Josiah Collins III, A Successful Corn Planter: A Look at His Plantation Management Techniques

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Along the Roanoke River and Albemarle Sound in antebellum northeastern North Carolina, there were planters whose corn production far exceeded their own needs. They could therefore ship significantly large amounts of corn to other states, North and South. Josiah Collins III (1808–1863), the proprietor of Somerset Place Plantation located to the north of Lake Phelps in Washington County, was one of the leading commercial corn planters in the region. He left written records of ledgers, daybooks, business letters, a plantation record, and a memorandum book, through which close examination of his plantation management techniques and the motivation behind them can be elucidated.

There are few published studies to focus on management techniques of planters in northeastern North Carolina, and this essay will fill this gap by investigating Collins' records throughout his corn cultivation programs. A case study will be presented of sustainable commercial corn plantations in a peripheral region—the northern fringe—of the cotton South. The subject will be broadened by including other commercial corn plantations in the region.

The extant literature reveals few previous studies dealing with development of antebellum commercial corn production in North

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Carolina. Of the few available are works by Cornelius Cathey, Diane Lindstrom, and Wayne Durrill. The basic features of the commercial corn plantations in the state could be extrapolated from their studies. Cathey contributed with "improvements made in agriculture" in antebellum North Carolina in the 1950s. His emphasized influence of scientific farming on planters' grain cultivation led to better understanding of commercial corn planters. Lindstrom investigated routes of grains from the Upper South to other parts of the South from the point of view of interregional grain flows from 1840 to 1860. She found North Carolina "forwarded two-thirds of the total receipts" of corn at Charleston, South Carolina. This certainly marked one of the important routes which a lot of corn planters in northeastern North Carolina used to ship their corn. Durrill examined slave labor at Somerset Place through primary sources. His study presented an analysis of slave labor under commercial corn production in the region. He described it as the "actual work" of slaves who engaged in their independent economic activities in the Negro Patch Collins allotted to them.¹

Despite their insights, however, some areas of inquiry remain untouched or require reexamination. One of them is how such planters made the best use of improvements for farming within their own system of slave labor management. This question should cause us to explore the planters' efficient, rational and flexible means of corn production which was combined with the raising of other crops and stock. It should also lead us to reexamine the role of the Negro Patch not for slaves but for Collins. Scholars interested in the "internal economy" of slaves have recently tended to overemphasize their autonomous economic activities.² Moreover, marketing corn was ostensibly a very crucial issue for every commercial corn planter in the region. We should, therefore, also explore the way in which planters marketed their corn and also their attitudes toward the process.

Considering the above, this paper will expand our perspective through investigating the following points:

- (1) Commercial corn production was far more efficient—through using machines, streamlined water transportation system, and experimentation in scientific farming—than historians had generally assumed.
- (2) As shown in the Negro Patch management, Collins showed keen psychological and administrative intuition in getting optimal, efficient and maximum output from slave labor.

- (3) A large amount of corn (around 9,000 bushels per year from 1839 to 1861, equivalent to about \$6,300) was shipped by water to the eastern coastal markets.
- (4) The successful shipment of corn for more than twenty years resulted from Collins' careful observations of fluctuations in market prices for grain and from constant observation of corn crop growth in the competing Old Northwest.
- (5) Collins developed a more flexible and collaborative style of crop cultivation than a typical large-scale cotton planter.

This paper will address some of the issues being debated among economic historians. First, concerning the question of food self-sufficiency, Robert Gallman computed that large plantations with 1,000 acres or more in improved land in the cotton South produced 51 bushels of grains per capita, compared to the national per capita output of 38 bushels. He suggested that the South was rather independent of the food production in the Old Northwest. He argued that large plantations in the cotton South proved to be "self-sufficient in basic foods."³ Demonstrably then, in the northeastern corn region in North Carolina the value of 100 or more bushels of grains per capita, irrespective of the land scale, pointed to the clear self-sufficiency of the region.⁴ Second, concerning the choice of crops, planters in the northeastern region selected corn (not cotton) as their primary cash crop, and a staple crop such as cotton was planted in their spare time with surplus labor.⁵ Commercial corn planters tried to use slaves as efficiently as possible since labor-hours per acre of corn were only half of those for cotton.⁶ Additionally, contrary to previous scholars, brief commentary will indicate Collins' concurrent capitalistic and paternalistic attitudes.⁷ Care is due not to simplify the master-slave or employer and employee relations.

I

After completing his education at Harvard and a law school at Litchfield in Connecticut, Josiah Collins III, then twenty one, arrived at Somerset with his bride from New Jersey in 1830. He was already the owner of 3,000 acres of land and the master of 229 slaves. Succeeding his father and also his grandfather, he launched a career of plantation owner.

Josiah Collins I (1735-1819) immigrated from England in 1773

amid the American Revolution and worked in the port town of Edenton in North Carolina as a merchant, land speculator, and politician. He established the Lake Company in 1785 with two other investors. They quickly started purchasing a cypress and gum swamp adjoining Lake Phelps.

There spread a burst of enthusiasm for improving river channels in the eastern lowlands of North Carolina in those days. As a matter of fact, George Washington envisioned a canal that would connect the "landlocked Albemarle district to the port of Norfolk" running through the Great Dismal Swamp. The immense swamp lands in the eastern part of North Carolina, consisting of black loam, muck or peat, had a great potential for abundant crops, and entrepreneur Collins and his partners attempted to acquire new land in the 1780s.

