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A Comfortable Subsistence: The Changing Composition of Diet in Rural New England, 1620-1840

Sarah F. McMahon

ON April 21, 1658, John Greene of Charlestown, Massachusetts, in his last will and testament, instructed his executor to care for his widow "so far as her necessary occasions shall require" and to provide food, clothing, and fuel "for her more comfortable supply all the time of her life." More than a century-and-a-half later, Abel Fletcher, a gentleman residing in Boxborough, Massachusetts, made similar provisions. His will, written in 1817, guaranteed for his wife "an ample, easy and comfortable maintenance . . . so that the evening of her days may be as easy and pleasant as outward good things can make it."¹ These wills are in some ways strikingly similar. The testators were prominent members of their communities. Each wished to preserve his wife's accustomed standard of living, and the directions for providing foodstuffs conformed to the customary practices of rural New England families. Every year, the widows were to receive an allowance of food comprising grains harvested from the family fields, vegetables and fruit grown in kitchen gardens and orchards, butter and cheese from the dairy, and beef and pork from the livestock that grazed on the farmstead.² The provisions of such wills,

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¹ Registry of Probate, Middlesex County Probate Court, Cambridge, Mass., I, 174 (1658), CXLIII, 9 (1817).

² The food produced on many early New England farms was intended primarily for home consumption. Yet even the most self-reliant farmers needed tools and foods that they could not produce. After setting aside sufficient stores for the family, they traded the surplus for "West India goods," that is, necessary condiments such as salt, white sugar, and molasses, as well as luxuries such as rum,

sampled for a span of over two centuries, furnish an index of both continuity and change in the style of living in the New England countryside. For while the care to provide a "comfortable subsistence" remained constant, the substance of that supply changed in significant ways.³

This article draws on probate records and other sources to explore, establish, and analyze changes in the composition of diet in rural New England between 1620 and 1840, treating the subject both as a problem in the history of diet and as an indicator of broader economic, cultural, and social developments. The essay first describes adaptations in the production and preservation of each of the staple foods that composed the diet.⁴ It then combines those trends to outline the changing composition of the food supply from the early seventeenth to the mid-nineteenth century. Finally, it offers a new interpretation of the changes.

Such an inquiry goes beyond most of the current literature on the history of diet and the culture of food in America. In doing so, it challenges the standard view of early American diet as plentiful, narrow, and fundamentally unchanging through the colonial and early national periods. This has been the conventional wisdom on the subject, perpetuated by popular and scholarly historians alike since the 1940s.⁵ The tenacity of this interpretation is due in part to the narrow frameworks in which previous studies have been organized. For example, the publication of Evan Jones's *American Food: The Gastronomic Story* inaugurated a trend in

tea, and spices. Widows' allowances often contained either a yearly sum of money for such purchases or the guarantee that the executor of the will would provide "all other necessities."

³ In Apr. 1766, Benjamin Monroe of Lincoln instructed his executor to supply his wife with "sufficient provision for her comfortable subsistence" (Registry of Probate, Middlesex Co., XXIV, 84). Although the phrasing of the "comfortable subsistence" varied from will to will, perhaps reflecting particular conceptions of the quality of daily fare, the general intention seems to have been the same.

⁴ This article deals with staples produced on Massachusetts farms rather than with purchased foods. As a consequence, it is a study of the basic rather than the total diet. Furthermore, given the nature of the sources used, it concentrates more heavily on foods that were preserved and stored than on fresh foods that were quickly eaten. It treats the composition of the diet rather than its nutritional implications.

⁵ This interpretation was set forth initially by Richard Osborn Cummings, *The American and His Food: A History of Food Habits in the United States* (Chicago, 1940). Osborn begins his study in 1789; his chapter on rural diet from 1789-1840 assumes no change in the composition of the diet. The standard interpretation of a fundamentally unchanging rural diet is the result of three misconceptions. First, there is a tendency to assume that the diet was plentiful from the beginning (or at least after the first years of adjustment) and that few changes in its composition would occur until new foods were introduced. Second, the influences that might have caused changes in the early diet are limited to weather and religion. Third, diet is not examined as a result of decisions made by families who produced and preserved most of their staple foods.

popular histories of American food and eating habits. While these books offer an enjoyable fare of facts and anecdotes, their descriptions portray a persistent lack of culinary imagination paradoxically displayed by early Americans in the midst of a land of plenty.⁶ Historical anthropologists Mary Douglas and Jonathan Gross, in a recent study, examine foodways from a different perspective and offer a persuasive model for the study of food as a field of cultural analysis. Their work focuses on the social and historical significance of dietary customs, habits, traditions, and taboos.⁷ While both popular and anthropological historians explore the culture of food, neither group addresses the related issue of transformation in the composition of diet. By contrast, economic historians such as Paul A. David and Robert E. Gallman have investigated changes in American diet as an index of economic growth and standard of living.⁸ However, the aggregate statistics of food production and the ration schedules of the colonial militia that they examine do not necessarily correspond to the diet produced and consumed by individual households. And these statistical studies have not addressed either the causes or the cultural significance of such changes.

The present study sketches a very different and far more interesting story. Seventeenth-century rural New Englanders were intent on maintaining their traditional English fare, and their efforts produced a simple subsistence diet. A limited variety of stored provisions composed the winter staples, while the summer fare comprised fresh foods. Particularly in early spring, families with homesteads of modest size faced periods of scarcity as their supplies shifted between stored and fresh provisions. During the eighteenth century, many farmers began to modify the uses of their land and labor for food production. Sufficient quantities of tradition-

⁶ Jones, *American Food* (New York, 1972, rev. ed., 1981). See also Waverley Root and Richard de Rochemont, *Eating in America: A History* (New York, 1976), and Richard J. Hooker, *Food and Drink in America: A History* (Indianapolis, Ind., 1981).

⁷ Douglas and Gross, "Food and Culture: Measuring the Intricacy of Rule Systems," *Journal for the Anthropological Study of Human Movement*, I (1981), 139-165. I would like to thank Robin Yates for bringing this study to my attention. The *Journal of American Culture* devoted an entire issue to a "Focus on American Food and Foodways" (II, No. 3 [1979]). See, in particular, Angus K. Gillespie, "Toward a Method for the Study of Food in American Culture," pp. 393-406.

⁸ David, "Growth of Real Product in the United States before 1840: New Evidence, Controlled Conjectures," *Journal of Economic History*, XXVII (1967), 151-195; Gallman, "The Statistical Approach: Fundamental Concepts as Applied to History," in George Rogers Taylor and Lucius F. Ellsworth, eds., *Approaches to Economic History* (Charlottesville, Va., 1971), 63-86. Historical demographers have focused on the nutritional consequences of diet; their work, however, can suggest only broad outlines of change, and they are not concerned with the corresponding culture of food. See Mary J. Dobson and David H. Fischer, "The Dying Time: Crisis Mortality in America and England from the 17th to the 19th Century" (Social Science History Association, Nov. 1979).

al staples were produced and preserved to last through much of the year, while the role of supplementary foods was gradually expanded. By the nineteenth century, the continued extension of both stored and fresh provisions through the year afforded many rural households an ample, diversified fare.

This periodization immediately eliminates standard explanations that assume that either technological advancements or the new requirements of urban households were necessary preconditions of change in diet. The quantity and variety of customary foodstuffs in New England increased prior to the diffusion of innovations in farm-machine technology. The "deseasonalization" of the food supply began before the introduction of canning and refrigeration. In addition, rural women began to employ new methods of cooking foods and preparing meals before the nineteenth century, when the urban "cult of domesticity" raised expectations about women's work in the kitchen and a new wave of European immigrants introduced decidedly non-English variations in food preparation. The new interpretation of dietary change begins with the understanding that changes in the composition of the food supply and in diet took place within the traditional technologies of food production, preservation, and preparation.

This article proposes that, during the mid- to late eighteenth century, rural New England families began to alter their long-practiced methods of food production and preservation. The impetus came from two sources. Declining crop yields—the result of decreasing homestead sizes and soil fertility—necessitated new decisions about the allocation of land and labor if families were to maintain their standard of living. At the same time, growing involvement with the market (even on a surplus basis, as distinct from commercial farming) probably gave farmers a different outlook on agricultural production. In particular, it may have led to a new determination to control the composition of their food supply. Then, in turn, the wider variety of foods available throughout the year inspired new preferences and expectations about the preparation and consumption of meals.

Among the sources that provide information on New England diet between 1620 and 1840, estate inventories presented at probate court and widows' allowances as allocated in wills furnish the most ample and useful data.⁹ These records allow exploration of changes in the staples of the diet with regard to quantity, variety, and relative importance. They permit examination of seasonal fluctuations in the composition of the food supply. And they document changes in the distribution of foods among different socioeconomic groups.

This study is based principally on a sample of probate records from Middlesex County, Massachusetts, a county of considerable size and

⁹ For a methodological discussion of the use of probate records for the study of diet see Sarah F. McMahon, "Provisions Laid Up for the Family: Toward a History of Diet in New England, 1650-1850," *Historical Methods*, XIV (1981), 4-21.

diversity.¹⁰ Covering almost 850 square miles, Middlesex stretched from Charlestown and Cambridge on the shore to Ashby and Townshend on the New Hampshire border. Through the early eighteenth century it contained villages commencing frontier agriculture, as well as farming towns more or less involved in the market and towns near Boston whose inhabitants engaged in a range of commercial pursuits. As settlement expanded and new agricultural communities were established to the west and north, the growing commercial and industrial centers of Middlesex became less representative of New England as a whole. Nonetheless, the county's farther reaches still roughly typified much of rural New England.

Other sources extend the geographical scope of the study and provide a regional context for interpreting the Middlesex County data. Testimonies from the quarterly courts of seventeenth-century Essex County, Massachusetts, abound with anecdotes of daily life that include descriptions of diet, cooking methods, and eating habits. An early seventeenth-century journal and two diaries written at the end of that century portray the dietary experiences of prominent Bostonians. Autobiographies of over one hundred New Englanders born between 1733 and 1865 provide invaluable information on diet and the culture of food. New England farmers' almanacs and American cookbooks became popular sources of practical information in the late eighteenth and early nineteenth centuries. In combination, these sources confirm the representativeness of many of the generalizations gleaned from the Middlesex County probate records, and they suggest some differences as well.

Grains. Provisions were in short supply during the initial years of settlement in Massachusetts. Both the Pilgrims of Plymouth and the Puritans of Massachusetts Bay discovered that the rocky soil required "tyme and means" before its cultivation could meet their needs. They also knew that the production of grains was critical to their survival. In the spring of 1621 the Plymouth colonists planted their first crop of English grains, but their wheat and field peas "came not to good." Only the small harvest of Indian corn, planted and tended under the supervision of Squanto, a Wampanoag Indian, sustained the settlers through their second winter. The Massachusetts Bay colonists benefited from the experience of

¹⁰ I analyzed 1,215 inventories listing home-produced foods among the assets of the estate. The records are located in the Registry of Probate, Middlesex County Probate Court, Cambridge, Mass. I gathered inventories from six time periods: 1653-1674, 1711-1725, 1735-1747, 1766-1776, 1788-1795, and 1833-1835. I formed the sample by using listings of food as the criterion variable for inclusion. I selected a beginning date for each time period, and continued recording inventories until I had gathered approximately 200 inventories for each period. See McMahon, "Provisions Laid Up," *Hist. Methods*, XIV (1981), 6-15. For the study of widows' allowances I used 292 wills from Middlesex Co. written between 1654 and 1830. Since enumerated widows' allowances are present in a relatively small number of the Middlesex wills, I included *all* such wills.

