 60-68) (Machine sheds may date from this period or an earlier period pp. 66) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ (Implicitly) fields and w oodlots ☐ At least one surviving landscape feature from the period such as ornamental planting, pond, etc. Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above
Registration Requirements: Change over Time Architectural evidence showing the major changes over time	Key Changes: Diversified production with high mechanization throughout, an in Farmstead: See page 79. Farmstead Layout: □ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located within the Farm: Buildings AND □ Acreage and intact landscape features from the period such as contour strip □ Some historically associated acreage remains	e historic farmstead detract from integrity of design (Statement of Integrity pp. 4)	

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, NORTHERN TIER*

NAME OF PROPERTY	ADDRESS	DATE	

Period	c 1830-1860 Diversified woodland, grassland, and livestock	1860-1900 Diversified Home Dairying	1900-1960 Fluid Milk and Poultry
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Crops: Mix of small grains, with grassland (hay and pasture) dominating. Livestock: cattle, sheep, few swine Farm made butter Woodland products (maple sugar, lumber) (pp.10-12)	Crops: Diversified mix of small grains, but grassland (hay and pasture) dominates. Livestock: mainly dairy cows; small numbers of other livestock Farm made butter. (pp. 15-20)	Crops: hay, silage corn, corn Livestock: dairy cattle, poultry Fluid milk, eggs, chickens for meat (pp. 42-45)
Labor System & Mechanization – □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family labor. Women make butter. Many gender mixed tasks. Low mechanization (pp. 12-13)	Family labor. Women make butter. Many gender mixed tasks. Low mechanization (pp. 20-22)	Family labor. Dairy w ork done more by men but w omen still involved. Poultry w ork done by men and w omen. Average mechanization (pp. 45-46)
Land Tenure — □ Review 1850, 1880, and 1927 Agricultural Census	Low tenancy	Low tenancy	Low tenancy
Culture and Ethnicity – Documentwhere applicable	Yankee/Yorker.	Yankee/Yorker.	National forms replace regional cultures
Registration Requirements/Individual Periods	Farmstead: □ Log or frame house (pp. 13-14) AND □ English barn (pp. 25) AND □ Granary OR ice house (pp. 14) Farmstead Layout: □ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND □ Some historically associated acreage remains □ Significant acreage w ith remnant landscape features such as fields, tree lines, boundaries, and w oodlots Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region (pp. 22-25) AND ☐ Basement Barn OR Gable-Entry Bank Barn OR English barn modified (pp. 25-31) AND ☐ At least tw o outbuildings related to tow nship production profile, mechanization level, and cultural patterns. (Example: detached dairy kitchen, small poultry house, ice house, w ood shed, freestanding granary, carriage shed, shop) (pp. 31-37) (Ice house and granary may date to earlier period) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Tw o or more of: Significant acreage, tree lines, small fields, pasture lot, stone fence remnant, w oodlot Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region OR older house (pp. 46) AND ☐ Basement Barn w ith dairy alterations (pp. 46-49) OR Stable Barn (pp. 46-52) AND ☐ At least tw o outbuildings relating to its township production, mechanization, and culture. This usually a combination of silo, milk house, and poultry house. (pp. 52-67) AND ☐ Farmstead landscape features such as yard or ornamental plantings (pp. 67-71) Farmstead Layout: ☐ Retention of historic relationship between buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ At least tw o of: Significant acreage, wire fence, woodlot, dirt road, contour strips, consolidated fields, electric utility poles, pond. (Note: pond was originally included in farmstead requirements, but this was an error.) Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above
Registration Requirements: Change over Time Architectural evidence showing the major changes over time	Farmstead: □ Specifics depends on time period. See page 81. Farmstead Layout: □ Retention of historic relationship betw een buildings	rops and products overall; w ithin dairying, a shift from dairy products made on farm by we historic farmstead detract from integrity of design (Statement of Integrity pp. 4) y production; boundaries, tree lines, fences, fields	omen to fluid milk business controlled by men; mechanization (comparatively late)

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, NORTHWESTERN PA*

NAME OF PROPERTY:	ADDRESSS:	DATE:	

Period	1830-1865	c. 1865-1900	c. 1900-1940	1940-1960
renou	A Woodland, Grassland, and Diversified Livestock Economy	A Grassland, Woodland, and Cattle-based Livestock Economy	Fluid Milk Dairying with Diverse Sidelines	Petroleum Era Specialized Farming
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Crops: small quantities of grains; hay Livestock: Cattle, sheep Woodland products (maple sugar, cordwood, lumber, potash) Farm-made Cheese Self-Provisioning (pp. 14-19)	Crops: Hay predominates. Grain crops minor. Livestock: Cattle (beef, breeding) Butter and Cheese Woodland products: (cordwood, maple sugar, lumber, animal skins) Self-Provisioning (pp. 48-59)	Crops: hay (state leader), silage corn, truck crops Livestock: cattle (dairy) Fluid Milk (second most specialized region in PA) Self-Provisioning (pp. 91-95)	Crops: hay, silage corn, feed corn, soybeans Livestock: dairy cattle, poultry Fluid Milk (highly specialized) Poultry Products Self-Provisioning (pp. 142-143)
Labor System & Mechanization – □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family labor. Women do farmwork while men drive out cattle or raft goods to market. Women make cheese. Low mechanization. (pp.19-20)	Family labor. Men more involved in dairying as cheese factories centralize production. Women make butter. Low mechanization. (pp. 59-60)	Family and wage labor. Electrification above average, farmmachinery below average. (pp. 95-97)	Family and wage labor. Farm machinery at or below average. (pp. 143-144)
Land Tenure — ☐ Review 1850, 1880, and 1927 Agricultural Census	Low tenancy	Low tenancy	Low tenancy	Low tenancy
Culture and Ethnicity – Document where applicable	Yankee/Yorker, other Euro Americans	Yankee/Yorker, other Euro Americans	National forms replace regional expressions	National forms
Registration Requirements/Individual Periods	Farmstead: ☐ House typical of the period and region (pp. 20-27) AND ☐ English barn OR New England barn (pp. 27-34) AND ☐ At least tw o outbuildings that reflect production patterns (Examples: spring house, dairy kitchen, cheese house, corn crib, granary, sugar house. Kitchen ell on farmhouse is equivalent to a dairy kitchen.) (pp. 34-47) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Woodlot ☐ Pasture ☐ Cropland Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region (pp. 60-62) AND ☐ Extended English Barn OR Basement Barn OR Three-Gable Barn OR Posted-Forebay Barn (pp. 62-76) AND ☐ At least two outbuildings reflecting production and accommodation of machinery (Examples spring house, ice house/dairy kitchen, granary, corn crib, machine shed, carriage house) (pp. 76-84) (Spring house, ice house/dairy kitchen or kitchen ell of farmhouse can date from this or earlier period) Farmstead Layout: ☐ Retention of historic relationship between buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Woodlot ☐ Cropland or hay land ☐ Pasture. Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region OR older house (pp. 97-100) AND ☐ Basement Barn OR Foundation Barn OR Stable Barn (pp. 100-108) AND ☐ At least tw o outbuildings reflecting architectural evidence of dairying (Examples: milk houses, silo) (pp. 108-120) AND ☐ At least one outbuilding reflecting architectural evidence of diverse sidelines fromthis or earlier period (Examples: granary, machine shed, additions to barn that could have accommodated machinery, corn crib, garage, poultry house, spring house, summer kitchen, privy) (pp. 108-130) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Woodlot ☐ Hay land ☐ Tree lines. Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: House typical of the period and region OR older house Pre-existing barn w ith dairy adaptations (sanitation related, free stall addition, milking parlor addition) OR pole barn OR Stable Barn OR free stall barn (pp. 144-149) AND At least two outbuildings reflecting architectural evidence of dairying (Example: milk house, silo) (pp. 108-129) AND At least one outbuilding fromthis or earlier period reflecting architectural evidence of specialization and mechanization OR older outbuilding (Example: garage, machine shed, corn crib. additions to barn that could have accommodated machinery) (pp. 108-130, 149-151) Farmstead Layout: Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4) Farm: Above AND Some historically associated acreage remains Woodlot Hay land Tree lines: At least one of: contour strips, drainage features (pp. 136-140), pond, ornamental plantings, fencing from the period Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above
Registration Requirements: Change over Time Architectural evidence showing the major changes over time	Key Changes: Woodland and grassland based diverse farmin Farmstead: ☐ Resources should illustrate diversity (including self-provision farmstead Layout: ☐ Retention of historic relationship between buildings Note: Additions/new construction larger in size and scale and Farm: Above AND ☐ Some historically associated acreage remains ☐ Woodlot ☐ Pasture	g to home dairy production to specialized fluid milk productioning), mechanization, home dairying, and fluid milk produ	ction (see pp. 162)	

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

☐ Cropland

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, POCONO/ANTHRACITE*

NAME OF PROPERTY:	ADDRESSS:	DATE:	

Period	1860-1915	1915-1940	1940-1960
	Diversified Vegetable, Fruit, Poultry, Dairy, and Hay Production for Local Markets	Diversified Vegetable, Fruit, Poultry, and Dairy Production for Local Markets	Specialization, Industrialization, and Decline
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Vegetables (Market garden) Fruit Poultry Dairy Hay (pp.13-19)	Vegetables (Market garden) Fruit Poultry Dairy (pp.33-36)	Cannery Crops Dairy Poultry continued but smaller presence for market garden, fruit (pp.45-46)
Labor System & Mechanization — □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family and Neighbor Labor; gender mixed Low mechanization (pp. 19)	Family and Neighbor Labor; gender mixed Low mechanization (pp.36-37)	Family and wage labor; trend to more men's labor Higher mechanization (pp.46)
Land Tenure — ☐ Review 1850, 1880, and 1927 Agricultural Census	Low tenancy	Low tenancy	Low tenancy
Culture and Ethnicity – Document where applicable	N/A	N/A	N/A
Registration Requirements/Individual Periods	Farmstead: ☐ House typical of the period and region (pp.20-24) And ☐ Barn typical of the period (pp.25-27) AND ☐ At least one: Ice house, summer kitchen, root cellar, poultry house, pig sty, corn crib, smoke house spring house, hog pen, carriage house. (pp.27-30) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Significant acreage w ith fields, tree lines, boundaries, and w oodlots. Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region OR older house (pp.37) And ☐ Barn typical of the period OR older. (pp. 37) AND ☐ At least one: Ice house, summer kitchen, root cellar, sash house, poultry house, fruit related building, milk house, silo, in accordance with the farm's production history (pp. 37-41) (Ice house, summer kitchen, and root cellar may date fromearlier period pp. 38) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Significant acreage w ith fields, tree lines, boundaries, and w oodlots. Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region OR older house (pp.46) And ☐ Barn typical of the period OR older (pp. 46-47) AND ☐ At least two: Machine shed, corn crib, large scale poultry house, milk house, silo in accordance with the farm's production history (pp.47-48) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Significant acreage w ith fields, tree lines, boundaries, and w oodlots. Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above
Registration Requirements: Change over Time Architectural evidence showing the major changes over time	Property should show evidence of the major agricultural changes over time. The major char Farmstead: □ Evidence of change over time. These are just examples. See Registration Requirements buildings from the third period. Farmstead Layout: □ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farm Farm: Above AND □ Some historically associated acreage remains □ Acreage that may include a large proportion of w oodlot	for further guidance. Generally, a farmhouse from any period; barn or outbuilding	