At about the same time, Collins fitted two brigs (sailboats with two mastheads) to bring slave labor from Africa. Collins' brigs *Jennett* and *Camden* arrived at Edenton on June 1 and 10, 1786, carrying eighty African slaves each. These 160 slaves would become the first labor force to devote their lives to develop the swamp land around Lake Phelps, the future Somerset Place Plantation.¹⁰

Their first task was to dig a canal from the lake to the Scuppernong River. The work of digging a canal through the swamp—some thirty feet wide, several feet deep, and more than six miles long—was an immense task. The newly arrived African men and women aged twenty to twenty five looked healthy and strong, but they soon suffered from overworking. They were "confined in huge cages" while they worked. When seriously injured or disabled, they had been "left by the bank of the canal" to be found dead the next morning. The workers also had to struggle against swarms of malaria-bearing mosquitoes. Even more than half a century later, Harriet Jacobs who ran away and hid in Snaky Swamp, not far from Lake Phelps, was horrified by the "hundreds of mosquitoes" which "had so poisoned [her] flesh" within an hour.¹¹

The canal was finally completed in 1788 costing many African lives. Collins and his partners had erected two "Sawmills" by 1794 on the canal to produce cypress plank and scantling, and they built "a Rice machine and a Grist Mill" for thrashing rice and wheat. Though rice and wheat were later replaced by corn as the primary crop at Somerset, both the large canal and the mechanization of production systems, which optimized the use of water power, would be the soul of

Collins' plantation for the next three quarters of a century, spanning three generations.

After taking over the estates of his partners Josiah I named the plantation "Somerset Place" after Somersetshire, England, his birthplace in 1817. Two years later he died and his son, Josiah II, succeeded.

Josiah Collins II (1763–1839), active as a merchant and manufacturer, also worked as a planter. He developed a close relationship with his neighbor, the Pettigrews, and traded closely with them.¹³ He also tried to purchase slaves to supplement the decreasing labor force. In the late 1820s, he purchased many slaves so that his son could start out life as a planter without any difficulty.

Thus, when Josiah Collins III (later to be cited as Collins) arrived at Somerset Place in 1830, the preliminary arrangements had already been made for the commercial production of grain crops on the plantation. The only task left to him was to enlarge his operations through efficient management.

Π

Edmund Ruffin, a preeminent agricultural reformer in the antebellum South and publisher of an agricultural journal, the *Farmers' Register* (1833–1842), visited Somerset Place in 1839 to observe the conditions of reclamation and drainage and the cultivation of the land. His observations opened a window for understanding Collins' management policy.

In 1839, the 1400 acre farm was ready for cultivation by the completion of its drainage system—a complicated network of a canal, drains, ditches, and tap ditches. According to Ruffin's observations, the "water-furrows" in the fields collected all surface or rain water, discharging it into the "shallow tap ditches," then into the "deep 3 feet ditches," "6 feet leading ditches," then next into the "8 feet main drains," and finally into the "canal." Collins' "Plantation Record, 1850–1853" is replete with anecdotes of such slave labor as cleaning, clearing, raking, digging, and cutting the furrows and/or ditches, including on the Negro Patch; for example:

4 men cleaning out tap ditches . . . Rest of women clearing out 3 ft[.] ditches;

Men with spades[,] women with hoes digging tap ditches from Western Canal to Mockardon in fields G & H;

Men cutting 3 ft[.] ditches in Negro Patch; Harrowing & planting corn—digging 3 ft[.] ditches in Negro Patch.¹⁵

Although the labor was arduous and wearying, his slaves successfully accomplished it and the whole drainage operation seemed "very perfect" in Ruffin's eyes.¹⁶

The soil carefully preserved by the drainage system was very fertile. The normal yield of corn for Collins was between thirty-five and fifty bushels per acre, in comparison with the average yield of fifteen and twenty in North Carolina. He sometimes produced "around sixty bushels" to the acre when good planters in the Lower South counted on "25 to 30 bushels" per acre.¹⁷

Ruffin was also impressed with Collins' highly mechanized production system with its effective use of water power. Ruffin, in the *Farmers' Register*, described it as follows:

The extensive use made of water to save labor on this estate, [sic] is one of the most interesting subjects for observation. It has been already stated that the descent of the canal gives a head of 6 feet of water at the mills, at the distance of a quarter of a mile from the lake. Part of this power works a saw mill, and a corn and wheat mill of two pair of stones, with the bolting, and other machinery, &c. [sic], proper for the making of flour. Also the corn is shelled and fanned, and, though not now, formerly the wheat was thrashed, and cleaned by the water-power conducted to the barn and one of the great corn houses. Besides these more important operations, and for some of which there is daily use made of the water-power, it is also directed to crushing and grinding corn in the ear or horses and other stock, the working a circular saw, turning grindstones, and may be substituted for hand labor in various other ways. When it is desired to prepare a cargo of corn for the Charleston market, there is no need of commencing until notice has been received of the vessel having arrived in the river below. The shelling of the corn is then commenced, by a shelling machine of immense power, then fanned, next lifted up by elevating machinery, from the first to the fourth story of the house, there measured, and then emptied through a spout into a large flat boat lying in the canal, which, as soon as loaded in bulk, is conveyed along the canal to the vessel. Thus the risk of keeping a large quantity of shelled corn in bulk is avoided, and, by the aid of water, all the operations necessary to load a vessel may be completed in a very short time. 18

As Ruffin's observations above suggest, the water-powered machines

and the streamlined water transportation system to take corn to markets were absolutely essential to the success of Collins' enterprise. The very heavy corn gathered in the fields was brought in flatboats through a floodgate system, operating adjacent to each field, and carried into the large multistory granaries with minimal labor cost. Uriah Bennett, a field hand at Somerset, later recalled that the barges lying in the canal with a fixed amount of corn for markets were dragged down the canal by a team of horses to market bound vessels waiting at the mouth of the Scuppernong River.¹⁹

In the Albemarle Sound region, there were about twenty rivers running north and south into the sound. Almost every planter in the region was anxious to locate his plantation nearest possible place to navigable water. Corn planters, Stephen A. Norfleet in Bertie County, Thomas P. and Henry K. Burgwyn in Northampton County, David Clark and Thomas Deveraux in Halifax County, and Ebenezer and Charles L. Pettigrew in Tyrrell County, as well as Collins each had an excellent system of waterways to transport crops to markets along the east coast. The Burgwyns, for example, settled on the Roanoke River in 1840, and though in close proximity to the Wilmington and Weldon Railroad, the Roanoke River provided access to "the cheapest and best water routes" to Charleston, Norfolk, and New York.²⁰

Collins' management techniques improved after Ruffin's visit. There was a revival of the agricultural reform movement in North Carolina from the 1840s. Collins welcomed this trend, focusing on the technological improvement and soil fertility.

