

V. TENANCY AND AGRICULTURAL REFORM

Tenancy was inextricably bound to agricultural reform efforts in central Delaware. For landlords, tenants represented a source of capital; rents paid in crops were converted to cash, through consignment to local grain merchants. Tenant properties enabled landlords to compound capital and labor in the social and economic organization of the Delaware agriculture landscape. Tenant leases became instruments for farm improvement, in the sense that manuring, cultivating, and fencing were contractual obligations that landlords expected their tenants to meet. Tenancy both shaped and was shaped by Delaware's agricultural economy, especially in response to the development of large-scale commercial farming in the Midwest and the growth of urban markets along the Atlantic seaboard for garden produce following the Civil War.

The Agricultural Economy of Delaware

The evolution of the Delaware agricultural economy during the nineteenth century generally reflected national trends: the three most influential factors were the agricultural reform movements, new methods of transportation, and the growth of the Midwest as a major grain and milling belt. Between 1770 and 1900, Delaware farming shifted from one-crop farms dependent upon the Delaware Bay trade to diversified farming supported by rail transport. As Manlove Hayes wrote in the *Delawarean* in 1860, the three factors that had contributed most to the strength of the state were "steamboats and railroads, lime and guano and the Agricultural Society.

As a result of the British blockades in the early 1780s, the state's economy was stagnant. There was practically no cash flow because taxes could not be collected while trade was blocked, and the General Assembly could not do anything to promote trade because there was no cash flow. Agricultural trade and the economy were so dependent upon one another that the

whole structure of Delaware's public and private economy was built upon the foundation of the bay trade.

Government obligations could not be met until the water routes had been cleared and surplus grain stocks sold.

By the 1790s, as the agricultural economy recovered, financial institutions were beginning to make an appearance in the state. The First Bank of Delaware was founded in 1795, and in 1807 the Farmer's Bank of Delaware was incorporated. There was a shortage of

currency in Delaware as trade with England was not even and Delaware spent its specie in England, without having reciprocal trade to circulate the currency.⁶¹ The shortage of cash had a clear effect on tenancy, as described by Dr. Tilton:

The farm rents used to be paid in money altogether. Since the revolution, , the depreciation & fluctuation of our money has given occasion to our rents being often paid in produce, and the letting of the lands, sometimes, though rarely on shares.

Extreme weather during the Revolutionary War years, early and late frosts that diminished the harvest, cold snowy winters, and a devastating drought drastically reduced corn and wheat yields and caused prices to rise. Reduced crop yields and low water levels on the Brandywine River contributed to the slowing of production at the Brandywine Village grist mills.

While he noted that the major market crops remained wheat and corn. Dr. James Tilton described the range of crops produced for local consumption in late eighteenth-century Delaware: "

For man's use, are cultivated wheat, barley, indian corn & buckwheat. besides potatoes, cabbage and various kinds of pulse & other garden truck. These all furnish provender for cattle; besides which, oats and various kinds of grass, more especially Timothy & Clover are cultivated for the use of cattle.

Cereals were the mainstay of Delaware agriculture although regional variations were evident due to soil conditions. Rye was an extremely lucrative grain crop, but it needed dry soil and would not tolerate Delaware's swampy regions. In the northern part of the Upper Peninsula Zone, peaches were a major crop between 1835 and 1877, when the "peach yellows" blight devastated the industry. Other crops grown in New Castle and Kent Counties included oats, Irish potatoes, peas and beans, sweet potatoes, butter, orchard produce, and wool.

The first Federal agricultural census, taken in 1850, showed that Indian corn, oats, and wheat were the crops produced in highest volume in the state. Indian corn was not grown for human consumption, however, it was intended as fodder for livestock. Between 1860 and 1890 the number of bushels of Indian corn produced in the state dropped from 3,892,337 to 3,097,164, a decrease of 20%. A similar pattern occurred in both Kent and New Castle

counties. The main crop produced in central Delaware through 1860 was wheat. According to Gouverneur emerson, the production of wheat in Delaware increased by 50% between 1840 and 1850, as a direct result of agricultural reform. This was particularly true in Kent County, where the number of bushels of wheat produced increased by 143% between 1860 and 1890. However, by the end of the century wheat had lost its lustre as the major crop.

