

Appendix II: Land Use Data

Table VI: James Wilson Plantation, 1772–1778, over Twenty-Six Years

Total Available Acreage: 729

Adult Agricultural Laborers: 9

Land Use	Acreage in Use	Emission Factors (E.F.) Applied: E.F. Value (in parentheses), as Metric tons of Carbon (MtC) <u>per acre</u>	Average Emissions (MtC)	Description
Cropland	378	Above-Ground Biomass in Forest (34.2) Below-Ground Biomass in Forest (6.0) Dead Wood Biomass (3.4) Litter Biomass (2.5) Soil Organic Carbon Stock, applied 26 times (0.9) Carbon drawdown in cropland (-1.9)	18,577	Assumes 12 acres in tobacco each year and 66 acres in corn each year, based on actual production amounts recorded by James Wilson in 1772-1778. Averaged across nine enslaved laborers, this comes to 1.333 acres tob./enslaved worker, and 7.333 acres corn/enslaved worker. Assumes tobacco was planted for 3 years, followed by corn for 3 years, then a 20-year fallow. Assumes corn acreage that exceeded the acres that former tobacco lands provided required new cleared land and that this new land was planted for 6 years in corn before being fallowed for 20 years. Soil emission factor applied 26 times to account for 26 years of cropland being tilled.
Pasture and meadow	0	n/a	0	Assumes livestock foraged in forest, on fallowed croplands, and in natural meadows, plus winter corn fodder.
Household	4.5	Above-Ground Biomass in Forest (34.2) Below-Ground Biomass in Forest (6.0) Dead Wood Biomass (3.4) Litter Biomass (2.5)	184	Area cleared for enslaved quarters (2.25 acres, at 0.25 acres per enslaved person) and enslaver home, kitchen garden, and orchard (2 acres).
<i>Remaining woodlands after 26 years</i>	346.5	n/a	n/a	
Total (26 years)	382.5		18,761	

Sources and Notes: All corn and tobacco acreage from James Wilson Account Book, MS 915, Maryland Center for History and Culture (MCHC), Baltimore for the years 1772–78. Wilson noted that his 9 enslaved workers planted 84,055 corn hills in 1772; to convert corn hills to acres, we use the ratio of 1,210 hills per acre used by Lois Green Carr and Russell R. Menard, “Land, Labor, and Economies of Scale in Early Maryland: Some Limits to Growth in the Chesapeake System of Husbandry,” *Journal of Economic History* 49, no. 2 (June 1989): 407–18, esp. 416 (table 5, note). To convert the number of tobacco hogsheads—an average of five hogsheads produced each year for 1772 through 1778—into acreage, we use the average of 1,000 pounds of tobacco produced by each adult enslaved worker each year, and the expectation for enslaved workers to produce between two and three acres of tobacco per year. This gives an average of 1,000 pounds of tobacco for every 2.5 acres. One hogshead held 1,000 pounds of tobacco leaf; therefore, one hogshead of tobacco was equal to 2.5 acres of tobacco. For pounds of tobacco per worker, see Lorena S. Walsh, *Motives of Honor, Pleasure, and Profit: Plantation Management in the Colonial Chesapeake, 1607–1763* (Williamsburg, Va., and Chapel Hill, N.C., 2010), 542 (table 30). Total acreage owned is derived from the land Wilson inherited from his father, David Wilson, and recorded in Mss. Somerset County Debt Books, 1768, 1769, 1774, Maryland State Archives, Annapolis. (Our thanks to Lorena Walsh for providing us with this source.) Enslaved cabin and garden plot size (0.25 per enslaved adult) derived from Philip D. Morgan, *Slave Counterpoint: Black Culture in the Eighteenth-Century Chesapeake and Lowcountry* (Williamsburg, Va., and Chapel Hill, N.C., 1998), 186–87. Planter home acreage and orchard adopted from Robert Cole’s indentured plantation and applied to the slavery era; see Carr, Menard, and Walsh, *Robert Cole’s World: Agriculture and Society in Early Maryland* (Williamsburg, Va., and Chapel Hill, N.C., 1991), 35–38. For sources of emission factors, see Appendix I: Table A.I.1.