“Humankind, no matter how sophisticated or technical, owes its entire existence to a few inches of topsoil and the fact that it rains.”

ANONYMOUS

ROOTED IN HISTORY: PRESERVING HISTORIC FARMS

DEFINING AGRICULTURAL LANDSCAPES

READING THE FARM LANDSCAPE

CRAFTING A PRESERVATION APPROACH

MAKING CONNECTIONS

A Publication of the Massachusetts Department of Conservation and Recreation’s Historic Landscape Preservation Initiative
From the tobacco farms in the Connecticut River valley to the orchards of Central Massachusetts, to the cranberry bogs of the southeast, working farms have made their mark on the Massachusetts landscape for centuries, and continue to play a large role in our economy and in how our communities are perceived. DCR’s Heritage Landscape Inventory program has clearly indicated that views across agricultural land are highly valued, as are the historic barns that often dot the countryside. Farms are valued as open working landscapes, scenic areas, providers of important wildlife habitats and collections of historic architecture; yet only 12% of the state’s farmland is permanently protected. Working farms are cultural landscapes that contribute to our quality of life – and as such, their preservation should be a priority.

Family farms in New England have struggled for survival since the mid-nineteenth century, and today they are at a critical crossroads. Increasing operational costs, declining prices, development pressures and an aging farming population are placing the future of many farms at risk. At the same time, expanding consumer interest in “buying local” and organic foods has led to a 21% increase in the number of farms and the value of agricultural products in Massachusetts. Despite this growth, the state also saw a loss of 60,000 acres of farmland between 1997 and 2007, a trend that now seems to be leveling off. The move toward smaller operations could threaten the survival of intact historic landscapes, leaving underutilized buildings and acreage subject to neglect or development. Farms must be adaptable to survive, but not necessarily at the expense of their character-defining fields and structures. Urban encroachment presents one of the most significant threats to agricultural sustainability. A barn surrounded by a suburban development does not reflect our agricultural heritage, nor do fields left as unfarmed open space.

There are many separate voices advocating for the preservation of Massachusetts’ active farms – farmers working to remain economically viable, consumers pressing for access to healthy, local farm products, and agricultural and historical commissions acting to maintain working lands and historic community character. The Massachusetts Department of Agricultural Resources (MDAR) is the state’s leader in agricultural planning and support for farmers. As the leader in landscape preservation, DCR presents Terra Firma #8 - Rooted in History: Preserving Historic Farms. This publication aims to shape the separate voices into a chorus of advocates by taking stock of the dominant types of farming operations in Massachusetts, outlining a process for understanding a farm landscape, and providing protection strategies for the long-term preservation of the Commonwealth’s agrarian roots.
DEFINING AGRICULTURAL LANDSCAPES

The preservation of agricultural landscapes begins with recognizing farms as a vibrant and diverse historic resource type. Massachusetts’ varied topographic, climactic and geologic conditions have supported a broad range of agricultural pursuits for centuries – in fact most farms operating today were established before World War II. In the Berkshires, the land lent itself to sheep raising, orchards, and lumbering. In the river valleys, rich alluvial soils supported grains for cattle fattening in the eighteenth century and later produced broom corn, tobacco, and market garden vegetables. Dairy production and fruit orchards thrived in the central and eastern parts of the state, while low-lying areas along the southeastern coast and Cape Cod produced native cranberries. Hay, livestock, cider, fruit and maple syrup have supplemented farm incomes to varying degrees across the state and reflect the diversity for which Massachusetts agriculture is known. Today the Commonwealth’s agricultural heritage is reflected in the historic farms that have survived and grown, adapting and evolving to meet consumer demands and tap new markets. Some of the primary farm types are noted here.

CRANBERRY FARMS
A staple of the Native American diet, cranberries have been in cultivation since about 1816. The regional lowlands of Southeastern Massachusetts are used to grow cranberries in bogs layered with sand, peat, gravel and clay and supplied with fresh water. The flooding systems developed to harvest and protect the plants from winter freezing and insects are as important to these landscapes as the bog-side screenhouses used for processing.