First, Collins' entries from his ledgers and daybooks show that he began to purchase new or improved agricultural machines, implements and machine parts around the mid 1840s. Examples are: "Lime Spreader & Leather Band \$47.50" in 1844, "Plow Shares" and "Plow Points" in 1846, "Reaping Machine \$100.00" in 1847, "Reaper \$159.25" in 1848, "India Rubber band for Thrasher \$18.70" in 1848, and "Castings f[o]r Reaper \$31.55" in 1851.²¹

But the technological improvements for corn cultivation at Somerset Place lagged behind those for wheat. No entries were found in his records for machines for corn cultivation, and there were some for purchases of machines and machine parts for the wheat crop, examples are: "Wheat Thrasher & Horse Power \$262" in 1854, "Castings fr Wheat Cutter \$77.98" in 1855, "Wheat Cutters \$320.45" in 1856, and "Wheat Harvesters \$462.92" in 1857.²² The reason for this technologi-

cal lag can be ascribed to the botanical growth of corn itself, not to Collins' lack of concern for the inventions or improvements in machines for corn production.

Corn in general could be adapted to almost every kind of soil, and moderate harvests could be expected even with careless practices. Compared with cotton, corn needed less continuous care. Intensive labor was needed only at planting and the short harvesting. Only 69 slave labor-hours were required to grow and harvest an acre of corn, in contrast with 135 for cotton.²³ Slave women and children worked manually in almost every phase of corn production just the same as slave men. Collins' Plantation Record demonstrates this as follows:

Children with some women pulling up corn stalks in Gallow field; Balance of women . . . carrying corn in Machine House loft & hauling corn from Upper Rice field[.] 4 women gathering corn in same field. 4 women gathering corn in the same field.²⁴

Under these circumstances, planters presumably did not consider it necessary to use labor-saving, large machines and implements like cutters, reapers and planting machines for their corn crops.

In the case of Collins, he found in corn production labor-saving mechanisms. In Billet field, one of his corn fields in 1850, for example, the work of spreading lime with machines was followed by harrowing the ground, dropping the corn seeds, and covering the soil: "2 men hauling lime[,] 2 men & 6 women tending & feeding [Lime] Machine," and "Lime Machine . . . 4 men harrowing in the lime—1 double furrow plough, 3 droppers & 1 coverer going." Additionally, the work of carrying heavy manure to corn fields was fulfilled by using carts and flatboats: "6 carts hauling manure to flats & from flats to field[s]." Thus, the use of better machines and implements undoubtedly formed an integral part of Collins' management policy.

Collins found yet another way to take advantage of the labor-saving machines by allowing slaves to use them in the 55 acre common field called the "Negro Patch." Therefore, the field hands could, for example, use mechanical reapers and wagons to cut and haul wheat (the scheduled crop in 1850; see the **Table** for this essay) even in the Negro Patch during the harvest. According to his records, two slaves, probably women, worked "Machines [for] Cutting Wheat in Negro Patch" until 12 o'clock on June 19 in 1850. A week later, "6 Waggons" were used for "hauling wheat from Negro Patch." It should also be pointed

out that the slaves were permitted to work in their patch in the daytime. Even Collins, an advanced and scientific planter, became aware that the Negro Patch had the poorest soil in his estate, and recorded with admiration, "55 Acres Negro Patch Sound Corn 160 bls. Rotten 53 bls.[—]Yield pr. acre nearly 4 Bbls.!!!!" in his memorandum notebook in 1838.²⁸ He was surprised with this high productivity. The fact that the Negro Patch continued to exist until Collins took refuge in inland Franklin County just prior to the invasion of Federal Forces into the Albemarle region in 1862, shows that the Patch also had a fairly good effect on labor yields in the plantation fields. There were few planters in northeastern North Carolina who secured a steady yield of around 30,000 or more bushels of corn both in 1850 and 1860.²⁹ Such an unobtrusive policy on the part of Collins was an important part of his strategy for controlling the slave labor force, since it could ultimately facilitate smooth operation of the mechanized production system as a whole.

It is clear that Collins prudently dealt with the Negro Patch with psychological attitude and a sharp entrepreneurial and profit-oriented mind. By using machines and wagons, slaves could harvest their own wheat efficiently without hard labor.30 The majority of them must have accepted this policy with no difficulty. From Collins' viewpoint, it was an offshoot of his wide-ranging system of positive reinforcements, incentives and rewards for working hard.³¹ Collins tried to get his slaves accustomed to working the machines, using the wagons and other improved implements in the Negro Patch, just like in other plantation fields, thereby instilling the motivation and initiative to work hard. There is no doubt that slaves recognized a sense of impartiality— Collins' fair treatment of them—behind his permission to use the machines. Doing the same kinds of work simultaneously in both the plantation fields and the Negro Patch fostered slaves' motivation for work in both. Impartial treatment of the slaves solved the old problem of slaves' tendency to cultivate their own land better than their master's fields.32

Second, Collins' other efforts to improve his management techniques concerned the soil fertility. A generous use of manure and other fertilizers in planting was a basic characteristic of Collins' farming. No change in this fertilization method occurred after he took the decisive step to replace rice and wheat with corn.

Some of Collins' papers abound with references to purchasing or

TABLE Crop Rotation Schedule for Somerset Place Plantation from January 1849 to July 1853

Field \ Year	1849	1850	1851	1852	1853
Negro Patch	(W) ¹	W	С		x ²
Upper Old New Ground		C, (W)	W	C	×
Lower Old New Ground		C, (W)	W	×	×
Upper Rice Field		C	×	Pea	×
Lower Rice Field		C, Pot	×	×	×
Billet Field		C			R
Gallows Field		C, Ct		R	C
Brier Hall		C, (W), Ct,			
		Pot, Hay	W		R
83 Acre	(W)	W	C	C	×
74 Acre	(W)	W	C, (W)	W	C
Lake Side Field	(W)	W	C, (W)	W	R
Western Field			(W)	C, W	C
Canal Side					×
Indian Town Field	(W)	W, Cl	C	C, Pea	
Tuscarora		×	×	R	C, R
Adam Cut	(W)	W	C	Pea	×
Barn Cut		(W)	W		×
North Boundary	(W)	W	C	C	C
Saw Mill Cut					×
Potato Patch		Pot		×	×
Cotton Patch			×	×	×
Turnip Patch				×	×
Hay Field					
Field B	C	C, Pea	C, (W)	W	
Field C	C	C, Pea	C, (W)	W	×
Field D	C	C	C, (W)	W	×
Field E	C	C	C, (W)	W	×
Field F	C	C	C	C, Pea	×
Field G		C	C	C	
Field H		C	C, F	C	

