

Concord's Agricultural Business Landscape



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PART ONE – EXECUTIVE SUMMARY

The purpose of this study is to assess the agricultural sector within Concord's broader commercial landscape. It aims to identify the challenges and opportunities for "land-based enterprises" amidst evolving environmental, economic, and social conditions. Agriculture has long been integral to Concord's history and character; sustaining local farming and appreciating farm businesses are crucial for maintaining the town's rural charm.

Currently, about 60% of Concord's land is designated as open space, with 40% protected from development. Commercial agriculture utilizes approximately 10% of the land, while commercial and industrial uses account for just 2.4% of the town. This analysis challenges the notion that economic interests and natural resources are mutually exclusive, demonstrating that they can coexist and reinforce each other. Concord's commercial and non-profit farms play a vital role in maintaining the town's economic vitality and rural charm.

The study will also provide a comprehensive overview of Concord's agricultural landscape, focusing on the availability of farmland and land stewardship, an approach of particular significance in Concord given its historical legacy rooted in the values of Thoreau and other early environmentalists.

Economic sustainability of Concord's farms is a central concern, with issues such as living wages, workforce shortages, and land availability being critical factors. The study will also look at how these challenges intersect with opportunities to link agriculture more closely with Concord's historical heritage, local industries, and community priorities, including tourism, recreation, and green technologies.

Ultimately, this research seeks to provide a holistic view of Concord's agricultural sector while identifying actionable strategies that can help sustain and enhance the town's farming landscape for the future.

Through a combination of research methods, including interviews, land use analysis, and document reviews, this report aims to shed light on the challenges and opportunities facing Concord's farms.

Profile of Concord Farms: Concord's agricultural legacy extends from its pre-colonial origins to the present day, showcasing a robust farming tradition that continues to thrive. The town's agricultural sector is marked by its diversity, including both commercial and non-profit operations. The Agricultural Committee plays a crucial role in supporting and promoting local farming activities.

Land and Environment: Concord's arable land is essential to its farming operations, encompassing a range of crops and farming methods. The Town has made significant efforts to protect agricultural land through acquisition, state and local partnerships, conservation programs and land use policies. The Natural Resources Commission and Division of Natural Resources are pivotal in these conservation efforts, ensuring that land dedicated to agriculture remains viable for future generations.

Farms as Businesses: Local farms face substantial challenges related to land access, ownership, and management. Finding workers and meeting rising labor costs strain farm operations. The economic contributions of these farms are notable, encompassing direct sales through farm stands, CSAs, and wholesale operations, which collectively support the town's economy.

Opportunities and Recommendations

1. **Address Housing Needs:** Finding solutions for affordable housing for farm workers could help alleviate staffing challenges, especially for seasonal staff.
2. **Preserve Concord-Based Farmsteads:** Beyond the protection of arable land for farming, protect the functional base of operations for farm enterprises that include owner-operator housing, farmstands for retail sales, greenhouses, work buildings and other infrastructure.
3. **Enhance Water Security:** Investing in reliable water infrastructure and improving management practices are critical to mitigating climate change impacts and ensuring consistent production.
4. **Promote Farmstands as a centerpiece of Agritourism:** Developing appropriate agritourism initiatives can increase farm revenue and stimulate local economic activity.
5. **Strengthen Local Market Integration:** Enhanced marketing and collaboration with local restaurants and retailers can better leverage the “Concord-grown” identity, boosting farm revenues and community engagement.
6. **Promote Sustainable Practices:** Continued investment in sustainable and regenerative farming practices can improve resilience to climate challenges and attract eco-conscious consumers.
7. **Ensure continuity of relationship with Concord’s Natural Resources Division:** Effective leadership of the Town’s Natural Resources Division is crucial for the success of local farms, given its oversight of licensing and regulatory environments for hundreds of acres of agricultural land. Division Director Delia Kaye, with her extensive institutional knowledge and trusted relationships in the farming community, is a key partner in this effort. While no immediate changes are anticipated, it’s wise to plan for a future leadership transition, as this relationship is vital to Concord’s agricultural sector.

Concord’s agricultural sector is a cornerstone of the town’s identity and economy. By addressing current challenges and seizing opportunities for growth, such as through agritourism, Concord can enhance its agricultural landscape while preserving its historical and rural character. This report underscores the importance of continued support for local farms and strategic investments to ensure their long-term success and contribution to the community.

PART TWO – PROFILE OF CONCORD FARMS

Historical Context

The history of Concord’s agricultural landscape is deeply intertwined with the town's evolution. Long before European settlers arrived, Musketaquid, the land we now know as Concord, was already being cultivated by indigenous peoples. The fertile land of Concord, rich in resources and accessed by the network of the Sudbury, Assabet, and Concord Rivers, attracted colonists in the 1600s.

Throughout the 1700s, farming remained central to life in Concord, with the town's fertile soil supporting a thriving agricultural community. By the 1800s, while the early stages of industrialization began to take root in West Concord, the town largely retained its agricultural character. The introduction of the railroad during this period provided a crucial link for transporting local goods to broader markets, reinforcing the town’s agricultural economy. Modest retail centers at Concord Center and at West Concord Junction catered to the needs of this predominantly farming community.

The town’s environmentalism can be traced back to the 1850s. Ralph Waldo Emerson’s *Nature*, Henry David Thoreau’s *Walden* and the Transcendentalist movement as a whole laid the intellectual and spiritual groundwork for a deep reverence for the natural world and inspiring generations of conservation efforts in Concord and beyond. Honoring this legacy continues to fuel conservation efforts and ambitious environmental sustainability goals.

The work of Henry David Thoreau further deepened Concord’s connection to its environment. Thoreau's writings, particularly those inspired by his time at Walden Pond, encouraged a broader engagement with the natural world and laid the groundwork for future conservation efforts by the Town and local land trusts, including the Concord Land Conservation Trust and the Walden Woods Project.

As part of a nationwide wave of increased immigration, the late 1800s and early 1900s saw newcomers arriving in Concord to work in both local industry and agriculture. A number of Concord families can trace their history to this era. Newcomers were not universally welcomed during this period, leading to policies designed to restrict growth and curb the influx of new residents. These measures shaped Concord's decisions to control commercialization and housing density, which contributed to the suburban landscape of today.

Agricultural Sector Today

Concord’s agricultural legacy is not just a thing of the past; it is alive today in the significant, long-standing farms that continue to operate.

In contemporary Concord, the relationship to farming and rural life has taken on new significance. Growing concerns over food quality and the environmental impact of large-scale agriculture have driven residents and visitors alike to eat local. The town’s rural character continues to appeal to both long-time residents and newcomers, though the realities of working farms—such as early morning tractor noise or

the scent of manure—are not always appreciated. Nevertheless, Concord’s scenic beauty and agricultural roots draw tourists and local visitors, who are eager to experience the town’s blend of history, nature, and rural life.

Farming in Massachusetts reflects a diverse and dynamic agricultural landscape, with farms producing a wide range of products across the state. The average farm in Massachusetts operates on 66 acres and generates approximately \$85,721 worth of agricultural products annually. The demographic profile of farmers shows an average age of 58.7 years, with men making up 57% of producers and women representing 43%.

A significant portion of Massachusetts farms specializes in nursery, floriculture, greenhouse, and sod production, which collectively account for 27% of the state's total agricultural sales. Middlesex County, where Concord is located, is particularly prominent in this category. Concord itself is home to at least eight farms that contribute to these top-ranking agricultural sectors. This focus on high-value, specialty crops highlights the town’s commitment to diverse and profitable agricultural practices. These farms play a crucial role in the local economy, reflecting both the historical importance of agriculture in the region and the ongoing vitality of Concord's farming community.

Regionally, Concord stands out for its diverse and dynamic farming demographic, with notable changes in who is leading and managing farms. Concord’s agricultural sector is characterized by its multi-generational, family-owned farms. Concord’s agricultural community features a growing number of younger farmers and a higher proportion of women managing farms compared to regional averages. Collectively, these small-scale farms contribute to Concord’s impressive agricultural footprint, covering 1,500 acres dedicated to farming.