In the nineteenth century, several factors contributed to the decline of wheat as a cash crop. Crop devastation by a variety of insects and diseases (Hessian fly, midge, chinch bugs, rusts, and smut) led to the abandonment of wheat as a major cash crop in much of the eastern United States by the 1830s, although in Virginia and Pennsylvania, sound farming practices maintained wheat cultivation through 1860. Central Delaware farmers also continued to grow wheat. In 1854, a bumper crop of wheat in the “new West” region, coupled with an increased demand for American wheat due to the outbreak of the Crimean War, led to accelerated railroad-building in the region, assuring its future dominance as a wheat belt.

Delaware farmers replaced wheat with a variety of garden truck produce that could be shipped to market by rail. These perishable goods had a high market value in rapidly growing urban centers such as Philadelphia, Baltimore, and Wilmington.

In the late 1800’s fruit growers diversified by growing apples, pears, black cap raspberries, blackberries, quince and whortleberries...Apples became king in Kent County and Sussex became the top strawberry county in the country. The typical central Delaware farm at the turn of the century grew a few peaches, lots of apples, a few pears, grapes small fruits, plus field crops and livestock—probably a small dairy herd.

Diversification of crops protected the farmers, to some extent, from financial ruin due to particular pests or market condition. It also allowed farmers with small parcels of land to participate in a lucrative market. At the same time diversification helped provide some measure of economic stability it also limited the possibility of windfall gains.

The arrival of the Delaware Railroad in Kent and Sussex counties by 1860 boosted the ability of central Delaware farmers to produce perishable crops for the urban markets in Wilmington, Philadelphia, and Baltimore, thus encouraging the shift away from wheat as a major crop.

Agricultural Reform

In the early 1800s the agricultural reform movement became active in New Castle and Kent counties. Many of the most active members of the agricultural societies were multiple property owners and landlords. Their efforts were part of an overarching movement that occurred throughout the United States during the first half of the nineteenth century. Several developments characterized the movement. The formation of agricultural societies promoted European agricultural methods and published the results of their members scientific research on cultivation and husbandry. Widespread attempts were undertaken to reclaim farm land and improve the quality of existing fields by the application of new soil cultivation techniques and a variety of fertilizers. Technological innovation prompted the invention and perfection of a series of dramatic new agricultural implements as well as improvements in design and materials of familiar tools.

Beginning with Delmarva landowners such as John Spurrier, S.H. Black, James Tilton, S.H. Black, James Tilton, and John Bordley. Americans familiar with the development of English agricultural reform societies sought to establish a similar forum for agricultural improvement in the United States. The purpose of these societies was not an exchange among working farmers of practical ideas, but the dissemination of information about agricultural progress abroad.⁵⁸ The Philadelphia Society for Promoting Agriculture, for instance

was formed...by some citizens, only a few of whom were actually engaged in husbandry, but who were convinced of its necessity; and of the assistance which such an association, properly attended to, would afford to the interests of agriculture...Many citizens have the mistaken idea, that their not being *agriculturalists*, disqualifies them from becoming useful members of our Society... The interests of *Commerce, Arts, and Manufacturers*, form, with *Agriculture*, an indissoluble union; to which citizens of every class and calling, have it amply in their power to contribute.

Farmers in the eastern United States faced several major challenges in the first decades of the nineteenth century. Among them was the shift of the wheat belt from the mid-Atlantic region (that included Delaware) to the "new West" (Illinois and Wisconsin) by the 1850s. Another pressure on farmers was the serious shortage of agricultural labor, a factor that shaped the development of the agricultural landscape.⁷⁰ A final inducement for agricultural reform was the favorable home market that developed by about 1820. The timing of this development was opportune: just as the export markets crashed. Urban centers like

Philadelphia demanded increasing amounts of agricultural produce.

