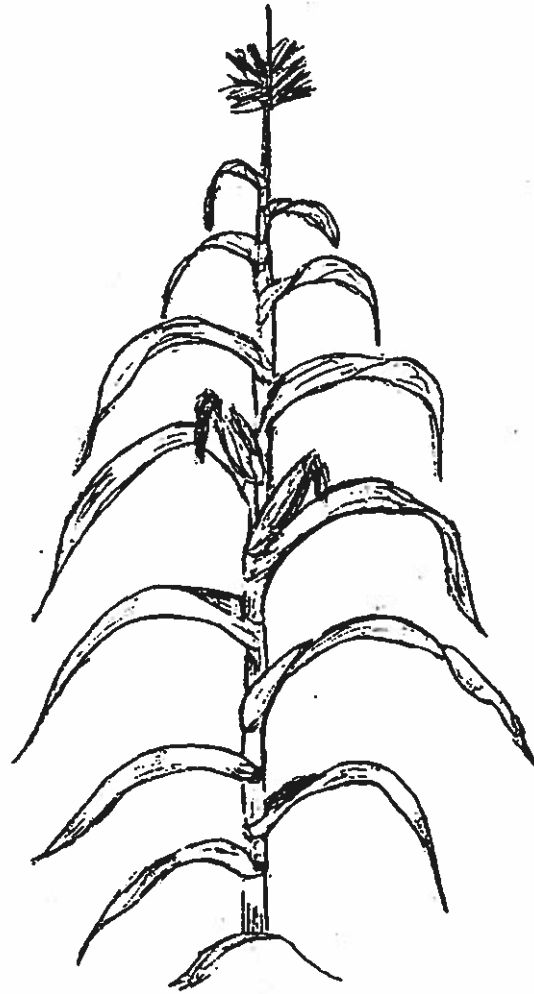


**CORN: THE PRODUCTION OF A  
SUBSISTENCE CROP ON  
THE COLONIAL POTOMAC**

by  
**David O. Percy**



**The National Colonial Farm  
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**THE ACCOKEEK FOUNDATION**



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## The Importance of Indian Corn

On a frosty February morning the middle-class planter walked into an old tobacco field. Turning the soil with his hoe, he began preparing the land for Indian corn. The old tobacco field, which had provided him with the wherewithal to buy goods, now would, with God's providence and his own sweat, produce food for his family. For the next nine months he would carefully balance his labor between his crops of tobacco and corn--the former his gold and the latter his food.

In colonial America, Indian corn or maize was truly the staff of life. Almost every part of this plant was utilized by the colonial planter. The white or yellow kernels were the major part of his family's diet. The plant's leaves would be used for fodder. The cobs provided a hot, even-burning fire for cooking or making candles and soap. Dried cobs were also used in the necessary behind the house. When dry, husks and stalks were used for feeding livestock, caning chairs, making baskets, and even for thatching roofs.<sup>1</sup>

No other crop had more importance for the subsistence of the colonists than did corn. This native American plant, which had been domesticated by the Indians to the point where it no longer existed in a wild state, was quickly adopted by the early European settlers. Corn could be grown on newly cleared lands with a minimum amount of skill and produced greater

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<sup>1</sup>Hugh Jones, The Present State of Virginia: From Whence is Inferred a Short View of Maryland and North Carolina, ed. Richard L. Morton (Chapel Hill: The University of North Carolina Press, 1956), p. 198n.

yields per plant than European grains. It could be stored in easily constructed shelters for relatively long periods. As a dietary item it could be prepared into a variety of "tasty" dishes. For all of these reasons, corn soon became the chief American grain crop.<sup>2</sup>

### Colonial Corn Varieties

The process of selection begun by the American Indians was carried forward by the settlers along the rivers and bays of Maryland and Virginia as well as elsewhere in the New World. When the English colonists settled the tidewater region, they found the Indians cultivating Indian corn (Zea mays, L). One of the corn varieties, which the Indians grew for food, was a soft, white, coarse, dent corn. The English called this variety Virginia gourdseed corn. The name came from the shape of the kernels which resembled the shape of a common gourd.<sup>3</sup> Each plant of the Virginia gourdseed corn produced from one to four ears. The ears were six to seven inches in length and about two and a half inches in diameter with twenty-four to thirty-six rows of small, white kernels. These corn plants, when

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<sup>2</sup>William Byrd, William Byrd's Natural History of Virginia: or the New Discovered Eden, eds. Richmond Croom Beatty and William J. Mulloy (Richmond: The Dietz Press, 1940), pp. 19-20; Peter Kalm, "Peter Kalm's Short Account of the Natural Position, Use, and Care of Some Plants, of Which the Seeds Were Recently Brought Home from North America for the Service of Those Who Take Pleasure in Experimenting with the Cultivation of the Same in Our Climate," trans. Esther Louise Larsen, Agricultural History, XIII (January, 1939), pp. 51-52.

<sup>3</sup>Byrd, Natural History of Virginia, pp. 20-21; W. Ralph Singleton, "Agricultural Plants," Agricultural History, XLVI (January, 1972), p. 73; Henry A. Wallace and William L. Brown, Corn and Its Early Fathers (East Lansing: Michigan State University Press, 1956), pp. 34-35.

mature, reached a height of ten to twelve feet. It took the Virginia gourdseed corn from five to six months to reach maturity.<sup>4</sup>

Virginia gourdseed corn was particularly valuable because of its high yields and food value. Since each ear produced from 500 to 600 kernels, this variety yielded a greater quantity of grain than other varieties. In addition, the Virginia gourdseed had a high starch content which made it well-suited for making breads and other corn dishes. The height of the stalk (often twice as tall as the New England corn varieties) made this kind of corn extremely useful for fodder. The biggest drawback to the Virginia gourdseed variety was that it could not be easily exported. It had a tendency to become mouldy in casks unless it had been thoroughly dried.<sup>5</sup> Since most corn, however, grown along the Potomac river during the colonial period was raised for home consumption, the yields of the Virginia gourdseed combined with its advantages of taste, fineness of the ground meal, and the color of the meal made it the predominant corn variety in the Middle and Southern colonies.

Most Potomac planters also raised a few rows of flint corn for "roasting ears." The flint corns were ready for the table in only two to three months. There were four varieties of flint corn designated by their color and kernel size--the big white, big yellow, little

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<sup>4</sup>Charles S. Plumb, Indian Corn Culture (Chicago: Breeder's Gazette Printers, 1895), p. 25; Joel Barlow, The Hasty-Pudding: A Poem in Three Cantos with a Memoir on Maize or Indian Corn, comp. D. J. Browne (New York: C. M. Saxton, n. d. [1793?]), p. 47.

