Farming Overview:

The capacity to produce food locally is a tremendous asset for a community- too often taken for granted and undervalued. Most of the food Maine residents consume is imported from either the western United States or from foreign countries. As a result, the food supply could be interrupted or threatened for any number of reasons. Production from local farms makes substantial contributions to a community's food needs daily but becomes much more valuable in times of high costs and supply disruption.

Due to the dramatic expansion of industrial agriculture, family farms are quickly becoming a relic of the past all over America. Between 1974 and 2002, the number of corporateowned U.S. farms increased by more than 46 percent. Between 2005 and 2006, the United States lost 8,900 farms (a little more than one farm per hour). Another threat is development; according to the United States Environmental Protection Agency, 3,000 acres of productive farmland in America are lost every day to development.

Importance of Local Farms:

Food safety is paramount when considering where the food came from. As a result of the pervasive use of antibiotics in confined animal feedlots, antibiotic resistant human pathogens have emerged. The Center for Disease Control (CDC) estimates that each year roughly 1 in 6 Americans (or 48 million people) get sick, 128,000 are hospitalized, and 3,000 die of foodborne diseases due to complications related to antibiotics in confined animal feedlots.

The trend of local farms disappearing affects not only food supply and quality but also the local economy; as family farms are bought out, the businesses they helped support disappear. Local seed and equipment suppliers shut down because corporations went straight to wholesalers or manufacturers. Demand for local veterinarian services collapses. This results in shops, restaurants, and doctor's offices closing, while communities shrink, which forces people to drive an hour or more for amenities and services.

Local farms also contribute to quality of life in communities. The United States Department of Agriculture's Economic Research Service conducted studies of what made certain rural areas thrive over others. The results showed, in part, amenities such as agritourism, farmland protection in developing areas, and potential interactions between farmland conservation practices and rural amenities were key factors.

Equally important, farm and forested land also provide a buffer against high taxes. Dozens of fiscal studies have demonstrated that farm and forest land have a higher ratio of tax revenue to service demands than any other form of commercial or residential development. A farm on a tract of land demands minimal cost of local services for every tax dollar paid while a house on the same tract would require more money for local services provided for every dollar of tax revenue. It stands to reason that undeveloped land subsidizes the "tax base" that towns so often pursue.

Finally, food security is an ever-increasing concern of late. While there are a number of national reserves for strategic materials such as rare metals or oil, there is no national reserve for food. Recognizing how critically dependent the food supply has become on fossil fuels and an intact transportation system, many towns and cities are actively pursuing plans to increase local food production.

In Maine, agriculture and forestry provide the traditional economic backbone and the original engine that drove the local economy. In Readfield, even today dozens of families rely on employment in the agricultural or forestry industries, or revenue from their own fields or woodlots. Farm and forest land also provides open space, wildlife habitat, and aesthetics, all of which Readfield residents consider as crucial to their community's character.

This chapter profiles the current state of farming and forestry, and the extent of the resources for supporting these activities in Readfield.

Agriculture in Kennebec County:

Over the last five years, Maine has witnessed an increase in farming with over 8,200 farms in existence, according to the United States Department of Agriculture (USDA). The USDA conducts a county-by-county census of farms every five years. As of the 2017 Census of Agriculture (most recent data), there were 642 total farms in Kennebec County, a 6 percent increase since 2012, with 23 percent growing crops and 77 percent raising livestock, poultry, and related products (products such as eggs, milk, wool, and other animals and animal products). For Kennebec County in the 2017 Census of Agriculture, the land area that accounted for farmland was 82,132 acres, an increase of 5 percent since 2012, and the average farm size was 128 acres, which is a decrease of 1 percent since 2012. While the Census of Agriculture is not detailed enough to profile specific towns in each county, the figures for Kennebec County seem to be representative of the farmland productivity in Readfield.

Kennebec County is certainly not the center of Maine agriculture, but these farms still contribute significantly to the local and regional economies. The average farm in the region boasts an average market value of products sold at around \$76,000. Furthermore, many of these farms contribute to the labor market by providing employment.

From equipment repair to agriculture supply stores, and veterinarian services, farming and agriculture creates a diverse economic base for the region. The economic impact of agriculture extends even further; agritourism provides alternative opportunities for the public to interact and observe farming activities. As of 2012, there were 270 farms participating in agritourism in Kennebec County. Farming can bring communities closer through farm days, harvest suppers, and farmers' markets. These opportunities drive collaboration, education, and increase connections between farms and their communities.

According to the USDA, the major land uses for Maine's farmland were broken down in the following ways. From Table 1 below, it is clear that Maine is still very much a farming state with only 1 percent considered urbanized at the time of publishing for this data.