Plymouth. Gov. John Winthrop wrote to his wife in 1630, "if we have corne enough we may live plentifully. . . . [O]ur Indian Corne answeares for all." The Puritans planted maize and English grains on abandoned Indian fields while they gradually cleared additional land. By the autumn of 1631 their labor paid off: Winthrop reported "a plentiful crop" that year.¹¹

Grain cultivation occupied a substantial portion of land and labor in early New England, and breads and cereals were prominent in the diet.¹² Dinners usually consisted of a meat stew or pottage served with bread, pudding, or cake. Johnny cakes, hasty puddings, grain porridges and gruels, and chunks of bread dipped in milk often satisfied appetites at the lighter repasts. But while the "staff of life" remained a staple of the diet through the early nineteenth century, significant changes occurred in the type of grains used to make it.

When the first colonists arrived in Massachusetts, they intended to plant wheat and rye, as well as oats, buckwheat, and field peas. They soon learned that the indigenous Indian corn was better adapted to the soil and climate. In each new settlement the early harvests of maize, supplemented by purchases of cereal from the Indians or from established New England towns, usually averted a "starving time" when both their shipboard supplies and the first small crops of English grain ran out. After three or four seasons European grains were sown alongside the Indian corn, and within a decade most families were supplied with a variety of English and Indian meals for their bread.¹³ Although wheat had been the basic bread

¹¹ John Winthrop to his wife, July 23, Nov. 29, 1630, Massachusetts Historical Society, *Winthrop Papers*, 6 vols. (Boston, 1929-1947), II, 304, 320, hereafter cited as *Winthrop Papers*; William Bradford, *Of Plymouth Plantation*, ed. Harvey Wish (New York, 1962), 76; Percy Wells Bidwell and John I. Falconer, *History of Agriculture in the Northern United States, 1620-1860* (Washington, D.C., 1925), 6; James Kendall Hosmer, ed., *Winthrop's Journal: "History of New England," 1630-1649* (New York, 1908), I, 69.

¹² Immeasurably helpful to me in understanding early New England farming have been numerous volumes, from the pioneering work of Bidwell and Falconer, and of Lyman Carrier, *The Beginnings of Agriculture in America* (New York, 1923), to the more recent work of John T. Schlebecker, *Whereby We Thrive: A History of American Farming, 1607-1792* (Ames, Iowa, 1975), and Howard S. Russell, *A Long, Deep Furrow: Three Centuries of Farming in New England* (Hanover, N.H., 1976).

¹³ Russell, *Long, Deep Furrow*, 40; Darrett B. Rutman, *Husbandmen of Plymouth: Farms and Villages in the Old Colony, 1620-1692* (Boston, 1967), 11, 13; Bidwell and Falconer, *History of Agriculture*, 41. The "starving time" occurred in the late spring, after the supplies of grain from the previous autumn had run out, but before the new crop was harvested. The "six weeks want" in the early spring remained a problem on the frontier through the 18th century. Seth Hubbell (b. 1755), who moved his family to Wolcott, Vt., in Mar. 1789, explained that "it was my fate to move my family at that memorable time called the scarce season, which was generally felt throughout the state, especially in the northern parts in infant

grain in England, the crops sown in the late summer often did not survive the New England winters; the colonists soon discovered that "our lands are aptest for Rye and Oats." A shift to spring-sown varieties resulted in expanded wheat production in the 1640s. That gain was quickly offset, however, by the wheat "blast," the black stem rust that first damaged crops in the 1660s and continued to plague New England farmers thereafter.¹⁴ The early reliance on Indian corn continued. Even though preferences for English bread grains persisted, Indian corn dominated New England's fields.

At mid-century, most families prepared a dark bread made primarily of Indian corn, mixed with wheat flour, for their daily fare.¹⁵ Indian corn was the most common cereal listed in estate inventories from Middlesex County, and it remained the standard bread grain for two hundred years (Tables I and II). For families with the smallest holdings of land in the seventeenth century, Indian corn was often the only homegrown cereal in their food stores. On homesteads of moderate size, English grain apparently was sown only if land remained after sufficient acres of Indian corn had been planted. Until the spread of black stem rust in the early 1660s, wheat was the customary European grain stored in the meal chests and bags. By the end of the decade, its frequency in food stores dropped from one-half to one-quarter of estate inventories. Rye cultivation increased at that time to compensate for declining wheat production, and by the first quarter of the eighteenth century it had become the chief bread grain of English origin.¹⁶ Thereafter, most families made brown bread of "mingled Indian and rye meal" or of "rye, tinged with Indian meal," for daily use. Allotments of grains in widows' allowances confirm that Indian corn and rye were the chief bread grains (Table II).¹⁷

settlements" (*A Narrative of the Sufferings of Seth Hubbell and Family . . .* [Danville, Vt., 1826], 5-6).

¹⁴ Winthrop to Sir Nathaniel Rich, May 22, 1643, *Winthrop Papers*, III, 166; Carrier, *Beginnings of Agriculture*, 147. The black stem rust spotted the stem. While the plant appeared to flourish, when harvested the ears were either shriveled or empty. According to Timothy Dwight, "The general opinion of the farmers, is, that wheat cannot, here, be cultivated with success" (*Travels; in New-England and New-York*, 2 vols. [New Haven, Conn., 1821-1822], I, 377).

¹⁵ Russell, *Long, Deep Furrow*, 93.

¹⁶ In the sample from the mid-17th century, 53.4% of the inventories recorded between 1654 and 1662 contain wheat. The percentage dropped to 44.8 for 1663-1668 and to 21.5 for 1669-1674. Rye gradually replaced wheat; 33.3% of the inventories from the earliest period contain rye, and by the 1670s 38.3% list it.

¹⁷ L[ydia] H[oward] Sigourney (1791-1865), *Letters of Life* (New York, 1866), 35; S[amuel] G[rismold] Goodrich (1793-1860), *Recollections of a Lifetime, or Men and Things I Have Seen . . .* (New York, 1857), I, 67. The trough in the frequencies of Indian corn and rye (Table IA) that occurred in 1711-1725 is due in part to the recording practices of that period. Appraisers frequently recorded stores of "corne," "graine," or "English graine," without specifying the kind. While this distorts the frequencies of particular grains, it does not affect the combined frequencies.

Small quantities of wheat grain and flour occasionally appeared in inventories and widows' allowances during the eighteenth century. By the early nineteenth century, households in the growing commercial and industrial centers of New England relied on purchased wheat flour for their bread, but in rural areas the infrequent appearance of wheat in inventories suggests that only members of the "upper crust" could afford to purchase it for ordinary use. In one Connecticut household at the end of the eighteenth century "wheat bread was reserved for the sacrament and company; a proof not of its superiority, but of its scarcity and consequent estimation." Scarcity undoubtedly fostered that high valuation, but white flour did produce considerably lighter "pie crust, cake and such delicacies."¹⁸ The crust of the common bread was so stiff that it was used instead of a spoon as a scoop for stews and porridges. Families that could afford to make their bread from wheat flour enjoyed loaves that were not as heavy as "Rye and Injun."¹⁹

Changes in the nature of the grain supply were not limited to the variety of bread grains that households produced or purchased. Improvements occurred in the quantity that was stored over the course of the year. The crops harvested in the late summer and fall in the seventeenth century were often insufficient, and stores reached very low levels by the late spring and summer. On the smallest homesteads, the grain chests and meal bags might be empty a month or two before the mid-summer crop of wheat and rye was harvested.²⁰ By the middle of the eighteenth century, the autumn harvest on most New England homesteads provided sufficient bread corn for the entire year. Only after the end of the summer were grain chests emptied of the last of their supply from the previous year. Except when the weather devastated the harvest, as it did in the "remarkable cold summer of 1816," most families in settled areas were assured of their daily bread.²¹

¹⁸ Goodrich, *Recollections*, 67; [Elizabeth Buffum Chace (1806-1899)], *Two Quaker Sisters . . .* (New York, 1937), 17. Bidwell and Falconer suggest that by the end of the 18th century, "wheat bread was practically unknown on farmers' tables" (*History of Agriculture*, 92). The practice of saving wheat flour for special preparations had begun in the 17th century. In the winter of 1678 a devious mother promised to reward her son with a cake if he stole a bushel of wheat from a neighbor's storage chamber. A suspected thief in 1678 was discovered with "wheat flour enough in the house to make two pies" (*Records and Files of the Quarterly Courts of Essex County, Massachusetts, 1636-1683* [Salem, Mass., 1911-1921], VII, 264, 53, hereafter cited as *Essex Co. Recs.*).

¹⁹ Nathaniel Goddard, *A Boston Merchant, 1767-1853* (Boston, 1906), 53.

²⁰ In general, the production of a variety of grains in New England lessened the threat and impact of the *soudure*—the critical period between the exhaustion of the previous year's supply of grain and the harvest of the current crop—that plagued European peasants. See Emmanuel LeRoy Ladurie, *Times of Feast, Times of Famine: A History of Climate since the Year 1000*, trans. Barbara Bray (London, 1972), 74.

²¹ John Thompson (1784-1868), *Autobiography of Deacon John Thompson, of Mercer, Maine* (Farmington, Maine, 1920), 147; John Whittemore, "The Autobiog-

Meat. New Englanders inherited a relish for meat from their English forebears.²² The first colonists brought cattle, swine, sheep, and fowl, and with supplementary shipments began the slow process of raising stocks of domestic meat animals. In the meantime, the forests and streams provided their main source. Winthrop wrote to his wife in the fall of 1630, "Though we have not beife and mutton etc: yet (God be prayesd) we want them not; . . . heere is foule and fish in great plenty." Later generations continued to pursue the natural bounty of the land. As the frontier expanded, members of each new settlement subsisted on "deer, bear meat, partridges, gray squirrels, rabbits, etc., all of which, as well as fish, were plentiful in that new land." Dwellers in coastal towns regularly purchased fresh fish at the wharves, and dried cod was delivered to other markets. In the settled inland areas a successful day of hunting or fishing in the spring brought good sport and welcome variety after an often monotonous winter fare of salt meat.²³

In time, the farmstead offered its own supply of fresh meats. Sheep, raised primarily for their wool, provided an occasional meal of mutton. Families often kept "dunghill fowl"—chickens, turkeys, ducks, geese—in the barnyard. Hens yielded eggs for cooking as well as for sale, and while haphazard methods of feeding the fowl rarely produced tender, meaty birds, on occasion special care was taken to fatten a capon or turkey on grain that otherwise was more carefully rationed. By the eighteenth century, fish, game, and domestic fowl varied the usual fare of salt pork and salt beef. But during the seventeenth century, many households were forced to rely on those fresh meats to complete their supply for the year.

Various drawbacks hampered reliance on fresh meat, both domestic and wild. Particularly in the summer, all meats had to be consumed quickly before they spoiled. Hens, chickens, and turkeys could be eaten in one meal, but most families did not own enough fowl for regular use in the

raphy of John Whittemore, 1796-1885," *Vermont Historical Society, Proceedings*, VI (1938), 331; Rebecca C. Skillin, ed., "William Cheney (1787-1875): The Life of a Vermont Woodsman and Farmer," *Vermont History*, XXXIX (1971), 49.