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, POTTER COUNTY POTATOES*

NAME OF PROPERTY:	ADDRESSS:	DATE:

Period	1850-1915	1915-1940	1940-1960
	Diversified Home Dairying and Potato Production	Diversified Dairying Plus Potatoes	Diversified General Farming Plus Potatoes and Vegetables
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Crops: corn, oats, potatoes, buckw heat, hay Livestock: milk and beef cattle, sheep, sw ine (few) Farm Made butter (pp.9-12)	Crops: corn, hay, oats, buckw heat, potatoes Livestock: dairy cattle, poultry Fluid Milk (pp.15-17)	Crops: potatoes, cannery crops, corn, hay Livestock: dairy, but less important (pp.24)
Labor System & Mechanization — □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family and Neighbor Labor Low mechanization (pp. 12)	Family and Neighbor Labor, some wage labor Low mechanization (pp.17)	Family and neighbor labor Significant Seasonal Migrant Labor, Southern African American some mechanization (pp.24-26)
Land Tenure — ☐ Review 1850, 1880, and 1927 Agricultural Census	Very low tenancy	Average tenancy	Average tenancy
Culture and Ethnicity – Document where applicable	Weak Yankee/Yorker	N/A	Average tenancy
Registration Requirements/Individual Periods	Farmstead: House typical of the period and region (pp. 12-13 And Root cellar freestanding or incorporated into farmhouse (pp. 13) AND At least one example of architectural evidence of diverse production (Example: English barn, small shed, multipurpose outbuilding) Farmstead Layout: Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Buildings AND Woodlot Pasture Hay fields Some historically associated acreage remains Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region OR older house (pp.17) AND ☐ At least one outbuilding reflecting architectural evidence of potato storage either in separate structure or within a barn adapted for the purpose (Example: insulation, storage bins, ventilation systems) (pp.18-23) If farm w as diversified with other production, in addition to the buildings above, it should have a basement barn OR English barn, And ☐ At least two outbuildings reflecting architectural evidence of dairying (Examples: Silo, milk house) AND ☐ At least one outbuilding reflecting architectural evidence of poultry raising, sheep raising, crop farming, OR accommodations for machinery. Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Remnant w oodlot ☐ Pasture ☐ Hay field ☐ Traces of tree lines, fences, hedges, OR ornamental plantings ☐ Some historically associated acreage remains Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above.	Farmstead: House typical of the period and region OR older house AND Barn And At least one outbuilding reflecting architectural evidence of poultry raising And At least two outbuildings reflecting architectural evidence of dairying (Example: milk house, silo) And At least one outbuilding reflecting architectural evidence of potato storage from this or earlier period (see pp. 26). Note: Original registration requirements suggest but do not require migrant housing. Farmstead Layout: Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND Remnant woodlot Pasture Hay field AND Traces of tree lines, fences, hedges, OR ornamental plantings; AND at least one of: Farm pond, contour strips, OR planted woodlot. Some historically associated acreage remains Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above
Registration Requirements: Change over Time Architectural evidence showing the major changes over time	Key Changes: The major shifts are diverse general farming plus potatoes, to dairying plus Farmstead: Farmstead resources should illustrate all three periods. See page 37. Farmstead Layout: Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located within the historic farm Above AND Remnant pasture Tree line Contour strips Farm pond Some historically associated acreage remains	s significant potato production, to potatoes and cannery crops.	

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPE	ERTY ASSESSMENT WORKSHEET, F	RIVER VALLEYS TOBACCO*
NAME OF PROPERTY:	ADDRESSS:	DATE:

Period	River Valleys Tobacco Culture, 1870-1930
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Crops: corn, potatoes, hay, other field crops Livestock: Small numbers of cattle, sw ine, poultry (pp.10-11)
Labor System & Mechanization — □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Probably family and neighbors; little documentation (pp.11-13)
Land Tenure — □ Review 1850, 1880, and 1927 Agricultural Census	Low tenancy, depends on location
Culture and Ethnicity – Document where applicable	Various. In Northern Tier counties, Yankee/Yorker; in central counties, more likely to be PA German
Registration Requirements/Individual Periods	Farmstead: House typical of the period and region AND Tobacco barn or barn adapted for tobacco (see pp. 13-17) AND AND At least one outbuilding illustrating other productive activities that occurred on the farm. (Example: architectural evidence of dairying for farms raising dairy cows-pp. 24) Farmstead Layout: Retention of historic relationship between buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND
Registration Requirements: Change over Time Architectural evidence showing the major changes over time.	□ Some historically associated acreage remains □ Siting or land acreage in alluvial bottom areas Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above N/A

Required attachments:

□ Current aerial photograph with buildings labeled (historic function and date of construction and/or additions) and landscape features noted, with a caption beneath the image. Less than 50 year old buildings and features should be visually identified with hatching or different colorization.

 \square Photo location map (can be part of the aerial site plan).

☐ Historic aerials with changes to the built environment and landscape features (i.e. demolitions, additions, moved buildings) labeled and dated, with a caption beneath the image.

☐ Agricultural census data comparison of farm to township levels in table format. Census data should be presented in chart form both graphically and numerically.

The worksheet and attachments should be referenced in the National Register eligibility assessment included on the Historic Resource Survey Form (HRSF).

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, SETTLEMENT PERIOD*

NAME OF PROPERTY:	ADDRESSS:	DATE:

Dovind	C 4000 4040
Period	C. 1800-1840. Note: This portion of the MPDF concerns only the interior counties, defined here as places that are OUTSIDE the Southeastern PA, Great Valley, Lancaster Plain, and York-Adams regions. Those four areas have earlier resources which are covered in each narrative. The agricultural characteristics of the interior in this period were similar enough to include them all in a single period coverage.
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930- 1960. For guidance in interpreting them, see Researcher's Guide.)	Woodland products (potash, lumber, maple sugar, etc.) Crops: w heat, clover and flax seed, corn, oats, hay, fruit, buckwheat Livestock: cattle, sheep, generally driven out on the hoof for fattening/sale elsewhere Flour Whiskey Salted meat (pork mainly) (pp.11-12)
Labor System & Mechanization – □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family and neighbors; much shared work and inter-household exchange. Low mechanization. (pp.13-15)
Land Tenure –	Uneven. State land law unsettled, clearing incomplete. Over time a trend to owner occupied parcels.
Culture and Ethnicity – Documentwhere applicable	Varied. Settlement incomplete, migrants came from many places including Southeast PA, Europe, the southern states, New England
Registration Requirements/Individual Periods	Farmstead: Small log house or elite house (pp.16-21) AND Small log or frame barn (pp.21-28) Farmstead Layout: Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND Some historically associated acreage remains Clear evidence of original property boundaries and siting Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above
Registration Requirements: Change over Time Architectural evidence showing the major changes over time	N/A

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, SOUTHEASTERN PA*

NAME OF PROPERTY:	ADDR	ESSS:	DATE:

Period	c. 1730-c. 1780 Diverse Production with wheat as an export crop	1780-1870 Livestock Feeding and Home Dairying in a Diversified System	1870-1940 Fluid Milk Dairying, Poultry, Truck Farming, Nurseries, and Specialty Products	1940-1960 Suburbanization and Specialization
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Crops: Very diverse, with wheat as a cash crop, (pp. 11-14) Livestock: small numbers of cattle, swine, sheep	Crops: corn, w heat, oats, hay, small amounts of other grains Livestock: dairy and beef cattle; small numbers of hogs Self-provisioning (garden, orchard) Farm-made butter Beef (pp.26-33)	Crops: corn, w heat, oats, hay, potatoes, vegetables Livestock: dairy cattle, poultry, sw ine Fluid Milk Self-provisioning (garden, orchard, poultry, meat) (pp.79-87)	Crops: corn, hay, vegetables (market garden or cannery) Livestock: dairy cattle; poultry Products: fluid milk, eggs, poultry meat, market garden or cannery crops (pp.134-138)
Labor System & Mechanization — □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family labor, various forms of bound labor (pp. 14-15) low mechanization	Family labor, free w age labor. Women make butter at home. Gender mixed; summer kitchens, root cellars, springhouses, bake houses, butcher houses are generally w omen's work spaces. High mechanization (pp.33-35)	Family and neighbors; wage labor. Men shift into dairying as home production disappears, but women still do many tasks. Women in poultry. High mechanization (pp.87-89)	Family and wage labor. Seasonal labor includes immigrants and migrants. High mechanization (pp.138-139)
Land Tenure — □ Review 1850, 1880 and 1927 Agricultural Census	High tenancy levels	Average to above average tenancy	Below state averages	Low tenancy
Culture and Ethnicity – Document where applicable	Varied	Varied	Varied	National forms
Registration Requirements/Individual Periods	Farmstead: House typical of the period and region (pp. 17-19) AND Barn OR outbuildings related to diverse production with wheat as an export crop (pp. 19-23) Farmstead Layout: Retention of historic relationship between buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND Some historically associated acreage remains Remnant crop fields OR Pasture Note: farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region OR older house (pp. 35-37) AND ☐ Barn typical of the period (pp. 37-55) AND ☐ At least one outbuilding reflecting architectural evidence of dairying (Examples: spring house, ice house, combination building, corn crib) (pp.55-61) AND ☐ At least one outbuilding reflecting architectural evidence for mechanization or diversification (Examples: machine shed, w agon shed, root cellar, smoke house, butcher house, pigpen, bake oven, summer kitchen) (pp.61-73) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Pasture and crop land Note: farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region OR older house (pp.89-92) AND ☐ Older barn w ith period adaptations or stable barn (pp.92-99) AND ☐ At least one outbuilding reflecting architectural evidence of dairying. (Example: Milk house, silo) (pp.99-111) AND ☐ At least one outbuilding reflecting architectural accommodation for farmmachinery from this or earlier period (pp.112,116) AND ☐ At least one outbuilding reflecting architectural evidence for diverse subsistence (self-provisioning) activity (Examples: root cellar, smoke house, butcher house, pigpen, bake oven, summer kitchen from this or earlier period) (pp.116-129) ☐ If the farmhas a history of specialization (Example: nursery or greenhouse production) the buildings should reflect that production. (pp. 125-127) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Pasture and crop land Note: farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region OR older house (pp.139) AND ☐ Barn fromthe period or older barn with period adaptations (pp.139-141) AND ☐ At least one outbuilding reflecting architectural evidence of dairying. (Example: Milk house, silo) (pp. 142-144) AND ☐ At least one outbuilding reflecting architectural evidence of poultry raising (pp. 145) (These are newly drafted guidelines because they were omitted in the original context language.) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Pasture and crop land Note: farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above
Registration Requirements: Change over Time Architectural evidence showing the major changes over time	Farmstead: Resources should display connection to each of these phases kitchen fromthe second period, milk house and silo from the the Farmstead Layout: Retention of historic relationship between buildings	ash wheat to diverse home dairying, to fluid milk plus poultry, truck farming, not ash wheat to diverse home dairying, to fluid milk plus poultry, truck farming, not ash wheat to diverse home dairying, not hird period, and barn adaptations from the last period. Identify the historic farmstead detract from integrity of design (Stateme)	urseries, and specialty products, to specialty in fluid milk dairying. oduction history. An <u>example</u> might have an 18th century house f	romthe first period, PA barn, springhouse, machine shed, and summer

