

# Chapter Eight:

## Agriculture and Forestry

### State Goal:

To safeguard the State's agricultural and forest resources from development which threatens those resources.

### Legislative Requirement:

*The Act requires that each comprehensive plan include an inventory and analysis of:*

Commercial forestry and agricultural land.

*In addition, the Act requires that the implementation section of the plan:*

Ensure the protection of agricultural and forest resources. Each municipality or multimunicipal region shall discourage new development that is incompatible with uses related to the agricultural and forest industries.

Comprehensive Planning and Land Use Regulation Act. MRSA Title 30-A, §4312.3.H; §4326.1.E; §4326.3-A.F. (2001). Retrieved on October 17, 2005 from <http://janus.state.me.us/legis/statutes/search.asp>

### Sources of information

People who have personal knowledge about commercial forestry operations should be contacted since the best fact finding will be with farmers, foresters, tree farmers, and/or forest landowners to discuss their management programs and long-term outlooks.

Summary information on major commercial farms is available at the zip code level from the 2002 Census of Agriculture and the Maine Department of Agriculture, Food and Rural Resources. Detailed information is available by county. The Maine Forest Service has published a guide for conducting an inventory of a community's forest resource: *What do trees have to do with it? A Forestry Guide for Communities*.

Specifics on the number and kinds of active farms or commercial wood lots are also available from the Maine Department of Agriculture, Food and Rural Resources. The County Soil and Water Conservation District or University of Maine Cooperative Extension County Extension Office has knowledge about agricultural operations, as may a representative of the Maine Forest Service.

Soils prime for agriculture and forestry are mapped by the Natural Resource Conservation Service (NRCS). See NRCS' Soil Survey by county, and the accompanying county publication, *"Soil Survey Data for Growth Management."*

Information about the number of lots and acreage in your community that are enrolled under either the Farm and Open Space Tax Act (36 MRSA Sec. 1101) or the Tree Growth Tax Act (36 MRSA Sec. 573) is available from the municipal assessor.

**M**aine is more than 310 miles long and 200 miles wide, with a total area of 33,215 square miles – as big as all other New England states combined. Much of the attention of a comprehensive plan is focused on houses, stores, factories, and roads. However, 17 million acres, or nearly 90% of Maine's land, are forested. Another 1.3 million acres or 6% are occupied by farms. Even considering southern and mid-coastal counties alone, on the order of 50% to 55% of land area still was in farms, forests, and woodlots at the turn of the 21st Century. This open space is shrinking in the face of spreading development.<sup>1</sup>

As of 2002, Maine's agricultural producers and processors contribute over \$1.2 billion annually to the State's economy and employ 65,000 people. Agriculture is one of our primary forms of wealth creation and economic development. It makes good fiscal sense to retain farmland in your town when possible. National data show that for every dollar of tax revenue collected, farmland produces an average surplus of \$.64. Residential uses consistently cost more than the revenue they produce, requiring an average of \$1.15 in municipal services for every dollar paid in taxes.<sup>2</sup>

Farms and forestland have other values. They provide wildlife habitat. They provide open space and recreation for people. They provide scenic landscapes. And they provide support for a way of life which has endured for centuries in Maine, and which has done much to define Maine's character and landscape.

Inventories and analyses in this section will establish the contribution of agriculture and forestry to the local and, if applicable, the regional economy.

To understand the local impact of agriculture it is important to discover how many people are employed locally or regionally either in production or management of natural resources or in related, value-added activities such as food processing, cheese production, lumber milling, paper milling, etc. Obtaining a clear understanding of the range of products produced in the area helps establish their local/regional economic importance.

In the past, many comprehensive plans recognized the importance of farm and forest land, but few have planned

how to preserve and protect it. There are several explanations:

First, in many communities the idea that truly “rural” areas should be working landscapes has been lost. The best way to protect the land is keep it active and farming a viable business. Yet, for many, “rural” means simply the presence of enough trees or fields between houses that one family can’t see the next. Fewer and fewer “rural” areas now include people who actually make their livings from the land. They have been replaced by a new suburbia that has tried to keep a “rural” face. Zoning ordinances have sanctioned this problematic trend with the enactment of 2-acre, 3-acre, or 5-acre minimum lot sizes, intended to “preserve the rural character” of the community.