Labor Sources

One of the pressures facing American farmers at the beginning of the nineteenth century that shaped the manner in which the agricultural landscape would develop was the serious shortage of agricultural labor. Farmers could not hire the labor they needed *to* help on a seasonal basis, but they could lease *some of* their land *to* another person, making the tenant responsible for contracting labor. In the Upper Peninsula Zone, free African-Americans comprised a cheap labor force that could be effectively prevented from emigration *to* the West or *to* northern urban centers during the first decades *of* the nineteenth century by a variety of legal maneuvers on the part of powerful white landowners. This labor force cushioned Delaware from the severe shortages experienced in rural areas without a sizeable free African-American population. The desire *of* white farmers in Delaware *to* retain (even *to* detain) the free black population is striking when compared *to* contemporary visions in other slave states in the "upper South" region *of* the nation. In 1818, John Taylor *of* Virginia published a series *of* essays on agriculture in which he argued that free blacks "wound[ed] agriculture...being an unproductive class living upon it." Taylor espoused the colonization *of* all free blacks.

Prior *to* emancipation, slaves were enumerated along with other taxable property in the assessment lists. These lists demonstrate that slave labor played a very limited role in the agricultural economy *of* the Upper Peninsula Zone. During the nineteenth century, only a very small portion *of* Delaware's total population was slave--from 10 percent in 1800, the figure dropped *to* 4% or less by 1830. Kent County's slave population represented 5% or less *of* the total population from 1810 on; Little Creek Hundred reflected the same pattern. In 1800, slaves in Delaware represented 43% *of* the African-American population. The slave population declined steadily, in both real numbers and as a percentage *of* the African-American population, through 1860, when it reached 8%. In contrast, Kent County (and particularly Little Creek Hundred) contained an African-American population made up *of* a much larger proportion *of* free blacks. Slaves represented only 26% *of* the Kent County African-American population in 1800, declining in real numbers and as a percentage *of* the African-American population until it reached 3% in 1860. In Little Creek slaves represented

only 20% of the African-American population in 1800, declined to 12% by 1820, and plummeted to 1% in 1840. In 1850 there were no slaves reported in Little Creek Hundred; in 1860 11 slaves were counted. This was paralleled in the 1822 and 1860 tax assessments by a drop in actual numbers from 78 slaves owned by 19 taxpayers in 1822 to 6 slaves owned by 5 individuals in 1860. Evidently, slaves were not viewed as a cost-effective labor force in Little Creek Hundred as early as the late eighteenth century.

One source of indentured labor in Kent County was the local poor house. Records from the Kent County Poor House indicate an inmate population that consisted largely of either the very young or the very old--those who could work were being indentured out.⁷⁴ Current research on poor houses in the mid-Atlantic region has found that this pattern is consistent with areas where there was a high demand for labor, but that these areas were usually industrial regions, not rural or agricultural areas.⁷⁵ Most of the youthful population of the Kent County Poor House was bound out by indenture to local farm families, where young girls would be instructed in the "mystery of housewifery" and boys in "husbandry" or "farming," providing a ready supply of cheap labor to local families. Farmer Joseph Farrow obtained John Brachner, a 9-year-old boy, for a term of eleven years, during which Brachner would be taught "the art of farming" in exchange for relieving the county of the cost of his maintenance.

Widows and marginal farmers might obtain the household help they needed but could not afford to hire by obtaining apprentices from the poor house. Rebecca Warters, an 8-year-old girl, was apprenticed to Widow Ann Hamm of Little Creek Hundred for a period of ten years during which she agreed to serve "honestly and obediently in all things as a faithful Apprentice ought to do." In exchange, Mrs. Hamm agreed to provide meals, lodging, and instruction in "the art and mystery of housewifery."

According to the provisions of indentures in Kent County, apprentices were to receive twelve to eighteen months of schooling. Up to half of that education, however, would only be provided in the last two years of service. This would have varying effects, depending upon the age of the apprentice at the initiation of the indenture. Women were apprenticed until they reached their majority--age eighteen--and typically received twelve months of education. Men were apprenticed until their majority--age twenty--and received eighteen

months of education. At the conclusion of their terms of service, apprentices were due two new suits of clothing and sometimes a small cash stipend. A recent study of agricultural reform in Kent County views the 1810s as a crucial period for reformers. The nation's economic slump precipitated increased rates of farm failure, providing opportunities for wealthy individuals to buy up smaller farms from which to generate rental income. Multiple property ownership not only afforded protection from the vicissitudes of the agricultural economy, but allowed the accumulation of wealth that effecting reform required. Proponents of marsh reclamation, for example, an expensive reform effort, typically owned two or more farms.