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY	ASSESSMENT WORKSHEET,	SOUTHWESTERN PENNSYLVANIA*
NAME OF PROPERTY:	ADDRESSS:	DATE:

Period	1830-1850	1850-about 1890	1890-c.1930	1930-1960
	"Diversified Agriculture and the Rise of Sheep Raising"	"The Civil War Peak Period"	"Industrialization and Agricultural Reorientation"	"Crisis and Decline: Land Use Shifts and Further Agricultural Adjustments"
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Crops: corn, w heat, oats, other grains, hay Livestock: sheep; cattle and hogs (mainly driven east) Wool Highly Varied Self-Provisioning and Local Market Production (pp.10-17)	Wool (fine Merino) Crops: hay, corn, w heat, oats Livestock: average numbers of cattle, sw ine Poultry Fruit Highly Varied Self-Provisioning and Local Market Production (pp.33-40)	Crops: Hay, oats, silage corn (pp.93-98) Poultry Wool Fruit Livestock: cattle, sheep Fluid Milk (Washington County) Farm Butter (Greene County) Highly Varied Self-Provisioning and Local Market Production	Crops: hay, minor acreages of small grains Livestock: dairy cattle Fluid Milk Livestock: Sheep (lamb for meat) (pp.122-124)
Labor System & Mechanization — Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family Labor. Women, men, and children work together in most spaces. Men generally drive livestock. Low mechanization (pp.17-19)	Family labor. Generally, sheep care is men's w ork. Women and children w ork in dairy, food processing, poultry Low mechanization (pp.44-45)	Family labor. Men and women and children work together in poultry, fruit, dairy, and self-provisioning. Off-Farm Labor. Tractor replaces animal power very slowly. (pp.98-101)	Many part-time farms w ith men w orking off farm and w omen doing farmw ork. Shift to tractor era not yet complete (pp.124-125)
Land Tenure — □ Review 1850, 1880, and 1927 Agricultural Census	Low tenancy	Low tenancy	Low tenancy	Low tenancy
Culture & Ethnicity – document where applicable	Varied, with no one dominant group. No pronounced ethnic expressions.	Varied, with no one dominant group. No pronounced ethnic expressions.	Varied, with no one dominant group. No pronounced ethnic expressions.	Varied, with no one dominant group. No pronounced ethnic expressions.
Registration Requirements/Individual Periods: (pp. 147-148)	Farmstead: ☐ House typical of the period and region (pp. 20-23) AND ☐ Barn OR outbuildings related to general livestock raising, subsistence, or crop production (Examples: Pennsylvania forebay barn, log crib barn, springhouse, granary) (pp. 23-31) AND ☐ At least one outbuilding reflecting architectural evidence of sheep raising (Examples: Sheep barn, PA forebay barn with features that could accommodate sheep) (pp. 24-27) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Pasture (pp. 81, 120) OR Cropland OR Woodlot Note: Pasture (land used for grazing, not plow ed) predominates in SWPA	Farmstead: House typical of the period and region (pp. 45-48) AND At least one outbuilding reflecting architectural evidence of sheep raising: southw estern style Basement Barn modified for sheep OR at least one sheep barn (pp. 48-71) AND At least one outbuilding reflecting architectural evidence of crop farming and subsistence activity. (At least one: hay barn, granary, spring house, w ash house, corncrib, or smoke house) (pp. 71-80) (Spring house may date to earlier period pp.73) Farmstead Layout: Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4) Farm: Above AND Some historically associated acreage remains Pasture (pp. 81) OR Cropland Note: Pasture (land used for grazing, not plow ed) predominates in SWPA Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region OR older house (pp.101-102) AND ☐ Barn show ing reorientation to dairying and poultry: Basement Barn w ith dairy or poultry adaptations OR Gable-Entry Bank Barn OR Appalachian Meadow Barn (pp.109-112) AND ☐ Architectural evidence of sheep culture: sheep barn fromthis or earlier period OR hay barn (pp.112, 119) AND ☐ Architectural accommodations for machinery: machine shed OR carriage house (pp.113, 116) AND ☐ At least one outbuilding reflecting architectural evidence of intensified subsistence activity from this or earlier period. (Example: spring house, summer kitchen, or root cellar) (pp.102-106) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Pasture (pp. 81, 120) OR Cropland OR Woodlot Note: Pasture (land used for grazing, not plow ed) predominates in SWPA Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above	Farmstead: ☐ House typical of the period and region OR older house (pp. 125) AND ☐ Barn fromthe period (Example: Stable Barn) (pp. 126-128) AND ☐ At least one outbuilding reflecting architectural evidence of shift to dairying (Example: silo (pp. 128-129), milk house (pp. 132-134)) AND ☐ At least one outbuilding reflecting architectural evidence of crop farming and/or subsistence activity. (Example: corncrib (pp. 135), spring house (pp. 130-131), root cellar (pp. 134), hog house (pp. 135). (Spring house and root cellar may date fromthis or earlier period. Note that the stable barn w ith ample hayloft can represent crop farming.) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Cropland OR Woodlot OR Pasture (pp. 136) Note: Pasture (land used for grazing, not plow ed) still predominates in overall land use, but crops are more important than before. Note: Farms may retain evidence of labor systems, tenancy, and culture/ethnicity as outlined above
Registration Requirements: Change over Time (p. 149). Architectural evidence showing the major changes over time	 ☐ Architectural evidence of 19th century sheep raising: a region ☐ Architectural evidence of 20th century dairying/poultry/self-produced in the control of the	e major shifts are from a diverse crop and livestock regime with developing all barn type modified for sheep, or a separate sheep barn; ovisioning: barn types or barn adaptations for dairying (see above), silo, reformula" but the idea is that there should be buildings that represent the og house, poultry housing, or workshop. The dwelling may represent diverted within the historic farmstead detract from integrity of design (Staten	nilk house, machine sheds. e variety of productive activities on the SWPA farmas discussed in the ersification, but outbuildings should also be present.	

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, YORK-ADAMS

$MAME \cap EDD \cap DEDTV$.	ADDDECCC.	DATE.	
NAME OF PROPERTY:	ADDRESSS:	DATE:	

Period	c. 1750-1830 Diversified Small Scale Production	c. 1830-1885 Small Farms, Mechanization, and New Markets	c. 1885-1940 Diversified Small Scale Farming, Poultry Raising, and Cannery Crops,	1940-1960 Poultry production, fossil fuel power, and off- farm labor
Product Mix — □ Review Agricultural Census Data and Historic Aerials. (Historic Aerials apply only to period c. 1930-1960. For guidance in interpreting them, see Researcher's Guide.)	Crops: w heat, corn, rye, oats, other grains, hay, diverse vegetable, fruit, and fiber Livestock: cows, sheep, hogs, poultry Many and diverse products for market and home use, (pp. 11-16)	Crops: w heat, corn, hay, oats, buckwheat, potatoes, rye, tree fruit, vegetables; self-provisioning items Livestock: cattle, sw ine, sheep, poultry (pp. 25-29)	Crops: corn, w heat, hay, some potatoes, less oats, rye, tree fruit, cannery crops and truck crops more important; self-provisioning continues Livestock: cattle, sw ine, much more poultry (pp.50-56)	Crops: corn, w heat, hay, fruit Livestock: poultry, swine, cattle Eggs, chicken meat Fluid milk Beef Self-provisioning declines (pp.77-81)
Labor System & Mechanization — □ Review Agricultural Census, Buildings, Site plan, and Historic Aerials.	Family, neighbors, bound labor, gender mixed Low mechanization (pp. 16-18)	Family, neighbors, free w age labor. Gender mixed, but summer kitchens, root cellars, springhouses, bake houses, butcher houses are <i>generally</i> women's work spaces. How ever, women w ork in the field also. High mechanization (pp.29-30)	Family, neighbors, free w age labor; off-farm employment. Still gender mixed, shifting with mechanization and the gradual decline of self-provisioning. High mechanization (pp.56-57)	Family, w age labor, w artime POW and migrants. Off-farm employment High mechanization (pp.81-82)
Land Tenure – □ Review 1850, 1880 and 1927 Agricultural Census	Not well documented but tenancy levels probably high	A bit higher than average tenancy	Tenancy is much less important	Tenancy is not important
Culture and Ethnicity – Document where applicable	Scots Irish, English, German	Increasingly PA German	Predominantly PA German	National forms
Registration Requirements/Individual Periods	Farmstead: ☐ House typical of the period and region (pp. 18-20) AND ☐ Barn OR outbuilding related to diverse production dating to the period (pp. 20-24) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Remnant crop fields OR ☐ Woodlot	Farmstead: ☐ House typical of the period and region OR older house (pp. 30-37) AND ☐ Barn (pp. 37-41) AND ☐ At least one example reflecting architectural evidence of subsistence (self-provisioning) activity (Example: summer kitchen, springhouse, smokehouse, bake house) (pp.41-48) ☐ If a farm's historic production included tobacco, there should be tobacco related resources. (pp. 41) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Cropland and some historic field or boundary	Farmstead: ☐ House typical of the period and region OR older house (pp.57) AND ☐ Older barn OR new barn type (pp. 57-62) AND ☐ At least one outbuilding reflecting architectural evidence of subsistence (self-provisioning) activity fromthis or earlier period (pp.62-64) AND ☐ At least one outbuilding reflecting architectural evidence of poultry raising, hog raising, dairying, or truckfarming (pp. 64-74) AND ☐ At least one outbuilding reflecting architectural accommodation for farm machinery (machine shed, machinery bay in barn, etc.) (pp.66-67,70-72) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Cropland	Farmstead: ☐ House typical of the period and region OR older house AND ☐ Barn (pp. 82-85) AND ☐ At least one building reflecting architectural evidence of Poultry raising or barn adaptations for poultry (pp. 89-92) AND ☐ At least one building reflecting architectural accommodation for farmmachinery from this or earlier period. (Including additions to barn that could have accommodated machinery) (pp.92) Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4) Farm: Above AND ☐ Some historically associated acreage remains ☐ Cropland
Registration Requirements: Change over Time Architectural evidence showing the major changes over time	Farmstead:	A c. 1840 house, c. 1880 barn and self-provisioning outb	y crops, and dairy in the 20th century, and becoming more heavily specialized ar buildings, c. 1930 hog house, and c. 1950 poultry house w ould illustrate key chan grity of design (Statement of Integrity pp. 4)	·