Of note, Maine has ranked number one in the United States for wild blueberry production since the 1950's. As of 2020, Maine was ranked third in the production of maple syrup and 9th for potato production.

Land use acreage Maine				
		Acres (1,000)	Percent	
Cropland	Cropland idled	55	0%	
	Cropland pasture	8	0%	
	Cropland used for crops	328	2%	
Grassland pastur	Pasture and range	159	1%	
Forest use	Forestland grazed	48	0%	
	Forest-use not grazed	17,143	87%	
Special uses	Defense and industrial	21	0%	
	Farmstead	34	0%	
	Parks and wilderness areas	356	2%	
	Rural transportation	198	1%	
Urban	Urban	231	1%	
Miscellaneous	Miscellaneous	1,159	6%	

TABLE 1: MAJOR LAND USES IN MAINE

Source- USDA, Economic Research Service, 2012, updated 2017 *Miscellaneous includes land in such uses as wetlands and unprotected woodlots.

Local Farms:

The principal farming enterprise in Readfield has historically been dairy. Currently, the largest farm in Readfield is Christianson Farm; this farm produces meat and vegetables.

They raise their own pork, produce 100 percent grass fed beef, and sell products made by other local farms.

Recent trends in Maine and elsewhere indicate that small, specialty farms are growing in numbers and replacing large, commodity-based farms. Large farms require prime farmland, hired labor, transportation infrastructure, and support services- a mixture hard to find and maintain in Maine, whereas micro farms require only a local market for their products. These small farms can be managed part-time on small parcels of land, they can diversify into niche and value-added products, and are flexible enough to shift products when necessary. The recent public emphasis on "local" and "organic" is an effort to highlight the importance of small farms. Examples of small farms are local vegetable stands, pick-your-own strawberries, maple syrup producers, and nursery operations.

While the average farm size has decreased by 1 percent, per the 2017 Census of Agriculture, the number of farms has increased by 6 percent, representing the trend toward smaller scale farms in Kennebec County. Table 2 is a list of local farms in Readfield; this list is by no means exhaustive.

Farm Name	Product /Specialty	Farm Name	Product/Specialty
Lakeside Orchards	Corn	Kents Hill Orchard	Tree Fruit
Baggett's	Mixed Vegetables	My Farm Your Table	Naturally raised meats
Christianson's Farm	Mixed Vegetables & Meats	Gay Road Farm	Chicks and Exotic Fowl
Hewitt's	Dairy	R and L Berry Farm	Berries, Honey
Elvin's Farm	Mixed Vegetables, cut flowers	Ledge Hill Farm	Christmas trees
Mace's	Livestock	Knights Family Farm	Pasture-raised meats
Great Meadows Horse Farm	Horses	Mother Jess Herbals	Herbal salves
Nebo's	aa: Camprahanaiya Dia	Barter Farms	Meat & Eggs

TABLE 2: LOCAL FARMS IN READFIELD

Source: Comprehensive Plan Committee members

The Readfield *Land Cover Map*, which is based on the 2016 National Land Cover Data, shows a significant amount of land used for pasture or hay throughout the town. Most of the cultivated crops in Readfield are surrounded by this pasture/hay land. Although many acres are annually hayed, they remain largely unforested and undeveloped; in terms of

agriculture, this land is generally underutilized for crop production or lying fallow. These agricultural parcels and farmlands provide natural areas and rural vistas that are important landscapes for the "rural character" and ecological habitat in Readfield. Even though this land is currently underutilized, preservation and conservation of these areas is crucial to protecting the essence and history of the town.

Farming Infrastructure:

Prime farmland is that land which is superior for the production of food, feed, forage, and other crops. Prime farmland has the soil quality (as designated by the USDA Soil Conservation Service and identified through soil taxonomy), growing season, and moisture supply required to economically produce sustained high yield of crops when treated and managed according to acceptable farming methods. Prime farmlands produce the highest yields and farming in these areas may result in less damage to the environment.

The *Prime Farmland & Soils Map* included in the appendix of this report delineates the extent of "prime farmland" in Readfield. Soils identified as Prime Farmland soils account for 2,509 acres, and an additional 812 acres have been identified as Farmland of Statewide Importance. These two designations account for approximately 16 percent of the total acreage in Readfield.

Due to the decline of traditional farming operations and methods, prime soils are no longer a principal factor in preserving agriculture. The new farming paradigm depends much less on the intrinsic fertility of the soil and more on accessibility to markets and capital. However, that does not negate the need to protect and preserve this land as there is a finite amount with these important natural characteristics.