Depletion of Agricultural Lands

Early nineteenth-century landholders greatly concerned themselves with the condition of agricultural land. The valuations of land brought to the Orphans Court by local freeholders repeated, over and over their directive that land should be farmed in rotation. The most frequently described system was composed of three fields, only one of which was to be farmed in corn each year and one in wheat. The field farmed in corn was to be sowed the following season in wheat. Figure 38 illustrates this rotation system as it was described by John Bordley. A typical description was that of the land belonging to George W. and Hunn Jenkins: "the said land to be continued in three fields one of which to be tilled in Corn and the same Sowed down in wheat in the same year, and so in Rotation each of said fields to be tilled only one year in three." While the Jenkins farm was 600 acres in size, these instructions were also applied to smaller farms like the 86-acre parcel tenanted by David Vining, free negro. While 115 acres were arable, "much bordering on the margin of the marsh, [it was] low and wet and poor not worth cultivating." The "farm is divided into three fields and should stay that way, one should be tilled in Indian Corn (and the same sowed in wheat)."

As in the 1822 case of Wilds vs. Layton mentioned previously, individuals managing estates could be (and were) sued for improperly managing farm lands by not rotating crops.^{S1} The courts would not set a precedent allowing the exhaustion of agricultural lands. This attitude is also reflected in the tenant leases that stipulated crop rotation patterns and limited the clearing of new land.

	No. 1.	2.	3.	Fields.
1781.	Maiz	Wheat	—	There are no <i>Grass-</i> <i>Fields</i> , for supporting these <i>Corn-Fields</i> , — not one. (7)
1782.	Wheat	—	M.	
1783.	—	M.	W.	

* * * *

Figure 38: Diagram of the Rotation System for a 3-Field Farm.
John B. Bordley, *A Summary View of the Courses of Crops...*
Philadelphia: Charles Cist, 1784. Page 11.

The New Castle County Agricultural Society was formed in 1819. Attempts form an agricultural society in Kent County were made in 1818 and 1835, but a permanent society was not established there until 1854. Many of the members of the Philadelphia Society for Promoting Agriculture were non-resident landowners in Kent County.

In evaluating the influence of these Society members among Appoquinimink, Little Creek, and Murderkill farmers, it is important to remember that the phrase "useful members" as used by the Philadelphia Society and the New Castle County Society did not refer to either women or blacks. Nor were average white farmers likely to become members in these societies. How widely the journals published by the agricultural societies were circulated, even assuming that their reading public extended beyond the subscriber, is unknown.

The Impact of Nineteenth-Century Agricultural Publications in Central Delaware

Exchanges of information regarding agricultural reform theories and practices were facilitated by local newspapers that chronicled the activities of agricultural societies and carried advertisements for the technological changes that accompanied reform. In Kent County, the Smyrna Times advertised exhibitions of the latest agricultural equipment held on the grounds of local farms. In August 1854, for instance, "Farmers and the public generally" were invited to view George Cummins' "Michigan Double Plow" at his home farm in Duck Creek Hundred. Cummins displayed both his wealth and his "advanced farming" mentality, while his neighbors socialized. If few farmers of average means could afford to purchase such equipment, they were nonetheless made aware of the benefits of the new technologies. By these exhibitions and other efforts, the spirit of agricultural reform might be widely disseminated.

Manufacturers' claims for ease and efficiency surely appealed to owners and tenants alike. With the next year's harvest in mind, Kent County farmers read the following announcement:

Farmers and Thrashers. Read This. McCormick's Improved Iron Beam Reaping and Mowing Machine, for 1855. This Machine is warranted to Cut from 10 to 20 Acres of all kinds of Grass- or Grain per day, and to do it as well as can be done by any hand. -Price \$150; \$65 cash, and the balance at 4 months, with interest.