<sup>5</sup>Ibid.; John Lorain, Nature and Reason Harmonized in the Practice of Husbandry (Philadelphia: H. C. Carey & I. Lea, 1825), p. 207.

white, and little yellow. The yellow flint corns were more commonly raised than the white varieties. The flint corn varieties had eight to twelve rows of large, smooth, rounded kernels. The little white and little yellow ripened earlier than the big white and big yellow. Flint corn stalks were only five to seven feet tall at maturity, so they were not as valuable for fodder as the Virginia gourdseed. The flint varieties commonly had two or three stalks with one to two ears per stalk. The ears were about one and a half inches in diameter and ten to twelve inches in length. In the Northern colonies with shorter growing seasons, flint corns were the only varieties which would mature.<sup>6</sup>

#### The Culture of Corn

Corn was usually planted on exhausted tobacco lands in southern Maryland. Although this land would

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<sup>6</sup>Ibid., p. 203; Timothy Dwight, Travels in New England and New York, ed. Barbara Miller Solomon and Patricia M. King (4 vols.; Cambridge: The Belknap Press of Harvard University Press, 1969), II, pp. 214-15; Peter Kalm, "Pehr Kalm's Description of Maize, How It is Planted and Cultivated in North America, Together with the Many Uses of This Crop Plant," trans. Esther Louise Larsen, Agricultural History, IX (April, 1935), p. 104; John Banister, John Banister and His Natural History of Virginia: 1678-1692 (Urbana: The University of Illinois Press, 1970), p. 357; John Banister to Dr. Robert Morison, The Falls, April 6, 1679, ibid., pp. 40-41; William Douglass, A Summary, Historical and Political of the First Planting, Progressive Improvements, and Present State of the British Settlements in North America (2 vols.; London: R. and J. Dodsley, 1770), II, pp. 205-06; Singleton, "Agricultural Plants," pp. 73-74; Charles Varlo, The Essence of Agriculture, Being a Regular System of Husbandry, Through All Its Branches; Suited to the Climate and Lands of Ireland . . . with Author's Twelve Months Tour thro' America. Likewise How to Raise the Valuable Crops; of Tobacco, India-Corn, and Siberian Barley. On Flax, Hemp, Rape and All Grass-seeds, &c. &c. with an Address to the Legislature and Gentlemen of Ireland. How to Levy Taxes on Luxury, Provide for the Poor, &c. &c. (2 vols.; London: The Author, 1786), I, p. 149.



no longer produce a suitable tobacco crop, there was sufficient fertility for corn. The river bottom lands along the Potomac were described as the most fertile in Maryland.<sup>7</sup> Corn does best on sandy loams which were also the best lands for tobacco. In addition, the planter might use the animal manures which he was reluctant to use on his tobacco for fear of producing a bad tasting tobacco.<sup>8</sup> The chief reason for using old tobacco grounds for planting corn, however, was that these were cleared lands. This meant that the time and labor required for clearing the century-old trees were saved for more productive uses.

As soon as the ground was thawed in the late winter or early spring, the colonial planter began to prepare his fields. First, the tobacco fields, and then the corn fields were worked over. Using a narrow hoe, the planter and his family chopped up the soil and formed hills for the corn plants. The field was not completely cultivated--only those areas in a four or five foot circumference around each hill were worked.<sup>9</sup> They would have to work about five and a half days per acre to prepare the fields for corn. Thus a five acre corn field would require approximately 25 to 30 days of labor. Of course, the stiffness of the soil could make

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<sup>7</sup> Ibid., II, pp. 99-100.

<sup>8</sup> Jones, Present State of Virginia, p. 77; W. A. Low, "The Farmer in Post-Revolutionary Virginia, 1783-1789," Agricultural History, XXV (July, 1951), p. 124; Edmund Ruffin, Essay on Calcareous Manures, p. 12, quoted by Lewis Cecil Gray, History of Agriculture in the Southern United States to 1860 (2 vols.; New York: Peter Smith, 1941), I, p. 197.

<sup>9</sup> Lyman Carrier, Agriculture in Virginia, 1607-1699 (Charlottesville: The University Press of Virginia, 1957), p. 6; E/d/. W/illiams/, Virginia: More Especially the South Part Thereof, Richly and Truly Valued (2nd ed.; London, 1650), p. 12.

this task take longer. Along with the preparation of the corn field, the planter also had to prepare three or four acres of land for his tobacco and an acre or two for the garden. Each field had to be surrounded by a snake fence to keep wandering livestock out of the crops. In addition, the routine work of fixing and sharpening tools, feeding and caring for livestock, and doing other farm chores had to be done.

If the ground had been cropped for several years in tobacco and then sowed in corn, the planter might fertilize his field at planting time. Along the Potomac river, runs of herring occurred about the time of planting in April. Several fish were placed in each hill.<sup>10</sup> If the planter penned any of his livestock, he might cart barnyard manure to his field. Even ashes were occasionally used--one-half pint to a hill.<sup>11</sup> Most planters, however, merely moved to a new field when the yields of corn fell rather than going to the work of fertilizing. Most planters had sufficient fertile land for crops and too little time to invest in fertilization.<sup>12</sup>

With his fields prepared, the planter inspected his seed corn. Seed corn was saved from the best ears of the previous year's crop. The selected ears were hung by their husks to dry throughout the winter in the planter's house or other dry building. Before planting

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<sup>10</sup>William Dana Emerson, History and Incidents of Indian Corn, and Its Culture (Cincinnati: Wrightson & Co., Printers, 1878), pp. 354-55; Douglas Southall Freeman, Planter and Patriot, Volume III of George Washington: A Biography (New York: Charles Scribner's Sons, 1951), p. 75.

<sup>11</sup>Jared Eliot, Essays Upon Field Husbandry in New England and Other Papers: 1748-1762, ed. Harry J. Carman and Rexford G. Tugwell (New York: Columbia University Press, 1934), p. 22.

<sup>12</sup>Kalm, "Description of Maize," p. 105.

the dried ears were examined for signs of mould. Mouldy corn was not used. If the kernels on the ear appeared sound, the kernels from the middle of the ear were shelled for use as seed. In order to protect the seed from birds and insects, the colonial planters soaked their seed in a number of different concoctions --such as water in which white Hellebor, also known as hitch root, bear root, skunk cabbage, or tickle weed, had been boiled. The seeds were also sometimes coated with tar. To hasten germination the seeds were soaked overnight in water. To seed a field with gourdseed corn at the general rate of planting, the planter needed about a peck of seed for each acre.<sup>13</sup>

Corn could be sown from about the middle of April until nearly the end of May. The gourdseed corn usually was planted in April. This variety was planted in hills which were spaced in rows six to eight feet apart and from eighteen inches to four feet within the rows. Because the gourdseed variety had such a large stalk, the colonial planters found that planting it too