The availability of markets for agricultural produce is particularly important for the new style of small producers who do not have access to commodity markets and operate too close to the margin to afford wholesalers or middlemen. Local farmers' markets, roadside stands, pick-your-own, and nursery/greenhouses are examples of local marketing styles necessary for today's farmers.

While Readfield does not have its own farmer's market, the markets in the surrounding areas are plentiful enough that the creation of a new one in Readfield is not currently necessary. As specialty and niche farms in town increase, this is something that may be beneficial to revisit in the future if interest is shown.

Growing Farmer Population:

Those who dedicate their lives to farming chose a difficult career path. Farming requires long hours and unwavering dedication. However, without these driven individuals, farming cannot succeed.

Understanding the needs and challenges facing existing farmers in Readfield is paramount to supporting the growth of agriculture. With this understanding, Readfield can develop priorities and plan its future with farmers in mind.

Currently, the biggest challenge farmers in Readfield are faced with is likely the same challenge every farmer is encountering- finding adequate labor. This challenge has several contributing factors including the average age in Maine is mid-40s and Maine has the oldest populations in the country. That means fewer young people for farming careers. This is exacerbated by the fact that fewer young people are learning vocational trades, and more are choosing traditional college education. With most of the population being middle aged, few young people, and fewer still who are interested in farming, there is no surprise it is difficult to find labor. This is coupled with the fact that farming is difficult work with long hours and pay that doesn't typically compensate for the difficulty level or hours worked.

As of 2021, the town has looked for new opportunities to promote farming and connect potential farmers with areas in town known for prime agricultural lands and soils. Readfield strives to create a positive environment for both existing and future agricultural endeavors through identifying opportunities to support agricultural business growth and connecting farmers with various programs that can assist their businesses and aid in growth.

The Maine Department of Agriculture, Conservation and Forestry (DACF), Maine Farmland Trust (MFT), and the Maine Organic Farmers and Gardeners association (MOFGA) advocate for farming-friendly communities through a variety of land use policies, farmland protections, and by promoting and building the population of farmers.

The Agricultural Resource Development Division of the DACF provides a variety of programs, resources, and information that help individual businesses in agriculture flourish and succeed despite the challenges of farming in Maine. A few examples include a grants and loans webpage, information on exhibitor opportunities, energy efficiency opportunities, training and education programs, Market Promotion and Special Events Program, and much more. The DACF also has information and programs available on their webpage for the consumer, such as Explore, Experience, Discover, and Connect with Maine Farms, Maine Agritourism, State Fairs, Maine Maple Sunday, Open Farm Day, and Farmers' Markets.

The Maine Farms for Future Program is another great example of a program provided by DACF's Agricultural Resource Development Division. This program provides grants to farm business owners to conduct research and strategic business planning that bring about changes aimed at long-term, maintainable, farm profitability, and net worth.

Land Use Policies:

Readfield's Land Use Ordinance has a brief section related to agriculture and farming. The three primary topics are agriculture in the Shoreland District, Animal Husbandry, and Marijuana Cultivation.

According to the Table of Uses based on Land Use Districts, Agriculture is generally allowed in all districts with a few restrictions on both light and intensive agriculture operations. The Rural District contains most of the open space and subsequently, farmland in Readfield. Outside of the Stream and Resource Protection Zones, light and intensive agriculture simply requires site review from the Planning Board and a permit from the Code Enforcement Officer. These minimal municipal regulatory land use restrictions encourage the micro farming trend that has been gaining momentum throughout the farming community.

The Town of Readfield adopted a Food Sovereignty Ordinance to support and encourage the local production and sale of food products. Where regulations can be unduly burdensome to producers, the Food Sovereignty Ordinance exempts producers and processors from licensure and inspection for local food and products intended for director producer-to-consumer transactions.

Additionally, Readfield adopted the Marijuana Establishments Ordinance intended to locally regulate the presence of marijuana (adult-use recreational and medical) in the town. As of July 2020, medical marijuana manufacturing, testing, and caregiver retail stores are allowed and adult-use-only recreational cultivation facilities. Although the medical marijuana program has existed in Maine for a while, the recent changes in the medical program and the launch of the adult-use recreational program could certainly have impacts for Readfield.

There are several organizations in Readfield who are actively working to protect farm and forestland. They are detailed below:

The Kennebec Land Trust (KLT) works cooperatively with landowners and communities to permanently protect and conserve forests, shorelands, fields, and wildlife habitat. This is done by donation, fee purchases, and conservation easements. KLT offers educational programs and field trips for schools and other interested organizations, on relevant natural history, land stewardship, and conservation themes. They have also created miles of trails, conduct ongoing monitoring, and land management.