C: Corn W: Wheat R: Rice Ct: Cotton Pot: Sweet Potatoes Cl: Clover F: Flax

- Notes: 1. In the case of wheat, requiring two years to reach maturity, we find '(W)' in the year of planting and a 'W' in the crop's second year, when it was harvested. In cases where Collins noted that wheat was harvested in one year without noting it was planted the previous year, the implied planting has been noted with a '(W).'
 - 2. The symbol × denotes no reference in the Plantation Record. Blanks denote some reference to the field, which is not related to crops.

Source: Organized from Plantation Record from January 1850 to July 1853, Josiah Collins Papers, North Carolina Division of Archives and History, Raleigh.

using different kinds of manure and fertilizers, such as lime, peas, guano, clover, and other "green" manures. Outstanding among these was lime. A relatively huge amount of money was appropriated for the purchase of lime from 1845 to 1850: \$717 in 1845, \$1,116.84 in 1846, \$1,376 in 1847, \$1,458.74 in 1848, \$620 in 1849, and \$942 in 1850. They showed, however, a clear trend to reduce the amount spent on purchasing lime after 1850: \$400 in 1853, \$460 in 1854, \$80 in 1857, \$60 in 1858, \$224.51 in 1859, and \$100.87 in 1860 (there were no entries for 1851, 1852, 1855, and 1856). Even agronomist Edmund Ruffin was surprised in 1857, when revisiting Somerset Place and knowing that Collins spread as much as "three hundred bushels [of lime] to the acre." Ruffin considered Collins' liberal use of lime to be excessive.

The "green" manures, especially peas, were also used often to restore soil fertility. Not knowing the optimum use of peas as manure until 1839, Collins gradually gave more attention to peas for soil improvement. In 1846, he bought "234 Bush[e]ls Peas for Manure to Wheat" for \$129.58.³⁵ Collins had planted peas to restore soil fertility in rotation schemes (see **Table**) by 1850.³⁶

Collins also used guano as a fertilizer whose use was not prevalent in North Carolina until 1850. Collins began purchasing guano experimentally from 1844, but his purchase concentrated in the 1850s, mainly for turnips.³⁷

Besides these fertilizers, farm-made manure as well as animal manure was also applied. Even weeds were turned into putrescent manure. When making manure from weeds, he very carefully covered "all the rank growth of weeds" with soil to make compost for corn production the following year.³⁸

Collins' interest in soil fertility led him to try the scientific approach of crop rotation. Crop rotation in North Carolina, unlike in Virginia,

was not so common in the antebellum period. Collins found that planting corn in the same field for many years was bad for the crop, and he started cultivating corn "for three years in succession" in 1839, and then he let the land "lie out of tillage three years, and be grazed in the middle one of these three years." The **Table** shows that, with the exception of field F, he continued to grow corn in three year intervals into the early 1850s. Only in field F was corn planted four years in succession. Even in this case Collins planted peas as fertilizer in the fourth year together with corn.

Collins also discovered the most efficacious use of fallow ground after three years' cultivation of corn. For example, as the **Table** shows, Collins planted wheat in some fields such as B, C, D and E which were planned to be fallow the following year. This is a clear indicator of his contemplation as to whether or not he needed as long a break between crops.

Collins' rotation method was a little different from what was practiced among other planters. Ebenezer Pettigrew, for example, practiced the three-shift rotation method of "1st year, corn, 2nd, wheat, and 3rd, . . . natural weeds." The difference does not mean that Collins had only a smattering of knowledge of or information on crop rotation at that time, but, on the contrary, it shows his ingenuity in creating a new method to maximize the corn output.

Through this creative practice, Collins became one of the largest corn planters in antebellum North Carolina. He was the owner of 299, 288, and 328 slaves in 1840, 1850, and 1860, respectively. Collins ranked among the top five planters in North Carolina according to the number of slaves in 1860.⁴¹ He produced 20,000 bushels of corn in 1839, in which year he decided to grow corn as his major crop.⁴² During the ensuing decade, especially after 1845, his advanced management techniques brought forth almost unparalleled results. According to census data, he produced 30,000 bushels of Indian corn in both 1850 and 1860.⁴³ Only a few planters in North Carolina yielded more than 60,000 bushels of corn in 1850 and 1860 combined.⁴⁴ He produced as much as "30 to 50 thousand" bushels in a good harvest.⁴⁵

It should be noted, at the same time, that not only a small proportion of large-scale planters like Collins, but also many smaller-scale slave-owners produced much more corn than was needed for domestic consumption. Benjamin Spruill in Tyrrell County who owned 58 slaves produced 11,500 bushels of corn in 1860, and consumed only 1,324

bushels per year, including animal intake. William A. Spruill in Washington County, who owned 32 slaves, produced 5,000 bushels of corn in 1860 but used about 810 bushels a year for domestic consumption. The per capita grain output for these plantations exceeded 120 bushels. In the northeastern corn region, large quantities of surplus corn were ready to be marketed for sale at any time.

Ш

The *Charleston Courier* (1803–1873) reported on February 6, 1839 that two schooners sailing from the port of Ocracoke, North Carolina arrived at Charleston the previous day with a cargo of corn. One of these schooners was named "Chloe Ann." This schooner can be identified from an entry in Collins' memorandum book which reads:

Jany. 22nd—[Schooner] Chloe Ann for Charleston 2199 Bushels of Corn Stringfield Captⁿ. Arrived in Charleston 5th Feby. Corn sold at 110 cts[.] 60 days-cash-gross sales \$2398. charges \$378.55 Net Amt. \$2069.45 cargo overrun 61 Bushels.