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

AGRICULTURAL PROPERTY ASSESSMENT WORKSHEET, 1960-1980 PERIOD*

NAME OF PROPERTY:	ADDRESSS:	DATE:
	TID D REGUGI	DIII B

Period	1960-1980						
		Note: This portion of the MPDF applies to the whole state and is divided by agricultural specialty rather than region.					
Product Mix — □ Review Historic Aerials. (Historic Aerials from 1960-1980 see Researcher's Guide.)	Specialized dairy (fluid milk) production Livestock, except dairy, poultry, or animal specialty. In PA this generally means feeding calves, cow/calf, etc. See narrative. Cash grain farms (primarily corn) Field crops except cash grain (primarily hay) Poultry and eggs Fruits and tree nuts Other specialties (vegetables, mushrooms, etc.)						
Labor System & Mechanization — □ Review Buildings, Site plan, and Historic Aerials.	Very high mechanization	Family labor predominates, with some wage labor. Some wage workers are migrants and/or immigrants. Off-farm employment accounts for high proportion of farm household income.					
Land Tenure –	Full-time tenancy uncommon, but many re	ent acres to supplement those they	y ow n.				
Culture and Ethnicity – Documentwhere applicable	Plain Sect presence becomes significant	t. See narrative.					
Requirements/Individual Periods — Individual production must reflect one of the dominant agricultural specialties for the period. Plain Sect farm steads must include dominant agricultural specialties AND Plain Sect requirements.	Dairy (fluid milk): Farmstead: ☐ House typical of the period and region OR older AND ☐ Conventional stall barn OR free stall barn AND ☐ Milking parlor AND ☐ Milking parlor AND ☐ Milk house AND ☐ At least three of the follow ing support structures: storage for bedding, hay, or equipment, silage storage, animal segregation area, and/or grain bins) Farmstead Layout: ☐ Layout should approximate the industry standard as discussed in the narrative ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located within the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4 Farm: Above buildings relating to its specialty plus: ☐ Landscape features characteristic of the period (contour plantings, strip crops, ponds). Orchards should have size-controlled stands. ☐ Some historically associated acreage remains	Livestock, except dairy, poultry, or animal specialty: Farmstead: House typical of the period and region OR older AND Free stall barn OR free stall addition to older barn AND Free standing hay barn (possibly located aw ay from central farmstead) AND Evidence of loading chutes Farmstead Layout: Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4 Farm: Above buildings relating to its specialty plus: Landscape features characteristic of the period (contour plantings, strip crops, ponds). Orchards should have size-controlled stands. Some historically associated acreage remains	Poultry: Farmstead: ☐ House typical of the period and region OR older AND ☐ Buildings reflecting broiler (meat), layer (eggs), or pullet (soon to be layer) production: See registration requirements for buildings prior to and after 1970's. ☐ Evidence of grain storage close to poultry housing Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract fromintegrity of design (Statement of Integrity pp. 4 Farm: Above buildings relating to its specialty plus: ☐ Landscape features characteristic of the period (contour plantings, strip crops, ponds). Orchards should have size-controlled stands. ☐ Some historically associated acreage remains	Cash Grain: Farmstead: ☐ House typical of the period and region OR older AND ☐ Multiple corn cribs or other grain storage structures fromthe period ☐ Machinery storage from this or earlier period Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4 Farm: Above buildings relating to its specialty plus: ☐ Landscape features characteristic of the period (contour plantings, strip crops, ponds). Orchards should have size-controlled stands. ☐ Some historically associated acreage remains	Hay: Farmstead: ☐ House typical of the period and region OR older AND ☐ Multiple hay barns located on roads and lanes and not necessarily near livestock AND ☐ Machinery storage spaces fromthis time period or earlier Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4 Farm: Above buildings relating to its specialty plus: ☐ Landscape features characteristic of the period (contour plantings, strip crops, ponds). Orchards should have size-controlled stands. ☐ Some historically associated acreage remains	Orchard: Farmstead: ☐ House typical of the period and region OR older AND ☐ Machinery storage fromthis period or earlier AND ☐ Bulk bin storage/processing space AND ☐ Water storage tanks from the period erected on concrete piers over w ell w ith pump housed in space under the tank AND ☐ Migrant housing from the period Farmstead Layout: ☐ Retention of historic relationship betw een buildings Note: Additions/new construction larger in size and scale and located w ithin the historic farmstead detract from integrity of design (Statement of Integrity pp. 4 Farm: Above buildings relating to its specialty plus: ☐ Landscape features characteristic of the period (contour plantings, strip crops, ponds). Orchards should have size-controlled stands. ☐ Some historically associated acreage remains	Plain Sect: Farmstead: ☐ House with typical features of Plain Sect occupation either from the period or older altered house Note: House must exhibit features of the period (Example: open porches to facilitate household work such as clothes dry ing, wash house expansion, lack of ornamentation, see registration requirements) AND ☐ Secondary dwelling or large addition to main house AND ☐ Buildings and outbuildings for its specialty (See Dairy, Liv estock, Cash Grain, Poultry and Eggs, or Orchard and Tree Nuts Farms) AND ☐ Buggy shed or adapted garage AND ☐ Horse stable (could be combined with buggy shed) AND ☐ Small scale features that reflect off-grid life such as windmills or laundry poles AND ☐ At least one farm stand, telephone shed, tobacco barn, OR small business or industry from the period AND ☐ Kitchen garden, grape arbor or ornamental garden AND ☐ Well-manicured small lawn areas Farm Above buildings relating to its specialty plus: ☐ Landscape features characteristic of the period (contour plantings, strip crops, ponds). Orchards should have size-controlled stands. ☐ Some historically associated acreage remains Plain Sect farms should also have: ☐ Pasture for work animals AND ☐ Open landscape lacking windbreaks and ornamental tress AND ☐ Intensive cultivation of field crops to the edge of the roadway
Registration Requirements: Change over Time		N/A	1	1	1	1	

^{*}Note: This form is to only be used for determinations of eligibility (ER or NR) for farms and farmsteads in conjunction with the relevant regions and time periods identified in the Historic Agricultural Resource of Pennsylvania MPDF. The form should accompany the Historic Resource Survey Form and relevant attachments. This form should not be used for National Register listing or for assessment of archaeological resources.

Appendix B: Oral History Interviews

Conducting Oral Interviews for Agricultural Properties

Below are some tips for conducting oral interviews. Additional information on best practices and links to resources on interview processes is available on the <u>Oral History Association website</u>.

- Always record the date and time and the names of both interviewer and interviewee, the organization sponsoring the interview, and the project for which the interview is being conducted.
- Try to ask open-ended questions rather than questions that can be answered with a simple "yes" or "no."
- Where appropriate, try to follow up on answers.

Essential Questions to Ask

The following key questions should be asked during interviews to understand changes in farming practices and alterations to the farm:

- What were the main agricultural products of the farm after World War II? How did things change in the 1960s, 70s, 80s?
- What changes were made to buildings or landscape features, such as additions, new buildings, removal of old buildings, moving buildings, making contour strips, adding or removing fences, clearing woodlots, etc.? When were these changes made?
- Are there family stories or even old photos and documents that you'd be willing to share?
- Consider using existing data as a conversation point:
 - The 1927 agricultural census says that x farm produced y. Do you ever recall hearing about these activities?
 - Here is a printout of the 19## aerial. Can you identify any of the landscape features or talk about what the aerial is showing us?

Additional Questions to Ask

The following additional questions can be asked during interviews, if time and resources permit:

- In your experience, what is the most notable agricultural change on this farm? Please explain.
 Responses may address changes in crop/livestock mix, farming methods, profitability, markets, regulations, development pressure, etc.
 - o Follow up question: Approximately, when did these changes occur on the farm?
 - Can you tell us something about the farming methods that were used? (Examples: crop
 rotations; introduction of new machinery for various tasks; animal feeds grown on the farm
 or purchased from outside; no-till crop production; were animals pastured or confined;
 what animal breeds or seed varieties were used)

- Were any products processed on the farm for household use? How long did home processing continue? What buildings or spaces were used? Who did the work?
 - Examples: vegetable garden products being canned, dried, stored in root cellars, made into relishes; pigs being converted to ham, bacon, scrapple, sausage; beef slaughtered for fresh or frozen meat; chickens producing eggs and meat for the family
- Was the farm ever tenanted? If so, do you know who rented the farm and what were the terms?
 - o Was it a cash rental, share rental, something else?
- Did hired workers ever live on the farm? If so, what did they do? How were they housed?
- Who did what work on the farm? Did anybody in the household hold a job off the farm? What were the reasons for seeking off-farm work? What were the benefits and drawbacks?
- When was electricity installed? How about water indoors?
 - o Note: Typically, plumbing amenities were not added all at once. Usually running water in a kitchen sink would come first, and indoor toilets and/or bathrooms would come later.
- How did work rhythms change with the seasons? Did seasonal patterns change over time?
 - Example: timing of plowing or harvesting might change with new crop varieties)
 - Did your family make use of various government and educational programs aimed at farming communities? Agricultural Extension, Soil Conservation District, government commodity or set-aside programs, etc.

Appendix C: Interpreting Historic Aerial Photographs

Interpreting Historic Aerial Photographs for Agricultural Patterns

Tutorial

Sally McMurry February 2018

Purpose and Goals

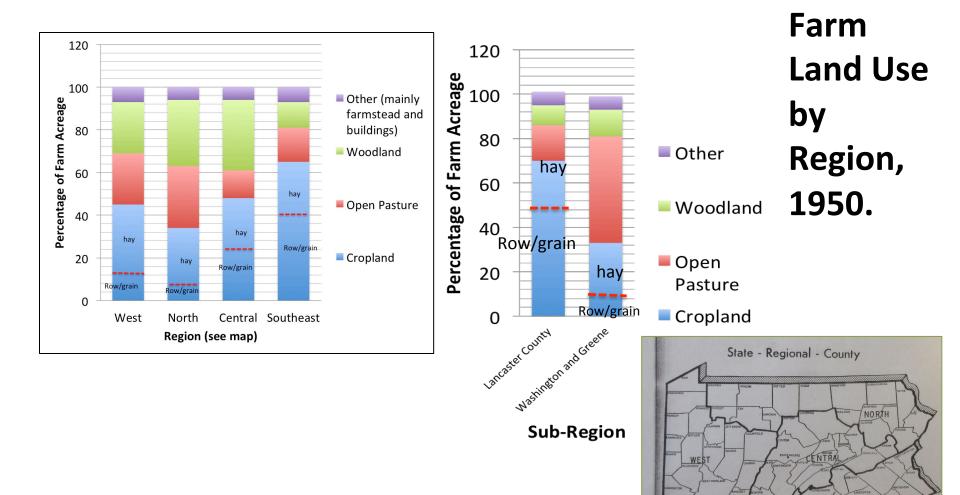
- Learn how to interpret visual clues to agricultural land uses by examining Penn Pilot aerials (http://www.pennpilot.psu.edu/)
- Two main parts:
 - How to make inferences about agricultural production patterns c.
 1960 (in lieu of census data for individual farms)
 - How to understand and explain changes over time from 1930s to c.
 1960 (supplements Registration Requirements for "change over time")
- Caveat: take into account that visual analysis at 1:20000 is inexact.
 There are notable limitations and many "mystery" shapes.
 However, keeping these limits in mind we can often make informed guesses through careful observation. To establish production patterns more clearly, complement photo analysis with other sources such as oral history interviews.