DAIRY FARMS
Thousands of dairy farms in Massachusetts have gone out of production over the past half century. In 1950, 4,478 were operating – as of 2009 only 170 dairy farms remain. Dairy farms include hayfields, pasture and multiple buildings for the many steps in the dairying process – from cow barns and milk houses to hay barns and manure sheds. Today many dairy farms survive by finding niche markets such as cheese production and participating in milk cooperatives.
LIVESTOCK
Many Massachusetts farms have traditionally included livestock such as cattle, poultry, sheep and pigs for family use. Today some small farms produce for the wholesale market, and others offer their products directly to customers to meet the growing demand for grass-fed and/or local beef, lamb, pork, and chicken. Most livestock farms require outbuildings for housing animals and large fenced pastures for grazing cattle and sheep – farmers that have expanded into other food and fiber markets, such as goats, llamas and alpacas, require less land.

MAPLE SUGAR
Historically, many Massachusetts farmers first tapped maple trees for family use and then as a secondary crop. The first commercial maple enterprise started in the mid-eighteenth century in the town of Bernardston, and today maple sugar is produced in nine counties across the state. Maple trees are often incorporated into the farm landscape as shade and specimen trees or as a formal allee, and sugarhouses can be found on some farms for onsite processing.

NURSERIES
Nurseries have become an important mainstay of the Massachusetts farm economy, representing 35% of cash receipts in 2007. Many historic farms are now used to grow trees, shrubs, perennials and annuals, sometimes as a secondary crop. Like vegetable farms, nurseries maintain fields for plant cultivation as well as greenhouses and retail farmstands.

ORCHARDS
There is a long history of fruit production in Massachusetts – John Chapman was a Leominster native who in 1792 carried his planting skills to Ohio where he became the legendary Johnny Appleseed. Areas with hilly terrain provide the perfect conditions for growing fruit trees. Worcester and Franklin counties contain a concentration of orchards, but there are pick-your-own farms, wholesale operations, farmstands and farmers’ markets selling fruit products across the state. Character-defining features of orchards include the linear layout of fruit trees, processing and storage buildings, and sometimes cider mills.

“Let us not forget that the cultivation of the earth is the most important labor of man. When tillage begins, other arts will follow. The farmers, therefore, are the founders of civilization.”

DANIEL WEBSTER
TOBACCO FARMS
Commercial tobacco growing was introduced in the town of Whately in the fertile floodplain of the Connecticut River valley in 1843. It became an agricultural mainstay with farmers, raising filler, binders and wrappers through the 1950s. Many tobacco farms in New England have large fields shaded by nets on wooden posts. Long, narrow tobacco barns have interior frames for hanging the leaves and vertical vents on the broad sides to accelerate drying. Connecticut broad leaf and shade tobacco are world renowned for their quality as high quality cigar wrappers.

VEGETABLES
Vegetables have always been a part of the Massachusetts farm economy, but the wholesale and retail markets for local and organic vegetables have expanded in recent years. This can be attributed to efforts of buy local groups such as Community Supported Agriculture (CSA) organizations as well as broadening public interest in healthier foods grown closer to home. Virtually all areas of the state can sustain some kind of vegetable crop, and small family farms are producing a range of products for sale in small seasonal farmstands, farmers’ markets, larger farm stores, and supermarkets.

RISE IN AGRICULTURAL ACTIVITY

<table>
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<th></th>
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<tr>
<td>Number of Farms</td>
<td>6,075</td>
<td>7,691</td>
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<tr>
<td>Market value of ag products</td>
<td>$384 million</td>
<td>$490 million</td>
</tr>
<tr>
<td>Value of agritourism</td>
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<td>$5.3 million</td>
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There are 32 vineyards and wineries across Massachusetts, many adapting historic farms to new use.

ADAPTIVE REUSE
One of the bright spots in Massachusetts’ agricultural picture has been the growing number of horse farms established on previously inactive farms. The acreage of pasture required for raising and training horses promotes the retention of open space in a community and contributes to the farm economy. In addition, horse farms often adaptively reuse historic farm buildings.
READING THE FARM LANDSCAPE

Agricultural landscapes represent a continuum of evolving agricultural practices that stem from the physical context of a region, changing technologies, transportation networks, natural resources, climate, and cultural traditions. Early settlers initially applied familiar European agricultural practices, land patterns and building arrangements, but adapted to their new environment to optimize natural resources and accommodate changing social ideals concerning property ownership. Market forces and transportation improvements, combined with an influx of new residents with different foodways and agricultural traditions from other parts of the world brought a wave of change that historically impacted the overall landscape, and which continues today. Traditions of specific communities are often evident in a farm’s layout, barn style and construction techniques, and cultivation methods, and can lend a broader context for evaluating a single farm. External factors and processes that have shaped the development of an agricultural landscape over time need to be considered to better understand its historic function, current appearance, and potential preservation strategies.