Second, farming and forestry operations need a land base to be viable. Large-lot zoning (with 2-, 3-, or 5-acre lots) has eroded the land base rather than preserved it. A viable farm or woodlot needs substantial acreage. For example, one cow needs  $\frac{1}{2}$  acre grazing space in Maine; the smallest viable herds need 50 to 100 acres. The optimal size for small woodlot management is upwards of 200 acres. Once carved into suburban house lots—even oversized suburban house lots—manageable farm or forestry units are gone.

Third, farming and forestry need economically viable conditions. Municipal comprehensive plans can do little to create markets for agricultural and forest products (though they can encourage local farmer’s markets and local transactions). But property taxation; the crowding of working lands by homes and other uses that might consider farm and forest operations a nuisance; and sewer and water line extension policies that promote residential development into rural areas all affect the economics of farming and forestry. Municipalities can consciously influence or control these factors.

Finally, as sprawl occurs, land is increasingly seen by farmers and forest land owners as their last cash crop; especially among farmers nearing retirement age, or those who rely on their land value as both a bank account and insurance policy. Politically, restrictions on land use can be a hardship. Most municipalities have neither been willing to impose restrictions nor been able to find ways to mitigate the financial impacts of restrictions. As a result, they have settled on large-lot zoning as the least controversial tool.

### Questions for farmers

Questions a committee member might ask a farmer:

- How many acres is your farm?
- What is it like to farm in this town?
- How does development affect your farm?
- What could the community do to make it easier for farmers to keep their land in farming?
- What types of products do you sell?
- Do you rely on local markets for any of the products you sell?
- What would cause the farmer to develop his/her land?
- What would heirs likely do with the land?

Questions for consumers, neighbors, and other citizens who may benefit from local agriculture and forestry:

- Do you live in your town because of its:
  - Scenic views?
  - Open spaces?
  - Wooded spaces?
  - Active farms?
- How does the current landscape impact your daily life?
- Are you a member of your town’s conservation committee or land trust?

### Current Use Tax laws

**Provisions of the Farm and Open Space Tax Program (MRSA Title 36, §1101–1121):**

- Working farmland and open space are assessed at their current use value.
- Eligible farmland includes 5 or more contiguous acres of working farmland, that produces an annual gross income of \$2,000 per year in one of the 2, or 3 of the last 5 years.
- Income can be derived from the value of commodities sold and/or produced for consumption by the farm household.
- Landowners who lease land to farmers may use the farmer's evidence of income to become eligible for this program.
- All ordinary Open Space is eligible for a reduction of 20% of the standard value. If the land is permanently protected, deemed forever wild, or provides guaranteed public access, it is eligible for reductions of 50-95%.

**Provisions of the Tree Growth Tax Program (MRSA Title 36, §571–584-A):**

- Land must be used primarily for growth of trees and forest products and be at least 10 acres.
- Land may also be used for public recreation.

Refer to the Maine Revenue Services Web site: [www.maine.gov/revenue](http://www.maine.gov/revenue) for current information bulletins that describe the tax code in more detail, or contact the Maine Department of Agriculture at 207-287-3491.

The state's goal of protecting agricultural and forest resources challenges the planning committee to meet the goal in a way that (1) distinguishes the genuine rural landscape from the suburban landscape and (2) is politically acceptable.

## Inventory and Analysis

### Conducting the inventory and analysis

The inventory and analysis of agriculture and forestry can proceed in several steps, moving from the “people” aspects of the issue to more abstract “data” and “mapping” activities.

### Agriculture, commercial forestry and related activities

It's worthwhile for members of the committee to contact major farmers and commercial woodland owners both in town and close by in neighboring communities to identify their principal crops, products, or markets, to gain an understanding of the problems facing their operations, and to assess their outlooks. This personal contact will give substance to the analysis of farm and forestry issues. It also will be a chance to familiarize these key rural land owners with the comprehensive plan and to encourage their involvement. Since it helps considerably if farmers and woodland owners are represented on the comprehensive plan committee, this is an opportunity to form a working subcommittee for the comprehensive plan to gather data and provide analysis necessary for this inventory.