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<sup>13</sup>Lorain, Nature and Reason Harmonized, p. 255; Kalm, "Description of Maize," pp. 106-07; St. John de Crevecoeur, Crevecoeur's Eighteenth-Century Travels in Pennsylvania and New York, trans. and ed. Percy G. Adams (Louisville: The University of Kentucky Press, 1961 [18017]), pp. 116-17; Henry A. Wallace, "Thomas Jefferson's Farm Book: A Review Essay," Agricultural History, XXVIII (October, 1954), pp. 133-34; Douglass, Present State of British Settlements, p. 204; Entry for April 25, 1770, Landon Carter, The Diary of Colonel Landon Carter of Sabine Hall, 1752-1778, ed. Jack P. Greene (2 vols.; Charlottesville: The University Press of Virginia, 1965), I, p. 394; Entry for April 13, 1770, ibid., I, p. 387; Eliot, Upon Field Husbandry, p. 70.

closely together produced inferior ears.<sup>14</sup>

The flint corn was planted in April, May, and occasionally in June. This staggered planting allowed the planters to enjoy roasted ears throughout the summer. The flint corn was planted in hills three or four feet apart in each direction.<sup>15</sup>

If a planter sowed both Virginia gourdseed and the flint varieties, he had to be sure that the two varieties were planted in fields distant from one another to prevent cross-pollination. Corn is an open-pollinated plant and therefore, wind-carried pollen will fertilize corn plants at some distance from the tassels. Most colonial farmers believed that the "yellow-gourdseed" corn produced by cross-pollination of Virginia gourdseed and flint corns produced less tasty ears.<sup>16</sup>

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<sup>14</sup>Entry for April 14, 1758, Carter, Diary, I, p. 216; Entry for July 9, 1770, ibid., I, p. 439; Lorain, Nature and Reason Harmonized, p. 250; John Lorain, "On Soiling Cattle: Mixed Cultivation of Corn and Potatoes," Memoirs of the Philadelphia Society for Promoting Agriculture, II (1811), p. 201; Banister, John Banister, p. 358; Singleton, "Agricultural Plants," p. 75; Paul Leland Haworth, George Washington, Farmer: Being an Account of his Home Life and Agricultural Activities (Indianapolis: Bobbs-Merrill Co., Publ., 1915), p. 105; Wallace, "Jefferson's Farm Book," p. 134; Gray, Agriculture in the Southern United States, p. 174.

<sup>15</sup>Entry for October 27, 1767, Carter, Diary, I, p. 338; Joseph Lyman, "On Planting Corn. From the Hampshire Gazette," Memoirs of the Philadelphia Society for Promoting Agriculture, II (1811), Appendix, p. 47; Kalm, "Description of Maize," p. 105.

<sup>16</sup>Barlow, Hasty-Pudding, p. 47; Lorain, Nature and Reason Harmonized, p. 207; Douglass, Present State of British Settlements, II, p. 205; Philip Miller, The Gardener's Dictionary: Containing the Methods of Cultivating and Improving the Kitchen, Fruit and Flower Garden, As Also, the Physick Garden, Wilderness, Conservatory, and Vineyard: According to the Most Experienc'd Gardeners of the Present Age (3 vols.; London, 1741), II, MA.

The entire family participated in sowing corn. The men and older boys made hills about a foot high and twenty inches in diameter. Any weeds on or around the hills were hoed out. Then they made a hole with their hoes in the top of the hill. The depth of this hole varied with individual planters. Some made the hole as deep as six inches in hopes that the seed at the bottom of the hole would be protected from birds and squirrels. Others made very shallow (barely an inch deep) holes. The most common planting depth was about two to three inches. The younger children followed along placing four or five kernels in each hole. Finally, the women and older girls covered the seeds with soil making sure that no large clumps of dirt would hinder the sprouting corn from breaking through the soil surface.<sup>17</sup>

A family of four adults (including children above sixteen years of age) and two children could plant about three acres of corn a day. In two days the colonial family could sow their five acres of corn.<sup>18</sup>

Following the practices of the American Indians, some colonial planters sowed bean and pumpkin seeds along with their corn. The beans used the corn stalks as supports for their vines. The pumpkin vines wound their way between the hills of corn. These pumpkin vines helped to choke-out weeds. Planters experimented with various crops, which were planted in the wide spaces

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<sup>17</sup>Kalm, "Description of Maize," p. 107; Epicurus, "Cultivation of Corn," The Farmer's Cabinet, II (1838), p. 260; Stevenson Whitcomb Fletcher, Pennsylvania Agriculture and Country Life: 1640-1840 (Harrisburg: Pennsylvania Historical and Museum Commission, 1950), p. 149.

<sup>18</sup>Ibid., p. 150; Entry for April 18, 1770, Carter, Diary, I, p. 558; H. A. Wallace and Earl N. Bressman, Corn and Corn Growing (Des Moines: Wallace Publishing Co., 1923), p. 51.

between the hills. Some of these "companion" plants included: carrots, melons, peas, potatoes, and squashes.<sup>19</sup>

Depending on the soil temperature and its moisture content, the corn plants would sprout in five to twenty days. Generally, corn planted in the early part of the growing season when the ground was still cold took longer to sprout than the seeds planted when the ground was warmer. Many colonial farmers tried to plant their corn after a rain shower had soaked the ground: this insured adequate soil moisture for the germination of the corn seeds.<sup>20</sup>

Colonial planters were faced with immediate threats to their corn crop--threats which had to be met and mastered if the farmer's family was to have full bellies in the year ahead. As if they knew the planter's schedule, the crows and squirrels arrived to dig up the corn seeds. Crows even pulled up the sprouting corn and devoured the seed at the end. No amount of seed steeping in noxious mixtures completely deterred these winged, black scoundrels. Various devices, such as scarecrows and hanging dead crows in the fields, were tried with little success.<sup>21</sup> Ground squirrels also

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<sup>19</sup>Gray, Agriculture in the Southern United States, I, p. 173; Paul C. Mangelsdorf, Corn: Its Origin, Evolution and Improvement (Cambridge: The Belknap Press of Harvard University Press, 1974), p. 2; Wallace, "Jefferson's Farm Book," p. 134; Lorain, "On Soiling Cattle," p. 201; Singleton, "Agricultural Plants," pp. 75-76; Haworth, George Washington, Farmer, p. 105; Entry for April 29, 1772, Carter, Diary, II, p. 675.

<sup>20</sup>Wallace and Bressman, Corn and Corn Growing, p. 11.