Among the most iconic landscapes in the state, dairy farms have been recognized as threatened landscapes both by the farming community and preservationists. Dairy Farms of Massachusetts were included on the Preservation Massachusetts Most Endangered list in 2000, and the Massachusetts Dairy Farm Preservation Act of 2008 established new programs for farm owners. Due to widespread interest in historic barns, Preservation Massachusetts also established a Barn Task Force in 2003.
In National Register Bulletin 30: Guidelines for Evaluating and Documenting Rural Historic Landscapes, the National Park Service identifies characteristics of rural landscapes that provide a useful framework for assessing the processes that have contributed to the historical development of an agricultural landscape and the physical components that frame their character today. For more information on how National Register listing can help preserve farms, see page 13.

“No group sets out to create a landscape, of course. What it sets out to do is to create a community, and the landscape as its visible manifestation is simply the by-product of people working and living....”

J.B. Jackson

1. SPATIAL ORGANIZATION

Farm layouts maximize the efficient use of available space – land use patterns, combined with the location of buildings on a farm and their spatial relationships to each other can tell us how a farmer’s labor was organized, crops stored and animals cared for in the past and the present, and can help guide decisions for the future.

2. TOPOGRAPHY AND NATURAL FEATURES

Hills, ponds, and streams have determined farming methods, crops, and farm size as much as available soils types and micro-climate conditions have. Working with available natural resources and features has been the credo of farms of all sizes and types, in an effort to maximize annual yield. Adaptations such as the creation of ponds, wells and ditches also reveal responses to the natural environment that have shaped these landscapes.
The physical components of agricultural landscapes may be influenced by the processes that shaped the larger landscape and convey the inner workings of the farm. An agricultural landscape may contain only a few or all of these components, and not all may be historically significant.

3. VEGETATION
Vegetation serves functional as well as scenic purposes on farms. Trees around fields, at the house, and along the main roads provide shade for livestock, cool a house, and keep down dust. Vegetable gardens, grape arbors, fruit trees, herb and flower gardens are integral to many farmsteads and sometimes provide an ancillary stream of income.

4. CIRCULATION NETWORKS
Circulation is the major organizing feature of a historic farm, uniting living and working areas and revealing how the agricultural landscape functions as a system. Roads, bridges, cow paths and trails enable farmers to reach their livestock and crops and are essential parts of farming operations.

5. FARM CORE
Farms traditionally contain a main core, where the primary structures are centered around or along a central workspace where specific farm and house-related tasks are performed. The traditional New England connected farm building layout is common, but the core of these farms can sometimes be bisected by a road. Their layout can sometimes tell us more about the evolution of the local landscape than of the individual components.
Archaeological sites are best evaluated by a professional archaeologist. Contact the office of the State Archaeologist at the Massachusetts Historical Commission for more information: 617-727-8470.
Community events and agritourism activities can have a great effect on the long term sustainability and preservation of farms, providing additional farm revenue and incentives to preserve historic farm features that serve as a draw. Events and activities are also opportunities to form partnerships with local and regional preservation and heritage tourism organizations, which can help build awareness and create greater community support by showcasing historic farms to a larger audience.

**CRAFTING A PRESERVATION APPROACH**

There are many factors to consider when crafting a preservation approach for a historic agricultural landscape. Farms are evolving landscapes, and have historically adapted to incorporate new technologies, develop new products, and maintain the fertility of their soil – and these changes have facilitated their continued use as agricultural properties. A preservation approach must be flexible and must consider current management goals and economic viability as well as existing level of land protection, historic significance, changes over time, and continuity of land use.

Before deciding on a preservation strategy, management goals should be clearly defined with economic viability taking center stage. Will new structures or mechanical systems be needed to support operations and farm growth? Is acreage adequate, or is more/less land needed? Are there opportunities to partner with the community to protect unused fields or woodlots? Is adaptive reuse of some of the buildings possible either for farm use or by a tenant?

Any preservation effort should begin with the identification of the current level of protections in place for agricultural properties through a review of town assessor records. By identifying those farms that are not permanently protected and at the highest risk for loss, community efforts can be directed towards those properties, and relationships can be established with owners of properties that have short term or no protections in place. It can also help locate areas where agriculture-friendly zoning tools should be considered to facilitate preservation efforts.