Find local farmers and or woodlot owners for this inventory through the following sources:

- Local contacts with knowledge of farming and forestry activities.
- Maine Department of Agriculture, Food and Rural Resources.
- County Soil and Water Conservation District working in partnership with the US Department of Agriculture Natural Resource Conservation Service (NRCS) can provide an overview of agricultural issues in the county.
- University of Maine Cooperative Extension office, foresters, and the Maine Forest Service.

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- Local assessor for data on those parcels enrolled under the Tree Growth Tax Program or the Farm and Open Space Tax Program.

Once these contacts have been made, the committee can tabulate the number of farms and their acreage and the number of managed woodlands and their acreage in the town. These should be mapped on a parcel base map or the current land use map.

Types of agriculture and woodland enterprises in and around your community may include:

- Certified tree farms, which are designated under a separate program and are identifiable by the diamond-shaped tree farm signs posted on participating properties.
- Orchards and fruit-producing farms, either standard or dwarf/semi-dwarf varieties.
- Dairy farms.
- Livestock farms.
- Crop farms.
- Small fruit and vegetable farms.
- Nursery.
- Turf, greenhouse, and florist farms.
- Parcels used for hay production.

**Table 8-1: Profile of Agricultural and Forestry Land Use for “Treeville, Maine”**

Enterprise Type (number of farms)	Land Use Type (acres)							Total Acreage
	Nursery stock, ornamental	Pasture	Hay land	Other animal feed crops	Annual Fruit, Vegetable, and Flowers	Orchard	Perennial crop	Certified Tree farm
Commercial Forest (7)								12000
Christmas Tree Farm (1)								150
Dairy Farm (2)		70	200	200				400
Orchard (1)	25		100			100		225
Livestock Farm (2)		100	200					150
Diversified Crop Farm (2)	10		40		50		10	100
Pick-your-own berry farm (1)	10					10	20	40
Nursery and Greenhouse (4)	15				20		10	45
Hay Operation (2)			800					800
Total	60	170	1340	200	70	110	40	12800



In addition to identifying farms and commercial woodlands, other trees or wooded areas of importance may be found in the community. These include street trees, park trees and wooded lots in urban areas. These community trees perform several functions: they are cooling in summer, they help to filter pollutants, they improve human health, and they are important aesthetically to neighborhoods and streetscapes. If these are important to the community, their presence or absence in neighborhoods or along roadways should be noted.

Create a Profile of Agriculture and Forestry Land Use to help gather information. A sample chart is provided below. Keep in mind that some important agricultural enterprises may be in neighboring towns. Taking note of these enterprises and their related land use types is important to establishing how your community fits within the region. It may impact later decisions on the future land use map or it may help to identify related activities within your community.

Related activities

**New Opportunities**

- **Municipal and On-Farm Composting.**
- **Agricultural Tourism.**
  - Hay rides.
  - Corn Mazes.
  - Petting Zoos.
  - Cross Country Skiing.
- **Farm stands.**
- **Farmer's Markets.**

The viability of farming and forestry is related, in part, to availability of supporting services and market outlets. For example, even if the community does not have many farms, there may be activities in the community that contribute to a regional agricultural economy.

Activities include:

- Food processors.
- Equipment dealers.
- Repair and maintenance services.
- Feed stores and other suppliers.
- Hay dealers.
- Wholesale buyers.
- Saw mills, paper mills, bolt mills, veneer mills.
- Biomass boilers.

- Veterinarians.
- Trucking firms.
- On-farm composting facilities.
- Foresters.
- General Contractors.
- Timber Operators.

Create a new chart to help gather information on local and regional agricultural related businesses and resulting employment numbers in and around your community:

Ownership patterns

Assessor's records will tell you whether farm and forest land is owned by few or many owners, and whether parcels now used for farming are leased. This information may signal how vulnerable or stable farming or forestry is in the community. The greater the number of persons involved in farming and the greater the number of farmers who own the farmed land, the more stable the outlook will be.