<sup>21</sup>Eliot, Upon Field Husbandry, p. 70; Crevecoeur, Eighteenth Century Travels, pp. 116-17; Entry for May 10, 1758, Carter, Diary, I, p. 226; John Clayton, The Reverend John Clayton: A Parson with a Scientific Mind: His Writings and Other Related Papers, ed. Edmund Berkeley and Dorothy Smith Berkeley (Charlottesville: The University Press of Virginia, 1965), pp. 100-01.

dug-up and devoured corn seeds. The only defence against squirrels was the farmer's flintlock. Deer from the surrounding woods foraged on the tender shoots of corn. Below the ground moles worked their way from hill to hill eating the sprouting corn.<sup>22</sup>

Insects were also a serious threat to the corn crop. There was little a colonial planter could do to stop the ravages of insects. A ballad of the early seventeenth century warned:<sup>23</sup>

Our corn being planted and seed being sown,  
The worms destroy much before it is grown:

and in the eighteenth century, Joel Barlow penned these verses about the root worm:<sup>24</sup>

Then guard your nursling from each greedy foe,  
Th' insidious worm, the all-devouring crow.  
A little ashes, sprinkled round the spire,  
Soon steep'd in rain, will bid the worm retire;

The cutworm or corn rootworm (Diabrotica duodecimpunctata Oliv.) was the greatest insect threat that most colonial corn planters faced. These caterpillars attacked the roots of the young corn and cut the plant off just below the surface. Since planters along the Potomac usually planted their Virginia gourdseed in April when the ground was still cold and damp, their corn plants were subject to the height of the cutworm infestations

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<sup>22</sup>Kalm, "Description of Maize," p. 115; Entry for May 15, 1758, Carter, Diary, I, p. 227; Entry for June 7, 1771, ibid., I, p. 570.

<sup>23</sup>Quoted in Samuel Eliot Morison, The Story of the "Old Colony" of New Plymouth, pp. 97-99, quoted by Darrett B. Rutman, Husbandmen of Plymouth: Farms and Villages in the Old Colony, 1620-1692 (Boston: Plymouth Plantations, Inc., 1967), p. 10.

<sup>24</sup>Barlow, Hasty-Pudding, p. 8.

in that month.<sup>25</sup>

About the only effective control of cutworms for the colonial farmer was to find each cutworm and crush it. Since this insect did its damage at night, they were most easily found in the early morning hours as they began to burrow underground. Some planters poked holes into the hills. The worms finding an easy path to get below ground accumulated in the holes. The worms then could be scooped out of the holes and exposed to the sun or crushed under foot. Cultivation also could be used to destroy some of these worms.<sup>26</sup> Most corn planters merely planted enough corn plants to be able to take the loss of corn plants to the cutworms.

While the cutworms attacked the corn in cool and damp weather, dry weather brought invasions of chinch bugs (Blissus leucopterus). Thousands of these bugs would attack the leaves and joints of the corn plants drawing out the plants' juices.<sup>27</sup> There was nothing the planter could do to fight these noxious insects except pray for rain.

Corn plants which were bruised during cultivation were subject to fungus attack. If the fungus came in contact with the ear, the grain was destroyed. Corn was also subject to rust. Although the rust did little damage to corn, unless it was extensive, most farmers

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<sup>25</sup>C. H. Kyle, Corn Culture in the Southeastern States, Farmer's Bulletin No. 729 (Washington: U. S. Government Printing Office, 1916), p. 8.

<sup>26</sup>Epicurus, "Cultivation of Corn," p. 260; Crevecoeur, Eighteenth Century Travels, p. 114; Richard Peters, "Corn Grubs, or Cut Worms. Fall-Ploughing," Memoirs of the Philadelphia Society for Promoting Agriculture, IV, p. 89; Richard Peters to Roberts Vaux, esq., Belmont, August 3, 1817, ibid, pp. 231-32.

<sup>27</sup>Haworth, George Washington, Farmer, p. 104; Crevecoeur, Eighteenth Century Travels, p. 114.



feared rust because they knew of the devastation that rust did to other grains.<sup>28</sup>

Weeds presented a danger to his corn which the planter could deal with. The spring rains, which were so necessary for the growing corn, were both a blessing and a curse. Without moisture from showers, the farmer had to irrigate the sprouting corn by carrying buckets of water to his fields and then ladling a gourd-full or two of water on each plant. If the rains came, not only did the corn grow, but the weeds flourished. Corn does not compete well with weeds. Weeds such as Jamestown weed, Purslain, and bluegrass were chopped out with a weeding hoe and the corn hills reshaped. Weeds which were close to the plant had to be pulled by hand. The planters tried to do their weeding when the ground was damp, so that the weeds could be removed without disturbing the young corn plants. The first cultivation of a corn field was usually done when the corn was about six inches high.<sup>29</sup> Of course, this work in the corn fields depended on the needs for weeding the tobacco, which had priority. Weeding the corn fields usually took from two to three days per acre depending on how dry the soil was.<sup>30</sup>

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<sup>28</sup>Lorain, Nature and Reason Harmonized, p. 219.

<sup>29</sup>George Washington to Burwell Bassett, Mount Vernon, July 5, 1763, George Washington, The Writings of George Washington: From the Original Manuscript Sources: 1745-1799, ed. John C. Fitzpatrick (39 vols.; Washington: U. S. Government Printing Office, 1931-1944), III, p. 401; Entry for August 10-11, 1770, George Washington, The Diaries of George Washington: 1748-1799, ed. John C. Fitzpatrick (4 vols.; Boston: Houghton Mifflin Co., 1925), I, p. 395; Kalm, "Description of Maize," pp. 107-08; Entry for August 1, 1778, Carter, Diary, II, p. 1137; Eliot, Upon Field Husbandry, pp. 105-06.

<sup>30</sup>Wallace, "Jefferson's Farm Book," p. 133; Entry for June 1, 1771, Carter, Diary, I, p. 567.

Along with this first weeding, the planter thinned the plants to three per hill. He then planted these excess plants in the hills which did not have three corn plants on them.

When the corn was about a foot to a foot and a half high, the field was given a second weeding. Again depending on the number of weeds and the condition of the soil, the planter would have to spend 10 to 15 days with his hoe in the field.

Towards the end of June when the Virginia gourdseed corn reached about waist high, the field was given one last weeding. This last weeding was called "laying by." This meant that the field would not be weeded further. The corn had reached a stage where it could now compete with the weeds and it was tall enough to shade out many of the weed plants. As the farmer weeded his corn he covered the prop roots of the corn plant with earth. The colonial planters believed that the support of an earthen hill was necessary to protect the plant from being knocked down in the strong winds which often accompanied or followed the summer rains.<sup>31</sup>

About the middle of July the corn began to tassel. Depending on the weather, the ears would be in silk from the last week of July to the last week in August. After the ears had been fertilized, the kernels would swell and grow to a roasting ear stage in about twenty days. Thus the Potomac planter would have roasting ears on his table from his Virginia gourdseed

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<sup>31</sup> Entries for June 14, 29, and July 5, 1771, ibid., I, pp. 577, 584, 586; Lorain, Nature and Reason Harmonized, p. 216. Lorain, writing after the American Revolution, criticized this practice since the covering of the prop roots had the opposite effect of that intended. The covering of the prop roots made the plants put out new ones, which failed to mature enough to provide effective support for the plants.