²² Works on English diet and foodways consulted for this study include J. C. Drummond and Anne Wilbraham, *The Englishman's Food: A History of Five Centuries of English Diet* (London, 1939); C. Anne Wilson, *Food and Drink in Britain: From the Stone Age to Recent Times* (New York, 1974); Dorothy Hartley, *Lost Country Life* (New York, 1979); Jay Allan Anderson, "'A Solid Sufficiency': An Ethnography of Yeoman Foodways in Stuart England" (Ph.D. diss., University of Pennsylvania, 1971); and Alan Everitt, "Farms and Labourers," in Joan Thirk, ed., *Agrarian History of England and Wales*, V: 1500-1640 (London, 1967).

²³ John Winthrop to his wife, Nov. 29, 1630, *Winthrop Papers*, II, 320; Erastus Johnson (1826-1912), *Autobiography of Erastus Johnson: A Chronicle of Pioneer Life in New England and on the Pacific Coast* (Los Angeles, 1937), 8; Joseph E. C. Farnham (b. 1849), *Brief Historical Data and Memories of My Boyhood Days in Nantucket* (Providence, R.I., 1923), 137; Daniel Tarbell (b. 1811), *Incidents of Real Life . . .* (Montpelier, Vt., 1883), 4.

diet. A solution to the spoilage problem with larger beasts was to share fresh meat with neighbors after a slaughter. Opportunities for hunting, trapping, and fishing also were limited during the summer. By the eighteenth century those all-day excursions often had to wait for the "dull days" of the haying season, since labor was needed for tending the crops.²⁴ In the winter, ice fishing, tracking, and hunting were not hindered by the scarcity of labor. But during the cold months the table was already amply supplied with salt meat from the autumn slaughter, so wild meats offered occasional variety rather than a frequent alternative to stored meat.

During the first decades of settlement the problem of insufficient stocks of domestic animals was compounded by limited options for feeding them. The New England environment presented a troublesome contrast to England's conditions for raising livestock. The colonists discovered that native grasses were inferior to English varieties, and the "sharpe and longe" winters eliminated the possibility of year-round meadow grazing for the cattle. By mid-century, New Englanders were successfully transplanting English clover and other grasses for spring and summer grazing of their stock, and they gradually developed a barn feed of corn husks and stalks, wheat and rye straw, and hay for wintering their animals.²⁵

Improvements in the conditions for livestock raising and increases in the numbers of domestic animals were slow, but as early as 1650, substantial farmers were producing a surplus of livestock. Some of the larger estates in Middlesex County housed more than ten hogs, sows, and pigs in their barnyards and grazed fifteen head of cattle on the town commons. These farmers could respond to a growing market for meat. The rapid colonization of the West Indies provided a ready market for New England salt meat and livestock in the mid-seventeenth century, and the growing population in ports such as Boston and Salem was provisioned by farmers bringing carts of meat into town each day.²⁶ But most rural New Englanders in the 1650s did not have large stocks of animals. Fewer than 50 percent of families living on small farms (averaging under ten acres of improved land) had swine in their estate inventories, and only a slightly larger proportion owned a milk cow. Even medium-sized homesteads (fifteen to twenty acres) averaged only two or three swine and cattle.

²⁴ Goodrich, *Recollections*, 66; Tarbell, *Incidents of Real Life*, 4. The amount of fresh fowl, mutton, and wild meat that New Englanders consumed cannot be measured since the meat was eaten too quickly to be recorded in inventories.

²⁵ Carrier, *Beginnings of Agriculture*, 26; Bidwell and Falconer, *History of Agriculture*, 19-20; *Winthrop Papers*, III, 166.

²⁶ Russell, *Long, Deep Furrow*, 58; Bidwell and Falconer, *History of Agriculture*, 27. In commercial areas and in the larger towns of New England, meats were regularly available for purchase in the 17th century. On Christmas Day in 1694 Samuel Sewall noted that "Carts of Pork, Hay, Coal, and Wood come to Town as on other days" (M. Halsey Thomas, ed., *The Diary of Samuel Sewall, 1674-1729* [New York, 1973], I, 325). See also Karen J. Friedman, "Victualling Colonial Boston," *Agricultural History*, XLVII (1973), 195-197.

During the seventeenth century, when domestic animals did not provide a full year's supply of meat for most households, salt meats often were not found in the stores of food listed in inventories (Table III).²⁷ Only 31 percent of the households at the lower end of the wealth scale (inventoried at £1-50; see Table VIII) had stores of salt pork or beef, and even those farms with ample stocks of animals did not have a constant supply of home-preserved meats. Marked seasonal variations in the storage of salt meat help account for the relatively low proportion of seventeenth-century inventories that contained barrels of salt meat. Each autumn, householders slaughtered a swine and perhaps a cow, and salted and barreled the meat for the winter. The schedule for butchering and meat preservation was determined by the weather and the requirements for stock feeding. A long delay after the animals could no longer graze resulted in costly feeding and fattening on hay, grain, and other farm produce such as turnips. In the early spring, animals were in a "mean" state after months of winter feeding and unsuitable for butchering. Slaughtering during the warm months was ill-advised, chiefly because of the high risk of spoilage before the meat was cured. Supplies of home-preserved meats were thus replenished only once a year, in the fall.²⁸ Sixty-eight percent of the inventories taken during the winter months contained salt pork or beef. By late spring and early summer, many families were reaching the bottom of their meat barrels. At the end of the summer only 15 percent of inventoried estates included stores of salt meat, though most of the inventories listed swine or cattle that were being fattened for slaughter.

After the early eighteenth century, the regularity of storage of salt meats through the year began to improve for all wealth classes. By 1790, 81 percent of the inventories recorded during the winter months contained salt pork or beef, and 43 percent of the estates inventoried at summer's end still listed stores of salt meat. Personal reminiscences from the late eighteenth and early nineteenth centuries confirm that salt pork and beef dominated the meat diet in most families,²⁹ and widows' yearly

²⁷ The trough in the frequencies of pork and beef in the early 18th century was caused by the same recording practices that affected grain frequencies. The total proportion of inventories containing salt meats is not affected.

²⁸ While Nov., Dec., and Jan. were the usual months for slaughter, the listings of salt meat do not reach their highest frequency until after Jan. A number of inventories taken between Nov. and Jan. were apparently recorded before the slaughter of animals for the winter supply. Fat oxen are most frequent in the inventories between Oct. and Jan., and fat swine are listed until Feb. Perhaps the death of the head of household delayed the slaughter of livestock on some of those estates that were inventoried in the fall and early winter. For an extended discussion of seasonal variations in the diet and tables on the distribution of staple foods by season see Sarah F. McMahon, " 'A Comfortable Subsistence': A History of Diet in New England, 1630-1850" (Ph.D. diss., Brandeis University, 1982), chap. 2.

²⁹ For example, see Lyman Beecher (1775-1863), *The Autobiography of Lyman Beecher*, ed. Barbara M. Cross (Cambridge, Mass., 1961), I, 15; Sarah Smith Emery

food allowances corroborate the changes that occurred in the meat supply between 1700 and 1830 (Table IV). A widow was usually provided either with specific meat allowances or with the "liberty of keeping a swine or two at her door from time to time and a few fowls about her house if she pleases."³⁰ Allowances of salt pork, bacon, and ham were more common and bigger than salt beef allowances, reflecting the comparative quantities of pork and beef in the inventories. Increases in the allowances of both meats during the first half of the eighteenth century raised the average total allowance from 120 pounds in the 1710s to 165 by mid-century. Pork and beef allowances continued to grow through the rest of the century, although at a slower rate. In combination, they averaged 180 pounds by the time of the Revolution, and 200 pounds by the early nineteenth century.³¹

Seventeenth-century New Englanders probably intended their meat stores to last only through the winter and perhaps into the spring, with the expectation that their provisions would be filled out by hunting, fishing, or purchase.³² Increases in the supply of home-preserved meats after 1750 served to extend the stores into the summer rather than to increase daily consumption. As they overcame seasonal limitations on their supplies of salt meat, New Englanders began to improve their methods of preservation. By the end of the eighteenth century, almanacs and "agriculturals" evaluated the best pickles and brines, and regularly offered recipes for salting meat to last a month or a season or even "to keep the year around."³³ After mid-century, as salt meats were consumed into the summer, the role of fish, dunghill fowl, and small game was limited to one

(1787-1879), *Reminiscences of a Nonagenarian* (Newburyport, Mass., 1879), 7; Henry Clarke Wright (b. 1797), *Human Life: Illustrated in My individual Experience as a Child, a Youth, and a Man* (Boston, 1849), 32; and Charles Oliver Howe (1822-1915), *What I Remember* (Macon, Ga., 1928), 41.

³⁰ Will of Samuel Wayt, Apr. 23, 1719, Registry of Probate, Middlesex Co., XVI, 146.

³¹ The average estimations of widows' yearly consumption needs may be inflated when compared to the consumption patterns of the population at large. Nevertheless, they are a good indication of the direction, if not the absolute magnitude, of change.

³² In a theft case presented to the Essex Co. Quarterly Court in Mar. 1677, John Knight, Sr., testified that he confronted George Major's wife on the issue of his stolen meat: "He asked what meat she had in the house, and she replied that maybe she had forty pieces of pork and four or five pieces of beef. He asked her what they had lived on all winter if they had so much left now" (*Essex Co. Recs.*, VI, 253).

³³ Lydia Maria Child, *The American Frugal Housewife* (New York, 1838), 8. Isaiah Thomas offered a "Best Method to Salt and Preserve Beef," which was guaranteed as a "sure way of putting up beef to remain good and fit . . . for the space of years" (*Thomas's Massachusetts, Connecticut, Rhode-Island, New-Hampshire & Vermont Almanack* . . . [Worcester, Mass., 1791]).

of variety in an otherwise monotonous diet. By the time of the Revolution, domestic animals furnished most households in rural New England with a sufficient and nearly constant supply of meat.

Dairy Products. The dairy played an important part in the routine of food production on most New England farms. After grain allowances, the "summering and wintering" of at least one milk cow was the most common provision granted a widow in her husband's will (Table V). By 1650, many farms supported from one to four milk cows, and through the first half of the eighteenth century even the smallest farm usually had at least one. The milk was churned into butter or curdled and pressed into cheese. It flavored various boiled puddings and cakes, while hard breads, thick cereals, and ripe berries were soaked in it for breakfast and supper. After the milking, children must often have filled their cups fresh from the pail.³⁴

Seasonal routines governed the production of butter and cheese. Most farmers avoided "overwintering" their cows, preferring to keep them in a "mean" state until they could graze on fresh grass in the late spring. During the winter, the butter churn and cheese tubs and press therefore lay idle. After calves were weaned or sold in the spring, butter making began. Cheese making commenced in the summer, and for a short while in the fall the milk was divided between butter and skimmed-milk cheese until the late autumn when all dairying stopped.³⁵

Homesteads with only one or two milk cows consumed much of their butter and cheese as it was produced; as a consequence, those estate inventories often do not list dairy products. During the seventeenth century the recording of stores of butter and cheese peaked in the late summer and early fall. Thus dairy products provided an important source of animal protein at a time when salt-meat barrels stood empty. But by the late fall and early winter only families with large stocks of cows still enjoyed butter and cheese with their meals.³⁶

The seasonal pattern of butter and cheese storage shifted during the eighteenth century. On many homesteads, surpluses provided a supply of dairy products that held out through much of the winter. By the 1790s stores lasted from the autumn to the spring in the wealthiest households,

³⁴ The quantity of milk probably ranged between one and two gallons per cow per day. See Everitt, "Farm Labourers," in Thirsk, ed., *Agrarian History*, V, 673, and Rutman, *Husbandmen of Plymouth*, 49.