Bucks County

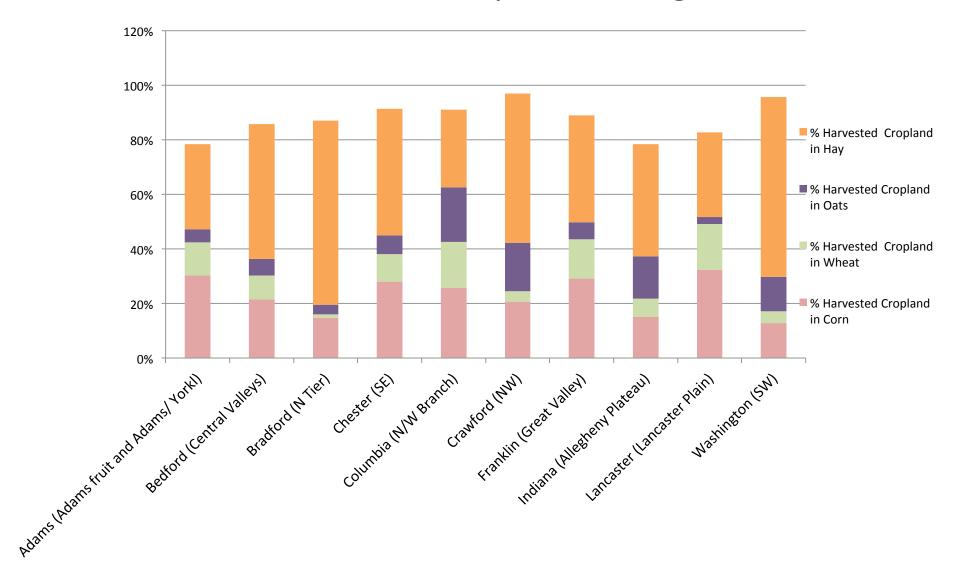
Definitions and abbreviations

- Cropland: land harvested for crops.
 - Row crops: in PA c. 1960, primarily corn, planted each year
 - Small grain crops: in PA c. 1960, primarily wheat and oats, and some barley;
 planted each year
 - Hay: perennial plants cut for hay, not planted every year. In PA c. 1960, about a third of hay acreage is in alfalfa, the rest in a mix where timothy and clover usually predominate.
 - Abbreviations: C = crop; R/G or H for row/grain and hay respectively. H/h = hay being harvested. Fields may be numbered for clarity
- **Pasture**: land used for grazing cattle or sheep. Can be woodlot, but is usually fenced grass land. Perennial plants. Plowed infrequently if at all.
 - Rotation Pasture: land used alternately for crops (usually hay) and grazing.
 - Abbreviations: P = pasture; PP = permanent pasture; RP = rotation pasture.
 May be numbered for clarity.
- **Woodlot**: Forested land. On PA farms c. 1960, used for recreation, rarely for grazing. Sometimes harvested for products such as timber or maple syrup.
 - Abbreviation: W. May be numbered for clarity.



Source: Pasto, Table R 4, page 29. Pasto's regions do not line up EXACTLY with Pa Agricultural History Project regions. Therefore, specific counties may express regional patterns more or less strongly. Lancaster and Washington/Greene are separated out here because they are the most pronounced cases. However, the general tendencies usually apply, and moreover there were only small overall land-use changes between 1930 and 1960. The hay and row/grain crop figures are for 1960 and derive from the Census of Agriculture, using sample counties as indicated in the next slide. (Land-use data for 1960 is available but not in an easy to use form.)

Cropland allocation: Details, c. 1960. Just four crops account for much of PA's cropland acreage.



Basic Visual Characteristics of Agricultural Land on Aerials

- Texture (mottled, smooth, lined, crosshatched, concentric swaths, shocks, scattered trees)
- Tonal value (nearly white to nearly black)
 - Can vary with time of day, time of year, ground moisture, equipment, light conditions
- Field Shape (regular, irregular, straight edged, wavy edged)

Row Crops and Small Grain Crop Fields

These features are not usually all present at the same time. They are illustrated in the slides following.

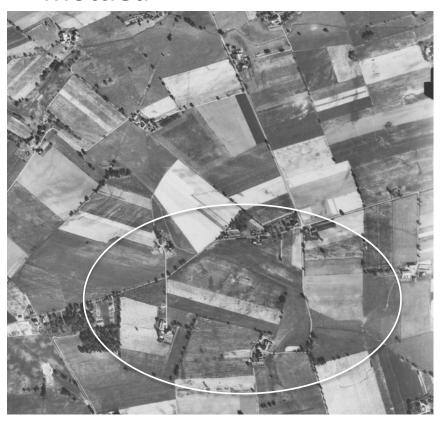
- Show soil mottling
- Medium to lighter tonal values. Corn darkens as the season progresses, other grains lighten. Not usually possible to tell the difference.
- Lined or cross hatched texture (caused by plowing and cultivating in parallel or crosswise respectively)
- Harvest pattern
 - linear parallel rows
 - Visible shocks
 - bordering swaths that are not the same width all the way around
 - "hip roof" pattern with long central spine

Mottled texture

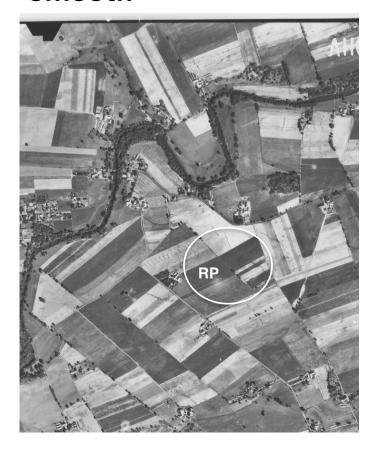
- Results from uneven moisture on a field
- Can be seen mainly on row or small grain crop fields, but usually absent or faint on hay or pasture
- This is because field crops are planted annually and so vegetative cover is either absent (on bare ploughed land) or thin, revealing irregularities in the ground's surface. Hay and pasture are perennials and have established a thicker ground cover that is present year round to some extent.
- Heavily mottled fields may also be bare plowed land, especially in early spring or late fall. These lands would ultimately be seeded to a row or grain crop.
- TAKEAWAY: MOTTLING USUALLY INDICATES ROW OR SMALL GRAIN CROP FIELD, WHETHER PLANTED OR NOT.

Texture: Mottled vs. Smooth -- a basic distinction

Mottled

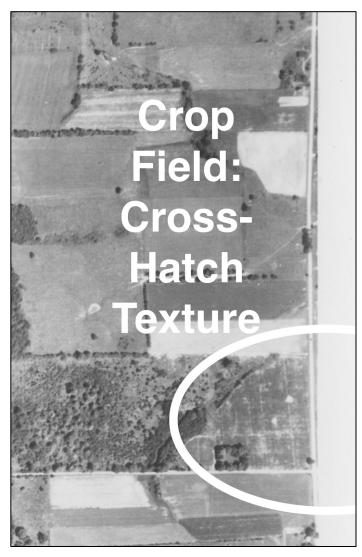


Smooth



Cross Hatched Texture: Crawford County,

8/2/1959



Harvest patterns: clue to crop type. Wheat in shocks, 1947.

Lycoming County Extension Archives, Folder 85, Image 4205D, View of D. S. Ulmer Contour 1947



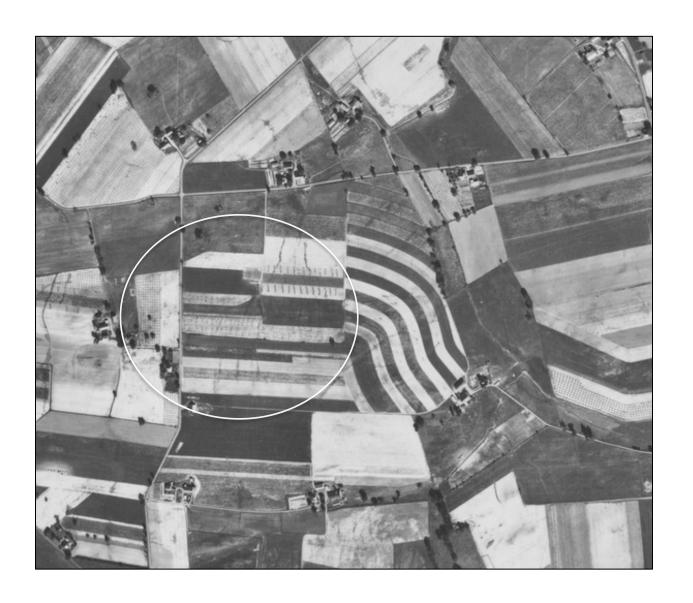
Corn in shocks, no date. PA State Archives. r031#06-Box1-

CornInField.tif



Linear Harvest Pattern with visible shocks

(Lancaster County, 9/28/1957)



The crop is being harvested in straight parallel rows, then made into shocks, which appear as tiny, regularly spaced dots. We can be sure this is a row or small grain crop. It is probably grain corn because: 1) the harvest date is late September; 2) there are shocks, so the corn will be dried rather than put into a silo.

ROW CROP/SMALL GRAIN POST-HARVEST PATTERN: "HIP ROOF" WITH LONG CENTRAL SPINE. Winter wheat harvest pattern may show this pattern.