from the middle of August through September.<sup>32</sup>

After the pollen from the tassels had been dispersed and fertilized the ears in silk, suckers (the beginnings of ears) continued to sprout from the joints on the stalk. Since these suckers would not result in mature ears, the planters pulled them off. The suckers drew nourishment from the corn plant. Suckering was an occasional activity--something to be done whenever the planter had a moment to spare. He would probably have spent about five man-days in suckering his corn crop.<sup>33</sup>

Soon after the silk had dried and the kernels had begun to harden, the tops of the corn plants were cut off. The tassels and leaves above the uppermost ear were removed to aid the maturing the ears. The tops were used for fodder. Planters had to use good judgment in deciding when to top their corn. While his livestock preferred green fodder, the planter who cut off the tops before the ears were fertilized, found that the kernels did not develop. The judicious farmer waited until late September or early October before topping.<sup>34</sup> A hard-working hand with help for carrying away the cut tops could cut approximately 200 tops per

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<sup>32</sup>Entries for July 14, 19, 21, 1774, Philip Vickers Fithian, Journal & Letters of Philip Vickers Fithian, 1773-1774: A Plantation Tutor of the Old Dominion, ed. Hunter Dickenson Parish (New Edition; Williamsburg, Va.: Colonial Williamsburg, Inc., 1965), pp. 142, 146, 147; Entry for August 25, 1770, Washington, Diaries, I, 395; Mangelsdorf, Corn, Its Origin, p. 7.

<sup>33</sup>Lorain, Nature and Reason Harmonized, p. 217; Kalm, "Description of Maize," p. 108.

<sup>34</sup>Ibid.; Entry for October 19, 1770, Carter, Diary, I, p. 513; Varlo, Essence of Agriculture, I, p. 151; William Prince, Sr., to Mr. /John?/ Champneys, March or April 1798? Letterbook, 1797-1799, Prince Family Collection, No. 3, National Agricultural Library.

hour. Topping a five acre corn field would take the planter about ten days.

In late August or early September, many colonial planters sowed wheat, barley, or rye in the space between the hills. The corn, however, had to be fairly mature before the seeding of these small grains or the corn would be damaged. One planter even attempted to sow oats, but the attempt was a failure because it harmed the corn crop yield.<sup>35</sup>

The ripening ears attracted a number of hungry birds and animals. The crows returned. Woodpeckers poked holes through the husks to get to the kernels. Migrating geese found the corn fields along the Atlantic flyway particularly attractive resting points. The squirrels cut down the stalks to get at the ears of grain. At night racoons and deer feasted on ripe corn.<sup>36</sup>

In late September and early October as the corn became ripe, the planters broke the stem attaching the ear to the stalk. By bending the ear down, the grain was protected from the rain and the kernels dried more rapidly. Most of the ripe corn was left standing in

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<sup>35</sup>Fletcher, Pennsylvania Agriculture, p. 144; Peter Kalm, The America of 1750. Peter Kalm's Travels in North America. The English Version of 1770, ed. and trans. Adolph B. Benson (2 vols.; New York: Wilson-Erickson Inc., 1937), I, p. 89; Entry for December 14, 1771, Carter, Diary, II, p. 642; Varlo, Essence of Agriculture, I, p. 151; Louis Morton, Robert Carter of Nomini Hall: A Virginia Tobacco Planter of the Eighteenth Century (Charlottesville: The University Press of Virginia, 1941), p. 149; Entry for July 7, 1771, Carter, Diary, II, p. 587.

<sup>36</sup>Crevecoeur, Eighteenth Century Travels, p. 118; Samuel Eliot Morison, The Story of the "Old Colony" of New Plymouth, pp. 97-99, quoted by Rutman, Husbandmen of Plymouth, p. 10; Kalm, "Description of Maize," p. 115; Kalm, The America of 1750, I, p. 79.

the fields after ripening. Some planters waited until after a good frost before gathering their corn. The frost dried the corn to the point where it could be safely stored. As a result corn might stand in the fields until the end of December.<sup>37</sup> The longer the corn was in the field, the greater the chances were for damage from birds and animals.

When the corn planter judged that the corn was ready, he and his family took baskets to the field and gathered the ears from the standing stalks. The ears were snapped off of the plant by bending them down and pulling the ears in the husk off of the stalk. The ears were placed in the baskets and carried to the barn or the tobacco house. There they were spread on the floor to dry completely. A good worker could gather the corn from one-third to one-half an acre a day. Thus the colonial family could harvest one to one and a half acres a day.<sup>38</sup>

After the corn had been gathered, the planter opened sections of his snake fence to allow his livestock to forage on the dried stalks. The cutting and shocking of corn stalks was rare before the American Revolution.<sup>39</sup>

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<sup>37</sup>James C. Bonner, A History of Georgia Agriculture: 1732-1860 (Athens: The University of Georgia Press, 1964), p. 21; Entry for November 15, 1757, Carter, Diary, I, p. 189; "First in Agriculture, Too," Corn, I (February, 1945), p. 3; Kalm, "Description of Maize," p. 108; Lorain, Nature and Reason Harmonized, p. 256.

<sup>38</sup>Entry for November 6, 1771, Carter, Diary, II, pp. 638-39; Gray, Agriculture in the Southern United States, p. 174.

<sup>39</sup>Ibid.

During the winter when cold, rain, and snow prevented outside work, the farmer and his family might spend a day husking corn. Occasionally, neighboring farm families would gather for a husking bee. The winter chill would be chased away with spirits. At these bees the custom of the "kissing ear" arose. Once in a while a red ear would be discovered. The finder was then permitted to kiss the person of his or her choice. The spirits and games made the work go quickly. Soon there would be a pile of husks for fodder and a pile of corn to be stored in a corn crib. One person could husk forty-five bushels of corn in a day.<sup>40</sup>

Colonial corn cribs were airy structures which were often built of peeled logs. The peeled logs lessened the danger of transporting insects or worms to the corn. They were raised off of the ground three to four feet to protect the corn from rodents and dampness. Cribs were about fifteen feet long and only three or four feet wide at the base. A water-tight roof covered the crib. The walls tapered outward from the base. The corn cribs were usually set off at a distance from the other farm buildings to insure the free flow of air. The planter had to make sure that the crib was thoroughly cleaned before placing new grain in it to prevent insects and disease from being transmitted to the corn.<sup>41</sup>

Whenever corn was needed for the household, a basket or two of ears would be shelled. Some planters beat the kernels off the cobs with flails. Most farmers,

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<sup>40</sup>Entry for December 7, 1771, Carter, Diary, II p. 641; Lorain, Nature and Reason Harmonized, p. 258; Singleton, "Agricultural Plants," p. 75; Wallace and Bressman, Corn and Corn Growing, p. 69.

<sup>41</sup>Bonner, Georgia Agriculture, pp. 20-21; Lorain, Nature and Reason Harmonized, p. 207; Kalm, "Description of Maize," p. 108.

however, propped a shovel or hoe against a bucket and using the iron edge drew the ear across the blade stripping off the kernels, which fell into the bucket. Almost any piece of iron--an old hinge or a broken hoe blade--could be used.<sup>42</sup> It took a bit over four ears of Virginia gourdseed corn to get a quart of shelled corn.