³⁵ Emery, *Reminiscences*, 7-9; Bidwell and Falconer, *History of Agriculture*, 427; G. E. Fussell, *The English Dairy Farmer, 1500-1900* (London, 1966), 39, 58. See also Isaiah Thomas: "A word to the farm wife: Though you do not use your churn or your cheese tub at this time . . . you will want them when the season comes around" (*Isaiah Thomas, Junr's Massachusetts, Connecticut, Rhodeisland, Newhampshire and Vermont Almanack* . . . [Worcester, Mass., 1810], "February").

³⁶ Russell, *Long, Deep Furrow*, 160; Bidwell and Falconer, *History of Agriculture*, 109.

and in the early decades of the nineteenth century families of moderate wealth began to enjoy a year-round supply of dairy products. Increased production of butter and cheese probably accounted for some of the surplus secured in the fall. In addition, improved methods of winter feeding meant that cows produced milk that was good enough for butter. At the same time, the decline in consumption of dairy products during the warm months of the year, as supplies of salt meat were extended into the summer and early fall, also increased the amount available for winter consumption. By the late eighteenth century, New Englanders produced enough butter and cheese not only for immediate consumption but also for sufficient reserves to last the winter until dairying began again in the spring.

Vegetables. An early spring task was the planting of gardens. The first settlers quickly discovered that "our grounds are apt for . . . all sorts of roots, pumpkins and other fruits, which for taste and wholesomeness far exceed those in England." On each homestead a "convenient spot for a garden for rootes and herbes" was set aside. Early New England kitchen gardens grew small crops of English roots, vegetables, and leafy greens, along with culinary and medicinal herbs. The larger crops of Indian pumpkins, squashes, and beans were usually planted in the fields between the hills of Indian corn.³⁷

Gardens supplied an abundance of "green sauce in the summer season." Most vegetables were consumed in this form. Roots and greens, and even apples on occasion, were used to flavor salt-meat pottages and stews, at the same time absorbing some of the salt, and the long cooking reduced them to a pulpy sauce. After the first green peas and beans of June, families enjoyed a succession of vegetables through the summer and early fall. For the rest of the year, however, garden produce was not available unless turnips, carrots, or other hardy vegetables were gathered in the late summer and stored in root cellars. An occasional inventory from the mid-seventeenth century lists a small quantity of roots, but such stores rarely lasted through the fall.

The winter vegetable supply in seventeenth-century households consisted almost entirely of dried peas (Table VI). Pease porridge was traditional cold-weather fare for New Englanders of all classes. For persons of limited means, that nutritious and cheap foodstuff significantly improved the sources of protein during the winter. After the seventeenth century the listings of dried peas dropped; the concurrent rise in the storage of dried beans indicates a shift from one vegetable to another. In addition to their use in porridges, both legumes were boiled with salt meat

³⁷ John Winthrop to Sir Nathaniel Rich, May 22, 1634, *Winthrop Papers*, III, 166. Husbands frequently bequeathed to their wives gardens ranging from 4 to 40 poles or rods. For descriptions of the gardens and lists of their contents see Rudy J. Favretti, *Early New England Gardens, 1620-1840* (Sturbridge, Mass., 1974).

to make "porke and pease." By the mid-eighteenth century, New Englanders commonly supped on baked beans, which Lucy Larcom recalled as the "canonical dish of our forefathers . . . [that] made its appearance on the supper table of every householder who was able to compass its ingredients, at the closing day of the week."³⁸

The production and storage of vegetables for the winter gradually increased during the eighteenth century. By 1750, turnips, onions, carrots, and cabbages were laid by in sufficient quantity in some households to last much of the winter, and inventories after 1750 list roots with increasing regularity from October to July. Potatoes, introduced to New England gardens and tables in the 1720s, augmented vegetable stores.³⁹ They do not appear in Middlesex County inventories until the 1740s, but thereafter their frequency increases steadily. By the nineteenth century, potatoes account for the major portion of vegetable stores recorded in the inventories.

The changing pattern of vegetable storage is evidenced in widows' allowances. Only 5 percent of seventeenth-century widows were explicitly granted the "liberty in the garden to raise her sauces," even though most homesteads had a kitchen garden. After 1720, more husbands began to guarantee for their widows the right to maintain a garden on property that had been bequeathed to a son or daughter, and by the 1730s allowances of vegetables for the winter were designated in wills. The proportion of wills that granted such allowances increased steadily. By 1780, over 90 percent of widows were provided with a yearly supply of vegetables. Occasionally the allowances were specific: a few bushels of beans, potatoes, or turnips. Most often the designation was general: "A sufficiency of all kinds of dry sauce in common use among us and liberty to pick green sauce while growing."⁴⁰

By the Revolution, New England farmers planted vegetables in sufficient variety and quantity to provide "sallads" for summer and adequate stores of roots and hardy vegetables for the rest of the year. The "deseasonalization" of vegetable consumption reflects an important development in the total diet. Most of the kinds of vegetables that filled cellar bins each autumn had been part of the summer diet since the early years of

³⁸ Larcom (1824-1893), *A New England Girlhood: Outlined from Memory* (Boston, 1973 [orig. publ. 1890]), 38. Peas were often listed along with the grains in both inventories and widows' allowances of the 17th century, suggesting that their use in the diet resembled that of grains. The poor in England often substituted peas for other "grains" in breadmaking. Everitt, "Farm Labourers," in Thirsk, ed., *Agrarian History*, V, 450. The addition of peas to meat and dairy products in the lowest wealth cohort brings the proportion of inventories with some form of protein within the range of the other wealth groups. (See Table VIII.)

³⁹ See Mary Tolford Wilson, "Americans Learn to Grow the Irish Potato," *New England Quarterly*, XXXII (1959), 333-350.

⁴⁰ Registry of Probate, Middlesex Co., LXXXV, 372 (1798), LXXXVI, 38 (1799).

settlement, but vegetables had been considered a fresh food, and little effort was made to produce a supply for winter. During the eighteenth century, vegetable gardens began to figure more prominently in food production. The increasing mention of gardens in widows' allowances after 1720 indicates a new recognition of their role rather than more widespread possession. Concurrently, families began to take greater care of their gardens. In the seventeenth century, husbands did little more than set aside a small patch for their wives to tend.⁴¹ By the mid-eighteenth century, farmers not only fenced the plot against the ravages of rodents, wandering swine, and chickens, but also made sure that gardens were kept "in good manure." And while the variety of vegetables was reminiscent of earlier kitchen gardens, later gardens grew much larger crops. The increased care in production was labor intensive, but the results justified the effort. In Weymouth, Massachusetts, in the 1830s, "a man who did not have a large garden of potatoes, crook-necked squashes, and other vegetables . . . was regarded [as] improvident."⁴² As vegetable storage extended into the winter and spring, New Englanders began to improve their methods. Farmers' almanacs provided instruction on the proper care of cellars, and both almanacs and cookbooks from the 1790s and the early 1800s included specific, although often contradictory, directions for putting up a wide variety of vegetables.⁴³

Vegetables gradually became more prominent in the diet. After 1800, inventories and wills listed "roots and vegetables" rather than "sauce," suggesting that garden produce provided more than merely a flavoring for meat stews. Vegetables were increasingly prepared and served as a separate dish—not as a substitute for meat and bread but as a supplement to them. Nineteenth-century cookbooks devoted significant space to vegetables, directing readers to select them carefully and "boil them up quick."⁴⁴ The new prominence of vegetables diversified the winter fare and lessened the disparity between the warm- and cold-weather diets.

⁴¹ Seventeenth-century New England families followed English customs in the care of their gardens. Gardening was an occupation for women in addition to their other chores; hence the placement of the plots near the kitchen. The crude fencing was intended to mark boundaries and exclude cattle and fowl. Women tended their gardens of small vegetables, but the distinction between gardens and the larger field crops of vegetables—corn, beans, pumpkins, and squashes—meant that little care was taken to improve the yield of vegetables each year. See Favretti, *New England Gardens*, 3, and Rutman, *Husbandmen of Plymouth*, 37–38.

⁴² Edmund Soper Hunt (b. 1827), *Weymouth Ways and Weymouth People: Reminiscences* (Boston, 1907), 16.

⁴³ "Clean Cellars Necessary to Health," in *Thomas's Massachusetts, Connecticut, Rhodeisland, Newhampshire and Vermont Almanack* . . . (Worcester, Mass., 1796); Mary Eliza Rundell, *A New System of Domestic Cookery* . . . (Boston, 1807), vi; Child, *Frugal Housewife*, 33–35.

⁴⁴ Amelia Simmons, *American Cookery, or the Art of Dressing Viands, Fish, Poultry & Vegetables* . . . (Hartford, Conn., 1796), 45; Rundell, *Domestic Cookery*, 173.

Fermented beverages. Seventeenth-century New Englanders were beer drinkers; most households either made their own beer or took their barley and hops to a malt house to be brewed and barreled.⁴⁵ Through the middle of the eighteenth century, widows received malt allowances, and inventories regularly included stores of barley and malt (Table VII). During that time, however, patterns of consumption changed. In the seventeenth century, beer was brewed and barreled year-round. By the mid-eighteenth, it was generally brewed during the warmer months when the barrels of cider from the previous autumn were depleted. Beer consumption began to decline after 1750, and by the early nineteenth century barley and malt were significantly less frequent in inventories and widows' allowances. In some parts of New England by the 1820s, "beer had ceased to be made, as well as malt."⁴⁶

Apple cider was becoming the principal fermented beverage by the mid-eighteenth century. Small orchards, often situated near the vegetable garden, had long adorned many New England homesteads. English saplings of apple, pear, plum, quince, and cherry were planted during the early years of settlement. Fruit trees flourished, and with very little effort most families maintained at least one small apple orchard. In season, fruits were eaten fresh off trees, vines, and bushes. Later, some were dried, sugarcoated, or boiled into marmalade. Orchards produced apples for roasting and baking or for dumplings and pies, and during the fall families often boiled a barrel of applesauce for a winter condiment.⁴⁷

Most of the apples were probably stored and consumed as cider. Seventeenth-century New Englanders barreled cider as soon as their orchards began to "bear a sufficiency" of fruit. By the early eighteenth century, the frequency of cider allowances matched those of malt, and cider was listed in inventories with the same regularity as barley, malt, and hops by the 1740s. At mid-century, stores of cider were abundant from November until May, and as it became produced in sufficient quantity to last into the summer and early fall, reliance on beer as the usual summer beverage declined. One New Englander recalled that "every householder in the fall stocked his cellar as a matter of course with a certain number of

⁴⁵ *Essex Co. Recs.*, V, 225 (1673). Beer, which supplied an important source of calories during the hard-working summer months, was consumed regularly. Perhaps it goes without saying that kegs of beer tapped in the midday sun contributed to the number of accidents that occurred in the afternoon.

⁴⁶ Joel Munsell (1808-1880), *Reminiscences of Men and Things in Northfield as I Knew Them from 1812 to 1825* (Albany, N.Y., 1876), 6.