**Table 8-2: Profile of Agricultural and Forestry Infrastructure for “Treeville, Maine”**

	Related Activities (Number of employees)								
Enterprise Type (number of farms)	Food Processors	Timber operators	Equipment Dealers	Repair and Maintenance Operations	Wholesale Buyer	Veterinarians	Trucking Firms	Hay Dealers	Total Employment
Commercial Forest (7)		6			4				10
Christmas Tree Farm (1)			2		4		4		10
Dairy Farm (2)	6		4	4		2	4		20
Orchard (1)	2		2	1	4		2		11
Livestock Farm (2)			1	2		2	1	2	8
Diversified Crop Farm (2)			1	2	1		2		6
Pick-your-own berry farm (1)									0
Nursery and Greenhouse (4)			1	1			1		3
Hay Operation (2)								2	2
Total	8	6	11	10	13	4	14	3	70

### Resource base

The natural resource base consists of soils and plant life that covers the land.

Land cover refers to the activity that occupies the land. Much land cover is plant life. Land cover also includes roadways and other paved areas, buildings, excavated lands, etc. Information on land cover comes from aerial photographs, which may or may not be available to the community. (If they are available at a sufficient scale, a land cover map can be created.) The map can classify land cover at different levels of detail, depending on importance of farming and forestry in your community. The simplest classification is: agricultural land, forested land, and urban or other disturbed land. If the issue warrants it, agricultural and forested land can be further classified as follows:

Soils that are especially suited for agricultural or forest production have been identified by NRCS. These are mapped for each county in the NRCS “Soil Survey Data for Growth Management,” also available as digital data. For most of the state, NRCS makes this information available on their web site. Your regional planning council can also aid in accessing this information.

Those soils that are most productive are labeled “prime farmland” and “farmland of statewide importance.” Both groups of soil types should be added to the summary

### Soils definitions

#### Prime Farmland

The U.S. Department of Agriculture defines prime farmland as land that is best suited to producing food, feed, forage, fiber and oilseed crops. It has soil quality, growing season, and moisture supply needed to produce a sustained high yield of crops while using acceptable farming methods. Prime Farmland produces the highest yields and requires minimal amounts of energy and economic resources, and farming it results in the least damage to the environment. Prime Farmland is a limited strategic resource. No more of it is being created.

#### Soils of Statewide Importance

This is land, in addition to prime and unique farmlands, that is of statewide significance for the production of food, feed, fiber, forage, and oilseed crops. Criteria for defining and delineating this land are to be determined by the USDA Natural Resources Conservation Service. Generally, additional farmlands of statewide importance include those that are nearly prime farmland and that economically produce a high yield as prime farmlands if conditions are favorable.

constraints and opportunities map as at least a significant constraint to development. This is an important step, as these soils are also often well suited for development, but once used in this fashion no longer available for farming and resource production. How your community wishes to treat these soils should be an important point of discussion.

Not all farm or forest soils are used for farming or forestry; conversely, there are farms and managed woodlands on soils that are not considered ideal for optimum production. Your analysis should describe where the “prime farmland” and “farmland of statewide importance” soils are located and their present use. The following list of uses is a good start.

#### Agricultural Use:

- Pasture.
- Tilled crop land.
- Orchard.
- Abandoned open land in the early stages of returning to forest.

#### Forested Use:

- Mature forest (large, harvestable trees).
- Young forest (smaller trees, harvestable in 10 to 30 years).
- Cut-over forest.

#### Analyze how land use trends may be affecting farm and forest operations

Is farm or forest land being converted to residential or other land uses? Check subdivision and building permits for the last 5 to 10 years to quantify amount of activity on farm and forest lands. Is this trend likely to continue? Analysis should also include an inventory of land uses

around existing farms and commercial forest land and an assessment as to whether these are compatible uses. Incompatible uses typically include residences, strip commercial activities, and commercial/ industrial uses that are not serving agricultural or forestry operations. Compatible uses include commercial/industrial uses that serve agricultural or forestry operations.