If his corn had received enough sun and rain, if he had cultivated it properly, and if the insects, birds, and animals had eaten only their normal share, then the colonial family would have enough corn to keep them fed until the following year when the roasting ears were ready for the table. By the end of the year, the farmer knew whether he had cultivated enough corn for his family's subsistence.

Although early colonial writers claimed that yields of 30 to 40 bushels in the Potomac region were common for corn, by the eighteenth century most planters were getting from 15 to 20 bushels to the acre.<sup>43</sup> This difference is due mostly to the differences in practices. In the seventeenth century corn was frequently grown on virgin lands, while in the eighteenth corn in the Potomac region was planted on old tobacco fields. In addition, the eighteenth century farmer often planted his

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<sup>42</sup>Ibid., p. 110; Fletcher, Pennsylvania Agriculture, p. 102.

<sup>43</sup>John Smith, The Generall Historie of Virginia, New-England and the Summer Isles (Ann Arbor: University Microfilms, Inc., 1966 [16247]), p. 126; Gray, Agriculture in the Southern United States, I, p. 27; Haworth, George Washington, Farmer, pp. 123-24; Entry for April 18, 1770, Carter, Diary, I, p. 389; G. Melvin Herndon, "Agriculture in America in the 1790s: An Englishman's View," Agricultural History, XLIX (July, 1975), p. 511.

corn at a greater distance apart than did his forefathers in the seventeenth century.<sup>44</sup>

If a planter had a yield of 20 bushels of shelled corn per acre, he would have had to cultivate about five acres of corn to provide for a family of six members. A total yield of approximately 100 bushels would have provided enough corn for the middle-class family with perhaps some left over.<sup>45</sup> It took about 110 ears of Virginia gourdseed corn to make a bushel of shelled corn in colonial Maryland.<sup>46</sup>

The labor required to produce his corn crop totaled about 95 days. The preparation of the field for planting took about 27 days. Two days were needed for planting. Three weedings and hillings at twelve days apiece took up about 36 days of the planter's time. On the average a man would need five days to sucker his corn. Another ten days were required for topping. Finally, gathering the corn ears took about 15 days. Thus from the preparation of the field to the gathering of the ears, the colonial middle-class planter worked approximately 95 ten-hour days for his 100 bushels of corn.

When the yields of corn began to diminish below five bushels of corn to the acre, the field was either abandoned or put into wheat. The rotation of crops

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<sup>44</sup>Toward the end of the eighteenth century and the beginning of the nineteenth, the distance between corn plants began to narrow.

<sup>45</sup>Gray, Agriculture in the Southern United States, I, p. 27; Douglass, Present State of British Settlements, II, p. 360.

<sup>46</sup>Entry for May 9, 1772, Carter, Diary, II, p. 679; Adam Beatty, Southern Agriculture, Being Essays on the Cultivation of Corn, Hemp, Tobacco, Wheat, etc. and the Best Method of Renovating the Soil (New York: C. M. Saxton, 1843), p. 89.



along the colonial Potomac was tobacco, corn, wheat, and fallow. Since nothing was being put back into the soil, the fields after successive crops of tobacco, corn, and wheat lost most of their fertility. In addition, since both tobacco and corn were "row crops," erosion was also a factor in sapping the soil's fertility. As long as the planter had enough land to raise his tobacco, corn, and wheat, the necessity of fertilizing his land was not worth the time and effort. After twenty years the ten acres of land which were abandoned every few years would be adequately restored for the colonial planter's crop cycle to begin anew.<sup>47</sup> European observers coming from areas where land was scarce decried the slovenly agricultural practices of American cultivators.<sup>48</sup> With a continent at hand and no visible evidence that their practices were a threat to their existence, most planters continued along their customary way until after the American Revolution.

#### The Uses of Corn

Most corn in the Potomac region was raised for

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<sup>47</sup> John Beale Boardly, Sketches on Rotations of Crops and Other Rural Matters. To Which are Annexed Intimations on Manufactures; on the Fruits of Agriculture; and on New Sources of Trade, Interfering with Products of the United States of America in Foreign Markets (Philadelphia: Charles Cist, 1797), pp. 13-14; Entry for February 19, 1766, Carter, Diary, I, pp. 334-35; Haworth, George Washington, Farmer, p. 52; Avery Odelle Craven, Soil Exhaustion as a Factor in the Agricultural History of Virginia and Maryland, 1606-1860 (Gloucester, Mass.: Peter Smith, 1965 [1926]), pp. 35-36; Gray, Agriculture in the Southern United States, p. 198.

<sup>48</sup> Entry for April 1, 1774, Fithian, Journal & Letters, pp. 88-89; Jacques Pierre Brissot de Warville, New Travels in the United States of America. Performed in 1788 (New York: Augustus M. Kelley, Publ., 1970 [1792]), p. 433.

home consumption. A small amount of corn was exported from this area during the first half of the eighteenth century. Most exported corn being only what was sold for ship provisions. There were several reasons for the lack of exported corn from the Potomac. First of all, Virginia gourdseed took on a musty taste when put into barrels for export. Secondly, most of the Southern Maryland planters were tobaccomen, who put their energies into the production of Orinoco tobacco. Finally, corn generally brought about one-half the price per acre that tobacco would.<sup>49</sup> After the American Revolution planters found a better market for corn, particularly in England and Europe, so that the production of corn became an alternative for planters who could not or would not grow tobacco; the most notable being George Washington.<sup>50</sup>

For most middle-class planters corn was the bread for which they sweated. As Joel Barlow wrote:<sup>51</sup>

Thy constellation rul'd my natal morn  
All my bones were made of Indian corn.  
Delicious grain! whatever form it take,  
To roast or boil, to smother or to bake,  
In every dish 'tis welcome still to me,  
But most, my Hasty-Pudding most in thee.

Each member of the planter's family consumed from thirteen to eighteen bushels of corn a year.<sup>52</sup>

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<sup>49</sup>Lorain, Nature and Reason Harmonized, pp. 207-08; Morton, Robert Carter, pp. 170-71.

<sup>50</sup>American Husbandry, ed. Harry J. Carman (2 vols.; Port Washington, N. Y.: Kennikat Press, 1964 [1775]), p. 163.

<sup>51</sup>Barlow, Hasty-Pudding, p. 6.

<sup>52</sup>Proclamation, January 24, 1647/8, Assembly Proceedings, January--March 1647/8, Archives of Maryland (70 vols.; Baltimore: Maryland Historical Society, 1883--), I, p. 217.

In early summer, the flint corns would be ready for roasting. The ears still in the milk stage were either roasted in their green husks or the husks were stripped off and the ears were boiled.<sup>53</sup> The two months of corn on the cob were a treat for those who were accustomed to a diet of meal and hominy.