⁴⁷ Bidwell and Falconer, *History of Agriculture*, 16; Carrier, *Beginnings of Agriculture*, 142; Sarah Stuart Robbins (b. 1817), *Old Andover Days: Memories of a Puritan Childhood* (Boston, 1908), 16: "The fruit trees! They bore cherries and plums, apples and pears and quinces, such as Massachusetts can no longer boast." Harriet Beecher Stowe (1811-1896), "Early Remembrances," in *Autobiography of Lyman Beecher*, ed. Cross, I, 390.

barrels of cider as habitually as with a requisite number of bushels of potatoes."⁴⁸

While considerations of taste may have influenced the shift from beer to cider during the eighteenth century, agricultural incentives offer a more probable explanation. Maintaining orchards required less labor than sowing and harvesting barley during the seasons of intense work, and the entire year's supply of cider was produced in the fall, whereas barley was malted and brewed throughout the year. In addition, orchards were land saving: grain could be planted among the trees when orchards occupied good land, and orchards could thrive on marginal lands that were not suited to grain.

Cider and beer fermented and grew potent in their wooden kegs but were not considered as "spirited" as distilled liquors. When the temperance movement began to denounce intoxicating drinks in the early nineteenth century, reformers focused their efforts on whiskey and rum ("white face").⁴⁹ They initially sanctioned fermented beverages as "wholesome" and "nutritious," but soon even cider and beer came under attack. Perhaps New Englanders began to heed the reformers; they may have recognized the potentially dangerous consequences of drinking cider that Horace Greeley described: "In many a family of six or eight persons, a barrel [of cider] tapped on Saturday barely lasted a full week. . . . The transition from cider to warmer and more potent stimulants was easy and natural; so that whole families died drunkards and vagabond paupers from the impetus first given by cider-swilling in their rural homes."⁵⁰ By the 1830s, the consumption of all fermented beverages was declining in New England. Barley and malt had virtually disappeared from widows' allowances and inventories. While apples continued to be pressed and barreled, husbands were becoming less likely to provide their widows with allowances of cider.

The changes that occurred in the composition of staple foods in rural New England between 1620 and 1840 altered the dietary standards of the

⁴⁸ John T. Schlebecker, "Agricultural Markets and Marketing in the North, 1774-1777," *Agric. Hist.*, L (1976), 28. Bidwell and Falconer note that cider attained popularity as a farm beverage before 1700 but did not displace beer for some time after that date (*History of Agriculture*, 16). Goodrich, *Recollections*, 70; Munsell, *Reminiscences*, 6.

⁴⁹ D[aniel] N[oyes] Prime (1790-1880), *The Autobiography of an Octogenarian* (Newburyport, Mass., 1873), 88.

⁵⁰ Horace Greeley (1811-1872), *Recollections of a Busy Life* . . . (New York, 1869), 98-99. Isaiah Thomas reprinted Dr. Benjamin Rush's "Inquiry into the effects of Spiritous Liquors" with Rush's recommendations for substitutes. Of cider Rush explained, "This excellent liquor contains a small quantity of spirit, but so diluted and blunted . . . as to be perfectly inoffensive and wholesome," while "beer is a whole liquor compared with spirits . . . [and] it abounds with nourishment" (*Thomas's Massachusetts, Connecticut, Rhodeisland, Newhampshire, & Vermont Almanack* . . . [Worcester, Mass., 1792]).

population in significant ways. Improvements in both the quantity of foods produced and the variety laid up for winter modified traditional seasonal fluctuations. Yet such improvements were experienced unequally by different socioeconomic groups. While the quantity and composition of the diet varied according to wealth throughout the period, the nature of that disparity shifted over time. Finally, the improvements in the staple diet throughout the year altered the traditional simple fare. The transition to a more sufficient and varied food supply had important consequences for methods of cooking and meal preparation. Indeed, the adaptations in the culture of food that occurred after the mid-eighteenth century underline the broad significance of the changes in the composition of the food supply.

Seventeenth-century colonists brought English plants, grains, and livestock to the New World, hoping to recreate their familiar fare in an unfamiliar country. Necessary alterations of the diet during the first half century of settlement reflected accommodations of old tastes and preferences to the agricultural realities of the new land. Throughout the seventeenth century and into the eighteenth, New England farmers focused their efforts on providing enough food for their families. Grains preponderated in their food stores, and except in times of scarcity, most families had a year-round supply of meal for their breads and puddings. The supply of other provisions was determined by seasonal rhythms in the seventeenth century. The autumn harvest supplied grains for bread and peas for porridge, and a swine or fattened steer was slaughtered, salted, and barreled. For most of the winter, New Englanders subsisted primarily on a monotonous diet of pork and peas, bread and pudding, all washed down with beer. By spring, many families were reaching the bottom of their meat barrels and bags of peas. Gradually the streams, forests, gardens, and orchards yielded fresh foods to supplement the depleting winter stores until a new supply of food was established in the fall. The sharp demarcation between the stored provisions of winter and the fresh foods of summer meant that New Englanders experienced two seasons of transition in their sources of food each year, and particularly in the early spring the threat of scarcity seemed never far off.

Dietary standards varied by socioeconomic level in the seventeenth century. Advantages of wealth could guarantee an abundant and diverse supply of bread grain, barley for beer, peas, and salt meat in winter, and butter and cheese from spring until late fall. In contrast, households with the least resources subsisted largely on bread made from one grain and on pease porridge, with a small supply of salt meat in the winter and butter and cheese during the summer. Between those two extremes stood the majority of households of moderate means. In spite of this range, the diet of most New Englanders was one of basic subsistence. If wealth furnished more ample provisions, it did not alter in a significant way the seasonal character of the daily fare.

The simple diet, changing quite dramatically in its source and composition over the course of the year, fostered a cautious attitude about food. In

some years the harvest produced a "comfortable supply of all sorts of corne & provisions, necessary for subsistence." In other years New Englanders suffered through times "of extreme Scarcitie . . . [and] *terrible Famine*."⁵¹ Such experiences tempered expectations about the diet. The requirements for a comfortable subsistence were satisfied if the chests, barrels, and bins were filled with "enough" food. Variety either in the types of grain, meat, and vegetables or in their preparation undoubtedly was appreciated but was not a dominant concern. When seventeenth-century New Englanders "dressed their victuals," they were readying the food for consumption rather than enhancing its flavor.⁵² The result was a daily "pottage" fare, and many families ate "one continued round" of meat and legume or vegetable stews morning, noon, and night.

During the eighteenth century, New England farmers improved the quantity and variety of their standard fare and overcame traditional limitations on the availability of both fresh and preserved foods. Grain harvests provided a year's supply of Indian and rye meal for most households regardless of wealth. The stock of animals on most homesteads offered an ample source of meat, and farmers were slaughtering and barreling quantities sufficient to last through the year. New Englanders converted increasing amounts of orchard produce into apple cider, so that cider gradually replaced beer as the usual family beverage. Garden roots and vegetables filled the cellar bins and provided a variety of "sauce" for the winter as well as fresh greens in the summer. Butter and cheese were produced in sufficient quantity to last well into the winter.

Gains in dietary sufficiency were achieved in the face of severe threats to the "standard of eating" in New England during the eighteenth century. Maintaining standards became increasingly difficult in the early years of the century. To raise the level of their food supply, farmers began to alter their methods of food production and preservation. Until 1750, New England farming can be characterized as adaptive: old practices were adjusted to new conditions to produce adequate supplies of the traditional staples without fundamentally changing the diet through the whole first century and more of colonial existence. While many farmers secured a sufficient and increasingly varied diet for their families in the second half of the eighteenth century, their efforts represented more than a continued adaptation of traditional practices. Their success came only after they surmounted ecological and economic changes that impeded their ability to provision their families with the basic staples.

An agricultural crisis strained food production in the early eighteenth century. The subdividing of landholdings among successive generations of

⁵¹ John Winthrop, Jr., to ———, Sept. 19, 1660, in Massachusetts Historical Society, *Collections*, 5th Ser., VIII (Boston, 1882), 65; *Diary of Cotton Mather, 1681-1708*, *ibid.*, 7th Ser., VII (Boston, 1911), 190-191 (1696).

⁵² Seventeenth-century New Englanders spoke of "dressing their victuals," a catchall term suggesting only that the food was adequately prepared for consumption. See *Essex Co. Recs.*, III, 193 (1664), VI, 298 (1677).

sons produced markedly smaller homesteads. Original estates were broken down to holdings of fifty to sixty acres, and the farms of the second and subsequent waves of settlers in each town comprised only twenty or thirty acres.⁵³ The decreased landholdings, coupled with wasteful farming practices that required extensive acreage for cultivation, forced many farmers to reduce the period of fallow on their fields to one or two years. Others began to cultivate marginal lands to produce adequate supplies of grain as crop yields declined.⁵⁴

The potential Malthusian subsistence crisis created by overcrowding and soil exhaustion was compounded by a prolonged economic slump in New England during the first half of the eighteenth century.⁵⁵ Taken together, these conditions threatened the standard of living across the region, and farmers were challenged to maintain the level of their food supply.⁵⁶ Yet a subsistence crisis did not occur. By the mid-eighteenth century farmers were beginning to adopt new methods that suggest an unwillingness to accept traditional seasonal limitations on the quantity and variety of their food supply. At the same time, they began to adjust their expectations about their yearly diet.

The new ideas about the composition of the diet coincided with a period of deep social and cultural change. As the cohesive, homogeneous towns of the seventeenth century grew and diversified, the early communal

⁵³ Kenneth Lockridge, "Land, Population and the Evolution of New England Society, 1630-1790," *Past & Present*, No. 39 (1968), 62-80; Philip J. Greven, Jr., *Four Generations: Population, Land, and Family in Colonial Andover, Massachusetts* (Ithaca, N.Y., 1970), 60; James A. Henretta, *The Evolution of American Society, 1700-1815: An Interdisciplinary Analysis* (Lexington, Mass., 1973), 15-21; Robert A. Gross, *The Minutemen and Their World* (New York, 1976), 87. Lockridge, Greven, Henretta, and Gross all find evidence of mounting pressure on the land supply: 17th-century landholdings were often as large as 200 to 300 acres; by the second half of the 18th century, few homesteads were more than 100 acres, and the average holding was perhaps as little as 40 to 60 acres. On the other hand, David Grayson Allen suggests that while the original town proprietors held large shares of land, within a few decades of settlement, newcomers often owned, on average, only 20 or 30 acres (*In English Ways: The Movement of Societies and the Transfer of English Local Law and Custom to Massachusetts Bay in the Seventeenth Century* [Chapel Hill, N.C., 1981]).

⁵⁴ William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York, 1983), 150, 168; Henretta, *Evolution of American Society*, 19; Gross, *Minutemen*, 87.

⁵⁵ Henretta, *Evolution of American Society*, 41, 70. While the trough in the stores of food in Middlesex Co. estate inventories during the period 1711-1725 is due in part to biases in inventory recording practices, perhaps the general economic conditions account for some of the decline in the frequencies of the stores.

⁵⁶ See James A. Henretta, "Wealth and Social Structure," in Jack P. Greene and J. R. Pole, eds., *Colonial British America: Essays in the New History of the Early Modern Era* (Baltimore, 1984), 267, 272-273.

ideals of conformity dissipated. With the weakening of social controls in the early eighteenth century, individuals began in new ways to determine the contours of their lives and their place in society. In similar fashion, they responded to agricultural decline by altering their decisions about food production in order to gain greater control over their diet.