On the next page Collins noted a shipment and sale to New York of approximately the same amount of corn in May of the same year:

May 14th Sch^r. Edwin & William. Thos. A. Denny Captⁿ.
2000 Bushels of Corn for New York
arrived in New York 28th May. Corn sold at 92 cts. [in] cash
Gross Sales \$1867.72. Charges \$244.66. Net Amt.
\$1623.06. add \$1.50 for 6 Bus. damaged. \$1624.56
Cargo overrun by measure 56 Bushels.

" by weight 30 Bushels.
Advanced Freight \$100.49

These notes can be taken as a reflection of the future pattern of Collins' corn marketing. He paid equal attention in shipping to both markets. Collins' accounts with his commission merchants, Charles and L. A. Edmondston in Charleston, and Adam Tredwell & Son and Brown and De Rosset in New York, demonstrate this.

Charles Edmondston and his son, L. A. Edmondston, commissioned from around 1840 to 1855 and 1856 to 1860 respectively, dealt in Collins' corn exports to the Deep South. Most of it was sold at Charleston. In the years 1840 through 1855, Collins gained a large

amount of net proceeds with the help of C. Edmondston. Collins, according to his ledgers, received net proceeds of \$1,209.37 in 1840, \$5,937.20 in 1841, \$8,461.63 in 1842, \$4,599.27 in 1844, \$4,388.19 in 1845, \$6,133.58 in 1846, \$1,560.07 in 1851, \$2,071.34 in 1852, \$1,881.95 in 1853, and \$4,408.05 in 1854 (there were no entries for 1843 and 1847–1850). L. A. Edmondston, succeeding his father, likewise sold a huge amount of corn for Collins. The net profits amounted to \$4,894.56 in 1856, \$4,345.41 in 1857, \$4,106.70 in 1858, \$5,576.65 in 1859, and \$8,407.39 in 1860. It can therefore be said that from 1840 to 1860 Collins shipped his corn to Charleston, ranging roughly from 6,000 to 8,000 bushels per year, and earned an average profit of \$4,532.09 for the fifteen years.

Slaves in South Carolina did not eat enough corn at that time. George Miller, a former slave in South Carolina, recalled that slaves "would steal corn and wheat from [n]eighbor plantations. You know corn and wheat in S.C. was scarce." Charleston and other port cities along coastal South Carolina and Georgia were especially in need of corn importation from other states to meet their needs. The weekly summaries of the imports of farm products at Charleston port in the *Charleston Courier* clearly indicate that North Carolina continued to provide more than half of Charleston's total corn receipts in the 1840s and 1850s. Relatively easy access to Charleston by water and the delay in construction of the major railroad lines connecting seaboard cities with the West and the Upper South enabled corn planters in the Albemarle region to ship corn to Charleston on a large scale. To the great advantage of such planters, the freight charges were much lower by water due to the increase in volume than by rail.

Through the firms of Adam Tredwell & Son and of Brown and De Rosset, Collins also shipped a huge amount of his corn to New York. Adam Tredwell & Son, commissioned from 1839 to 1853, was engaged in the factorage in New York. Excluding 1841 and 1842, due to no entry of his corn in their ledgers, Collins had a large amount of net proceeds in eleven of these years: he had clear profits of \$3,264.71 in 1839, \$3,690.17 in 1840, \$890.68 in 1843, \$2,455.54 in 1845, \$6,002.76 in 1846, \$5,745.73 in 1847, \$4,638.67 in 1848, \$3,759.47 in 1849, \$8,099.45 in 1850, \$7,796.60 in 1852, and \$6,758.26 in 1853.⁵⁴ Compared to this, Brown and De Rosset, commissioned from 1853 to 1861, did not deal in corn as much. Yet Collins still earned net profits of \$6,927.17 in 1854, \$2,168.22 in 1855, \$4,900.48 in 1856, \$1,901.34

in 1858, \$1,918.18 in 1859, \$743.99 in 1860, and \$2,038.04 in 1861.⁵⁵ For 1857, there is no entry of his corn in their ledgers. It can be estimated from Collins' marketing of corn to New York that he obtained a profit averaging \$4,094.42 for the eighteen years.

This figure—almost equal to the \$4,532.09 mentioned above for corn sent to Charleston—shows that New York was no less important than Charleston as a corn market. New York had the largest urban population in the country throughout the antebellum period, and its demand for corn continued to grow. The city gradually became the base from which Collins could prove his worth as a successful commercial corn planter. This was especially true after the late 1840s because Western corn farmers sent large amounts of high quality corn to markets in east coast cities. He was naturally interested in shipping his corn to New York.

Collins shipped some corn to Norfolk. Through the firm of Hardy and Brothers, his commission merchants in Norfolk, Collins earned net proceeds of \$506.02 in 1840, \$269.26 in 1841, and \$699.37 in 1850. Sometimes he shipped his corn "to Norfolk & reshipped to N york." Though only one entry was verified, Collins shipped his corn to Providence, earning a net profit of \$1,413.27 in 1846.⁵⁷

Thus, Charleston and New York maintained their leading positions among his corn markets until the very end of the antebellum period. Net proceeds of \$144,818.74 were gained from the sale of his corn along the east coast from 1839 to 1861, averaging \$6,296.47 a year. Supposing the average price of corn around 70 cents per bushel, it is estimated that about 8,995 bushels of corn were shipped per year. It is estimated that an average \$7,779.31, equivalent to about 11,113 bushels of corn, was gained as a net proceed per year during the 1850s.⁵⁸ These figures show us the magnitude of Collins' corn shipment.

IV

Behind the extraordinary scenes of large-scale shipments of corn, however, Collins would often be required to make entrepreneurial decisions based on fluctuations in the market price of grain and the chances for selling his crops. He devoted himself to the acquisition of information on the state of the grain market by sending frequent business letters to his commission merchants.

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In a period of less than three months in June to September 1859, for example, Collins corresponded with Brown and De Rosset at least eight times chiefly on grain market trends in Europe. On August 2, Collins expressed his view on the influence of international politics on the markets:

The cessation of the war in Italy, must, of necessity, have a further depressing effect upon the market. We may, I suppose, for some time at least, look fr. [for] peace, but in my opinion the enigma of European Politics is by no means solved and we may look forward at no distant period to a terrific explosion.