Most Virginia gourdseed corn was ground into meal. If the farmer had a large crop, he might take some of it to a neighborhood mill such as that owned by George Washington. Most middle-class planters, however, ground their own meal as they needed it. Their wives used the age-old method of a mortar and pestle. Often the mortar was nothing more than a hollowed-out hardwood stump and the pestle, a hardwood log attached to a sapling suspended above the stump. Although much work could be saved by grinding the corn at a mill, the mill-owners generally extracted one-eighth of the meal for the grinding. In addition, corn could be kept better in the ear rather than as meal.<sup>54</sup>

The early settlers found the Indians making a bread out of corn meal. This corn bread, called hoe-cake or pone, was simply a mixture of water and corn meal with a little bacon fat, perhaps, molded into loaves or poured into an iron skillet and baked. For variety, rye was mixed into the water and corn meal. In season, berries or fruits were added for flavor. Pumpkins, which had been cooked to mush, were also added

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<sup>53</sup>Smith, Voyages and Discoveries in Virginia, pp. 28-29; Varlo, Essence of Agriculture, I, pp. 147-48.

<sup>54</sup>Haworth, George Washington, Farmer, p. 98; Jones, Present State of Virginia, pp. 86-87; Singleton, "Agricultural Plants," p. 74.

to the corn meal mixture to make a pumpkin-flavored corn bread.<sup>55</sup>

Corn meal and water were cooked into a dish called Hasty-Pudding or mush. This gruel was served with almost every meal and almost invariably for breakfast.<sup>56</sup>

Hominy, another Indian dish, was prepared from dried corn. To prepare hominy, wood ashes were placed in a bag. Shelled corn was put into a pot and covered with water. The corn and water were brought to a boil. The bag of wood ashes was placed into the boiling water and boiled until the lye from the wood ashes loosened the hulls from the corn. The water was then drained off and the hulled corn washed to remove the taste of the lye. The hominy then could be heated and served or pounded to make grits. Cakes and puddings were also prepared from hominy. If there was no wood ash, hominy could also be made by crushing the corn kernels and then boiling away the hulls. This latter method made a poorer quality hominy.<sup>57</sup>

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<sup>55</sup> Thomas Anburey, Travels through the Interior Parts of America (2 vols.; Boston: Houghton Mifflin Co., 1923 [1789]), II, p. 194; Kalm, "Description of Maize," pp. 111-12; Corn and Its Uses as Food, Farmer's Bulletin No. 1236 (Washington: U. S. Government Printing Office, 1923), p. 9; Emerson, History and Incidents of Indian Corn, pp. 219-22; Varlo, Essence of Agriculture, I, p. 148.

<sup>56</sup> Ibid.; Kalm, "Description of Maize," p. 112; Banister, John Banister, p. 357.

<sup>57</sup> Kalm, "Description of Maize," p. 112; Lucile Wheeler, Corn and Corn Products Used as Food, Extension Circular No. 9 (Urbana: University of Illinois College of Agriculture, 1917), p. 9; Corn and Its Uses as Food, pp. 18-20; Thomas Jefferson, Thomas Jefferson's Garden Book 1766-1824 with Relevant Extracts from his Other Writings (Philadelphia: American Philosophical Society, 1944), p. 130; Aubrey C. Land, "The Planter of Colonial Maryland," Maryland Historical Magazine, LXVII (Summer, 1972), p. 124.

Another dish adopted from the American Indians was succotash. Succotash was a stew of corn, beans, squash, and chopped pork fat.<sup>58</sup>

As fodder for livestock, the corn plant has few equals. The leaves, stalks, and husks were an excellent ruffage. The corn kernels were fed to finish or fatten livestock before slaughtering. The use of corn for fattening livestock in Virginia and Maryland was not as prevalent as it was in the Northern colonies.<sup>59</sup>

Although corn required more labor than other grain crops, the yields and uses of corn were so obvious that almost every American farmer produced some corn for his own use. Indian corn was truly the American staff of life.

#### Maryland "Corn Laws"

An indication of the importance of Indian corn for the colonists of Maryland can be gathered from the actions of the General Assembly. Through legislation they attempted to insure a supply of corn, to control pests, and to regulate and protect the trade in corn.

Although the seventeenth century acts requiring that each person tending tobacco also plant two acres of corn were permitted to lapse by the eighteenth century, Maryland planters were encouraged to plant corn

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<sup>58</sup>Fletcher, Pennsylvania Agriculture, p. 38.

<sup>59</sup>Jones, Present State of Virginia, p. 78; Kalm, "Description of Maize," p. 114; Brissot de Warville, New Travels in the United States, p. 433; Emerson, History and Incidents of Indian Corn, p. 419; Lorain, Nature and Reason Harmonized, pp. 217, 258-59; Wallace, "Jefferson's Farm Book," p. 133.

and other crops through economic incentives. The 20 pence price set for a bushel of corn, however, probably did not lure men away from tobacco culture.<sup>60</sup>

In order to protect the market for grains including Indian corn, the General Assembly forbade the importation of grain from Pennsylvania.<sup>61</sup> These bans

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<sup>60</sup>Gray, Agriculture in the Southern United States, I, p. 37; Assembly Proceedings, January--March, 1637/8, Archives of Maryland, I, p. 20; Assembly Proceedings, February--March 1638/9, *ibid.*, I, p. 79; "An Act for the Planting of Corne," Assembly Proceedings, October 1640, *ibid.*, I, p. 97; "An Act Provideing for the Planting of Corne," Assembly Proceedings, July--August 1642, *ibid.*, I, pp. 160-61; "An Act for Planting of Corne," Assembly Proceedings, April 2-21, 1649, *ibid.*, I, 251-52; "An Act Concerning Planting Corn," Assembly Proceedings, October 1654, *ibid.*, I, pp. 349-50; Newton D. Mereness, Maryland as a Proprietary Province (New York: The Macmillan Co., 1901), pp. 120-21; "An Act for Encovragmt of Tillage & Raising Provisions for Advancemt of trad wthin this Province," Assembly Proceedings, April--May 1682, Archives of Maryland, VII, 321-22; "An Act for the Encouragement of Tillage and relief of poor Debtors," Assembly Proceedings, September 5--October 3, 1704, *ibid.*, XXVI, 278-80; "An Act for the better Relief of poor Debtors," Assembly Proceedings, 1714-1726, Acts Not Previously Printed, *ibid.*, XXXVI, pp. 555-57.