Equipment such as McCormick's reaping and mowing machine allowed family-operated farms to work the land more efficiently both in terms of time and the cost of labor. The machine reduced the need for extra hired hands and enabled them to handle larger crop yields. An

expert farm hand could reap four acres of wheat per day using a cradle, while an average worker might reap only half that amount. Many of the technological advancements viewed as hallmarks of agricultural reform increased farmers dependence on horses. Horse-power was applied to grinders, threshers, corn shelters, hay balers, gins, mowers, hay rakes and reapers. While oxen were stronger than horses and required less feed for maintenance, they were not swift enough to operate reapers. Mules also offered cheaper maintenance than horses, but do not appear to have been preferred over horses among the farmers in the Upper Peninsula Zone although they were present upon the landscape. The often-advertised "Reading's Premium Horse-Power Corn Sheller"--guaranteed to shell" 1,000 bushels of corn in one day, employing four horses and four men"--was practical for only the wealthiest farmers. Although most tenant farmers in the Upper Peninsula Zone owned at least one, and probably two, horses, few owned enough to handle the corn sheller. The acquisition of such machinery would have required significant investment in addition to the purchase of the equipment.

Agriculture reform saved farming in the "Old Atlantic states," argued Gouveneur Emerson in 1855. Only the intensive application of fertilizers like lime and guano averted the crisis of infertile lands in Kent County at the beginning of the century. Emerson lauded the restorative powers of guano, claiming that Kent County had been the largest purchaser of the fertilizer in the nation in the preceding year. A physician who lived in Philadelphia, Emerson was a multiple property owner in Little Creek Hundred. He owned several farms in the eastern portion of the hundred that were rented to tenants and used for experimentation in new agricultural practices. Emerson's own efforts to convert Kent County farmers to agricultural reform included maintaining a test-field of corn on a public road. The exceptional productivity of Emerson's field was attributed to the annual application of "ammoniated superphosphate" that proved so effective in maintaining high crop yields that Emerson could boast: "The present crop is thought to be very fine, although it is the fourth in regular succession, on the same ground. A local newspaper correspondent from Willow Grove concurred with Emerson:

To our good natural soil, our farmers are adding those cheering blessers of down-hearted land, guano, lime, poudrette &c... Ton after ton of guano has reached our region within a few weeks and it is going under the sod

now, to be *driver* for the coming crop.

Agricultural reformers urged farmers to use every bit of available manure, including "poudrette," a refined term for human excrement borrowed from the French. Earlier farmer such as Richard Mansfield and S.H. Black had specifically encouraged the use of plaster- on crop fields.

In Kent County, notices of real estate sales testify to the importance attached to fertilization as a hallmark of a well-managed farm. It was not uncommon for landowners to include detailed accounts of fertilization along with the other appointments of their properties. Daniel Cummins described his 200 acre "Font Hill Farm" as highly improved:

Upon this Farm, no less than 60,000 bushels of lime, 20,000 bushels of Wood Ashes and 50 tons of Guano have been spread within the past 5 years...

Advertisements for the sale of more modest farms also testified to the acceptance of agricultural reform practices throughout the County. A 72-acre farm near Camden, Delaware, "divided into 3 fields" assured potential buyers that the seller had preserved the productivity of his lands by crops.

Newspaper accounts of the Kent County Agricultural Fair described another result of agriculture reform practices—the diversification of crops and livestock. Irish potatoes, ..coconut squash, rutabagas, carrots, and beans were among the prized vegetables in October of 1854--all crops recommended by proponents of agricultural reform for their ameliorative effect on the soil. Specialty breeds of poultry, like the Shanghai fowl, were also awarded prizes.⁹¹ The agricultural fair engaged farm communities in a dialog with technological innovation. Local firms as well as individuals displayed the wondrous mechanization of horse-drawn corn shellers, drills, and reapers. Plowing matches offered spectators the opportunity to cheer their neighbor's deft handling of new farm implements. Would Daniel Cummins behind the "double Michigan" out-manuever Hunn Jenkins at the "Centre Draught" plow?

The nineteenth-century reform climate led some observers to note the dark side to technological innovation, however, and to question the plight of the agricultural laborer.