By the mid-eighteenth century, farmers began to reallocate land and labor. The production of ample quantities of apple cider enabled conversion of land from barley to bread-grain crops. Thus, without altering their extensive methods of cultivation or their agricultural technology, New Englanders could compensate for declining crop yields and ensure a year-round supply of grain. Kitchen gardens provided enough vegetables for both summer and winter. While gardens were labor intensive, their efficient use of land was ample recompense. Into the nineteenth century, farmers were reminded of the value of vegetable production. A farmer's almanac of 1820 advised readers: "Let no one neglect his garden. For gardening is the most productive and advantageous mode of occupying the soil. Gardens furnish the greatest quantity of useful produce from the smallest space of ground. . . . I tell you for a truth that a good garden, well managed, is as valuable as a beef and pork barrel well filled."⁵⁷ As New Englanders increased the variety of vegetables for winter use, they refined methods of storage to guarantee freshness through successive seasons.⁵⁸ The increase in vegetable consumption during the winter balanced the diet with a wider variety of foods. New Englanders probably ate less bread and meat, thereby extending the stores of those provisions farther into the year.

Farmers also began to preserve quantities of salt pork and beef sufficient to last through the spring and into the summer. Consequently, wild game, fowl, and fish, which were becoming less abundant in the settled areas of New England, varied the daily fare but were no longer necessary to complete the diet. At the same time, the extended supplies of salt meat probably decreased the amount of butter and cheese consumed in the summer as the predominant source of protein in the diet. By the early nineteenth century, stores of butter and cheese lasted from one dairying cycle to the next.

⁵⁷ Robert B. Thomas, *The Farmer's Almanack* . . . (Boston, 1820), "May." Thomas proclaimed, "Vegetables save meat" (*The Farmer's Almanack* . . . [Boston, 1825]). This was not a new theme in his almanac; in 1807 he advised his readers that "the more sauce we eat, the less meat we want, and that the latter costs more than the former, I need not tell you."

⁵⁸ Some of the methods applied to all vegetables. But beets, carrots, potatoes, and parsnips were best kept in the cellar away from dampness, while celery required moisture. Still other vegetables, such as onions, retained their freshness when stored out of the cellar altogether. See *Thomas's Massachusetts, Connecticut, Rhode-island, Newhampshire & Vermont Almanack* . . . (Worcester, Mass., 1798), "November"; Rundell, *Domestic Cookery*, vi; and Child, *Frugal Housewife*, 33-35.

New Englanders took control of the composition of their food supply in the second half of the eighteenth century as they stored a variety of summer vegetables and dairy products for winter use and as they secured a sufficient supply of grains, salt meats, and cider at harvest time to last into the summer. The "deseasonalization" of the diet lessened the disparity between summer and winter fare and provided a safeguard against the old transitional seasons of scarcity. As a consequence, families maintained a more balanced diet through the year. At the same time, the increase in the variety of staple foods provided new possibilities for varying the daily fare and enhancing the enjoyment of family meals.

These decisions represented more than simply a response to declining agricultural conditions in the early eighteenth century or to growing market opportunities after the revival of economic activity at mid-century. Market incentives have been viewed as a necessary impetus for farmers to adopt more efficient and profitable methods of agriculture.⁵⁹ Yet market opportunities had existed in New England in the seventeenth century—the major period of grain and meat export—and these had not inspired changes in farming practices. Furthermore, the adjustments in farming decisions that occurred during the eighteenth century affected the variety as well as the quantity of the food supply, and commercial production usually focuses on a single crop or foodstuff. In the eighteenth century, the efforts of many farmers were still directed largely toward providing for the needs of their families. Given the kinds of alterations that they made, that goal apparently offered incentive enough. Yet, as they reallocated their use of land and labor and refined their methods of preservation, they also altered their expectations about their daily fare. Indeed, families with the most ample resources were the first to secure a wider variety of provisions year-round, suggesting a preference for a diversified as well as a constant supply of food.⁶⁰ If much of the impetus for change came either from economic decline or market opportunities, the decision to revise methods was also inspired by changing cultural expectations about both the daily fare and the composition of diet through the year. In combination, those influences led to improved dietary and culinary standards in many households during the first half of the nineteenth century.

⁵⁹ See Russell, *Long, Deep Furrow*, 258, 270, and Cronon, *Changes in the Land*, 76-77.

⁶⁰ Henretta argues that the "profusion of winter and summer vegetables," characterized by Benjamin Rush as a "revolution in diet" between 1760 and 1810, was "hardly the unqualified advance that Rush suggested," since "an increase in the consumption of potatoes and other vegetables also signaled a decline in the availability of low-priced meat" (*Evolution of American Society*, 20). Henretta's interpretation undoubtedly holds for the expanding population of urban poor, but the evidence from estate inventories suggests that it is not accurate for much of the rest of New England society.

In the early years of national independence, households with ample resources for food production enjoyed a varied fare throughout the year. The winter staples had expanded to include an assortment of roots and vegetables and a plentiful supply of butter and cheese. The decreased emphasis on bread and meat that accompanied the increased consumption of vegetables and dairy products did not reflect a decline in dietary standards. Instead, variety became important in both the composition and the preparation of meals. Pottage fare gave way to a wide assortment of meat, grain, and vegetable preparations, and the increased use of condiments enhanced the taste of the food. By the second quarter of the nineteenth century, such improvements had begun to filter down through society, as families of moderate means secured a broader variety of staple foods.

These advances were accompanied by a growing disparity of diet. While families of wealthy and moderate means enjoyed a diversified fare of home-produced staples enhanced by condiments and other purchased foods, households with narrow resources still directed most of their energy toward producing the traditional basic staples. Some poorer families managed to secure an adequate yearly diet, though still a monotonous one, eked out by potatoes and other inexpensive foods. By the early nineteenth century, a significant proportion of estates with the lowest wealth values contained neither flour nor home-grown grains. Families at this level may have bought their bread or flour in small quantities or resorted to potatoes, either purchased or home-grown on small plots, as the main source of starch in their diet (Table VIII).

Meanwhile, rural families of both moderate and prosperous means increased their consumption of luxuries and other purchased foods. Among the provisions listed in inventories in the 1830s are goods that undoubtedly were bought or traded for surplus products at a general store. These include salt, sugar, molasses, "peppersauce" and other spices, tea, coffee, chocolate, Madeira, flour, rice, and salt fish such as cod, shad, mackerel, and herring. Grocers' account books also record sales of mustard, cinnamon, ginger, raisins, rum, brandy, and gin.⁶¹ In addition, storekeepers furnished such standard items as eggs, butter, meat, vegetables, and grain to families that, due to nonagricultural occupations or limited farm resources, did not produce sufficient supplies of these staples. The proportion of estates containing Indian corn declined by the close of the eighteenth century, and by the 1830s there was a pronounced drop in the storage of corn and rye, indicating that more and more families were buying meal and flour for their daily bread.

⁶¹ See Elijah and James Bachus, *Daybooks for 1794*, and Andrew and Joseph Perkins, *Ledger for 1793*, Manuscript Collection, Baker Library, Harvard Business School, Cambridge, Mass.

The improvements in the composition of the food supply after the mid-eighteenth century were reflected in changing expectations about diet and the culture of food. Most colonial New Englanders had been satisfied with "enough" food. By the late eighteenth century, women began to direct their culinary efforts toward preparing a "well-cooked" and "wholesome" fare. The increased attention to preparation often resulted in an array of flavorful concoctions that enhanced the gathering of the family around the table. Thus the hurried and casual eating that often characterized meals in the seventeenth century gave way to a more "sociable" atmosphere.⁶² This interest in the presentation of food began to develop into a full-fledged "art of cookery." Household manuals, proliferating in urban areas in the early nineteenth century, detailed a "new mode of cookery" and advocated a complete "science of the table." Cookbooks offered a wide selection of recipes initially designed for the preparation of varied daily fare. By the mid-nineteenth century, the instructions were influenced by a growing concern for "proper diet" as well. As interest in culinary arts continued to expand, a growing number of informed contemporaries took a more critical look at dietary "improvements." Attempting to temper the enthusiasm for variety that had been building for some time, they began to determine the best methods of cooking and the most healthful combinations of food.⁶³

"That old New England cookery, it seems to me, filled a big bill for health and physical nourishment. We did not know much about proteins

⁶² Carole Shammas has examined the array of consumer goods in a collection of English and American probate records to determine changes in household relations and the home environment: "What really marked the mid-eighteenth century off from previous periods, then, was the diffusion of eating and drinking goods into the ordinary household." This, she proposes, is an indication that "during the course of the eighteenth century, the family meal began to take shape . . . [as] everyday meals . . . became more sociable occasions" ("The Domestic Environment in Early Modern England and America," *Journal of Social History*, XIV [1980], 14, 17).

⁶³ As early as the 1750s, Nathaniel Ames published a series of essays on diet and health: "The Art of Intemperance," in *An Astronomical Diary: Or, an Almanack . . .* (Boston, 1752), "An Essay upon Regimen," *ibid.* (1754), and "Diet," *ibid.* (1755). In the 1790s numerous farmers' almanacs included essays on "Rules for a long life" and "Rules for preserving health in eating and drinking." The authors advocated a plain diet, "supped sparingly." Robert B. Thomas explained that "one should eat to live and not to satiety. . . . At meals eat alternately, moist things after dry, fat after lean, sweet after sower, and cold after hot, to the end that one may be corrective of the other" (*The Farmer's Almanack . . .* [Boston, 1793]). By the time Catharine E. Beecher published *A Treatise on Domestic Economy, for the Use of Young Ladies at Home, and at School* (Boston, 1841), ideas about "proper diet" had become increasingly sophisticated. She devoted an entire chapter to "Healthful Food," with a complete plan for a good family diet.

and calories and fibrins, in fact we had never heard of them. But we somehow hit upon the best combinations as to taste and efficiency.”⁶⁴ Mary Dow believed that the diet in her Beverly Farms, Massachusetts, home in the 1830s and 1840s resembled the traditional fare of her Puritan forebears. Yet the “best combinations” reflected two centuries of change. The slow transformation in the composition of diet and the culture of food in New England probably was imperceptible to all but the most discerning observers. But by the mid-nineteenth century, the daily fare of many families across New England had indeed become a comfortable subsistence.

⁶⁴ Mary Larcom Dow (1835-1920), *Old Days at Beverly Farms* (Beverly, Mass., 1921), 57-58.

TABLE I
STORES OF GRAINS IN MIDDLESEX COUNTY INVENTORIES, 1653-1835

	1653-74	1711-25 ^a	1735-47	1766-76	1788-95	1833-35
A. Percentages of inventories containing grains, weighted by season and wealth ^b						
Number of inventories	195	206	208	193	214	199
Indian corn	66.0	52.3	60.8	60.3	45.5	57.1
Indian corn or "corn" ^c	66.0	52.3	74.4	67.5	58.0	57.1
Rye	35.6 ^d	20.6	40.2	46.6	42.8	42.2
Wheat	41.0 ^d	1.8	7.8	4.9	5.8	3.0
Flour	1.6	0	1.0	3.9	3.9	9.7
Oats	4.6	15.7	20.2	18.2	22.0	20.1
Buckwheat	0	0	0	0	5.5	5.2
"Grain," "corn," and/or "meal"	26.6	36.2	28.8	22.4	35.1	10.2
Indian corn and/or rye	70.4	55.1	78.8	74.7	70.8	65.2
Any home-grown grains	90.2	81.5	87.0	84.6	81.7	67.3
Flour only	.5	0	0	2.2	.2	4.1
Potatoes only	0	0	.3	1.5	1.9	10.6
B. Average quantities of grains ^e						
Indian corn: No. inventories	118	75	105	111	91	107
bushels	22.9	28.1	26.5	24.7	26.1	22.6
Rye: No. inventories	55	22	63	85	85	78
bushels	10.5	7.7	9.2	12.1	12.7	16.1
Wheat: No. inventories	66	4	15	10	12	6
bushels	7.2	4.0	2.5	1.7	3.5	5.4
All grains: No. inventories	184	160	172	174	167	140
total bushels ^f	26.5	26.0	28.5	30.7	28.4	36.4
total (excluding oats)	26.4	23.8	25.3	28.3	26.5	29.4
Ratio of Indian corn to rye for inventories that list both						
No. inventories	48	20	55	70	60	63
ratio	4.5	6.1	6.5	3.8	3.1	3.4

^a See n. 17.