Contrary to his expectation, however, the grain market improved, which clearly pleased him as he wrote on August 10:

It gratifies me to perceive an improvement in the Grain Market, which, tho' [though] slight now, may, fr. [from] indications abroad, be continued. Should there be much rain in England during the harvest, and the Potatoe disease which has already made its appearance, proceed a little further, we may seasonally expect an improvement in both wheat & Corn.⁵⁹

Thus, whether he liked it or not, Collins was involved in the capitalist world market economy by the late antebellum period. It is not certain whether Collins designed a plan to export his corn to England as Ebenezer Pettigrew did, but for some of the antebellum large commercial corn planters in northeastern North Carolina, European countries, especially England, seemed potential markets for their crops.⁶⁰

In addition to carefully observing the overseas grain market fluctuations, Collins observed the growth of the corn crop in the Western states from the mid 1840s until 1861. Whether farmers in the Old Northwest would have a good crop or not proved to become a serious concern for him. A letter sent to L. A. Edmondston in 1859 demonstrates this. It reads "I suspect for [sic] the failure of the Crops in the N. Western States," which is "destined to rule for the remainder of the year. This will certainly be the case, if it be true, as asserted, that Illinois will be required to send as much corn westward as she ships eastward."

Collins occasionally made changes in his schedule of crop shipments to improve his chances for marketing the crops based on his own judgement. He never left those decisions solely to commission merchants. For example, on April 9, 1859, two days after making

arrangements with L. A. Edmondston for the date of his corn shipment, Collins postponed his shipment by saying that market "circumstances have led me to postpone the loading of the vessel a few days." In another case, although the schooner *Rest* was already prepared to load her cargo, Collins wrote to Brown and De Rosset on August 10, 1859: "I shall not put it on board until the first of next week, as I prefer to give the wheat a little more manipulating that it may be better protected during a long voyage." ⁶²

V

A striking aspect of his commercial corn production tends to conceal the fact that Collins was a highly flexible plantation manager. Besides corn, he raised crops like wheat, rice, cotton, hay, flax, oats, rye, peas, beans, Irish potatoes, sweet potatoes and wool. Tobacco and silk had also been produced on an experimental basis. Among these alternate crops, wheat was his principal cash crop next to corn. As corn needed intensive labor only at planting and harvesting and the work load was minimal between these times, most corn planters in the Albemarle region also produced wheat—entailing no more than 35 labor-hours per acre—to try to keep slaves working at all times. Despite the uncertainty of harvesting a crop due to weather and diseases, wheat had the advantage of selling for twice as much a price per bushel as corn.⁶³

Collins grew wheat fairly well in combination with corn using a rotation method of his own device (see **Table**). He shipped wheat from 1844 to 1860 almost exclusively to New York with the help of Adam Tredwell & Son and Brown & De Rosset. Excluding 1845 and 1848 because no entry of his wheat trading was recorded in his ledgers for those years, his net profits were \$3,123 in 1846, \$2,283.17 in 1847, \$1,118.56 in 1849, \$4,755.35 in 1850, \$1,767.28 in 1851, \$4,736.71 in 1852, \$8,418.75 in 1853, \$3,597.17 in 1854, \$11,669.66 in 1855, \$4,434.90 in 1856, \$4,990.74 in 1857, \$3,401.97 in 1859, and \$3,347.10 in 1860. These net profits total \$57,644.36 and average \$4,434.18 per year for the thirteen years specified.⁶⁴ The sum \$57,644.36 corresponds to about 55 percent of the total net profit of \$104,746.02 for corn during the same years, 1846 to 1860. It shows that wheat played a more or less secondary role to corn.

Somerset Place also engaged in the cultivation of rice until the late

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1850s, though not on a significantly large scale. Rice had been produced on a large scale by the Lake Company in the days of Josiah I, but later, according to Ruffin, it was "abandoned" because it caused "so much sickness among the slaves," including intermitting and inflammatory fevers and typhus caused by putrefaction around the stagnant waters of the swampy rice fields. Collins, nonetheless, cultivated rice and to some extent shipped it even in the 1850s. He earned net profits of \$1,877.53 in 1853, \$997.43 in 1854, \$2,221.90 in 1855, \$2,077.99 in 1856, and \$200.64 in 1857 for a total of \$7,375.49. This sum corresponds to around 20 percent of the \$36,284.10 total net profit for his corn during the same years.65 Comparatively, the total net profit of \$33,111.22 for his wheat from 1853 to 1857 corresponds to 91.3 percent of the total net profit for his corn during this period. This shows that, as far as these three crops were concerned, the proportions of corn, wheat, and rice total net profits were 47.3, 43.1, and 9.6 percent respectively. Collins also shipped cotton on a scale of around 45 bales on average to New York in 1839, 1840 and 1841. In 1850, he harvested 2,000 pounds of cotton in his "Cotton Patch."66

The increase of production of peas from 200 bushels in 1850 to as much as 1,500 bushels in 1860 shows not only Collins' growing interest in peas to restore soil fertility, but also his effectiveness in utilizing his slaves' labor. Many schooners arriving at Charleston from North Carolina were loaded with peas along with corn. The column "Ship News" in the *Charleston Courier* reported: "Schr. Conquest, Hays, Plymouth, (N.C.) 3 days. Corn and Peas" on September 23, 1839 and "Schr. Melvina, Mayo, Ocracok, (N.C.) 6 days. Corn and Peas" on January 3, 1850.⁶⁷ This indicates that peas were used to restore fertility to the depleted soil, and that they were plentiful enough to be exported.

Along with cultivating crops, Collins raised stock: horses, mules, cows, oxen, hogs, and sheep. Hogs, totaling as many as 496 head in 1860, were fattened by his corn and "100 to 200 hogs" were slaughtered each year to feed slaves as well as his own family. Some of their meat was smoked into high-quality hams that Collins prided himself on and were consumed as "every planter [in the region] put(s) up a large quantity for his private use." Milk and butter were also homemade. Fifty-two heads of milk cows, for example, produced 2,500 pounds of butter in 1860. The same year, 225 sheep were raised and

provided 500 pounds of wool. Mules, oxen, and horses were used as draft animals, with the mules and oxen being an especially invaluable labor force.⁶⁸ Livestock raising formed an integral part of his management to establish a self-sufficient economy.