#### Identify specific trends affecting viability of existing operations in the short and long term

To analyze the future of farming and forestry operations in the community, look at:

- General trends in changing land use.



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- Degree of current use protection through the Tree Growth Tax Program and Farm and Open Space Tax Program.
- Current level of land regulations that either promote or inhibit working lands.

Assess positive and negative pressures that will affect agriculture and forestry over the next 10 years. Are negative trends primarily economic and not related to pressures of land use and land values (i.e., lack of markets, operators reaching retirement age without younger people succeeding them, etc.), or is part of the problem related to land use and land values?

### **Issues and Implications**

The following are examples of typical issues and implications raised by an inventory and analysis of agriculture and forestry:

- Is agriculture or forestry economically important to the community? If so, is it stable or declining? If not, are farms or woodlots that do exist in the community important for other reasons: for scenic landscapes, wildlife habitat, outdoor recreation, or as reminders of their historic role in the community?
- If farmland is being lost, is it due mostly to economic conditions over which the community has little control? Or are land use patterns and land values contributing to its conversion to other uses?
- Even if the community has few farms or commercial woodlands at present, are there undeveloped parts of town in which prime farmland or forest soils are prevalent? Does the community wish to protect this resource for a time when transportation costs may rise and farming close to the consumer may be more profitable?
- Are farm and commercial forest land owners taking advantage of the state's current use tax laws? If so, do these provide sufficient protection? If not, is it due to lack of knowledge about them, or because the land owners do not believe the benefits (reduced taxes) are worth the limitations (of not being able to sell their properties in the future without penalty)?
- Does the community's zoning ordinance recognize farm and forest lands as unique assets? Or are these lands zoned like other rural or residential areas, with suburban scale development permissible?
- Are farmers or commercial woodlot owners concerned about encroaching development? Do they favor protective measures? Or do they foresee selling all or part of their holdings in the future?
- Has proximity of new homes or other incompatible uses restricted farms or woodlot owners in their normal operations, which may be considered a nuisance to nearby residents? Do other regulations, such as restrictions related to wetlands, unduly limit ability to farm or harvest timber?

- Is clearcutting an issue in the community? Is the clearcutting related to normal woodlands management, or is it in preparation for land development?
- Are there ways to protect woodlands, not only as an end in and of itself, but as a means to meet other goals, such as the protection of water quality, scenic value, and rural character?
- Does the community have, or need, a street tree or other tree planting and maintenance program in the built-up part of the community?

## Policies

After discussing the issues and implications, proposed policies will emerge. The types of policies the planning committee may want to consider fall into five broad categories:

1. **Protection of the resource**—that is, prime farm and/or forest soils. These policies will tend to focus on measures such as land use controls or acquisitions to try to assure that the resource is not preempted by another use.
2. **Protection or enhancement of economic ability** of existing farms or forestry operations to continue operations. These policies will include measures to try to keep the farm's or woodlot owner's operating costs from going up (as the result of utility line extensions or rising property taxes, for example), and/or to try to assure that the operator has the ability to use the property for cash flow (by being able to sell development rights, for example, or to sell a portion of land without sacrificing the operation).
3. **Policies related to the right to farm** or manage woodlands without fear of nuisance suits from encroaching development.
4. **Policies related to markets**, that is, policies that consider farming and forestry as part of the community's economic development strategy (for example, by encouraging outlets for farm goods to locate in the community or region, allowing roadside stands, working to establish a farmer's market, etc.).
5. Provision, at the municipal office, of **information about sources of professional assistance**, both governmental and private, for farmers and forest landowners.

## Implementation Strategies

Municipalities must include implementation strategies that “ensure protection of agricultural and forest resources. Each municipality shall discourage new development that is incompatible with uses related to agricultural and forest industries.” To fulfill this mandate, comprehensive plans should contain practical, specific strategies. Strategies that might flow from proposed policies include:

### Protect the resource

- Inclusion of farm and managed forest lands (unless obvious conflicts exist) in a designated rural area.