^b The distribution of inventories according to season has been corrected by weighting the inventories, grouped according to month, so that each month is equally represented. In this way the percentages indicate a yearly average of food listings. The sample is also weighted to conform to the distribution of movable wealth in the total collection of probate inventories.

^c In the 17th century, "corne" referred to both Indian and English grains. By the 19th century, *Webster's Dictionary* (1832) defined "corn" as Indian corn. Probably as early as the mid-18th century "corne" was synonymous with maize.

^d The wheat blast of the 1660s produced a dramatic shift in the proportion of inventories containing rye and wheat during the period 1653-1674 (see n. 16.)

^e The average quantities of Indian corn, rye, and wheat are computed from inventories that either list the number of bushels or designate the value of the stores of grain. The quantity of the second group of inventories is derived by dividing the appraised values by the average price per bushel for each period. The averages exclude inventories that do not contain Indian corn, rye, or wheat.

^f Bushels of Indian corn, rye, wheat, oats, and buckwheat, as well as bushels of grain designated "grain," "corn," or "meal," are combined for the average total holdings of grain. The second estimate excludes oats since large quantities of oats probably were used for fodder. The quantities of Indian corn, wheat, and rye are computed as described above. For inventories that list other grains but do not record the amount, or that list Indian corn, rye, or wheat without recording the quantity or value, the average quantity of each grain in each period is substituted for the missing value. Inventories that do not contain stores of grains are excluded.

TABLE II
ALLOWANCES OF GRAINS IN MIDDLESEX COUNTY WIDOWS' PORTIONS, 1654-1830

	1654-98	1705-18	1721-39	1740-59	1760-78	1781-99	1808-30
Number of wills	18	19	33	81	51	49	44
A. Percentages of widows' portions containing allowances of grains							
Indian corn	66.7	57.9	90.9	97.5	98.0	98.0	95.5
Rye	50.0	52.6	78.8	96.3	96.1	93.9	93.2
Wheat	38.9	26.3	15.2	11.1	13.7	10.2	0
Flour	0	0	0	0	0	4.1	20.5
"Grain"	38.9	21.1	6.1	1.2	2.0	2.0	0
Any grains and/or flour	100	78.9	97.0	100	100	100	95.5
B. Average allowances of grains, in bushels							
Indian corn	9.4	10.6	9.5	11.8	10.6	10.9	12.1
Rye	4.7	2.9	3.7	4.4	5.3	6.3	5.6
Wheat	4.3	1.6	1.6	1.4	1.3	1.5	0
Total grain allowances	14.6	14.5	13.3	16.3	16.1	17.1	17.4
Ratio of Indian corn to rye when quantities of both are designated							
	2.5	3.8	2.8	3.2	2.3	1.8	2.2

TABLE III
STORES OF MEAT IN MIDDLESEX COUNTY INVENTORIES, 1653-1835

	1653-74	1711-25 ^a	1735-47	1766-76	1788-95	1833-35 ^b
Number of inventories	195	206	208	193	214	199
Percentages of inventories containing meat, weighted by season and wealth						
Salt pork, bacon, and/or hams	24.7	17.7	33.0	46.0	43.6	56.9
Salt beef	9.6	4.5	11.8	8.3	10.1	12.9
Salted or dried fish	1.3	1.3	1.9	5.0	3.1	8.1
"Meat"	15.9	17.9	18.7	9.0	8.6	4.2
Any salted meat and/or fish	42.7	37.0	52.9	56.9	53.6	62.7
Swine	70.3	75.8	83.0	70.5	67.0	60.8
Cattle	85.4	86.9	90.4	84.7	87.3	75.5
Milk cows	75.3	77.8	80.4	78.7	81.5	74.1
Sheep	34.8	37.9	46.0	36.8	39.8	12.0
Swine and/or fattening cattle	70.3	75.8	83.0	70.5	68.0	60.8
Any livestock	85.9	88.0	90.8	85.2	87.3	80.4
Any salted meat, fish, swine and/or fattening cattle	80.6	86.6	91.3	84.8	83.5	85.0

^a See n. 27.

^b The drop in the percentage of inventories that list domestic animals reflects the increase in the number of decedents residing in commercial and industrial areas who did not raise their own livestock.

TABLE IV
ALLOWANCES OF MEAT IN MIDDLESEX COUNTY WIDOWS' PORTIONS, 1654-1830

	1654-98	1705-18	1721-39	1740-59	1760-78	1781-99	1808-30
Number of wills	18	19	33	81	51	49	44
A. Percentages of widows' portions containing allowances of meat							
Salt pork	22.2	47.4	66.7	76.5	78.4	85.7	90.9
Salt beef	5.6	42.1	66.7	77.8	88.2	95.9	93.2
Fresh meat	0	0	0	1.2	0	2.0	20.5
Any salted and/or fresh meat	22.2	73.7	78.8	90.1	94.1	98.0	97.7
Pork and/or swine	33.3	78.9	78.8	90.1	92.2	93.3	95.5
Any salted or fresh meat, swine, and/or the "increase" from cows or sheep	38.9	78.9	78.8	93.8	100	98.0	97.7
B. Average allowances of meat, in pounds							
Salt pork	80.0	100.0	103.4	122.9	128.0	118.5	122.3
Salt beef		61.4	64.4	72.8	82.0	75.3	83.3
Total meat allowance	80.0	120.8	145.2	168.2	183.5	178.0	201.8
Total meat allowance when both pork and beef are provided		156.7	161.7	190.0	204.5	195.9	209.7

TABLE V
DAIRY PRODUCTS IN MIDDLESEX COUNTY INVENTORIES AND WIDOWS' PORTIONS, 1653-1835

A. Percentages of inventories containing dairy products, weighted by season and wealth						
	1653-74	1711-25	1735-47	1766-76	1788-95	1833-35
Number of inventories	195	206	208	193	214	199
Milk cows	75.3	77.8	80.4	78.7	81.5	74.1
Butter	18.5	7.8	5.3	7.1	13.7	29.7
Cheese	22.2	7.5	7.1	13.3	19.5	22.2
Butter and/or cheese	27.5	11.6	10.4	16.1	24.0	37.7
Butter, cheese, and/or salt meat	52.3	42.1	54.8	63.0	61.2	70.5
B. Percentages of widows' portions containing allowances of dairy products						
	1654-98	1705-18	1721-39	1740-59	1760-78	1781-99
Number of wills	18	19	33	81	51	49
Milk cows	88.2	89.5	81.8	96.3	90.2	91.8
Butter	0	0	3.0	3.7	7.8	8.2
Cheese	0	0	3.0	3.7	5.9	8.2
Milk	0	5.3	0	4.9	7.8	2.0
Dairy products and/or milk cows	88.2	94.7	81.8	98.8	98.0	95.9
						97.7
						1808-30

TABLE VI
VEGETABLES IN MIDDLESEX COUNTY INVENTORIES AND WIDOWS' PORTIONS, 1653-1835

A. Percentages of inventories containing vegetables, weighted by season and wealth							
	1653-74	1711-25	1735-47	1766-76	1788-95	1833-35	
Number of inventories	195	206	208	193	214	199	
Peas	27.9	3.8	7.4	12.4	6.1	.9	
Beans	.4	10.5	17.7	27.8	32.3	26.2	
Potatoes	0	0	2.5	17.1	34.9	55.1	
Turnips, carrots, onions, and/or "sauce"	4.3	.5	2.3	10.4	13.2	16.4	
Potatoes and/or "sauce"	4.3	.5	4.3	21.8	40.5	57.5	
Beans, potatoes, and/or "sauce"	4.7	11.0	18.4	37.6	50.4	63.2	
Any vegetables	29.0	13.3	20.1	41.4	50.4	63.2	
B. Percentages of widows' portions containing allowances of vegetables							
	1654-98	1705-18	1721-39	1740-59	1760-78	1781-99	1808-30
Number of wills	18	19	33	81	51	49	44
Peas	11.1	0	0	2.5	9.8	4.1	0
Beans	0	0	3.0	21.0	23.5	26.5	18.2
Turnips	0	0	9.1	23.5	25.5	14.3	2.3
Potatoes	0	0	0	3.7	15.7	16.3	20.5
"Sauce"	0	0	0	19.8	58.8	77.6	81.8
Any vegetables	11.1	0	9.1	46.9	78.4	91.8	93.2
A garden and/or "green sauce"	5.6	21.1	51.5	28.4	37.3	28.6	27.3
Any vegetables and/or a garden	16.7	21.1	51.5	56.8	84.3	91.8	93.2

TABLE VII
FERMENTED BEVERAGES IN MIDDLESEX COUNTY INVENTORIES AND WIDOWS' PORTIONS, 1653-1835

A. Percentages of inventories containing beverages, weighted by season and wealth							
	1635-74	1711-25	1735-47	1766-76	1788-95	1833-35	
Number of inventories	195	206	208	193	214	199	
Malt	33.0	19.9	25.8	8.8	7.4	0	
Barley	17.8	19.8	20.0	6.7	15.6	4.8	
Hops	21.6	8.3	11.9	6.1	3.6	4.7	
Cider	4.0	27.4	34.7	47.5	47.5	52.3	
Malt, barley, and/or hops	48.7	41.8	40.6	19.3	21.0	9.5	
Cider only	1.0	17.6	17.0	36.1	35.7	44.1	
Rum and/or other spirits	3.6	3.1	.6	3.3	1.1	2.2	
Cider, beer, rum, and/or spirits	50.4	61.1	58.0	55.9	57.3	53.6	
B. Percentages of widows' portions containing allowances of beverages							
	1654-98	1705-18	1721-39	1740-59	1760-78	1781-99	1808-30
Number of wills	18	19	33	81	51	49	44
Malt or barley	33.3	52.6	75.8	82.7	76.5	67.3	29.5
Cider	27.8	57.9	81.8	86.4	92.2	91.8	84.1
Spirits	0	0	0	4.9	3.9	10.2	6.8
Cider and/or beer	44.4	63.2	93.9	95.1	94.1	95.9	84.1
Apples	33.3	42.1	51.5	44.4	64.7	55.1	52.3
Use of orchard	33.3	15.8	27.3	16.0	0	0	0
Apples, other fruit, and/or use of orchard	50.0	47.4	57.8	51.9	64.7	55.1	70.5

TABLE VIII
FOOD STORAGE BY WEALTH, MIDDLESEX COUNTY
INVENTORIES, 1653-1835

Percentages of inventories in each wealth cohort, grouped by valuations of movable estate, that contain stores of food, weighted by season.					
1653-1674	£1-25	£26-50	£51-100	£101-200	£201+
Number of inventories	13	39	59	61	33
Indian corn	67.2	63.3	60.5	64.6	81.3
Rye	11.3	21.2	36.6	42.8	53.5
Wheat	45.9	22.9	35.0	45.3	65.6
Indian corn and/or rye	67.2	68.8	63.7	71.3	84.2
Any grain and/or flour	84.5	88.5	90.3	96.5	88.6
Salt pork	12.8	17.4	26.6	26.2	34.8
Salt beef	10.1	5.1	7.9	4.5	27.6
Any salted meat and/or salt fish	22.8	33.7	51.8	39.5	56.6
Salted meat and/or fat livestock	55.6	63.0	89.1	87.6	93.2
Butter	8.7	6.1	16.1	21.1	39.4
Cheese	8.7	4.8	21.3	33.1	35.9
Butter and/or cheese	8.7	6.1	31.7	33.1	49.6
Dairy products and/or salt meat ^a	22.8	33.7	61.2	57.3	70.7
Dairy products, salt meat, and/or dried legumes ^b	45.1	49.3	62.6	66.1	87.0
Peas	30.9	17.5	18.3	32.0	49.8
Any vegetables	30.9	19.8	18.3	34.2	49.8
Malt	18.8	20.9	36.0	37.5	43.9
Malt, barley, and/or hops	18.8	38.4	46.9	58.3	64.8
Cider	10.1	2.1	2.2	5.4	3.1
Cider and/or beer	18.8	40.5	49.1	58.3	64.8
Any fruit	10.1	10.4	3.5	12.8	17.1
Condiments ^c	12.8	6.6	19.4	21.5	37.5

^a Indicates the presence of some form of animal protein.