VI

Thus far, this examination showed how Josiah Collins III produced corn commercially with considerable success. With a sophisticated production system characterized by mechanization, a streamlined water transportation system, and scientific farming, Collins continued to produce large amounts of corn throughout the antebellum period. As surplus labor was much more available than in the cotton South, it was ingeniously applied to the cultivation of cotton, rice, wheat, and peas as well as stock raising. As was not the case for cotton planters in the Deep South, the choice of corn increased the opportunity for efficient use of slave labor and opened the way for him to raise various crops and stocks in a surprisingly flexible and collaborative way. The means of producing such plantation crops kept Somerset self-sufficient. The output of grains per capita for Somerset Place in 1860 was calculated at 113.8 bushels—exceeding by far the 51 bushels produced on large plantations in the cotton South.⁶⁹

His success was also a product of his skillful management of slave labor, which was clearly revealed in his management of the Negro Patch. Like in his own plantation fields, he allowed slaves to work in their Negro Patch in the daytime. Impartial treatment of his slaves, in other words having them work in both the Negro Patch and the plantation fields without differentiation of labor, instilled the slaves the motivation to work hard. This was an effective way of gaining the most out of their labor. The Negro Patch on Somerset was devised in order to make slaves as efficient as possible, and it worked very well.

Thanks to the aforementioned plantation management techniques, Collins could send his huge shipments of corn to markets through canals, rivers, and sounds. Throughout the antebellum period, Collins and other commercial corn planters in northeastern North Carolina played an important role as corn suppliers to Charleston and New York. It is worth noting that this region at the time continued to contribute to the food supply of the North as well as of the South. How-

ever, it should not be forgotten that Collins' success in shipping corn was the result of careful observations of fluctuations in overseas and domestic market prices for grain, and of the corn crop situation in the competing Old Northwest.

As far as Collins' approach to plantation agriculture is concerned, it can be inferred that he behaved like a rational, entrepreneurial capitalist. But such an attitude was not at odds with his consideration for his slaves. During the Christmas season, for example, Collins gave some of his privileged slaves permission to visit their relatives in Edenton. Work in the fields by his hands was customarily stopped when it began to rain. In the winter time, they were permitted to warm themselves in the fields by "burning coal" or "frying fat" even during working hours. These suggest that capitalist and paternalist attitudes, rather than being contradictory, were complementary among slaveholding plantation owners.

Overall, it would seem, according to the evidence presented in this essay, that Somerset Place Plantation in the antebellum northeastern North Carolina is a good illustration of how well a planter in the peripheral parts of the South could manage a plantation.

NOTES

- ¹ Cornelius O. Cathey, *Agricultural Developments in North Carolina 1783–1860* (Chapel Hill: University of North Carolina Press, 1956), v; Diane Lindstrom, "Southern Dependence upon Interregional Grain Supplies: A Review of the Trade Flows, 1840–1860," *Agricultural History* 44 (January 1970): 107; and Wayne K. Durrill, "Routine of Seasons: Labour Regimes and Social Ritual in an Antebellum Plantation Community," *Slavery & Abolition* 16 (August 1995): 163.
- ² See, for example, Betty Wood, Women's Work, Men's Work: The Informal Slave Economies of Lowcountry Georgia (Athens: University of Georgia Press, 1995); and Roderick McDonald, The Economy and Material Culture of Slaves: Goods and Chattels on the Sugar Plantations of Jamaica and Louisiana (Baton Rouge: Louisiana State University Press, 1993).
- ³ Robert E. Gallman, "Self-Sufficiency in the Cotton Economy of the Antebellum South," *Agricultural History* 44 (January 1970): 5–23. Gallman's computation showed that only the smallest classes of farms under nineteen acres produced below the 38 bushel national norm.
- ⁴ The computation of the value of bushels of grains per capita on many estates, large or small, shows mostly 100 to 150 bushels of grains. For the method of calculation see Gallman, "Self-Sufficiency," 7. See also Eighth Census of the United States, 1860 (hereinafter cited as U.S. Census, 1860): Alamance-Yancy Co., North Carolina, Agriculture and Population Schedules, National Archives, Washington, D.C. (micro-