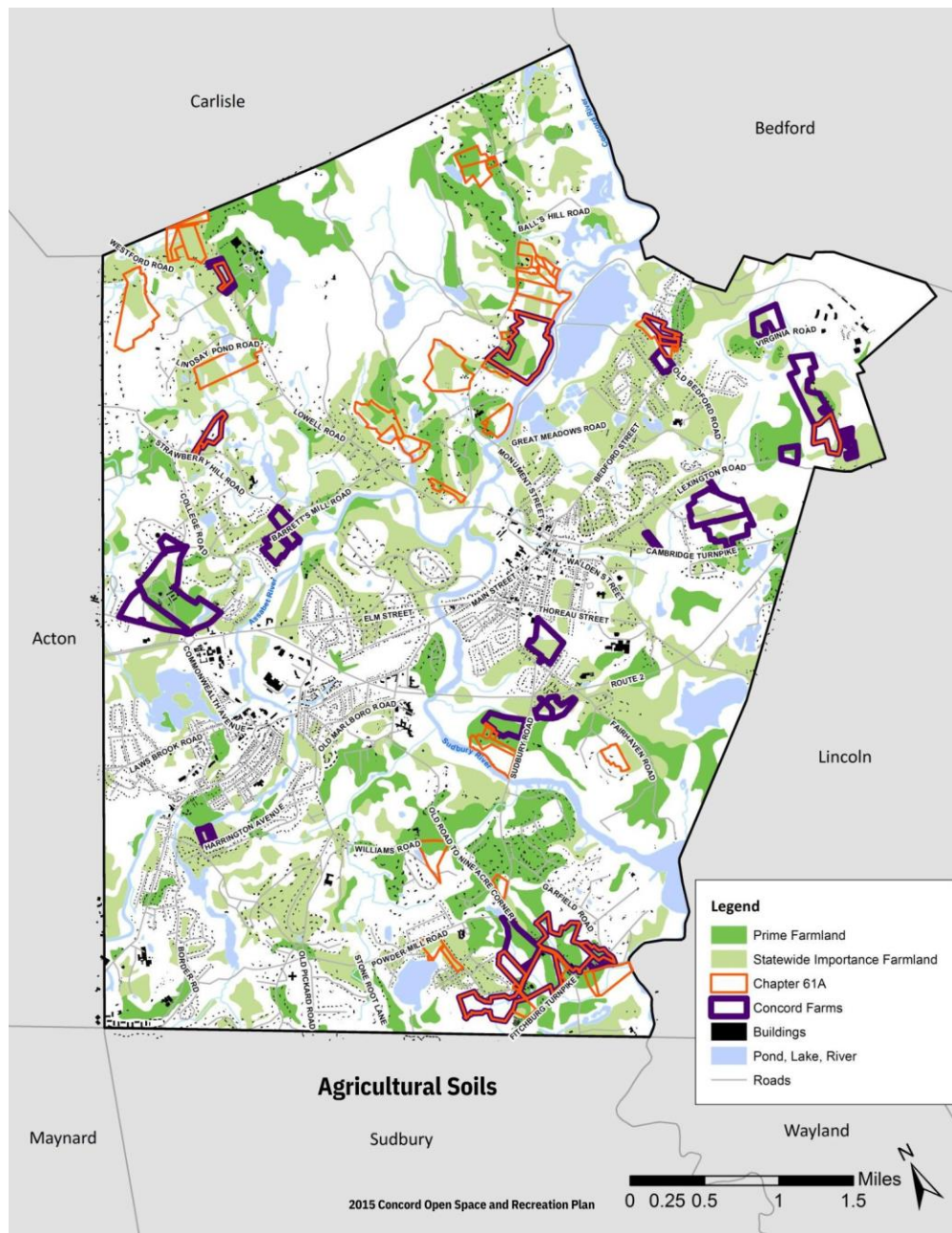
Agricultural land in Concord is both publicly and privately owned. The Town, through the Division of Natural Resources, licenses over 200 acres of land to local farmers. More than 200 acres of public and private land are protected by Agricultural Preservation Restrictions, ensuring agricultural use in perpetuity. State and federal government also contribute to agriculture in Concord with 77 acres of land leased to farmers by the National Park Service at Minute Man National Historical Park, while approximately 80 acres that were formerly part of the Concord Reformatory continue their agricultural use under Massachusetts Department of Corrections.

There’s a wide variety among Concord farms. Commercial enterprises and non-profits are represented. They’re diverse in style, from dynamic entrepreneurs to quiet, modest affairs. While most are seasonal operations, some maintain robust year-round activity. Some are dedicated to organic farming practices while others grow crops using conventional methods. What they have in common is a spirit of independence and generally collegial relationships with both each other and the Concord community.

Seasonal workers play a significant role in Concord’s farms. They not only take on the demanding work on these farms but serve to integrate the community into the agricultural life of the town. The farms provide summer jobs for youth in Concord and other surrounding towns; farming is often the first job of many local teens.

Residents are both neighbors to and customers of local farms. Farm stands maintain a consistent trade, while many of the farms offer CSA programs with hundreds of residents participating. Community Supported Agriculture (CSA) is a model of food production and distribution that directly connects

farmers and consumers. In a CSA arrangement, members or subscribers purchase "shares" of a farm's harvest in advance, typically at the beginning of the growing season. In return, they pick up an assortment of freshly harvested, locally grown produce and other farm products throughout the season. For local farmers, CSAs provide upfront capital, reducing financial risk and helping with cash flow during planting. It also ensures a stable market for their produce. Members gain access to fresh, high-quality produce while supporting local farmers. Farm stands and CSAs strengthen local food systems and contribute to community resilience by keeping food dollars within the local economy and reducing the environmental footprint associated with long-distance food transport.



Concord Farm Profiles

This list details Concord-based entities involved in commercial agriculture. However, it doesn't cover all agricultural activities in town, as some of the land is farmed by businesses located in other municipalities. There can be confusion between farm operators and the land being cultivated. For instance, Barrett's Mill Farm's acreage is farmed by both Barrett's Mill Farm LLC and Hutchins Farm. Additionally, after the Thoreau family's historic homestead was sold in 1995, the property was divided: the town owns and leases the farmland to Gaining Ground, while the Thoreau Farm Trust owns the house, maintains it, and conducts educational programs, but does not engage in farming.

Barrett's Mill Farm (Barrett's Mill Farm LLC)

Barrett's Mill Farm LLC, managed by Lise Holdorf and Melissa Maxwell, specializes in certified organic fruits, vegetables, and flowers over 15 acres. The farm offers various CSA options and sells produce at the farmstand. (The farmland of Barrett's Mill Farm was once owned by Colonel James Barrett during the Revolutionary War and since the 1600s has had just three owners: the Barrett Family, the McGrath family, and the Town. In 2014, the Town awarded a long-term lease of the farmstead to Barrett's Mill Farm LLC. Additional acres are leased by the Town to Hutchins Farm.)

Brigham Farmstand and Greenhouse

Brigham Farm, established in 1820, may be the longest-running family-owned farm in Concord. As owner Charles (Chip) Poutasse approaches retirement, the farm has gradually downsized. In 2024, this means cultivating roughly half the acreage of five years ago and stepping back from farmers' markets. Currently, Brigham Farm operates on 11 acres with an accompanying greenhouse. The seasonal Brigham Farmstand offers a variety of fruits, vegetables, and flowers, along with beverages and both vegetable and flower seedlings. The selling season wraps up with pumpkin sales, followed by wreaths and Christmas trees.

Colonial Gardens Florist and Garden Center

Founded in 1961, Colonial Gardens Florist is a family-owned business located in south Concord near the Sudbury border. It utilizes extensive greenhouses and nearby fields to produce floral arrangements and potted plants year-round. These can be picked up at their store or delivered.

Gaining Ground

Gaining Ground is a non-profit farm operating on Town-owned land and dedicated to donating all its produce to hunger relief organizations. Volunteers contribute thousands of hours each year to support this cause. Using regenerative, no-till methods, the farm has grown its annual produce from 2,500 pounds in its early years to 127,000 pounds in 2020.

Hutchins Farm

Hutchins Farm is a historical Concord farm, having been family-owned since 1895. It is now led by the fifth generation of the Hutchins Farm under the management of Liza Bemis and Brian Cramer. Spanning 112 acres, Hutchins Farm has been producing organic fruits, vegetables, herbs, and flowers since the early 1970s. Their products are sold at their farmstand and at three local farmers markets.