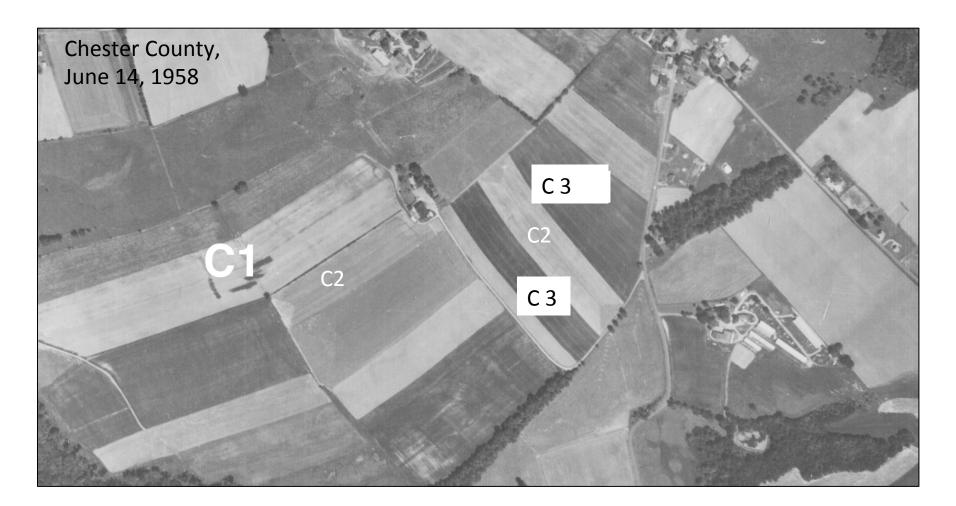


Plate 74.--Stereopair: Two winter wheat fields on July 29 with harvest marks ($\sqrt{0.2}$ - 0.47 and $\sqrt{0.8}$ - 0.47). Fields have concentric swath marks associated with an "X-like" figure with its arms extended to the four corners of the field.

C1: Row Crop. Mottling, light gray tone, faint parallel lines. Possibly corn.

C2: Small Grain crop, recently harvested. Harvest markings are visible.

C3: Small Grain Crop, likely wheat based on time of year. Mottling, medium to dark gray tone, fine, closely spaced parallel lines AND wider spaced lines. (The different lines occur because different equipment is used at different stages.)



ROW/SMALL GRAIN CROPS HARVESTED IN SWATHS VS LINEAR ROWS



HARVEST SWATHS: ROW/SMALL GRAIN CROPS. Harvest swaths around a corn field are often not the same width on the long and short sides of the field. Swaths also may appear in the middle of a corn field. In this photo it looks as if one field (C1) is being harvested from the inside-out. There are no shocks, possibly because this is silage corn and would be put directly into the silo (not dried in the field). (By contrast, see the hay field at H/h being harvested from the outside in.) At C2, the corn crop is being harvested in parallel lines and gathered into shocks. This indicates corn for grain.

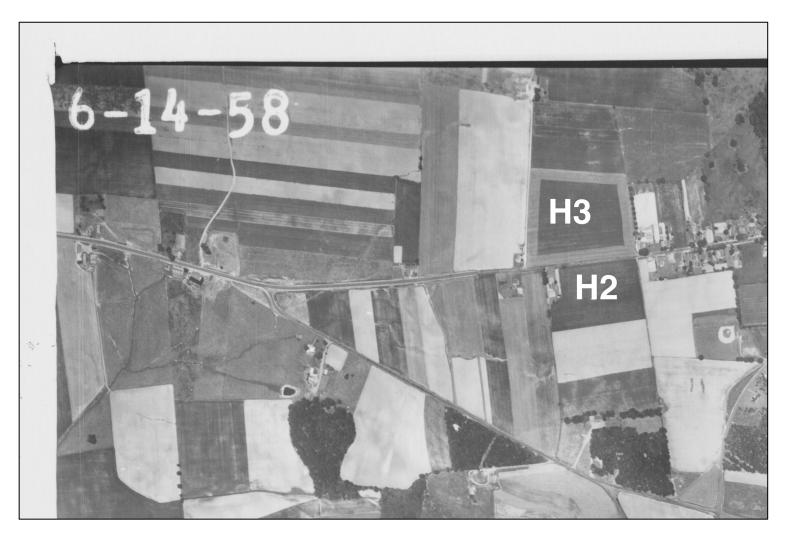
Hay

- Smooth texture: generally NOT mottled or only faint mottling visible. May have faint, close spaced parallel lines. These occur because hay was usually seeded with a previous year's crop of grain.
- Tonal values: varied, but generally darker grays. May have white "fluff." This is white clover. (Goodman page 44)
- Harvest Markings:
 - Concentric, uniform-width swaths
 - "hip roof" pattern with short central spine, visible after cutting
 - No shocks or stacks (hay is usually baled and taken directly to the barn, not left out)

Chester County, 6/14/1958

H2: **Hay field,** not yet cut: no mottling, dark tone, smooth to faintly lined texture

H3: **New Harvested Hay**: no mottling, dark tone, concentric and uniform width swath marks



HAY FIELD HARVEST MARKINGS: SWATHS AND "HIP ROOF" PATTERN. The swath marks are the same width all the way around, not different widths like the ones in Slide 17.



^{*}concentric swath marks can also mean soybeans but soybean acreage was minimal in PA in 1960. Goodman, 171.

Harvest Times

- The table in Slide 22 is a rough guide to PA harvest times.
- The photo date of a historic aerial (see upper left hand corner) can help rule out some possibilities when you are looking at harvest marks.
- For example: In Slide 17, the date is September 28. The crop is therefore probably corn because the oats and wheat would have been harvested in mid-summer.

Usual Planting & Harvesting Dates for Principal Pennsylvania Field & Vegetable Crops April May June July August September October November December Crop Winter Wheat & Rye Spring Oats Fall Barley Corn -Grain Silage Soybeans Tobacco Potatoes - Fall Seed Crops -Timothy Red Clover Hay -Alfalfa Other Vegetables, Processing Snap Beans Sweet Corn Tomatoes Vegetables, Fresh Mkt Cabbage - Summer Cabbage - Fall Snap Beans Sweet Corn Tomatoes Straw berries ********** Harvesting Key: Planting Begins Most Active Ends

National Agricultural Statistics Service, no date, about 1990-2017.

Pasture

These features are not always all present.

- Texture: smooth-- little to no mottling, usually no regular lines that would be left by harvesting or plowing
- Texture: trees scattered about the field interior (shade for animals)
- Tone: medium to light grays, never light toned
- Site: often near farmstead and within pasture area
- Other signs: faint white lines indicate animal pathways from farmstead
- Other signs: fencing. Not usually visible in an aerial, but may be indicated by tree lines.
- Other signs: irregular shape or wavy borders (not cultivated so less need for straight lines for machinery)

Pasture view, undated. Pa State Archives

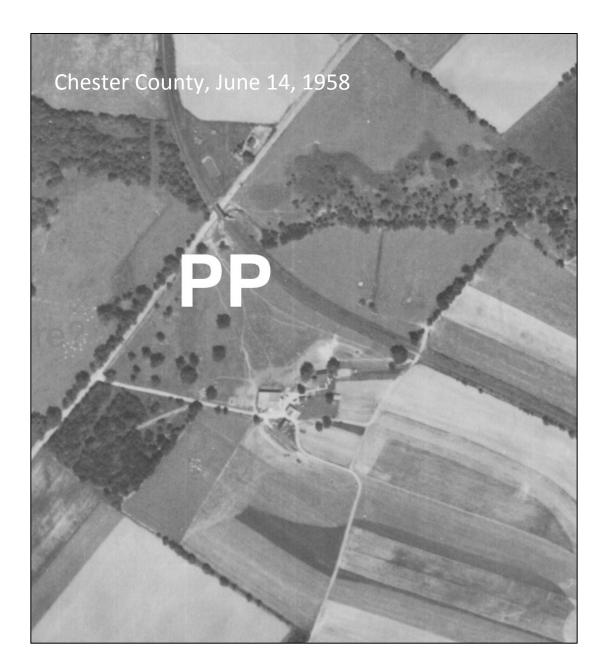
r031#06-Neg#1329a.tif





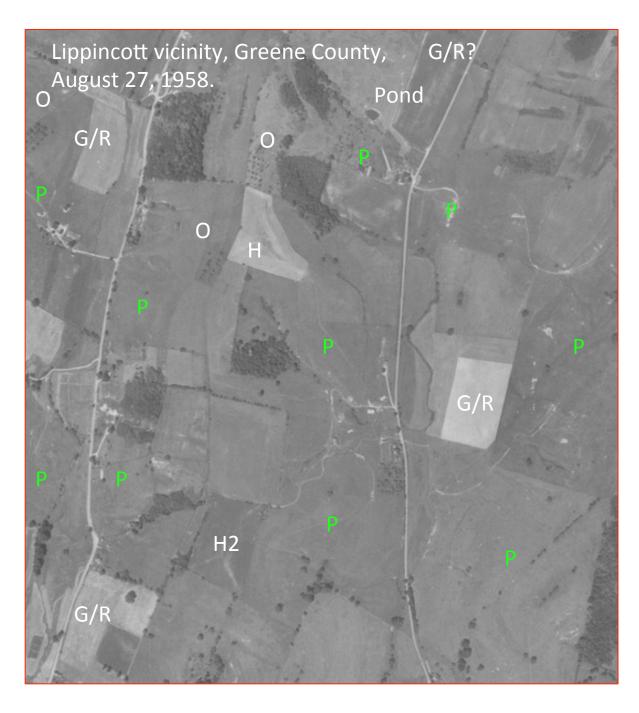
PASTURE – Northern Tier example. (About 1/3 of the land in the Northern Tier was in pasture c. 1960.)

- Irregular shape (3 of the 4)
- Pathway from farmstead
- Trees in interior
- Medium gray tone
- Smooth texture (little to no mottling)



Pasture: Southeast Pennsylvania example

- Smooth texture
- Medium Gray Tone
- Scattered trees in interior
- Irregular outline
- Faint white lines from farmstead to pasture



Pasture: Southwestern PA Example.

Remember (slide 5) that open pasture is about 50% of farmland here in 1960. Grain/row (G/R) crops would only be about 10% of farm acreage and hay would be about 20% of farm acreage. Because it is so extensive, pasture in Southwest PA is not always obviously connected to a farmstead.

G/R: (grain or row crop) light tones, square-ish fields H: hay field with swath marks H2: hay field with "hip roof"

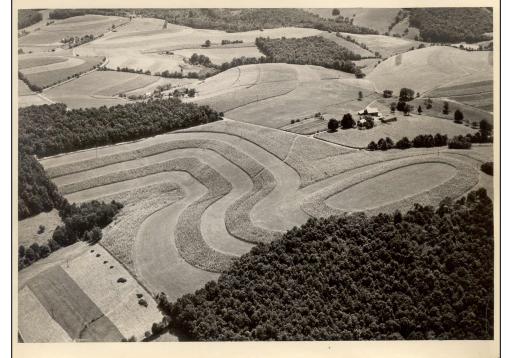
marks

O: orchard

P: pasture

Highly Visible Conservation Practices c. 1960

- Begun c. 1935 but not widely visible until well after that date
- Purpose: control erosion, conserve water, fulfill New Deal era ideal of "best use" for various land categories
- Main practices in PA (in rough order of popularity):
 - Contour Strips
 - Crop Strips
 - Ponds
- These practices signify new production techniques but not necessarily new products.





Contour strips: alternating crops planted along topographic contour lines. Strips catch rainwater and soil particles, prevent soil erosion, make better use of water. By definition, contour strips occur on slopes. They are almost always crops and do not generally function as pasture.