The historic significance of a farm and its components will also influence what kind of preservation approach is taken. An assessment of historic elements and their relative significance will identify the most important character-defining features of the historic landscape and reveal how these features and areas have changed over time, assisting with the establishment of preservation goals. The assessment should define parameters that will allow for adaptations to meet operational and maintenance needs while preserving those aspects of the landscape that best convey its history.

An historic resources survey of agricultural properties can help increase awareness, bring attention to preservation needs, and identify financing opportunities that may assist with landscape preservation efforts. A number of communities have funded communitywide surveys resulting in the completion of Massachusetts Historical Commission inventory forms for agricultural landscapes or individual barns, including Amherst, Hadley, Sterling and Topsfield. These surveys have helped to recognize the most significant agricultural properties and assisted with community planning efforts.

*Orange, Massachusetts*
An assessment can also help direct advocacy efforts towards the preservation of unique or highly threatened resources. For instance, if a specific outbuilding is particularly significant to the overall historic landscape, then efforts should focus upon the promotion of rehabilitation or adaptive reuse before considering removal and/or replacement. When considering a change to the landscape or adding a new structure, such an assessment can identify areas where disruptions to historic field patterns or important views that contribute to the overall character of the historic landscape can be minimized.

Preservation of a working agricultural landscape poses many challenges, particularly when one of the desired outcomes – and the true key to success – is to keep the landscape in active farm use while maintaining the agricultural heritage of an area. A nimble approach that balances preservation with management needs can be achieved with existing tools that meet both goals.

There are many ways to support agriculture such as purchasing products from local farms, farmers’ markets and Community Supported Agriculture (CSA) farms, participating in farm events and activities, or getting involved in the local Agricultural Commission or Planning Board to adopt farm-friendly policies.

Local agricultural commissions provide support to farmers and increase public awareness about working farms. They often assist in the development of a Right-to-Farm Bylaw, which is adopted through a Town Meeting vote and aims to reduce potential conflicts between residents and farmers due to noise, odor and other impacts of farming. As of October 2009, the state has 128 Agricultural Commissions, and 99 communities have adopted a Right-To-Farm Bylaw. Source: MDAR.

ASHFIELD AGRICULTURAL COMMISSION

Agricultural Commissions can be excellent partners for historical commissions seeking to undertake agricultural landscape preservation efforts. The Ashfield Agricultural Commission has taken a particularly active role in helping to support and preserve local agriculture since its formation in 2006, establishing a town Agricultural Preservation Fund that accepts donations for the preservation of agricultural lands and the revitalization of agriculture in Ashfield. The Commission has also assisted with the development of the town’s Right-To-Farm Bylaw (which is communicated to landowners on tax bills) and a grievance resolution protocol to settle disputes that may arise between landowners and farmers. A marketing grant from MDAR funded a locally distributed farm brochure, a portable display board, and a digital picture frame to showcase Ashfield’s farming activities. Through all of their activities they have found that clear and effective communication has been the key to their success.
MAKING CONNECTIONS

In Massachusetts there are a variety of tools available to preserve agricultural landscapes. Some tools are aimed at improving the economic viability of farms, some seek to preserve individual historic buildings or larger agricultural areas, and others provide incentives to keep land in active working agriculture. In order to preserve agricultural landscapes as a whole, these strategies and programs must work together. Such a collaborative approach aims towards preserving the land, buildings and, economic viability of farms to ensure the sustainability of the operation while protecting the landscape.

AGRICULTURAL PROTECTION TOOLS FOR FARMS

LOCAL ZONING
Municipalities can adopt zoning tools to help keep agricultural landscapes in their community. Examples include:

- Agricultural Preservation Overlay Districts preserve farmland by requiring clustering of residential properties on smaller lots.
- Adaptive Reuse Bylaws encourage the adaptive reuse of barns if the structures are no longer in agricultural use.
- Open Space Residential Design identifies conservation areas and then integrates residential units into the remaining landscape.
- Transfer of Development Rights directs growth away from farmland that should be preserved to locations suited to higher density development.

AGRICULTURAL PRESERVATION RESTRICTION (APR)
APRs are administered by the Massachusetts Department of Agricultural Resources and offer to pay farmers the difference between the “fair market value” and the “agricultural value” of their farmland in exchange for a permanent deed restriction precluding any use of the property that will have a negative impact on its agricultural viability.

CHAPTER 61A
Farms participating in the Chapter 61A program receive a reduced local assessment that decreases property taxes while the land is kept in working agriculture. If the farm is taken out of this program, the town has the right of first refusal for acquisition.