<sup>61</sup>"An Act Reviving a Certain Act of Assembly of this Province Intituled an Act prohibiting the Importation of bread beer flower wheat or other English or Indian grain or Meale horses or Mares Colts or filley's from Pensilvania," Assembly Proceedings, March 26--April 15, 1707, *ibid.*, XXVII, pp. 172-73; "An Act Reviveing an Act Entituled an Act prohibiting the Importation of Bread, Beer, flower, Malt, Wheat or other English or Indian graine or Meal, Horses, Mares, Colts, or ffileys, from Pensilvania," Assembly Proceedings, October 24--November 4, 1710, *ibid.*, XXVII, pp. 574-75; Message from the Council, November 10, 1713, Assembly Proceedings, October 27--November 14, 1713, *ibid.*, XXIX, p. 238; "An Act reviving an Act . . . prohibiting the importation of bread beer flower malt wheat or other English or Indian grain or meale . . . from pensilvania," Assembly Proceedings, 1694-1728, Acts, *ibid.*, XXXVIII, p. 182; "An Act prohibiting the Importation of bread beer flower, Mault, wheat, or other Indian or English Graine or Meale . . . from Pensilvania," Assembly Proceedings, April 26--June 3, 1715, Acts, *ibid.*, XXX, pp. 226-27.

were revoked during the periods when the grain crops failed such as in 1724 and 1728.<sup>62</sup> During these periods the exportation of grain was also prohibited without a special license.<sup>63</sup>

In attempts to protect the colony's grain, the Maryland General Assembly passed acts for the destruction of crows and squirrels. In 1704 the Queen with the advice and consent of the governor, Council, and Assembly offered a bounty of six pounds of tobacco for each crow's head brought before the Justices of the Peace in each county.<sup>64</sup> In 1713 a bounty for the

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<sup>62</sup>"An Act to Prohibit the Exportation of Indian Corne for the Time therein Limited to Suspend the Execution of an Act Entituled An Act Prohibiting the Importation of Bread Beer Flower Malt Wheat or Other Indian or English Grain or Meal. Horses Mares Colts or Filleys from Pensilvania," Assembly Proceedings, 1694-1728, Acts, *ibid.*, XXXVIII, pp. 336-38; "An Act to repeal an Act, entituled, An Act prohibiting the Importation of Bread Flour, Malt, Wheat or other Indian or English Grain, or Meal; Horses, Mares, Colts or Fillies; from Pensilvania," Assembly Proceedings, October 3-November 2, 1728, *ibid.*, XXXVI, p. 275.

<sup>63</sup>"An Act Prohibiting the exportation of Corne," Assembly Proceedings, October 1640, *ibid.*, I, p. 96; "An Act limiting the exportacon of Corne," Assembly Proceedings, July--August 1642, *ibid.*, I, p. 161; Proclamation of Cecilius Calvert, Proceedings of the Council, 1671-1675, *ibid.*, XV, p. 44; Proclamation of the Lieutenant-Governor, September 5, 1678, Proceedings of the Council, 1676-1678, *ibid.*, XV, pp. 194-95; Proclamation, Proceedings of the Council, 1681-1685/6, *ibid.*, XVII, pp. 48-49; Proclamation of the Lord Propry, December 20, 1683, Proceedings of the Council, 1681-1685/6, *ibid.*, XVII, pp. 179-80; Proclamation by the Lieutenant-Governor, August 7, 1684, Proceedings of the Council, 1681-1685/6, *ibid.*, XVII, pp. 269-70; Proclamation by Francis Nicholson, October 15, 1695, Proceedings of the Council, 1694-1697, *ibid.*, XX, pp. 327-28.

<sup>64</sup>"An Act for Killing of Wolves and Crows," Assembly Proceedings, September 5--October 3, 1704, Acts, *ibid.*, XXVI, pp. 326-27.

killing of squirrels was added to the bounty being offered on crows.<sup>65</sup> By the following session the costs of paying these bounties had reached the point where the Assembly was considering suspending them. To replace the bounties they proposed to require every taxable individual to kill a certain number of these pests. The difficulties in enforcing such legislation defeated the measure and instead the Assembly enacted stricter requirements for the payment of bounties.<sup>66</sup> In 1727 the Upper House objected to attempts to remove the bounties for killing squirrels and crows and suggested that the exorbitant costs of paying these bounties be reduced by lowering the bounty to two pounds of tobacco for each crow or squirrel.<sup>67</sup> The concern over the eradication of these pests illustrate the seriousness of the threat to the colony's grain supplies posed by squirrels and crows.

The colonial government's concern about the supply of grain illustrates that American colonists had to be self-sufficient in food. While some of this legislation benefited the planters of Maryland's Eastern Shore, who by the eighteenth century had shifted from tobacco to grain raising, the government had to insure that the colony had an adequate internal supply of grain for its inhabitants.

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<sup>65</sup>"An Act for Killing of Wolves, Crows, and Squirrels," Assembly Proceedings, October 27--November 14, 1713, Acts, ibid., XXIX, pp. 341-42.

<sup>66</sup>Assembly Proceedings, July 17--August 10, 1716, ibid., XXX, pp. 430, 436-37, 439-40, 445, 525, 555-58, 561-62; "A Supplementary Act to the Act for Killing Wolves, Crows, and Squirrels," Assembly Proceedings, 1714-1726, Acts Not Previously Printed, ibid., XXXVI, p. 500.

<sup>67</sup>Assembly Proceedings, October 10-30, 1727, The Upper House, ibid., XXXVI, p. 34.



## Corn Culture Today

The 100 bushel corn crop of the middle-class planter on the colonial Potomac is about the average yield expected from an acre today in the same region. The five-fold increase in yields is the result of hybrid varieties, fertilization, herbicides, and insecticides.<sup>68</sup>

The most striking difference between colonial practices and modern cultivation is the amount of time and labor required to produce a bushel of corn. Today, a farmer using mechanical power to replace muscle power can produce a bushel of corn in less than six minutes.<sup>69</sup> The colonial corn producer had to work nine and a half hours for his bushel of corn. While the colonial farmer tilled his corn fields intensively, the modern farmer may use no-tillage culture for his corn--reducing the number of times that he works the field to two passes: planting and harvesting.<sup>70</sup>

The modern corn producer plants approximately 20,000 corn plants per acre versus the 3700 plants per acre that the colonial farmer planted. This higher plant population is the result of scientific soil management.

Today we no longer consider corn to be a major

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<sup>68</sup>Corn Variety Performance in Maryland, Agronomy Mimeo 54 (College Park: University of Maryland Agronomy Department, 1976), pp. 18-21.

<sup>69</sup>Wallace and Brown, Corn and Its Early Fathers, p. 12.

<sup>70</sup>Fred P. Miller and James V. Parochetti, No-Tillage Corn Production in Maryland, Agronomy Mimeo 14 (College Park: University of Maryland Agronomy Department, 1972), pp. 1-14 passim.

part of our diets. Although we still use corn products in many forms such as syrups, starches, meal, and kernels in our diets, most corn is used to feed livestock. Modern chemistry has developed uses for corn plants which were beyond the dreams of the most advanced colonial thinkers. Although most of us give corn little thought today, its role in American history is great. If the colonists had not had this "miracle" plant to feed themselves, the history of the settlement of North America would have been markedly different.

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