Crop strips differ from contour strips in that they are planted on level land and usually parallel. They serve a similar function.

Burt DeWald Farm, Lycoming County, c. 1950. Lycoming County Agricultural Extension Archives.

Farm ponds

- Nearly always constructed (not naturally occurring)
- Most date from after 1945
- Uses (in rough order of popularity): recreation, fire insurance, livestock water supply, irrigation, spray mixing, wildlife
- Location: depends on geology, hydrology, and local Soil Conservation District priorities. Common in Adams and Lehigh, but popular throughout the state.
- **Significance:** indicate expanded government role in agriculture; intensified spraying; greater emphasis on recreation.



Pond at James Nicholson Farm, Lycoming County, undated, c. 1950. Lycoming County Agricultural Extension Archives.

Farm Pond Identification on Aerials

- Clearly bounded
- Dark shaded or reflective
- Variety of shapes, but often oblong, round, or triangular. Sometimes with one flat side where a dam is located.
- Small: most are under 2 acres in area
- Stream that feeds the pond may be visible (but often ponds are spring fed or rain fed)
- Usually sited somewhere near farmstead
- Can often be confirmed with topo maps





Lehigh County, near Lynnport. 1938 (left) and 1958 (right). A pond has appeared, displacing an orchard.



Now put it all together: Chester County, June 14, 1958

H2: **Hay field,** not yet cut: no mottling, dark tone, smooth to faintly lined texture

H3: New Harvested Hay: no mottling, dark to medium tone, concentric swath marks

RP: **Rotation Pasture**: no mottling, medium gray tone, faint white lines show cowpaths coming from farmstead

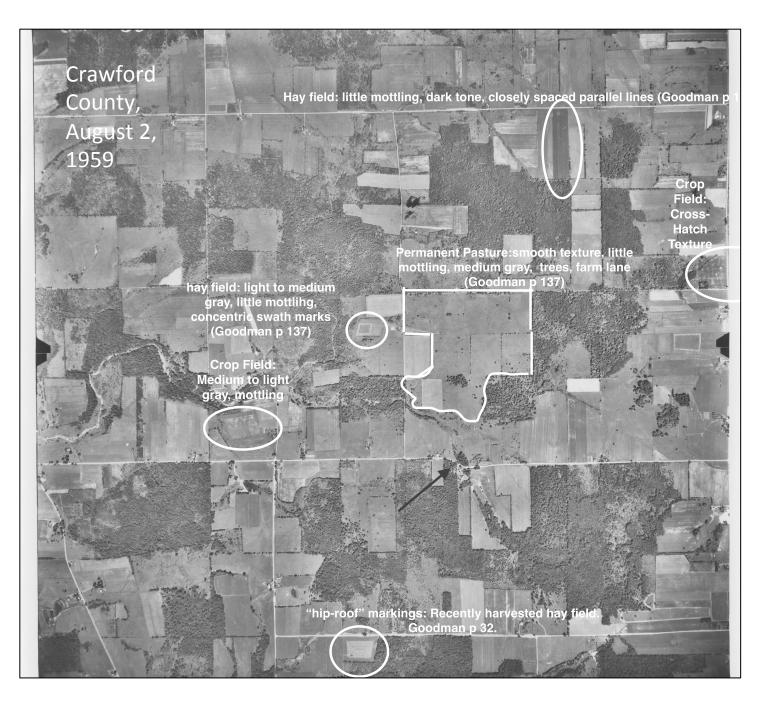
PP: **Permanent Pastu**re:

No mottling, medium gray tone, smooth texture, trees, white lines show cowpaths coming from farmstead

C1: Row Crop. Mottling, light to medium gray tone, faint parallel lines. Probably corn or soybeans.

C2: Small Grain Crop.

Mottling, medium to dark gray tone, fine, closely spaced parallel lines AND wider spaced lines

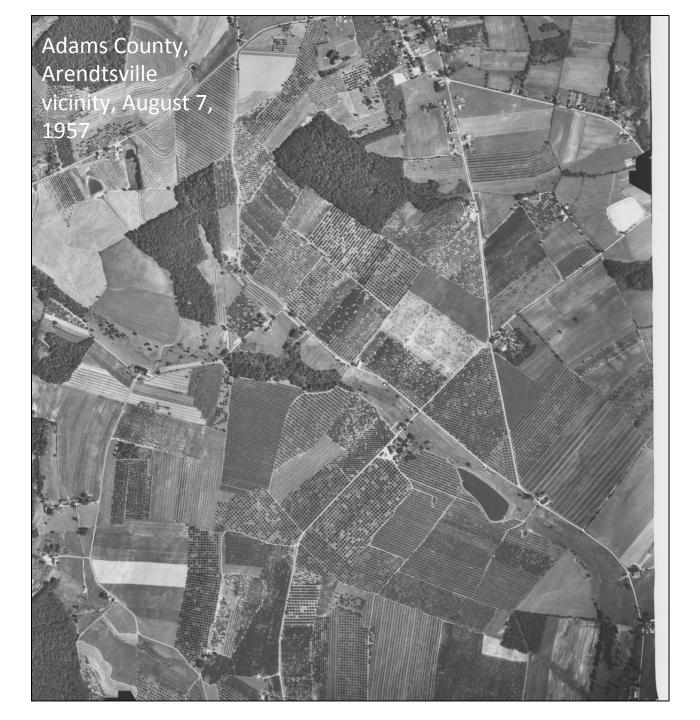


Put it all together in a different part of the state:

Northwest PA, pasture and hay dominate. As Slide 5 notes, about half the farmland here is either in pasture or hay, and a very small proportion in row/small grain crops.

Putting it all together: In the background at right: permanent pasture with possible rotation pasture to its left. Note that the pastures border a woodlot on hilly ground. This is consistent with pasture as a use for lower quality soils on steeper slopes. If you are unsure about whether an area is pasture, the presence of sloping land can give a clue. Lycoming County Agricultural Extension Archives, Folder 85, Image 4205D, View of D. S. Ulmer Contour 1947





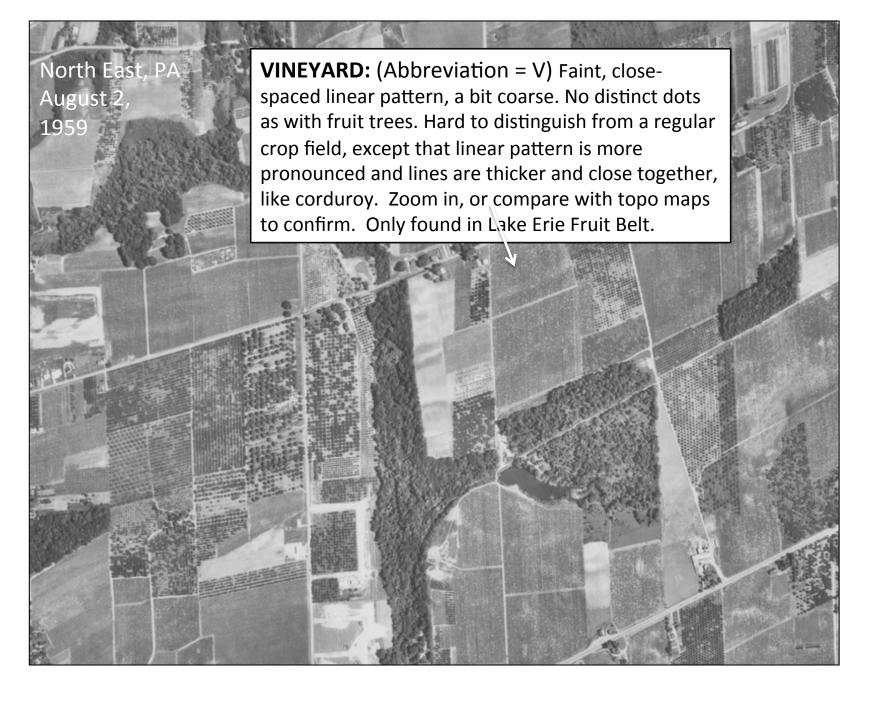
Orchard (abbreviation = O)

Clearly bounded shapes filled with linear rows of dark dots arranged in a rigid grid. The dots are fruit trees. Note several ponds in the picture.



Small orchards on farms continued to be present c. 1960.

There are four small orchards in this photo. The contrast with Adams's highly specialized landscape is clear.



TRUCK FARMING/SMALL SCALE PRODUCTION FOR LOCAL MARKETS



- Small Plots for vegetables and small fruits
- Tiny Orchards
- Small Vineyard
- Roadside location
- Ponds, likely for irrigation and spray water

Source: Erie County Horticultural Society Growers Directory, 1975. Penn State Agricultural Extension Archives, Erie County Agent Reports. This farm was present in the 1950s aerial also so it is reasonable to assume a continuity of production to 1975.

Test case: Limestone Township, Montour County (N/W Branch), June 8, 1959.

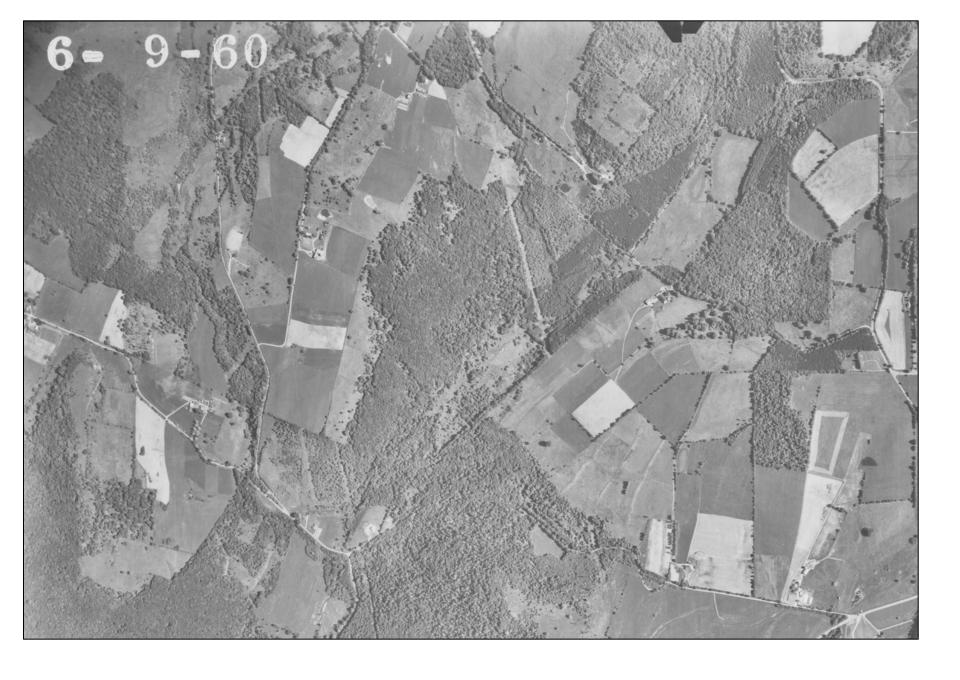




Montour Test Case Comments

- Mottled?
 - Yes = grain or row crop (G/R).
 - Since this photo was taken in early June, it isn't easy to guess the specific crop from the tone. We can see at least two crop tones, so most likely the standard rotation was being followed (corn, oats, wheat, hay)
- Smooth texture, not mottled?
 - Yes = hay or pasture
 - Regular shape, dark tones, no trees, and/or harvest marks?
 - Yes = hay (H); hay being harvested (H/h)*
 - Irregular shape, medium tones, trees, paths, proximity to farmstead?
 - Yes = pasture (P)
- In this specific image, there is less woodlot (W) than we might expect, but the small area in pasture is consistent with the region.