Maine Farmland Trust is a member-powered, statewide organization that protects farmland, supports farmers, and advances the future of farming. They strive to protect Maine farmland and to revitalize Maine's rural landscape by keeping agricultural lands working and helping farmers and communities thrive. They accomplish this by working with farm families, and collaborating with other partners such as statewide groups, local and regional land trusts and municipalities.

Land for Maine's Future (LMF) is the primary funding vehicle for conserving land for its natural and recreational value. Types of land conserved by this program include mountain summits; shorelines of rivers, lakes, and ponds; coastal islands; beaches; forests; grasslands; wildlife habitat; farmland; and wetlands. Land acquired is only from willing sellers. The LMF pursues a mission defined by the public, providing a tangible return to everyone who cherishes Maine's landscape (from hunters, to hikers, snowmobilers to bird watchers), and leverages both federal and private funding for state priority purchases.

Farmland Protection Efforts:

Since the 2009 Comprehensive Plan, Readfield has continued to promote agriculture throughout the town. The Plan's goals and policies focused around promoting conservation and management of agricultural resources to continue the viability of businesses that rely upon them. The appendix map *Prime Farmland & Soils Map* identifies the prime farmlands found throughout Readfield as well as the conserved land owned by a variety of different State and Federal offices. The 2009 Comprehensive Plan also called for agriculture to be included in town economic planning via the Farmland and Tree Growth Property Tax programs and other opportunities to promote local agriculture.

The state has many provisions available to farmers for their protection and to aid them in continuing operation of viable farms. One such provision is Maine's Agriculture Protection Act (commonly known as the Right to Farm Law) that protects farmers from complaints regarding odors, noise, and other aspects of farming operations. Another provision is Maine's Voluntary Municipal Farm Support Program. Through this program, towns are allowed to develop a system of "farm support arrangements" with eligible farmland owners. The farmland owners voluntarily apply and may then be formally accepted by the town's legislative body. If accepted, they may be granted a 20-year agricultural conservation easement to the town in exchange for full or partial reimbursement of property taxes on their farmland and farm buildings during that 20-year period.

The state also offers multiple tax programs aimed at improving and protecting the business of farming. There are three current-use tax programs that relate to farming or agriculture in Readfield: Farmland Tax Law, Open Space Tax Law, and Tree Growth Tax Law (Tree Growth will be addressed later in this chapter). The Maine Legislature declared in the Farm and Open Space Tax Law (Title 36, MRSA, '1101 et. seq.), that "it is in the public interest to encourage the preservation of farmland and open space land in order to maintain a readily available source of food and farm products close to the metropolitan areas of the state." These programs are detailed below:

• <u>Farmland Tax Law:</u> This tax law was adopted to encourage the preservation of farmland and open space land and to protect farmland and open space land from competing with higher-valued uses. The farmland program provides for the valuation of farmland based on its current use as farmland, rather than based on its fair market value for other potential uses. This reduced land value results in lower property tax bills for owners of farmland. Lower taxes are designed to act as

an incentive to preserve Maine's farming communities. In addition to reducing the farmland owner's tax burden, the municipality avoids costs associated with development and state subsidies are positively impacted.

<u>Open Space Tax Law</u>: This law provides for the valuation of land based on its current use as open space, rather than its highest and best use. To qualify for open space classification, land must be preserved or restricted for uses providing a public benefit. This classification encourages landowners of open, undeveloped land to prevent or restrict its use from development by conserving scenic resources, enhancing public recreation, promoting game management or preserving wildlife, and/or wildlife habitat. This is mutually beneficial, as the landowner's proportionate tax burden is reduced, the municipality avoids costs associated with development, and state subsidies are positively impacted.

	2010	2020	% Change
Number of Parcels	18	32	77.8 %
Acres First Classified	0	0	0
Cropland Acres	420	622	48.1 %
Cropland Valuation	\$70,504	\$130,859	85.6 %
Woodland Acres	633	991	56.6 %
Woodland Valuation	\$170,680	\$359,016	110 %

TABLE 3: PARCELS OF LAND IN READFIELD ENROLLED IN THE FARMLAND TAX LAW

TABLE 4: PARCELS OF LAND IN READFIELD ENROLLED IN THE OPEN SPACE TAX LAW

	2010	2020	% Change
Number of Parcels	7	9	28.6 %
Acres First Classified	0	447	100 %
Total Acres	427	451	5.62 %
Total Valuation	\$32,900	\$59,135	79.7 %

There are also many publicly sponsored programs to support local agriculture including the Maine State Grange, University of Maine's Sustainable Agriculture program, and Farmlink Program through Maine Farmland Trust, which matches prospective farmers in search of land with retiring farmers in search of successors, to name a few. Additionally, the DACF has put a great deal of effort into marketing local agriculture, from promotions like Maine Maple Sunday and Open Farm Days, to support of farmers' markets and institutional buying.