Kenney Farm

Established in 1922, Kenney Farm is currently downsizing after a century of high-quality production. Operated by Bill Kenney, this family-owned farm now focuses on seasonal decorative crops.

Macone Farm

Macone Farm, known for their award-winning tomatoes, is a small family farm that sells wholesale to other farmstands.

Marshall Farm

Marshall Farm is a third-generation farm operating on Town-owned land. Marshall Farm grows a variety of products, including vegetables, fruits, and honey. It features the “Chick Inn,” two mobile chicken coops for eggs and poultry. Their farm stand also offers locally sourced products such as meats, ice cream, baked goods, and jellies. Known for its greenhouse-grown annuals and perennials, Marshall Farm is located off Harrington Ave in West Concord.

Millbrook Farm

Founded in 1988 by Sal Giurleo, Millbrook Farm is a family-run nursery and farmstand that operates seven days a week.

Rotondo Farm

Rotondo Farm has been family-operated since the 1920s, with Frank Rotundo overseeing its operations. Although operations are downsizing in recent years the farm continues to sell seasonal produce from a roadside stand on the property.

Saltbox Farm

Saltbox Farm, owned by Ben Elliot, chef of Saltbox Kitchen, operates with a farm-to-table model. The one-acre farm grows various organic crops, raises lamb and poultry, and produces honey and beer from farm-grown hops. It emphasizes regenerative and no-till farming practices to support a healthy, sustainable ecosystem.

Scimone Farm

Located off Bedford Road, Scimone Farm is a family-run business established in the 1920s. It produces fresh fruits, vegetables, eggs, honey, cider, herbs, and flowers. Roseanne and Grace Scimone, the third generation of the Scimone family, currently manage the farm.

Silferleaf Farms

Silferleaf Farms specializes in certified organic raspberries. During the harvest season of September and October, they offer pick-your-own raspberries along with value-added products like raspberry vinegars and jams.

The Trustees of Reservations

The Old Manse, built in 1770 on the banks of the Concord River, overlooks the site of the April 19, 1775, battle at North Bridge. Owned by The Trustees of Reservations, a non-profit organization dedicated to land conservation and historic preservation, the property no longer engages in active farming but maintains modest household gardens as historical demonstrations.

The Farm at Walden Woods

The Walden Woods Project, a non-profit inspired by Henry David Thoreau, purchased The Farm at Walden Woods in 2006 to protect 9 acres of farmland. The farm grows a variety of organic crops, including squash, pumpkins, tomatoes, and corn. A seasonal farmstand on Route 2 east supports the Walden Woods Project's conservation efforts.

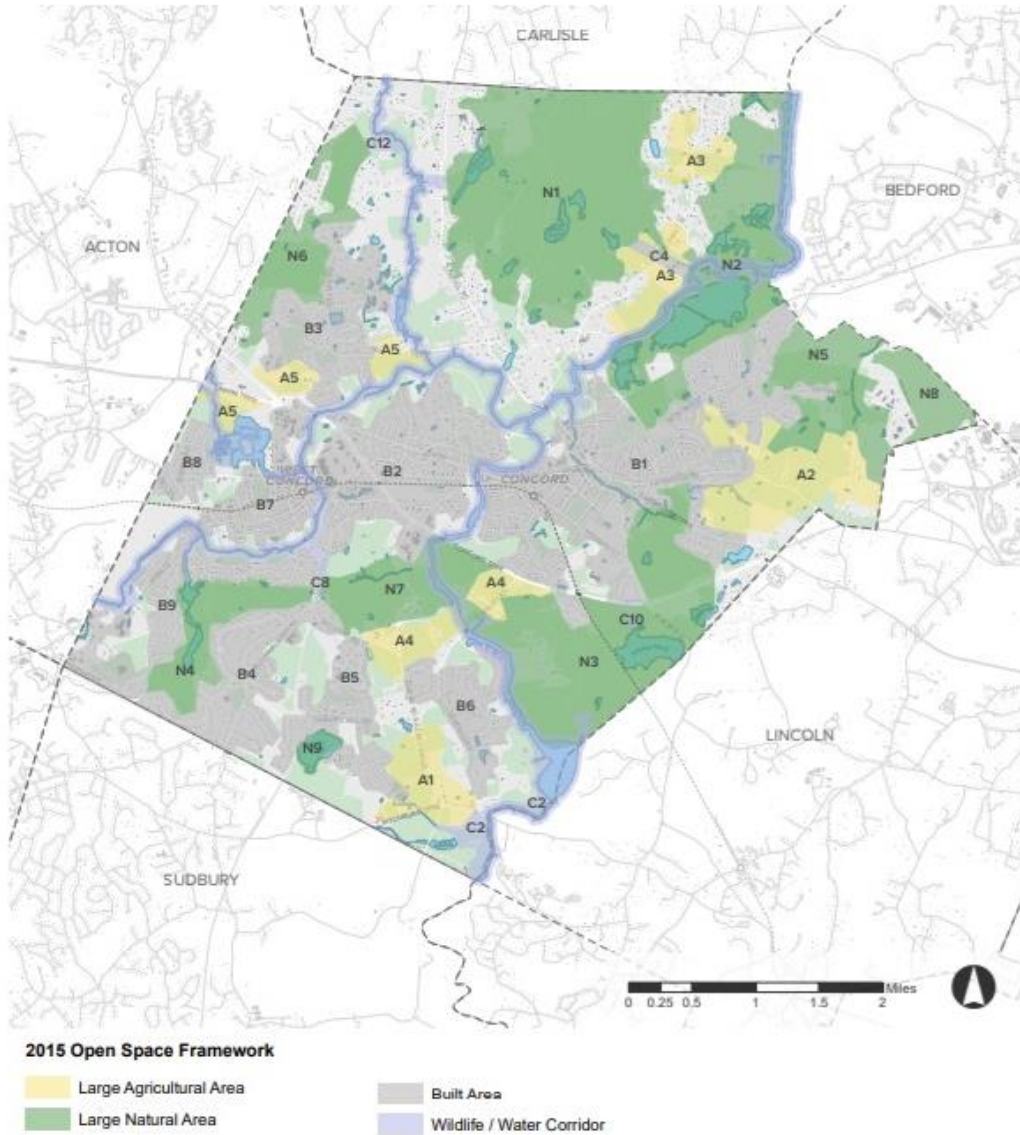
Mass Correctional Institution Farm

The Northeast Correctional Center (NECC), formerly Cooke Farm and part of the Cuming estate, has been providing food and job training since 1893. The facility maintains an active gardening program, including two large greenhouses and three vegetable gardens totaling over 30,000 square feet. Produce supports local food pantries and the prison's culinary programs.

Verrill Farm

Verrill Farm, one of Concord's largest farming operations, spans 150 acres and includes cattle as well as row crops. Under the leadership of Steve and Joan Verrill and their daughter Jennifer, the family's dairy farm evolved into a thriving enterprise of homegrown produce, prepared foods, and activities in the fields from pick-your-own strawberries to a popular Corn and Tomato Festival. Its large farmstand features a deli, bakery, and kitchen offering advance or in-person meal orders. The stand sells a variety of farm-fresh produce, beef, eggs, and other local products. Verrill Farm also offers a CSA, farm-to-table dinners, and pick-your-own days.

Source: Concord Open Space and Recreation Plan 2007



Large Agricultural Areas:

- A1 – Nine Acre Corner**
- A2 – Lexington Road**
- A3 – Monument Street**
- A4 – Williams/Road/Sudbury Road/Route 2**
- A5 – Reformatory Farms/Barrett’s Mill Road**

Town Leadership on Agriculture

Division of Natural Resources

The Division Natural of Resources (DNR) plays a pivotal role in managing and safeguarding the agricultural lands within Concord. Guided by its mission to protect and enhance the town's natural resources—such as wetlands, ponds, streams, riparian corridors, open spaces, and farmland—the DNR also provides vital environmental outreach and education to the community.

The DNR oversees licenses for agricultural use on more than 200 acres of town land. Agricultural agreements on conservation lands such as Barrett's Mill Farm, Harrington Park, and Mattison Field are generally more secure than those on municipal (general use) parcels, such as Peter Spring Field and Willow Guzzle. DNR also works in a lead or supporting role to implement sustainable irrigation practices such as installing wells.