*this field could be a row or small grain crop since the swaths are not the same width, but the smooth texture and dark tone suggest hay.



Susquehanna County, Northern Tier



Susquehanna County (Northern Tier).

Susquehanna test case comments

- Mottled and light colored = grain or row crop.
- Pastures are identifiable.
- Smooth dark gray rectangles are hay. Some have a concentric swath indicating harvest in progress.
- What about the medium gray fields that seem mottled? Given that this is the Northern Tier, they are probably hay crops not yet filled in.
- We can't always be sure; sometimes we can just make an informed guess.



Bucks County

Major changes statewide

1930s

- 1. Specialization (dairy, poultry everywhere, potatoes and fruit localized) is on the increase
- 2. BUT crop and livestock mix is still diverse (minor grains, wheat, oats, beef cattle, swine, sheep augment dairy and poultry)
- 3. Strong self-provisioning and local-market sector persists
- 4. Horse era not yet over
- 5. Land-grant government, industry are just getting established as forces in agriculture
- 6. Hay crop is 96% timothy and clover/4% alfalfa
- 7. IN GENERAL, 1930s landscape has many continuities with the c.1900 landscape.

c. 1960

- 1. Specialization pronounced
- 2. Crop and livestock mix is significantly less diverse (minor grains, wheat, oats, beef cattle, swine, sheep in steep decline)
- 3. Self-provisioning and local-market sector almost gone
- 4. Horse era is over: heavily mechanized fossil fuel based farming
- 5. Land-grant system and allies are fully established
- 6. Hay crop is 68% timothy and clover/ 32% alfalfa
- 7. IN GENERAL, c. 1960 landscape represents post WWII departures.

Landscape Expressions of Change

Major trends 1930s-1960

- 1. Greater specialization
- Disappearance of selfprovisioning and local market production
- 3. Regional specialization in fruit
- 4. Decline of horses
- 5. Consolidation of land-grant system, government, industry influence, more power equipment
- 6. Hay crop composition shifts

How they appear on aerials

- 1. Fewer different crops.
- 2. Fewer clusters of small plots especially near towns and cities
- 3. Fewer small orchards on farms outside the fruit regions.
- 4. Two results: elimination of oats (horse feed) from rotations; and consolidation of fields (so that large machines can maneuver.)
- 5. Contour plowing, strip cropping, terraces, consolidated fields, ponds
- 6. Hay fields may show more than one tone, whereas earlier they were more monochromatic

Major continuities

- Agricultural land use patterns (i. e. proportion of crops, woodlot, pasture) are more or less stable over time for the various regions of the state. Refer to the chart in Slide/Page 5.
- Woodlots and boundary markers are often very stable.

Limitations

- Each photo represents just a single growing season and may or may not capture broader long-term trends.
- If aerials were taken at different times in the growing season, their utility is limited because plants grow so rapidly and change their appearance significantly.

IF the photos are from the same period in the growing season, compare for crops (see Slide/page 52), pasture, and other features (field consolidation, contour plantings, ponds, orchard removal, tree line removal, reduction in truck crop areas.)

If they were taken at different points in the growing cycle, compare for other features only: field consolidation, contour plantings, ponds, orchard removal, tree line removal, reduction in truck crop areas.

3. For fruit areas, the season of the photo matters less, because orchards and vineyards are recognizable no matter what the season.

Crop Changes: what to look for

Since the basic proportion and acreage of crops, pasture, and woodland didn't change markedly, in general the big change between c. 1930 and c. 1960 is *fewer different crops*. Even if you can't identify specific crops, sometimes you can document a decline in crop diversity. **Again, these guidelines only apply if the aerials were taken around the same time in the growing season**. Here are some ways to document a change in crop diversity.

- Note whether any particular tones disappear or occupy an obviously much smaller acreage.
- If the overall number of tones clearly decreases, that is evidence for fewer different crops. However, if the overall number of tones stays the same or increases, that does not tell us much one way or the other. The reason has to do with changes in the composition of the hay crop. Alfalfa, which was more prominent in 1960, tends to show darker tones than the timothy/clover blend. However, the crop is still hay. Alfalfa was very popular in the Great Valley and not widely adopted elsewhere.
- Note when small fields are consolidated into larger ones. This would often be associated with a decline in crop diversity.

Bradford County, 5/29/1939:

Multi-toned fields: diverse mix of grain and hay crops plus pasture = dairying plus diverse production

Multiple Small irregular fields = low mechanization

Orchards present = diverse production

Small plots = possible truck farming

Bradford County, 6/2/1960:

Less varied in mix of tones = decline in crop diversity

Some fields consolidated (1) = less diversity, more mechanized farming

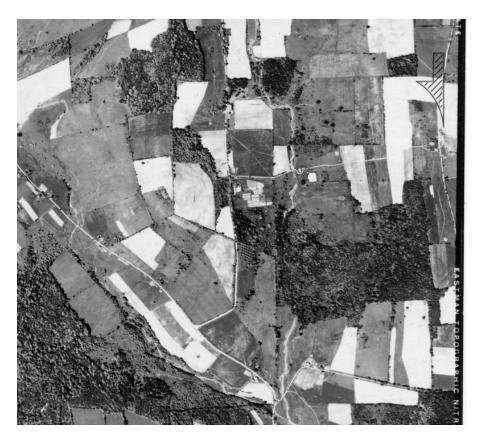
Some treelines eliminated (2) = mechanization

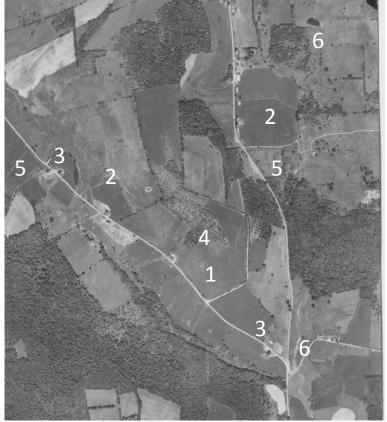
At least two new ponds (3) = "ag establishment" influence

Possibly one instance of pasture reverting to wood (4) = decline in pasture practices

Cluster of very small (truck patch?) plots disappears (5) = decline in agricultural diversity

Orchard disappears (6) = decline in agricultural diversity Woodlots remain fairly constant = long term continuity





NOTE THAT THE TWO PHOTOS WERE TAKEN AT ALMOST EXACTLY THE SAME DATE, 21 YEARS APART

Major changes:

- Disappearance of lightest tone = possible elimination of oats or wheat from crop mix, decline in crop diversity
- We know from oral history that potatoes were grown on this farm in the 1930s. It is likely that the small field next to the farmstead was planted in potatoes. This gives way to a row/grain crop in 1958. Another decline in crop diversity.
- Orchard is made smaller = less overall agricultural diversity in the region
- Contour strips transform the earlier crop fields = "ag establishment" influence
- A pond appears = "ag establishment" influence and greater mechanization

Continuities:

• Overall emphasis on crops continues. The woodlot is about the same size and shape in both years.

Lehigh County, **10/10/38**

Lehigh County, 10/6/58



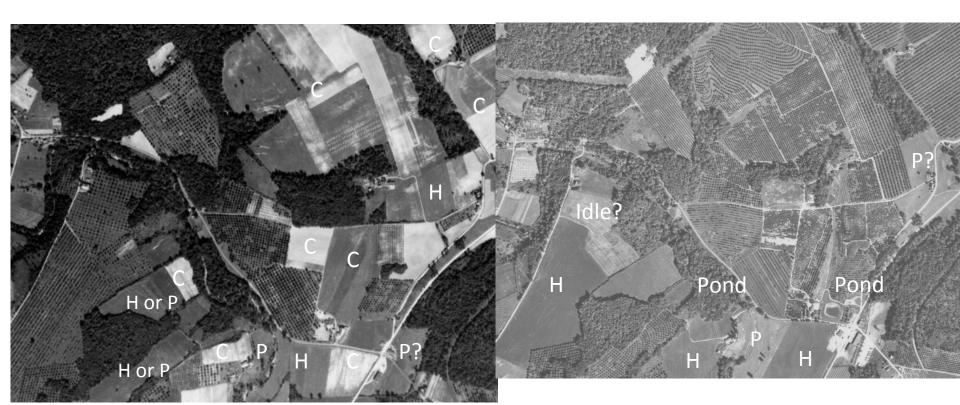
1937:

Multi-toned field crops plus orchard = crop diversity Pasture = some livestock Represents c. 1930 emphasis on fruit within

context of general farming

1957:

Greater proportion of orchard, fewer crop tones = greater specialization Contour planting = "ag establishment" influence Ponds = "ag establishment" influence and use of water for sprays and irrigation



Bendersville, Adams County, 9/24/1937

Bendersville, Adams County, 9/25/1957

Summary

- Aerials can furnish information about land use, crop production, and conservation practices c. 1960. They should be regarded as a supplement to oral history information collected about a farm's post 1930 production history.
- Aerials can furnish information about change over time from c. 1930 to c. 1960.
 - If photos were taken about the same time in the growing season we may be able to detect broad changes in crop patterns.
 - Regardless of when photos were taken, we can find changes such as the implementation of conservation practices; elimination of small orchards, truck plots, hedgerows, and treelines; field consolidation.
 - In the fruit regions, we can see the expansion of orchards and/or vineyards.

Bibliography

- Bomberger, Elon et al. "Photo Interpretation in Agriculture."
 Chapter 11 in Manual of Photo Interpretation. Washington, DC: American Society of Photogrammetry, 1960.
- Crisco, Wallace A. Interpretation of Aerial Photographs. US Bureau of Land Management, 1983.
- Goodman, Marjorie Smith. "The Aerial Photographic Identification of Farm Crops in Northern Illinois." Ph.d dissertation, Northwestern University, 1954.
- Keepper, W. E. "An Economic Classification of Land, Blair County, Pennsylvania." Penn State Agricultural Experiment Station Bulletin # 413, revised to # 439, January 1943. This bulletin contains labeled 1930s aerials from Blair County.
- Pasto, Jerome. "Facts on a Century of Agriculture." Penn State Agricultural Experiment Station Bulletin # 537 (January 1955.)
- U. S. Census of Agriculture, 1959. Pennsylvania.