Thomas Francis Bayard urged agricultural societies to instill good reading habits in the farm hand. New technology, he warned, "tends to deaden his intelligence." In order to cultivate moral improvement on the agricultural landscape, Bayard charged agricultural societies with 'establishing libraries "of sensible and entertaining books to refresh the weary and attract inquiring minds among the laboring class., The enlightenment of farm laborers was a common theme. In a section entitled, "Hints Respecting Hired Laborers," the *Farmer's Every-day Book* counselled farmers to honor their obligations "beyond wages" to agricultural laborers. Farmers must set an example of ideal citizenry--honesty, thrift, hard work, and literacy--for their hands.⁹⁴ Another mid-century farm publication proclaimed its motto: "To Improve the Soil and the Mind.,,

As the nineteenth century progressed, farming increasingly became the subject of scientific inquiry. The early agricultural societies encouraged scientific experimentation by their "gentle farmer" members, who were able to recommend efficient and economical solutions to repair the agricultural landscape of the new nation. The Philadelphia Society for the Improvement of Agriculture published in its Memoirs the results of the scientific experiments carried out by members like Gouveneur Emerson.

Efforts to devise the perfect farm concentrated on the form of agricultural buildings, and the relationship of outbuildings to the farmhouse and fields. Topography, adequate drainage, and landscaping of the farmstead were essential elements of planned farming. Like other elements of agricultural reform, farmstead planning depended on simultaneous reform efforts. The effects of marsh reclamation, for instance, might influence patterns of building locations:

the site of the building was originally chosen...because of a slight eminence which lifted the house out of the miasmatic dampness of marshy, low ground, which in the days of modern drainage has become as dry and healthful as any surrounding hill.

Countless publications counseled farmers to abandon the organically-developed arrangement of buildings and to adopt scientifically proven, symmetrically pleasing plans. The advocates of farmstead reorganization were not without critics. K.J.T. Ekblaw echoed the complaint of his predecessors:

The popular [farm] literature consists mainly of compilations of plans...or

of discussions of farmsteads too expensive or impractical to be applied to present ordinary conditions.

Examples of buildings advocated by proponents of agricultural reform were “granaries or crib barns, bank barns, livestock barns or stables, carriage houses, threshing barns, and cartsheds. Agricultural reformers also urged the construction of farm buildings which could combine many functions under one roof.

The exterior appearance of farm buildings was stressed by agricultural manuals, one of which assured its readers:

Barns can be pleasing objects, and impart an impression of comfort and completeness upon all who see them. This attractive appearance will depend upon the symmetry and exterior finish of the buildings themselves, their grouping, [and] the planting of suitable shade trees.

Some wealthy farmers in central Delaware rebuilt and reorganized their farmsteads according to the precepts favored by the reformers. For example, in 1886 when J.K. Williams remodelled his farm in St. Georges Hundred, Woodlawn, he laid out his bank barn (Figure 39) and two cartsheds (Figure 40) as three sides of a courtyard with a fence completing the inclosure. At Woodlawn, Williams also constructed a multi-purpose building that functioned as a carriage barn, chicken house, and piggery (Figure 41).

The Effects of Tenancy and Agricultural Reform

Tenancy played an essential role in assuring the success of reform programs that the multiple property owners embraced. Landlords exacted compulsory improvements from their tenants, whose increasingly limited economic status comprised attempts to resist unfair terms. Although the average farmer resisted innovation, a tenant often was compelled to embrace a program of reform. Agricultural landlords, white and black, set specific and often rigorous terms for the cultivation of their farms by tenants. These terms included provisions for reclamation of marshlands, selection of crops that might be grown, rotation patterns for those crops, protection of remaining woodlands, and restoration of the soil by the use of fertilizers.