One of the DNR's primary responsibilities is the oversight and maintenance of town-owned agricultural lands licensed to local farmers.

Leases and Licenses: DNR's leasing and licensing of agricultural lands is critical to Concord's farmers. The DNR develops and maintains agricultural agreements that include fair pricing and clearly defined terms, ensuring that farmers have stable access to the land while aligning with the town's conservation goals and interests. The informal relationships and conversation among Concord farmers and DNR staff are key factors in facilitating the pairing of Concord farms with appropriate properties.

Environmental Regulation and Commission Activity: The DNR plays a key role in administering and enforcing state and local wetlands regulations, including the Massachusetts Wetlands Protection Act, Rivers Protection Act, and the Concord Wetlands Bylaw. The division's work also involves updating and implementing the town's Open Space and Recreation Plan, monitoring Conservation Restrictions (CRs) and Agricultural Preservation Restrictions (APRs), and coordinating land acquisition efforts with various boards, committees, and organizations. The Agriculture Committee, supported by the NRD, is particularly active in engaging with local farmers and encouraging environmentally responsible agricultural operations.

Stewardship and Land Protection: The DNR provides stewardship over more than 1,500 acres of conservation land, a significant portion of which is dedicated to agricultural use. This includes coordinating land protection efforts and supporting community initiatives, such as the development and maintenance of community gardens on town lands. Through these activities, the NRD helps sustain Concord's agricultural heritage while promoting environmental stewardship.

Support for Water Infrastructure: The DNR offers some support in this area such as facilitating well drilling and technical assistance such as water testing when using surface water from nearby rivers for irrigation. Irrigation costs are often covered through grants of the Massachusetts Department of Agriculture.

Natural Resources Commission

Established in 1959, the Natural Resources Commission plays a large role in acquiring and preserving farmland, and currently owns more than 1,500 acres of conservation land that serves to protect biodiversity, agriculture, and the rural character of the Town. These landscapes also draw tourists and new residents to Concord.

One of the four overarching goals in the 2015 Open Space and Recreation Plan is to “Protect agricultural land, including fields, meadows, and orchards”. Since 1992, the Town’s Open Space and Recreation Plan has identified large agricultural areas as conservation priorities because of their historical importance, maintaining the Town’s rural character, and protecting food security.

Conservation Restriction Stewardship Committee

The Conservation Restriction Stewardship Committee (CRSC) was appointed in 2005 by the Select Board to provide responsible management and care of the more than 85 conservation restrictions on as many properties within the Town.

Agricultural Committee

The Concord Select Board established the Agricultural Committee (the Ag Committee) in 2006. Its stated purpose is “to provide a forum for the discussion of interest and concern to farmers in Concord and to advise the Board (of Selectmen) concerning how the town can help to support farming in Concord.” The committee’s five members include three Concord residents who are engaged in farming and two citizens at-large interested in promoting farming.

The Town-sponsored group provides a framework for relationship building among local farm operators and a means to advocate for policy changes. These include the “Right to Farm” ByLaw, approved at the 2011 Annual Town Meeting. This regulation protects agricultural activities as “a normal and necessary aspect of living in a town with farms.” It declared that such activities may occur day or night, on holidays, weekends and weekdays. The document called on the Town and its residents to recognize that farming can bring with it noises and odors, slow-moving tractors and various forms of farm machinery and structures. More recently the Ag Committee has pursued an exemption from enforcement of the town’s mandate of a Checkout Bag Fee as it proved impractical to execute at the area’s farm stands.

For nearly two decades the Committee has hosted an annual Concord Ag Day to celebrate local agriculture and showcase Concord farms. Held in Concord Center in September, participating farms sell their products in a festive atmosphere that includes music, games, and activities, such as a Veggie Race Track.

The Agriculture Committee serves as a means for the sector to contribute to Town planning. Concord’s Long Range Comprehensive Plan, *Envision 2030*, reported on local farmers’ concerns:

- Need for farmer and farmworker housing that they can afford.
- Providing the infrastructure to successfully run a farm operation, including access to affordably priced clean water and electricity, ability to store farm equipment close to farmland, and out buildings needed for storage, growing, and processing operations.

- Developing a stable marketplace for locally grown farm products.
- Farm succession planning so that farmland is not sold for development and, thus, permanently taken out of farm production.
- Access to a farm worker labor pool and the ability to pay them a fair wage.
- Town leaders and citizens should generally endeavor to better understand the local farm economy so that sustainable solutions can be developed and implemented, including several innovative solutions identified by the Agricultural Committee.”

PART 3 – LAND AND ENVIRONMENT

Crops and Farming Methods

The Sudbury, Assabet, and Concord Rivers contribute to the area's fertile soil, which is nutrient-rich and loamy, ideal for a variety of farming activities. The surrounding land, nourished by these rivers, features moist soil that supports healthy crop growth.

In addition to the rivers, Concord also has several rivers, streams, and ponds that further enhance the agricultural potential of the area. Overall, the combination of nutrient-rich soil, good drainage, and ample water resources makes Concord an excellent location for farming, with the Town's agricultural land playing a key role in its rural landscape.

The diversity of crops grown on local farms reflects the soil types, the size of the farms and adaptability to changing conditions. Historically, strawberries and asparagus were among the most popular cash crops in early Concord farms, laying the foundation for the town's agricultural economy. Dairy cows and other animals were once well represented at local farms, most notably at Verrill Farm and the Reformatory. Animals are scantily represented today. The range of contemporary crops has expanded to include a variety of vegetables such as tomatoes, zucchini, squash, and corn. Fruits also play a significant role in Concord's farming landscape, with raspberries, strawberries, and apples being particularly popular. (Although Concord lent its name to the Concord grape, it is not widely cultivated here.)

The town's farms are characterized by smaller parcels of land, each with its unique attributes. These parcels can vary significantly in terms of soil type, water availability, drainage capability, susceptibility to flooding, and elevation. This diversity provides Concord farmers with valuable options for crop selection, allowing them to make strategic decisions based on weather patterns and seasonal conditions.

For instance, elevated and sandy parcels are particularly advantageous during rainy seasons, offering better drainage and reducing the risk of crop loss due to flooding. This flexibility not only enables Concord's farms to adapt their crops and farming practices over time in response to changing business models and consumer tastes but also positions them to be resilient in the face of climate change.

Concord's farmers are dedicated stewards of the land, playing a vital role in the town's broader conservation initiatives. Their commitment to sustainable farming practices helps preserve the environment and maintain the health of the local ecosystem. Concord farms employ practices such as cover cropping, crop rotation, and no-till or regenerative farming, all of which contribute to soil health, reduce erosion, and promote the growth of beneficial microorganisms that improve crop resilience and reduce the need for chemical interventions.

No-till farming is practiced at Saltbox Farm and Gaining Ground. No-till farming is an agricultural practice that involves growing crops without disturbing the soil through traditional tilling or plowing. In conventional farming, tilling is used to prepare the soil for planting by breaking it up, which can disrupt the natural structure and lead to soil erosion, loss of moisture, and a decrease in soil health over time. By avoiding soil disruption, these farms help prevent erosion and runoff, reduce the need for chemical fertilizers and pesticides, and foster a more robust and resilient agricultural system. Although no-till

farming demands more labor and time, making it less feasible for all farms, its adoption is on the rise due to its environmental benefits.

Concord boasts several certified organic farms, including Barrett's Mill, Hutchins Farm, the Walden Woods Project Farm, Gaining Ground, Saltbox Farm, and Silberleaf Farm. These farms adhere to strict USDA organic standards, ensuring that their crops are grown without synthetic pesticides, herbicides, or other non-organic substances. To achieve certification, these farms must avoid the use of non-organic substances for at least three years prior to certification, guaranteeing that the food produced is free from harmful chemicals and pesticides.

Other Concord farms follow conventional farming methods, with a commitment to more sustainable practices such as Integrated Pest Management (IPM), a strategy that minimizes pesticide use by involving professional crop scouts who recommend sustainable and targeted applications only when necessary.

Concord farmers' shared value for the land is evident in their sustainable and responsible land management. This commitment to land stewardship has kept Concord's farmland fertile and productive, safeguarding it for future generations while supporting the town's conservation goals.