To date, the proximity of new homes or other land uses has not affected the normal farming or logging operations in Readfield. Due to the town's geographical location and the demographics of its residents, there are no large tracts of agricultural or forest land that have been or may be sold in the foreseeable future. The town has an active Conservation Commission that takes steps to prevent these situations from arising.

Generally, the only potential scenario that would result in the loss of farmland or forest land would be for solar farm development. Even with this type of development, the application would still require approval through town officials and Readfield has an ordinance governing the allowable location for solar farms.

Forestry:

Forests provide many values to the Readfield community in addition to supplying a source of wood and income to landowners and residents, and local sawmills. Forested areas typically collect water in the landscape by intercepting precipitation thereby reducing the volume and rate of runoff as well as reducing soil erosion and phosphorus loading in lakes, streams and ponds. Forests also retain soil moisture across a broad landscape that may otherwise be subject to larger seasonal flooding and its associated erosion problems. Additionally, forests provide habitat and travel corridors for wildlife, outdoor recreational areas, and they purify the air.

Readfield's tree coverage, depicted in the *Tree Canopy Map* in the appendix, shows a significant forested area across the town. A rough estimation is that between 70-80 percent of Readfield is covered by forestland. Small tree plantations, many of which sprung from the Civilian Conservation Corps era, are scattered throughout the town and are often adjacent to agricultural land use. Wooded areas are functionally divided into coniferous softwoods, deciduous hardwoods, and mixed forests. Wooded areas may also include tree plantations, managed and unmanaged forests, and some developed areas where a closed canopy obscures the view of urbanization and suggests a relatively lower density of development.

Forestland comes in many shapes and sizes. While there are no industrial forest ownerships in Readfield, there are a number of large land holdings of both managed and natural forest. There are several tracts of recently cut land as well as plantations, Christmas tree farms and mature forest.

YEAR	Selection harvest, acres	Shelterwood harvest, acres	Clearcut harvest, acres	Total Harvest, acres	Change of land use, acres	Number of active Notifications
1993	516	191	5	712	0	19
1998	617	103	16	736	2	22
2003	202	81	0	283	20	19
2008	185	7	0	192	0	16
2013	114	3	0	117	27	11
2018	259	0	0	259	0	21
Total	1893	385	21	2299	49	108
Average	316	64	4	383	8	18

TABLE 5: FORESTRY HARVEST INFORMATION

Source: compiled from Confidential Year End Landowner Reports to Maine Forest Service.

Tree Growth Tax Law Program:

As of 2020, 79 parcels were classified as Tree Growth properties under the State's Tree Growth Tax Law Program (Table 6). This program, like the Farmland and Open Space Tax Law Programs, provides landowners an opportunity to have their land valued for its productivity rather than its market value. Over the course of the last decade, there has been a 25.4 percent increase in the number of parcels participating in this program and an increase of 13.6 percent of total acres enrolled in Readfield's Tree Growth Tax Law Program. The biggest increase, at 80.6 percent, is the total value of the land in this program. This is not surprising considering the increased value of land over the last decade.

	2009	2020	% Change
# Of Parcels	63	79	25.4%
Softwood Acres	418	440	5.26%
Mixed Wood Acres	1674	1,934	15.5%
Hardwood Acres	856	975	13.9%
Total Acres	2949	3,350	13.6%
Total Value	\$643,582	\$1,162,004	80.6%

Source: 2020 Municipal Valuation Return

In contrast to the Farmland Tax Law and the Open Space Tax Law Programs, the State reimburses municipalities for a portion of lost tax revenues from properties enrolled in the Tree Growth Tax Law Program. Additionally, local participation is typically higher because this tax law allows multiple uses on the designated property, as long as the parcel remains primarily used for the growth of trees to produce forest products that have commercial value. As with the Farmland Tax Law and the Open Space Tax Law Programs, land withdrawn from the Tree Growth Tax Law Program before maturity is subject to financial penalties.

The town of Readfield owns a 110-acre parcel of land known as Readfield Town Farm and Forest. This abuts and includes the 100-acre MacDonald Conservation Area. The Town Forest is managed for conservation of natural and historic features, recreation, and timber production. It is overseen by the Conservation Commission, whereas the MacDonald Conservation Area is overseen by the Kennebec Land Trust. Neither parcel is currently under threat of any kind.

Agriculture & Forestry Chapter