Tenants had little choice but to practice farming techniques that were compatible with agricultural reform, in some cases, in direct violation of their economic best interest. For

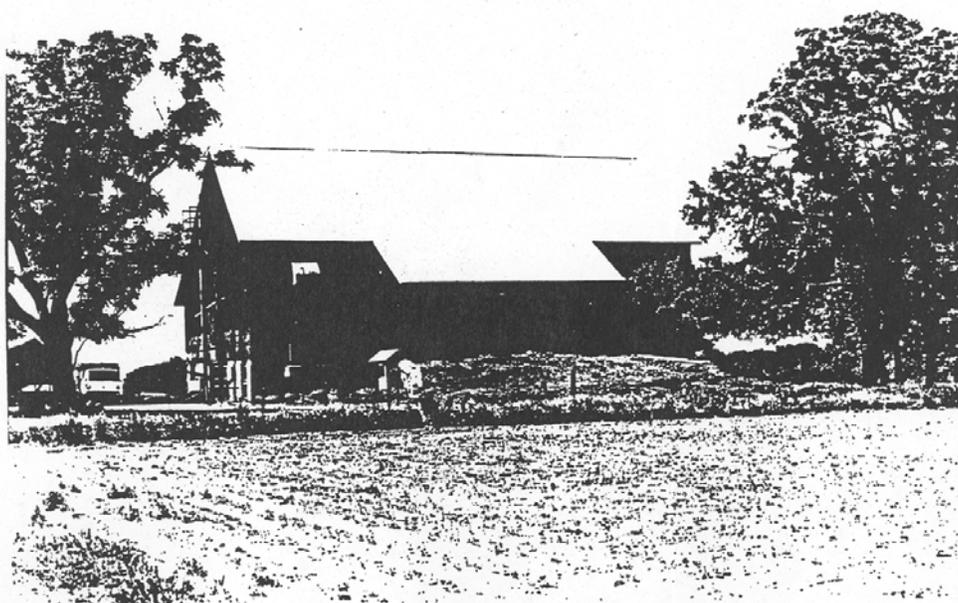


Figure 39: Main Bank Barn, Woodlawn, St. Georges Hundred.
Photographed for the Historic American Buildings Survey by David L. Ames.

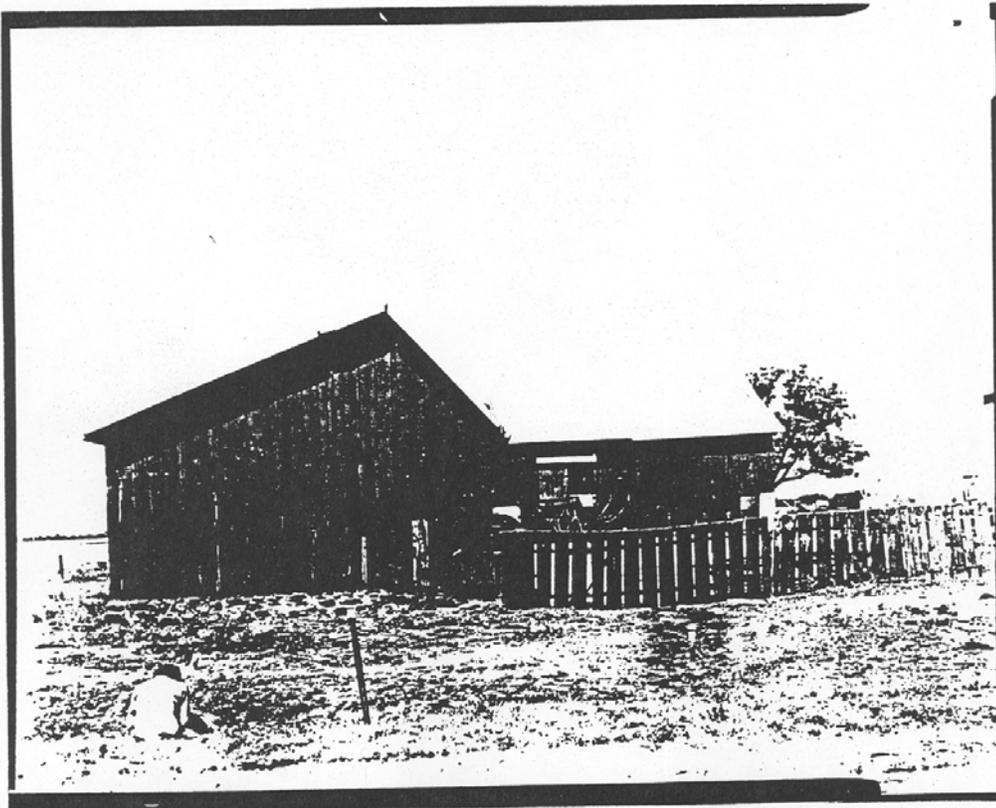


Figure 40: West Cart Shed, Woodlawn, St. Georges Hundred.
Photographed for the Historic American Buildings Survey by David L. Ames.