Land Values and Agricultural Uses

As property values and taxes continue to rise, such initiatives ensure that Concord's agricultural heritage is preserved for generations to come.

Envision Concord 2030 notes the challenges the Town faces in balancing sometimes competing interests in land use designations for open space and other priorities. The report noted a marked decline in farmland under Chapter 61A, while lands designated as forest (Chapter 61) and recreational (Chapter 61B) increased. Since 2005, community efforts slowed this decline including the purchase of Hubbard Brook Farm Field (approximately 18 acres) in 2008 and the Irwin land (approximately five acres) in 2017.

Currently, Town-owned parcels such as Willow Guzzle and Peter Spring Farm Field are used for agriculture, with recommendations from the Open Space and Recreation Plan to transfer these parcels to conservation status to protect agricultural interests and, in the case of Peter Spring Farm, to also safeguard rare species. At the same time other municipal needs have been identified for some areas, such as the potential use of Peter Spring Field for wastewater treatment facilities.

Proximity to farmland increases property values

Farmland and conservation land, subject to permanent agricultural or conservation restrictions or to temporary Chapter 61A restrictions, has lower assessed valuation than unrestricted land. However, the attractiveness of this open, undeveloped landscaped increases the value of residences and unrestricted land throughout the town.

Homes located near open farmland and conservation areas enjoy the greatest benefits, as this proximity is highly desirable. An analysis of properties within a quarter mile of agricultural land indicates a nearly 20% increase in valuation compared to the overall land values in Concord. (See appendix for details.)

Protecting Agricultural Land

High property values and corresponding taxes have created significant challenges for local farmers. With the assessed land value in Concord surpassing the Massachusetts median and tax levels in the town exceeding those of many other communities, farmers have been compelled to explore creative solutions to manage these financial burdens. State programs like the Agricultural Preservation Restriction (APR) and Chapter 61A, as well as arable land available for lease through land trusts, Through the combined deployment of ownership, deed restrictions, conservation restrictions and tax programs are essential to the continuation of farming in Concord.

In Concord, agriculture and farming are supported by a substantial network of protected open spaces that enhance the town's rural character. Out of Concord's 15,936 acres, more than 6,120 acres—roughly 40%—are designated as permanently protected open space.

Publicly-owned open space comprises over 30% of the town's land area, with more than 70% of this space being permanently protected.

Privately-owned open space accounts for approximately 27% of the total land area, with around 57% of this land under permanent protection. Six private land trusts play a crucial role in safeguarding over 1,000 acres within the town. The Concord Land Conservation Trust (CLCT) is the primary steward of privately protected land in Concord, while other significant organizations include the Walden Woods Project, Sudbury Valley Trustees, The Trustees of Reservations, Mass Audubon, and the Lincoln Land Conservation Trust. These efforts collectively support Concord's commitment to preserving its agricultural heritage and natural landscapes.

Just over 1,500 acres, roughly 10% of the total land area of the town, is dedicated to agriculture. Concord's land use policies and conservation tools work together to maintain the character and sustainability of its agricultural landscapes.

The leasing or licensing of agricultural land is the crucial means by which Concord farms are able to access sufficient and affordable land. Even among long standing farms in town, leasing land is widespread, allowing them to grow their businesses sustainably. Leases and licenses provide a benefit for newcomers as it reduces the financial barriers to entry.

A variety of strategies are employed to protect land from development and preserve its agricultural use. Through the combined use of ownership, deed restrictions, conservation restrictions and tax programs, Concord has successfully protected significant portions of its agricultural land. These protections safeguard the town’s rural character today and ensure it is preserved for future generations.

Table: Publicly & Non-Profit Owned Open Space

Classification	% of Total Land Area in Concord (15,936 ac in total)	Acres
Town Owned – Natural Resources Commission (permanently protected)	8.5	1359.85
Town Owned – Select Board	2.7	434.23
<i>Permanently protected by Conservation Restriction or APR</i>	0.08	12.36
<i>Deed restricted</i>	0.08	12.36
<i>Unprotected</i>	2.5	406.07
Town Owned – CPW – Water and Sewer Division (all protected)	0.79	125.9
Town Owned – Recreation Department	0.23	37.12
<i>Permanently Protected (Article 97)</i>	0.23	37.12
Town Owned – Municipal Light Plan (all unprotected)	1.55	246.9
Public Schools (all unprotected)	1.55	246.9
State Owned Lands		
<i>Permanently protected</i>	6.4	1017
<i>Permanently protected by Article 97</i>	1.6	257.2
<i>Temporarily protected</i>	0.82	130.38
<i>Unprotected</i>	0.63	101.1
	3.3	528.32
Federally Owned Lands		
<i>Permanently protected</i>	4.0	638
<i>Unprotected</i>	4.0	637
	0.006	1
Land Trust Lands (all permanently protected through ownership or CR)		
<i>Concord Land Conservation Trust</i>	6.4	1018
<i>Walden Wood Project</i>	5.5	881.6
<i>Sudbury Valley Trustees</i>	0.5	84.17
<i>The Trustees of Reservations</i>	0.2	33.4
<i>Lincoln Land Conservation Trust</i>	0.07	11.46
	0.05	7.31
TOTAL PUBLICLY OWNED OPEN SPACE	30.8	4,911.29
TOTAL PERMANENTLY PROTECTED PUBLICLY OWNED OPEN SPACE	22.5	3,590.6

(Source: 2025 Concord Open Space and Recreation Plan, page 60)

Zoning

Zoning regulations are applied by the town to control land use and the nature of development within designated areas. These restrictions create buffer zones around protected areas and ensure parcel sizes that facilitate commercial agricultural use.

Concord’s zoning regulations support agricultural activities, permitting agricultural use in every zoning district across the town. This flexible approach allows farming to coexist with other land uses, ensuring that agricultural practices can continue without the need for zoning amendments or special permits. This zoning policy demonstrates Concord’s commitment to preserving its rural and agricultural identity, even as the town grows and evolves.

Table: Concord Acreage by Zoning Classifications

Zone	% of Total Land Area in Concord	Acres
Residence AA (80,000 sq ft)	49.9	8,238
Residence A (40,000 sq ft)	28.2	4,653
Residence B (20,000 sq ft)	12.7	2,090
Residence C (10,000 sq ft)	3.9	642
Industrial Park	1.7	284
Limited Industrial Park	1.2	200
By-Pass	0.7	114
Limited Business	0.5	87
Business	0.5	84
Medical Professional	0.4	65
Industrial	0.3	52

(Source: Concord Open Space Plan 2005, page 22, Table LU-1)

Land Ownership

Through land purchases, the Town of Concord and private land trusts hold more than 3000 acres, and through this control are able to maintain agricultural activities in designated areas.

One key resources for land acquisition is the Community Preservation Act (CPA). The CPA is a Massachusetts state law that allows communities to collect funds through increased real estate taxes, which can then be used to support community housing, historic preservation, and open space protection. In Concord, the Community Preservation Fund has been instrumental in funding projects that protect agricultural land, preserve open spaces, and maintain the town's historic resources. The CPA has provided a financial foundation for many of the land protection efforts in Concord, ensuring that these vital areas remain protected.

Non-profit organizations play a significant role in land conservation in Concord. The Concord Land Conservation Trust (CLCT) has acquired 983 acres of land and holds conservation restrictions on an additional 354 acres. The CLCT, along with other organizations like the Walden Woods Project, contributes to land protection through land acquisitions, conservation initiatives, and educational programs that raise awareness about the importance of preserving Concord’s natural landscapes.

Agricultural Preservation Restriction (APR)

The APR program, established by Massachusetts legislation in 1977, allows farm owners to place a permanent deed restriction on their land, protecting it from future development and securing its use for agriculture in perpetuity. Under this program, the state partners with the town to compensate landowners by paying the difference between the land's "fair market value" and its "agricultural value." This compensation not only preserves farmland but also reduces the assessed value of the property, thereby lowering taxes. To qualify, farms must be at least five acres in size, generate a minimum of \$500 in annual revenue, and have been used for agriculture for at least two years prior to applying.

The APR program has been instrumental in making farming more affordable in Concord, with farms like Hutchins and Verrill using it to safeguard their land for future agricultural use.