FARM VIABILITY ENHANCEMENT PROGRAM
MDAR offers farmers technical and environmental assistance, and the development of a business plan in order to expand, upgrade, and modernize their existing operation. Capital for the implementation of the plan is available in exchange for a fixed-term agricultural covenant on the land.
**HISTORIC PRESERVATION TOOLS FOR FARMS**

**INVESTMENT TAX CREDITS**
The Federal and State Investment Tax Credit programs provide owners of income producing properties – including active farms – that are listed on the National Register with an opportunity to obtain a 20% tax credit on qualified rehabilitation projects. Proposed work must be reviewed by the Massachusetts Historical Commission (MHC) and meet the Secretary of the Interior’s Standards to qualify. Investment tax credits have been successfully utilized for historic barns in many other states, most notably Indiana and Vermont, but only one Massachusetts farm has taken advantage of the program to date.

**COMMUNITY PRESERVATION ACT**
Communities that have adopted the Community Preservation Act (CPA) have utilized CPA funds in a variety of ways to benefit agricultural properties, including the purchase of Agricultural Preservation Restrictions and Preservation Restrictions, documenting agricultural resources, repairing barns, and acquiring farmland. Municipal acquisition of farms sometimes includes leasing fields for continued agricultural use, establishment of a community farm, or parceling off the farmhouse for resale as affordable housing. The Town of Amherst has utilized CPA funds to establish a fund for costs associated with APR purchases.

**PRESERVATION RESTRICTIONS**
Preservation Restrictions (PRs) are permanent deed restrictions that can be donated to or acquired by a preservation organization which then monitors any future changes to the historic property – which can include not just a farm house, but also barns, fields, and small-scale historic landscape features.

**VIEWSHED PROTECTION**
Much of what is treasured about a historic agricultural landscape are the views of – and across – open fields. These views are quickly lost if the land is taken out of active agricultural use. One way to promote and help protect farm views is to apply tools such as the Scenic Roads Bylaw and Scenic Overlay Districts.

**LOCAL HISTORIC DISTRICTS**
Often utilized in downtowns or small residential neighborhoods, Local Historic Districts (LHDs) can also be applied to more rural areas. Overseen by a Local Historic District Committee which reviews changes viewable from a public way to make sure that they are appropriate to the district, LHDs can be used to help ensure that an agricultural area maintains its rural character.

**NORTH AMHERST COMMUNITY FARM**
The Dziekanowski Farm, one of the last remaining intact farms in North Amherst, has been in operation for over 150 years. Owned by the same family since the 1920s, this 40 acre property with an 1862 barn was originally a dairy farm and later used to raise Scottish Highland cattle. In December 2004 the North Amherst Community Farm (NACF) was formed as a community-based, non-profit organization committed to the preservation and continued agricultural use of the Dziekanowski Farm. There was a “save the farm” campaign, and with assistance from community donations, Community Preservation Act funds and the Kestrel Trust, NACF was able to place an Agricultural Preservation Restriction on 35.5 acres of the property with MDAR, preserving these historic fields for active agricultural use and protecting the viewshed across the landscape in the process. Since 2006, NACF has leased the land to Simple Gifts Farm, which is reusing the historic buildings on the farm as it provides access to fresh, organic produce and meat for this densely populated area through a CSA serving 300 families, farmstand, and weekly presence at the Amherst Farmers Market.

**NATIONAL REGISTER OF HISTORIC PLACES**
The National Register of Historic Places recognizes buildings, structures and landscapes that are historically significant on the local, state, and national levels. Honorary in nature, Register listing does not place any restrictions upon a property – however it may make a property eligible for some funding programs, such as Community Preservation Act funds, the Massachusetts Preservation Projects Fund, and Investment Tax Credits. Agricultural properties can be listed on the Register either individually or as part of a larger district.
Historic farms are living, working landscapes that have been changing since the first seeds were sown. So how can we preserve a place that is in constant flux? The answer can be found in the preservation approach. In most cases, preservation of a farm landscape will fall under the treatment rehabilitation which allows for the adaptive reuse of a property, while preserving those features which convey its historical, cultural, or architectural values. Under rehabilitation, repairs, alterations and additions needed to keep the property in use should be compatible with the historically significant components of the landscape. For some historic farms this means converting barns to new uses and maintaining field patterns while introducing new crops; for others the treatment might focus on updating systems and technologies or adding new, single-purpose structures to meet current operational needs. A well-preserved historic farm is surrounded by stonewalls and hedgerows, not velvet ropes.