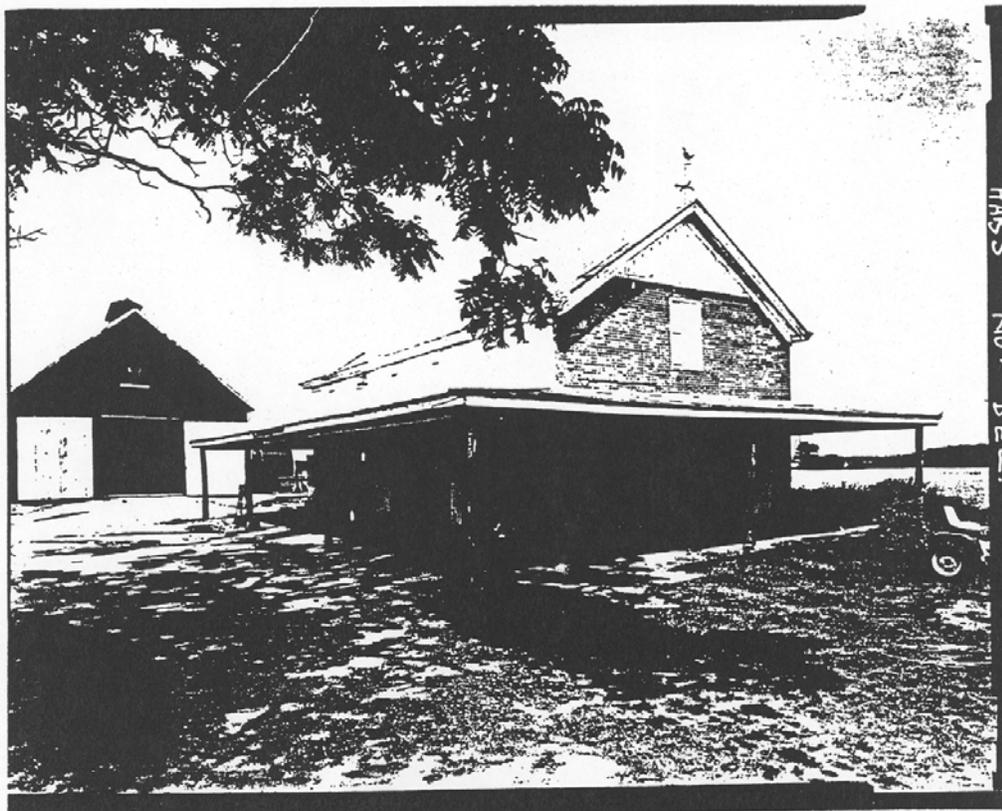


Figure 41: Carriage Shed, Woodlawn, St. Georges Hundred.
Photographed for the Historic American Buildings Survey by David L. Ames.

instance, Kent County landowners demanded protection of their gardens and sheep, hallmarks of agricultural improvement, against predation. Poor tenants opposed the penning of swine and dogs. Feeding penned animals represented an unwelcome burden; free-ranging pigs fed themselves and offered the poor cost-free bacon. Furthermore, under lease agreements, might be held responsible for damages done to the landlord's property by their own or roaming swine. The practice of "good husbandry" could be both an aspiration and constraint. To gain access to more productive lands, individuals had to cultivate not only their fields, but their reputations as responsible tenants. Ownership of errant swine or dogs posed double threats to economic security. More than that, they threatened a social order founded on the privatization of property. Also, landed tenants or farm managers signed petitions for swine control, even as poor landowners, small holders, and laborers petitioned against it.

In the Upper Peninsula Zone agricultural tenancy provided a location for the dissemination of contemporary agricultural science. There, elite landlords forged an economic system for improving their farmlands. By requiring tenants to work their lands according to contemporary agricultural practice, landlords assured that their landholdings would remain highly productive, and hence valuable. By complying with the terms of their leases, tenants would, theoretically, benefit from increased crop yields.