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- Assuming that development will not be entirely banned from such a designated rural area, the adoption of measures to assure that viable farm and forest lands are not carved into lots too small for agricultural and forestry operations. Approaches include:
  - Minimum lot sizes large enough to support at least small farm and woodlot operations (probably 10 to 25 acres plus).
  - Mandatory open space zoning (conservation subdivisions) for any development that includes farm or commercial forest land, with open space large enough and designed such that farming and forestry operations can continue within required open space area.
  - Maximum lot size-maximum density, in which a farmer or woodlot owner can sell off a small lot (no larger than one or two acres), and for each lot sold places a certain additional amount of land under easement for farming or woodlot management. This would enable a maximum density of (say) one dwelling unit per 25 acres.
  - Adoption of an agricultural or forest protection district. Such a district might not only employ the approaches above, but also restrict land uses to those compatible with farming and forestry operations.
- Limiting encroachment of incompatible land uses through standards, such as requiring buffers on the land of the nonagricultural use.
- Restricting topsoil mining on parcels with more than 10 acres of prime farmland soils.

### **Enhance economic ability**

- Consider a program—either transfer of development rights or purchase of development rights—by which the farm or forest landowner can receive compensation for the reduced right to develop imposed by other land use controls. A variation of this tool could be a program for leasing of development rights, which could provide for annual payments in return for keeping the land in farming or forestry. It should be noted that any development rights program is complex and deserves study before moving ahead with recommendations.
- Encourage farm and commercial forest landowners to enroll in one of the state's property tax programs to tax forest, farm, and open space lands consistent with their current use.
- Assure that water and sewer extensions do not unnecessarily pass active farm and forest lands, requiring the payment of front foot assessments and/or the payment of increased property taxes as a result of high property values.
- Allow occasional sale of relatively small residential lots in return for easements that protect viable amounts of farm or forest land (see maximum lot size-maximum density, above).

### **Protect the right to farm/manage woodlands**

- Include “right to farm/manage woodlands” provisions in the zoning ordinance. These provisions would give farming or forestry operations protection against nuisance suits (for odor, noise, etc.). There are legal limits to these provisions, so consultation with the Department of Agriculture or town counsel is advised.
- Encourage use of “best management practices” in operations of farm and woodlands as an alternative to urban-type land use regulations aimed at protecting water resources.

### **Encourage markets**

- Allow sale of produce grown on the premises.
- Develop a local farmer’s market.
- Develop a relationship between local farmers and school lunch programs or senior programs in your area.
- Prepare a comprehensive inventory of local farm products and distribute it widely.
- Work with the local chamber of commerce or other economic development organization to encourage location of industries and businesses that will purchase raw goods of farm and forestry operations. Review the zoning ordinance to assure that existing outlets can continue.

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## References

<sup>1</sup> Richert, E. (2004). Land Use in Maine, 1960 to 2000: From Production to Consumption. In Changing Maine R Barringer, ed. Tilbury House.

<sup>2</sup> Maine Department of Agriculture, Food & Rural Resources. (June 2003). Saving Maine's Farmland: A Collaborative Action Plan.

## Other references:

Maine Revenue Services Property Tax Bulletin #18: Farm and Open Space Tax Law.

Maine Revenue Services Property Tax Bulletin #19: Maine Tree Growth Tax Law.

Parish, Kristin R. ( 2000). What do trees have to do with it? A forestry Guide for Communities. Maine Forest Service.

Publications of the Maine Department of Agriculture, Food and Rural Resources with county by county listings, for example:

- Farms, Farmstands & Farmer's Markets of Maine.
- Maine Maple Sunday and Other Maple Days.
- Get Real Maine by Mail Guide to Maine Food and Farm Products.
- Yearly publication of County Profile of Maine Agricultural Enterprises.

American Farmland Trust. (1997). Saving American Farmland: What Works.

Natural Resource Conservation Service. Soil Survey Data for Growth Management.

Stokes, Samuel N. (1989). Saving America's Countryside: A Guide to Rural Conservation. The Johns Hopkins University Press.

## Web sites:

Maine Department of Agriculture, Food and Rural Resources  
<http://www.maine.gov/agriculture/>

Maine Farmland Trust  
<http://www.mltn.org>

Maine Revenue Services  
<http://www.maine.gov/revenue/>

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