^b Indicates the presence of any form of protein. See n. 38.

^c Salt, sugar, molasses, honey, spices, vinegar, and pickles.

TABLE VIII—continued
 FOOD STORAGE BY MIDDLESEX COUNTY
 INVENTORIES, 1653-1835

Percentage of inventories in each wealth cohort, grouped by valuations of movable estate, that contain stores of food, weighted by season.					
1711-1725	£1-25	£26-50	£51-100	£101-200	£201+
Number of inventories	8	26	68	70	32
Indian corn	60.2	57.4	52.3	44.9	59.9
Rye	18.7	26.6	14.4	22.1	27.4
Wheat	0	3.4	1.0	3.1	0
Indian corn and/or rye	60.2	57.4	54.4	49.6	64.3
Any grain and/or flour	77.4	94.7	77.2	80.4	83.6
Salt pork	26.6	14.3	18.6	17.3	13.2
Salt beef	13.2	2.1	4.2	2.6	6.3
Any salted meat and/or salt fish	39.8	24.8	39.6	36.4	44.1
Salted meat and/or fat livestock	67.9	71.1	91.4	90.7	95.0
Butter and/or cheese	18.7	3.4	8.8	16.0	12.1
Dairy products and/or salt meat	58.6	28.1	42.8	42.3	44.1
Dairy products, salt meat, and/or dried legumes	58.6	36.1	48.8	47.4	44.1
Peas	0	0	2.9	4.3	12.5
Beans	9.4	12.9	14.8	5.1	10.4
Any vegetables	9.4	12.9	16.7	9.7	16.9
Malt	9.4	13.7	15.5	27.3	28.8
Malt, barley, and/or hops	28.1	30.5	37.4	49.4	58.0
Cider	9.4	14.7	29.8	29.5	43.7
Cider and/or beer	37.4	42.4	58.3	66.3	81.6
Any fruit	0	5.3	2.7	2.9	0
Condiments	0	8.7	.8	5.5	12.5

TABLE VIII—continued
 FOOD STORAGE BY MIDDLESEX COUNTY
 INVENTORIES, 1653-1835

Percentage of inventories in each wealth cohort, grouped by valuations of movable estate, that contain stores of food, weighted by season.					
1735-1747	£1-62.5	£62.5-125	£126-250	£251-500	£501+
Number of inventories	7	26	59	75	37
Indian corn	66.3	80.9	66.7	80.8	71.8
Rye	24.6	47.9	29.5	44.6	50.7
Wheat	11.2	10.0	6.2	3.3	16.7
Indian corn and/or rye	73.0	88.1	72.1	81.5	76.8
Any grain and/or flour	73.0	88.1	86.6	88.3	92.7
Salt pork	18.8	41.1	31.9	35.5	26.0
Salt beef	18.8	17.0	5.5	9.7	19.4
Any salted meat and/or salt fish	39.8	55.2	56.8	54.5	43.8
Salted meat and/or fat livestock	69.0	91.5	92.2	97.1	87.9
Butter and/or cheese	6.7	11.8	3.9	11.4	21.8
Dairy products and/or salt meat	46.5	55.2	56.8	57.2	48.3
Dairy products, salt meat, and/or dried legumes	46.5	65.3	58.0	62.6	54.7
Peas	19.6	6.4	3.6	8.7	8.3
Beans	28.6	24.9	12.5	13.5	22.5
Any vegetables	28.6	30.6	12.5	18.0	22.5
Malt	6.7	24.1	28.0	29.8	24.0
Malt, barley, and/or hops	6.7	37.9	41.0	43.4	54.1
Cider	30.8	30.9	29.0	35.0	52.7
Cider and/or beer	37.5	50.9	57.7	59.2	72.0
Any fruit	0	0	3.2	2.6	2.8
Condiments	9.8	1.9	5.7	14.6	19.4

* old tenor

TABLE VIII—continued
 FOOD STORAGE BY MIDDLESEX COUNTY
 INVENTORIES, 1653-1835

Percentage of inventories in each wealth cohort, grouped by valuations of movable estate, that contain stores of food, weighted by season.					
1766-1776	£1-25	£26-50	£51-100	£101-200	£201+
Number of inventories	16	18	67	63	19
Indian corn	71.3	59.1	70.4	65.9	74.4
Rye	35.3	40.8	55.0	46.6	48.7
Wheat	0	2.9	4.6	2.9	24.3
Indian corn and/or rye	71.3	73.9	80.1	70.4	74.4
Any grain and/or flour	71.3	90.1	91.5	88.3	85.3
Salt pork	19.3	50.6	49.3	51.9	51.8
Salt beef	0	0	10.9	18.0	9.1
Any salted meat and/or salt fish	39.5	53.5	62.6	62.3	59.8
Salted meat and/or fat livestock	56.0	84.1	92.8	93.6	85.3
Butter	6.9	2.8	4.9	11.1	9.7
Cheese	0	9.7	10.2	22.1	32.2
Butter and/or cheese	6.9	9.7	11.9	23.8	36.4
Dairy products and/or salt meat	46.4	59.3	66.9	67.2	74.4
Dairy products, salt meat, and/or dried legumes	68.0	69.3	73.6	76.4	81.1
Peas	4.3	12.3	10.8	15.1	20.1
Beans	25.9	11.7	33.6	37.5	21.7
Potatoes	6.1	14.7	24.3	20.1	4.2
Turnips and/or other sauce	0	7.6	7.1	19.1	23.8
Potatoes and/or sauce	6.1	14.7	25.5	29.5	28.0
Any vegetables	25.9	25.9	49.4	51.0	50.4
Malt, barley, and/or hops	13.0	5.1	26.9	25.7	23.2
Cider	15.7	44.4	48.4	67.7	50.4
Cider and/or beer	28.7	46.5	59.2	73.8	59.8
Any fruit	12.6	5.1	3.3	4.7	0
Condiments	0	11.8	11.9	15.8	20.0

TABLE VIII—continued
 FOOD STORAGE BY MIDDLESEX COUNTY
 INVENTORIES, 1653-1835

Percentage of inventories in each wealth cohort, grouped by valuations of movable estate, that contain stores of food, weighted by season.					
1788-1795	£1-25	£26-50	£51-100	£101-200	£201+
Number of inventories	19	28	59	60	38
Indian corn	33.8	64.1	53.6	65.9	80.9
Rye	44.2	32.0	37.4	50.2	52.8
Wheat	2.2	7.2	2.7	11.6	5.4
Indian corn and/or rye	59.8	76.3	69.1	72.3	80.9
Any grain and/or flour	78.8	80.1	76.4	84.1	96.9
Salt pork	31.8	43.3	36.2	53.3	59.4
Salt beef	5.6	5.1	10.5	11.7	19.8
Any salted meat and/or salt fish	50.7	55.1	45.2	55.0	71.4
Salted meat and/or fat livestock	61.9	89.9	81.4	93.1	93.4
Butter	13.4	5.1	7.9	17.1	32.3
Cheese	11.2	5.1	11.0	30.0	50.8
Butter and/or cheese	13.4	5.1	17.1	36.8	57.6
Dairy products and/or salt meat	56.3	55.1	57.7	62.2	83.2
Dairy products, salt meat, and/or dried legumes	65.2	60.2	65.1	68.0	89.1
Peas	5.6	0	4.9	9.6	13.5
Beans	24.6	31.6	28.4	32.4	53.5
Potatoes	27.9	30.7	34.8	35.3	50.6
Turnips and/or other sauce	23.0	4.9	10.7	10.5	21.2
Potatoes and/or sauce	45.4	30.7	34.8	39.7	60.8
Any vegetables	45.4	48.4	45.2	49.5	74.1
Malt, barley, and/or hops	5.6	14.5	16.0	31.0	45.5
Cider	20.1	45.2	49.2	53.5	77.1
Cider and/or beer	25.7	57.4	59.2	62.3	86.1
Any fruit	0	1.9	2.5	4.6	5.4
Condiments	5.6	5.7	12.3	22.1	35.1

TABLE VIII—continued
FOOD STORAGE BY MIDDLESEX COUNTY
INVENTORIES, 1653-1835

Percentage of inventories in each wealth cohort, grouped by valuations of movable estate, that contain stores of food, weighted by season.					
1833-1835	\$1-100	\$101-200	\$201-400	\$401-800	\$801+
Number of inventories	26	42	43	59	34
Indian corn	34.1	40.4	51.6	77.2	82.5
Rye	21.1	34.5	25.4	65.7	65.4
Wheat	0	0	0	4.4	14.7
Flour	9.0	18.7	9.8	6.5	4.4
Any home-grown grains	47.2	59.8	55.4	88.6	84.9
Flour only	9.0	5.8	5.9	0	0
Potatoes only	19.2	16.0	7.0	2.7	12.7
Salt pork	30.2	49.9	57.1	75.4	58.7
Salt beef	3.0	7.3	2.0	26.4	24.1
Any salted meat and/or salt fish	42.3	60.8	60.7	76.7	61.1
Salted meat and/or fat livestock	56.0	89.3	86.0	92.5	97.5
Butter	12.1	26.6	34.4	28.9	44.2
Cheese	6.4	17.0	12.8	31.3	49.0
Butter and/or cheese	12.1	28.6	39.8	49.8	56.9
Dairy products and/or salt meat	45.4	66.6	67.8	85.2	80.2
Dairy products, salt meat, and/or dried legumes	59.0	70.5	69.7	86.5	87.2
Peas	0	0	0	4.1	0
Beans	22.4	17.6	17.9	41.2	39.4
Potatoes	38.6	43.9	58.8	63.5	82.7
Turnips and/or other sauce	19.9	10.5	9.2	20.4	30.6
Potatoes and/or sauce	44.4	43.9	58.8	69.6	82.7
Any vegetables	53.7	45.9	66.1	79.2	82.7
Malt, barley, and/or hops	3.3	2.0	10.6	5.3	30.2
Cider	32.1	32.0	40.1	71.3	90.9
Cider and/or beer	35.3	32.0	41.7	72.6	90.9
Apples	3.0	8.8	10.8	6.5	35.3
Any fruit	13.5	12.5	14.5	9.0	35.3
Condiments	23.7	36.7	32.3	42.8	45.7