Conservation Restrictions

Conservation restrictions (CRs) are another powerful tool for land protection in Concord and are often much less expensive than outright land acquisition. CRs can be held by the Town, through the Natural Resources Commission, or private land protection organizations. These legally enforceable agreements protect specific conservation values while allowing limited land use that aligns with these values. When agriculture is included in the CR language, this use can be continued in perpetuity. Concord's Conservation Restriction Stewardship Committee is responsible for the management and care of Town-held restrictions, ensuring that the land remains protected and its conservation values are upheld.

Chapter 61 Current Use Tax Programs

Massachusetts General Law Chapters 61, 61A and 61B are tax relief programs to protect certain land uses. The Chapter 61 programs offer reduced taxes for agricultural, forestry, and recreation land uses. Chapter 61 is for forests, 61A is for agricultural, and 61B for recreational natural areas. As of 2017, the total land in Concord protected under these provisions was 2,101 acres.

Unlike the APR program, which imposes a permanent restriction on land use, these provisions offer temporary tax relief based on the land's use for farming, working forests and recreation. This allows landowners to benefit from reduced property taxes while maintaining the flexibility to change the land's use in the future. This program is part of a broader effort by the state to encourage the preservation of open space and agricultural land by making it more economically feasible for landowners to continue using their land for these purposes.

Chapter lands are given temporary protection as long as they are maintained for their designated uses. The Town has a right of first refusal on purchasing the land if it is offered for sale or the land is converted to a non-chapter use while in the program and for a year after withdrawal from the program. In addition, if the land use changes, the property may be subject to a "rollback tax," which recaptures some of the tax savings from previous years. This tax is calculated based on the difference between the taxes paid under Chapter 61 and what would have been paid at the property's full market value over the previous five years.

To qualify for the Chapter 61A program, land must be at least 5 acres in size and actively used for agriculture or horticulture. In addition, the land must generate a minimum of \$500 in annual gross sales from agricultural or horticultural products. Under this statute, land used for agriculture or horticulture is assessed at its "use value" rather than its fair market value. The "use value" reflects the value of the land based on its use for agriculture or horticulture, which is typically much lower than the value it would have if it were developed or sold for non-agricultural purposes. This lower assessed value results in significantly reduced property taxes for the landowner, making it more affordable to keep the land in agricultural or horticultural use.

The provisions of Chapter 61A also apply to property owners leasing their land for commercial agricultural uses, providing incentives for neighbors to support the agricultural sector. The land must be used actively for farming for at least the two tax years prior to applying for the agricultural restriction.

Today, the revenue potential of farming in Massachusetts is not in scale with the higher land valuations of Concord. The subsidies of Chapter 61A are therefore vitally important for the continued viability of local agricultural enterprises and most especially for the continuation of long-held family farms.

PART 4: FARMS AS BUSINESSES

Organizational Structure

Concord farms include both for-profit enterprises and non-profit organizations. The commercial farms are small and managed by owner-operators and closely held partnerships, who generally rely on their own labor, alongside paid full-time and seasonal staff. The non-profit farms, in addition to program revenue, receive grants and donations to maintain their farming activities. Non-profit farms are managed by employees and supported by both paid staff and volunteers.

Farmsteads

A farm needs several structures to serve as a base of operations, sometimes called a “home farm” or a “farmstead”. The structures may include a place for the farmer to live in, a place to store equipment, a packing shed, a retail farmstand, and greenhouses or other structures for growing plants.

Most of privately-owned farms in Concord are small-scale operations that are hard-pressed to generate sufficient net income to remain profitable. Many of the family-operated operations rely on off-farm employment by some family members to meet the high cost of living in Concord.

Local land costs are prohibitively expensive for any new owner to purchase a Concord farmstead if relying solely on income generated from the farming operation. Farmers who own their land usually inherited these properties outright or purchased them from a previous generation under favorable terms in order to maintain the family’s farming legacy. Increasingly, family-owned farms are reaching a crossroads as the next generation often does not wish to continue farming.

During such times of transition the efforts to protect agricultural land by the Town of Concord and non-profits have extended to farmsteads that include arable land with residences and farm buildings. Over the past thirty years, notable transitions include the passing of the traditional homesteads such as the Breen Farm (Thoreau Farm), Marshall Farm and Barrett’s Mill Farm. Protective arrangements that extend beyond the licensing and leasing of open land to housing and commercial buildings, are demanding in complexity, particularly for a government agency to acquire and administer.

The continuation of privately-owned farmsteads heavily depends on the willingness and vision of today’s property owners and their heirs to remain engaged in agricultural operations.

Access to Land

Accessing agricultural land in Concord involves a variety of arrangements, each with distinct implications for farmers. Here’s an overview of how different farms in the area secure and manage their land.

Some farms in Concord own their land outright, providing a stable foundation for their operations. This is most evident among long-standing family farms. Even among these, nearly all local farms rely on leases and licenses to access agricultural land in whole or in part for their operations. These agreements vary in terms of security and flexibility. Land trusts and the Town through its Division of Natural Resources lease and license land to ensure it remains used for farming, preserving its agricultural value. Private owners offer leases with the added benefit of tax deductions, which can make such arrangements attractive for both parties.

Agricultural land in Concord is currently used by farm operators based both in Concord and in other towns. For example, Cucurbit Farm in Acton and Great Brook Farm in Carlisle utilize land here.

Interviews with Concord farmers reveal the advantages and disadvantages of leasing arrangements.

Pros:

1. **Lower Entry Costs:** Leasing land is far less expensive than purchasing land. This is particularly advantageous for new or smaller-scale farmers who may lack the capital to buy land outright.
2. **Flexibility and Access:** Leasing allows farmers to access land without long-term commitments, giving them flexibility to scale operations up or down, depending on business needs or changing environmental conditions.
3. **Improved Land Management:** Longer leases, compared to short-term licenses, allow farmers more time to invest in land improvements and better manage their agricultural practices.

Cons:

1. **Insecurity and Uncertainty:** Leases can offer limited security, particularly if they are short-term. For instance, three-year leases or licenses may not provide enough time for farmers to make significant investments in land improvements or infrastructure.
2. **Potential for Revocation:** Licenses, in particular those issued by the Town, can be revoked at any time, leaving farmers with little control over their ability to farm the land. This lack of security can create uncertainty and affect long-term planning.
3. **Responsibility Confusion:** The terms of leases and licenses can lead to confusion about responsibilities, especially regarding land maintenance and infrastructure.
4. **Limited Investment Recovery:** Investments made in land improvements under a lease may not be recoverable if the lease is not renewed or if the land use changes. This can deter farmers from making necessary improvements.
5. **Dependence on Landowners and Management Changes:** Farmers' security and conditions can be impacted by changes in management and policy. A shift in town priorities or changes in Town personnel could affect lease agreements and land use policies central to the farm's success.
6. **Short-Term Planning Challenges:** Short-term leases or licenses provide minimal room for long-term planning, which can hinder the ability to develop and execute comprehensive farming strategies.

The Town of Concord generally licenses land for agriculture in two-year terms. While the Town reportedly has never denied a renewal request, farmers report that the short license terms discourage long-term planning and land stewardship.

Interestingly, the short-term horizons of local farmers may be most apparent in the kinds of annual crops grown here. Concord farmers are not cultivating tree fruits and other crops that require two to five years before they begin to fruit. Even in lower investment, medium term crops, like asparagus that require a three-year investment from planting to harvest, one established farmer reported a hesitancy in adding this product to the farm's planting plan.

Management and Labor

Farms in Concord are grappling with significant labor challenges, exacerbated by rising wages and the high cost of living in the area. Increasing minimum wage requirements have made it difficult for many farms to afford competitive pay while managing their operational budgets. Concord's high property values and steep property taxes further strain farm finances, making it nearly impossible for farmers to cover housing costs for their workers.

Building or providing housing for farm workers is costly and complex. Zoning laws restrict the construction or conversion of buildings for housing on land designated for agricultural use. Additionally, environmental and occupational safety regulations complicate development on or near conservation lands, protected habitats, or farm buildings. These restrictions not only make it hard to develop new housing but also require farms to adhere to strict labor-housing standards, further driving up costs.

The majority of farms interviewed have expressed a pressing need for additional workers, reflecting broader trends within the agricultural sector where finding and retaining skilled help is increasingly challenging. A prominent source of labor for local farms is the student population, who provide valuable seasonal assistance, particularly during the summer months. However, this reliance on students contributes to high turnover rates, creating both opportunities and difficulties. While the influx of fresh perspectives and energy can be beneficial, it also necessitates constant training and adaptation to new staff, which can be time-consuming and impact productivity.

The high cost of housing in Massachusetts, and particularly in Concord, adds another layer to the labor dilemma. With limited affordable housing options for low-wage workers, farms are compelled to offer higher wages to attract and retain employees. Larger operations, such as Verrill Farm, are better positioned to provide competitive compensation, but for many smaller farms, covering accommodation costs for their employees is financially prohibitive. This challenge underscores the broader issue of labor shortages in agriculture, highlighting the need for sustainable solutions to support both farm operations and worker welfare.

Equipment and Facilities

Concord's agricultural sector is deeply influenced by the seasonality of production, which aligns with both demand and weather patterns. Most local farms operate on a seasonal basis, with growing seasons typically spanning from mid-April through mid-November. During the less productive winter, labor requirements and farming activities decrease significantly for many farms. As the season progresses into spring and early summer, however, activity ramps up, and by fall, production is usually at its peak.

Some farms have adapted to extend their productive periods and mitigate seasonal gaps through innovative approaches. Farms equipped with heated greenhouse structures, such as those at Colonial Garden Florists, maintain profitability year-round. While greenhouses are relatively expensive and require a long-term commitment, they offer significant advantages in maintaining a steady supply throughout the year.

Unheated hoop houses or tunnels present a more affordable alternative to heated greenhouses and are effective tools for starting seedlings and extending the growing season, relying on solar heating during the day to carry them through the colder nights. They are less costly than heated greenhouse structures and help manage seasonal fluctuations in production, though the lack of supplemental heating systems limits their effectiveness in extreme cold.

Farmstands are a common feature on almost every Concord farm, providing a direct link between producers and consumers. These can range from open-air setups to fully enclosed buildings, offering flexibility in customer engagement. Farmstands not only serve as a sales outlet but also enhance community interaction. Some local farms have more robustly constructed year-round retail facilities.

Investing in facilities like greenhouses, hoop houses and accommodations for direct-to-consumer sales such as a farm stand, poses challenges, particularly when operating on leased or licensed land and aligning the costs with potential returns.

Customers and Revenue

Most farms in Massachusetts generate only modest amounts of sales. According to the 2022 United States Department of Agriculture Census for Agriculture, 64% of farms in Middlesex County generated less than \$25,000 in annual sales. Just 16% county-wide have annual sales exceeding \$100,000.

According to the 2022 census, farms in Middlesex County have a high per-farm market average annual value of products sold at \$142,407. This is roughly double the state average of \$85,721. Profitability, however, is low in the county, with the average total farm production expenses of \$143,265. Taking into account all sources of revenue, the per-farm average of net cash farm income is \$26,854.

Concord's farms employ a variety of revenue models, each adapted to their unique needs and the local market. These models not only provide financial sustainability but also enhance community engagement and offer diverse customer experiences.

Farmstands, Farmers Markets and Other Direct to Consumer Retail

Farm stands are common source of revenue for Concord farms, offering a direct retail model that fosters customer engagement and showcases fresh, locally grown produce. These stands often serve as a vital point of sale where consumers can connect directly with the source of their food. Several local farms participate in farmers' markets in neighboring towns. These markets provide valuable opportunities to expand customer bases and market reach, with a focus on seasonality, showcasing the farm's own fresh products and value-added items such as jams and pickles. Seasonal items such as seedlings in spring, flower arrangements in summer, and holiday-focused offerings -- from Halloween pumpkins to Thanksgiving pies to Christmas trees -- can all be found locally.

The number and volume of items sourced from other suppliers differs dramatically among Concord farm-based retail sites. Some farms rely more heavily on reselling of purchased products, especially those open for retail sales year-round.

The local products of Concord farms, though distributed nearly exclusively locally, are competing in a global marketplace in the eyes of their customers. Grocery stores can offer shipped-in produce year-round from suppliers with significantly lower production costs. International operations in South America have far lower wages, national corporate producers have economies of a massive scale.

Community Supported Agriculture (CSA) and Credit Programs

CSAs provide another significant revenue stream. In this model, consumers purchase a share of the farm's produce early in the season, providing farms with upfront cash flow. Members typically pick up their share on a weekly basis, receiving a variety of seasonal produce. This model supports the farm through periods of low productivity and strengthens the relationship between farmers and local consumers. The duration of a CSA can vary, with some lasting up to 24 weeks, and can sometimes be specific to certain products, such as the mushroom CSA or flower CSA at Barrett's Mill Farm.

Credit programs allow for greater flexibility for consumers while still providing for early season revenue to support cash flow before the farm's summer season productivity is realized. Offerings such as Barrett Bucks are a way to prepay for farm-fresh produce redeemed later in the season.

Pick-Your-Own (PYO)

PYO operations offer a seasonal, interactive customer experience where consumers pick their own produce, such as raspberries at Silberleaf, flowers at Barrett's Mill, and strawberries at Verrill's. This model enhances the customer experience with a hands-on agricultural experience and adds agritourism to the constellation of attractions for regional visitors.

Wholesale

While revenue from wholesale accounts for a significant portion of revenue for some farms, with restaurants being primary customers for produce and large retailers for flowers, Concord's farms are primarily oriented towards retail sales. While wholesale produce sales can be profitable, especially in the case of restaurant customers, it is challenging to maintain consistent relationships. The seasonal nature of farm products contributes to a mismatch of supply and demand.

Market Trends and Shifts

The COVID-19 pandemic has brought about notable shifts in market trends. Overall farms report that there was increase in sales from residents at farm stands and through CSAs during the pandemic, that has since declined. Farms with a customer base of regional customers, such as Walden Woods serving leaf-peeping travelers along Route 2, saw a decline in business that has since recovered. Non-profit farms such as Gaining Ground benefited from increased volunteer engagement during the pandemic.

Agritourism

Concord's farms have an untapped economic potential, particularly in the realm of agritourism and special events. While some farms have explored this avenue, many have not fully embraced the opportunity to capitalize on their agricultural assets through broader tourism and event-related activities.

Agritourism in the form of corn mazes, festivals, and large-scale special events is not practical for most of the farming operations in Concord, primarily because they require a large, flat, dry area for parking to accommodate a high volume of visitors concentrated in a few weekends.

Among Concord's farms, Verrill Farm stands out for its proactive approach to regional tourism. By incorporating family-friendly attractions Verrill Farm effectively draws visitors and creates additional revenue streams. This approach leverages the farm's resources to engage with the community and attract visitors from outside the immediate area.

Despite Verrill Farm's success, many other Concord farms have yet to tap into tourism opportunities appropriately scaled and designed for the farm's capacity such as farm stays, smaller special events like weddings, and educational programs. Overall farms expressed reluctance to diversify their operations, wishing to focus singularly on farming without the management complexity of accommodating the demands of visitors. Hesitation may stem from several factors:

1. **Cost and Resource Allocation:** Using arable land for tourism purposes involves costs that may not be offset by the revenue generated. Factors such as labor shortages and the overall return on investment can dissuade farms from pursuing these ventures.
2. **Land and Licensing Constraints:** Many Concord farms lease or license their land primarily for agricultural use. This restriction limits their ability to host large-scale events or develop tourism infrastructure. The complexity of local regulations is a disincentive.
3. **Infrastructure Challenges:** Establishing the necessary infrastructure for tourism—such as parking and visitor facilities—can be difficult on leased or licensed land. Limited parking and space constraints at some farms further restrict their capacity to accommodate large numbers of visitors.
4. **Public Engagement Reluctance:** Some farms may prefer to avoid interactions with large numbers of visitors which can be demanding and require significant time and effort.
5. **Liability and Operations:** Bringing visitors on-site to a working farm creates legal and financial risks that could undermine the farm's core activities.

Economic impact

The small farms in Concord contribute to the local economy by creating jobs, supporting other businesses, and fostering a sustainable food system.

Though many farm jobs are generally lower-wage, these opportunities contribute to the town's total workforce. The farms are particularly important for providing employment opportunities for high school and college students, as well as for young people who have an interest in physically active, outdoors work. A survey of nine of Concord's 20 farms documented more than 150 jobs, highlighting the importance of these operations as local employers. Labor needs vary depending on farm size, production models, and market focus. Farms managing over 20 acres generally require at least 10 workers or more, with conventional farms often requiring fewer workers and organic farming requiring more. Some agricultural operations, such as Verrill Farm with significant retail and value-added product lines, engage a larger workforce requiring a more diverse set of skills.

Concord's farms create a self-sustaining local food system in which residents can purchase fresh, locally produced goods. This system not only enhances food security; it generates a multiplier effect as local spending circulates through the economy.

Climate Change Impacts and Adaptation

Agricultural enterprises, perhaps even more than any other, are challenged by the effects of climate change. The shifting climate has brought about more frequent and intense weather events, requiring local farmers to adapt their practices to maintain agricultural productivity and sustainability. Farming has always required a limber, creative approach to respond to changing weather conditions. That tenacity is being tested by today's global unpredictability.

Changing Weather Patterns and Soil Challenges: One of the most noticeable impacts of climate change specific to Concord is the increased potential for flooding. The area's network of waterways that fostered beneficial growing conditions now threaten to undermine it. To adapt, farmers are seeking out elevated areas with sandy soils that drain more effectively. Heavier and more frequent rainfall contributes to soil erosion, which can deplete nutrients and reduce soil fertility. This challenge is compounded by increased runoff, particularly concerning for farms using synthetic fertilizers, as the runoff can carry pollutants into nearby water sources, further degrading the environment.

Water Scarcity and Warming Seasons: Hotter summers and prolonged droughts are becoming more common, drying out natural water sources faster and leaving farmers with less water access earlier in the growing season. The availability of water is critical, especially during key periods of crop growth, which makes it necessary for farmers to seek more efficient irrigation methods and consider alternative water sources to ensure the sustainability of their operations.

Pest and Disease Pressure: Warmer winters and earlier springs have led to an uptick in pest populations and the survival of diseases typically confined to warmer southern regions. These issues are exacerbated by the fact that pests and diseases no longer die off during mild winters. As a result, farmers must contend with a greater range of crop threats, requiring more vigilant pest management and potentially greater use of protective measures.

Adaptation Through Climate-Controlled Agriculture: To combat the erratic and unpredictable weather conditions, Concord farmers are increasingly turning to climate-controlled environments like greenhouses and hoopouses. These structures create a stable environment for crops, safeguarding young plants and seedlings from extreme weather events such as heavy rainfall, intense heat, wind, and pest invasions. By providing consistent growing conditions, these controlled spaces offer a reliable way to continue production, even as outdoor conditions become more volatile.

Sustainable and Regenerative Practices: In response to climate challenges, there is also a growing emphasis on sustainable farming techniques. No-till regenerative farming is gaining traction as an impactful strategy to combat climate change. By avoiding tillage, farmers reduce fuel emissions associated with machinery use and prevent the release of carbon stored in the soil, which would otherwise contribute to greenhouse gas emissions. These practices also improve soil health, enhance water retention, and promote biodiversity, making farms more resilient to climate stressors.

Exploring Renewable Energy Options: Concord's open landscapes present opportunities to integrate renewable energy, particularly solar power, into farming operations. Solar panels on farmland can help reduce reliance on fossil fuels and provide a stable source of energy. However, there is likely to be some resistance from the community due to concerns about changes to the town's traditional aesthetic. Balancing these considerations with the need for sustainable energy solutions is a challenge that the town will need to navigate as part of its broader climate adaptation strategy.

PART 5: OPPORTUNITIES AND RECOMMENDATIONS

Concord's agricultural sector holds significant growth potential by leveraging existing strengths while enriching the local economy and preserving its cherished rural and historical identity. This study identifies several strategic opportunities and recommendations to enhance the resilience, visibility, and economic impact of local farms.

1. Address Housing Needs

Labor shortages are a persistent challenge for Concord's farms, particularly those relying on seasonal workers. Addressing the need for affordable employee housing could alleviate these staffing difficulties, benefiting both non-profit organizations and commercial farms. Strategic solutions in this area would strengthen farm operations and improve the ability to attract and retain skilled workers.

2. Preserve Farmsteads Based in Concord

Farmsteads may be lost to development pressures. Preservation calls for the identification of those farmsteads at risk and a mitigation strategy that could include acquisition by the Town or non-profit partners.

3. Enhance Water Security

With the increasing impacts of climate change, reliable water infrastructure and effective water management practices are essential for ensuring consistent agricultural production. Investments in water security, including irrigation systems and sustainable practices, can safeguard farms from droughts and other disruptions, helping them maintain productivity and resilience over time.

4. Promote Farmstands as a Centerpiece of Agritourism

Concord's rich history and picturesque landscape already draw regional visitors, providing a solid foundation for expanding the town's visitor-based economy through agriculture. Agritourism initiatives could bolster the profitability of its farmland and serve as a catalyst, creating synergies between the town's agricultural heritage, local businesses, and tourism sectors. Concord boasts a strong cluster of farmstands today. Promotional campaigns, similar to Franklin County's annual Cider Days, could direct customers to these existing retail sites, showcase the town's agricultural offerings, and boost farm revenues while generating spill-over benefits for local businesses. By investing in agritourism, Concord can preserve its unique character while amplifying the economic contributions of its agricultural sector.

5. Strengthen Local Market Integration

Concord's farms can benefit from closer relationships with local restaurants and retailers by leveraging the "Concord-grown" identity. Supplying produce and specialty products to local businesses and farm stands can boost visibility and appeal. Restaurants that highlight local ingredients support sustainable sourcing and meet consumer demand for fresh, local food, enhancing the town's economic fabric. This creates a mutually beneficial dynamic in which both farms and businesses contribute to a distinct place-based identity that enhances the town's overall economic fabric.

6. Promote Sustainable Practices

Sustainable farming practices, such as regenerative agriculture and organic certification, are essential to maintaining the long-term viability of Concord's farms. Continued investment in these approaches can improve soil health, reduce environmental impact, and attract eco-conscious consumers. Expanding the range of value-added products, such as preserves, pickles and specialty items, can further boost farm revenue while responding to consumer demand for high-quality local goods. Assessing potential partnerships with local food businesses can provide new avenues for growth and diversification.

7. Ensure continuity of relationship with Concord's Division of Natural Resources

Delia Kaye, Director of the Town of Concord Division of Natural Resources, has been a long-standing partner to Concord farms with a deep understanding of their needs. Her institutional knowledge and the trust she has earned within the farming community are deeply felt by the sector. On behalf of the Division, Ms. Kaye oversees the licensing of hundreds of acres of farmland and the regulatory environment on which local farmers operate. While no changes are anticipated soon, planning for an eventual leadership transition is advisable, as this relationship is fundamental to the success of Concord's agricultural sector.

PART 6: APPENDICES

Comparative Assessed Land Values in Concord

Category	Mean Value (\$)	Median Value (\$)
All Parcels	1,155,994.82	808,971.08
Non-Cultivated Parcels within ¼-mile of Cultivated Land	1,102,854.74	849,740.85
Overall Town Total Values	1,445,683	1,133,600
Overall Town Land Values	591,045	552,600
Agriculture 0.25 Mile Buffer Total Values	1,723,617	1,258,900
Agriculture 0.25 Mile Buffer Land Values	723,311	610,200
Agriculture 0.25 Mile Buffer (Excluding Agriculture Parcels) Total Values	1,710,507	1,257,750
Agriculture 0.25 Mile Buffer (Excluding Agriculture Parcels) Land Values	716,784	609,900

This data shows that parcels within a 0.25-mile buffer of agricultural land have higher mean and median total values than the town as a whole. This suggests that proximity to agricultural areas is more valued. The mean total value for properties in this buffer zone (\$1,723,617) is significantly higher than the overall town mean (\$1,445,683). Further, non-cultivated parcels within a quarter mile of agricultural land have a higher median value (\$849,740.85) compared to all parcels in town (\$808,971.08).

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Verrill Farm

Walden Woods Project farm

Concord Agricultural Committee