- film, State Archives, Division of Archives and History, Raleigh).
- ⁵ Gavin Wright, *The Political Economy of the Cotton South: Households, Markets, and Wealth in the Nineteenth Century* (New York: W. W. Norton & Co., 1978), 55–56, 74–87.
- ⁶ U.S. Department of Commerce, *Historical Statistics of the United States: Colonial Times to 1970*, part 1, 500.
- ⁷ See, for example, Christine Daniels, "Gresham's Laws: Labor Management on an Early-Eighteenth-Century Chesapeake Plantation," *Journal of Southern History* 62 (May 1996): 205–206; and Drew G. Faust, *James Henry Hammond and the Old South: A Design for Mastery* (Baton Rouge: Louisiana State University Press, 1982), 72–73.
- ⁸ "Scuppernong Farms Project (RF-NC 25), Washington and Tyrrell Counties," in the Farm Security Administration Papers, North Carolina Archives and History, Raleigh (hereinafter cited as SFP in FSA Papers, NCAH).
- ⁹ W. W. Abbot and Dorothy Twohig, eds., *The Papers of George Washington*, Confederate Series 1 (Charlottesville: University Press of Virginia, 1992), 244–248, 281–283; and John C. Fitzpatrick, ed., *The Writings of George Washington from the Original Manuscript Sources 1745–1799*, vol. 28 (U.S. Government Printing Office), 67–81, 258–260, 278–281, 310–314, 333–338.
- ¹⁰ June 10, 1786, Account of Importations, 1784–1787, Port Roanoke, Ports, Treasurer's and Comptroller's Papers, vol. 33, NCAH.
- ¹¹ Peter Wood, "Digging Black History," *Southern Exposure* 11 (March/April 1983): 63; and Harriet Jacobs, *Incidents in the Life of a Slave Girl* (Boston: Published for the Author, 1861), 171.
- ¹² William S. Tarlton, *Somerset Place and Its Restoration* (Raleigh: Division of State Parks, North Carolina Department of Conservation and Development, 1954), 7.
- ¹³ Ebenezer Pettigrew Account with Josiah Collins, 1828, Folder 484 in the Pettigrew Papers #592, Southern Historical Collection, Wilson Library, University of North Carolina at Chapel Hill; and Sarah Lemmon, ed., *The Pettigrew Papers*, vol. 2 (Raleigh: Division of Archives and History, North Carolina Department of Cultural Resources, 1988), 74–75, 96–97.
 - ¹⁴ Farmers' Register (Petersburg, Va.) 7, no. 12 (1839): 727.
- ¹⁵ Plantation Record from January 1850 to July 1853 (A.B. 265.6) (hereinafter cited as Plantation Record), January 9, April 22, 1850, March 31, April 5, 1852, and *passim*, Josiah Collins Papers (hereinafter JCP), NCAH.
 - ¹⁶ Farmers' Register 7, no. 12 (1839): 727.
- ¹⁷ Lewis C. Gray, *History of Agriculture in the Southern United States to 1860*, vol. 2 (Washington, D.C.: Carnegie Institution, 1933), 815–816; and Cathey, *Agricultural Developments*, 133–134.
 - ¹⁸ Farmers' Register 7, no. 12 (1839): 729.
- ¹⁹ Uriah Bennett interview, SFP in FSA Papers, NCAH. Uriah Bennett was born around 1845 at Somerset Place.
- ²⁰ Archie K. Davis, *Boy Colonel of the Confederacy: The Life and Times of Henry King Burgwyn, Jr.* (Chapel Hill: University of North Carolina Press, 1985), 24.
- ²¹ Daybook of Josiah Collins from January 1842 to January 1846 (A.B. 265.1) (hereinafter cited as Daybook, 1842–1846), March 28, 1844 JCP, NCAH; Ledger A: Account Book of Josiah Collins from January 1, 1839–March 1, 1853 (A.B. 265.4), 130–136, 142, 148, JCP, NCAH; and Daybook of Josiah Collins from January 1848 to July 1856 (A.B. 265.2) (hereinafter cited as Daybook, 1848–1856), September 12, 1848, August 21, 1851, JCP, NCAH.

- ²² Daybook, 1848–1856, June 29, 1854, JCP, NCAH; and Ledger B: Account Book of Josiah Collins from March 1, 1853 to February, 1867 (A.B. 265.5), 202, 206, 208, JCP, NCAH.
 - ²³ U.S. Dept. of Commerce, *Historical Statistics*, part 1, 500.
 - ²⁴ Plantation Record, April 17, October 22, 1850, JCP, NCAH.
 - ²⁵ Plantation Record, April 23, 24, 1850, JCP, NCAH.
 - ²⁶ Plantation Record, May 1, 1850, JCP, NCAH.
 - ²⁷ Plantation Record, June 19, 26, 1850, JCP, NCAH.
 - ²⁸ Memorandum Book (P.C. 417.12), 7, JCP, NCAH (Underlined in the original).
 - ²⁹ See notes 43 and 44 below.
- ³⁰ Large-scale production of crops required the purchase of the best agricultural machinery. Not only skilled slaves but also field hands and even female slaves at times became masters of plantation technology. Plantation Record, April 23–24, June 17, August 21, October 30, 1850, June 12–19, 1851, June 15–17, 21, 1852, JCP, NCAH; and Gray, *History of Agriculture*, vol. 1, 470.
- ³¹ It is well known among historians that land for slaves' own use could be an off-shoot of a system of rewards and incentives. Robert W. Fogel and Stanley L. Engerman, *Time on the Cross: The Economics of American Negro Slavery*, vol. 1 (Boston: Little, Brown & Co., 1974), 148–149; James O. Breeden, ed., *Advice Among Masters: The Ideal in Slave Management in the Old South* (Westport, Conn.: Greenwood Press, 1980), 267, 270–272, 274.
- ³² Janet Schaw, *Journal of a Lady of Quality: Being the Narrative of a Journey from Scotland to the West Indies, North Carolina, and Portugal, in the years 1774 to 1776*, edited by Evangeline Andrews and Charles Andrews (3d ed., New Haven: Yale University Press, 1939), 176–177.
 - ³³ Ledger A, 130–177, JCP, NCAH; and Ledger B, 194–221, JCP, NCAH.
- ³⁴ Edmund Ruffin, Agricultural, Geological, and Descriptive Sketches of Lower North Carolina, and the Similar Adjacent Lands (Raleigh: The Institution for the Deaf & Dumb & the Blind, 1861), 238 (microfilm).
 - ³⁵ Ledger A, 138, JCP, NCAH; and Ledger B, 196–218, JCP, NCAH.
- ³⁶ Plantation Record, May-June, 1850, June, December, 1851, January, June-August, November, 1852, June, 1853, JCP, NCAH.
- ³⁷ Letterbook, 1858–1861 (P.C. 417.2), 423, 428, JCP, NCAH; Daybook, 1842–1846, September 3, 1844, JCP, NCAH; Ledger A, March 23, 1853, May 5, 1854, JCP, NCAH; and Ledger B, 194–204, JCP, NCAH.
 - ³⁸ Ruffin, Agricultural and Descriptive Sketches, 238.
 - ³⁹ Farmers' Register 7, no. 12 (1839): 729.
 - ⁴⁰ Farmers' Register 7, no. 12 (1839): 730.
- ⁴¹ U.S. Census, 1840: Washington County, North Carolina (hereinafter WCNC), Population Schedule, National Archives, Washington, D.C. (microfilm, State Archives, Division of Archives and History, Raleigh); U.S. Census, 1850: WCNC, Population, 110–115; U.S. Census, 1860: WCNC, Population, 120–124; U.S. Census, 1850: vol. 4, Compendium (Washington: A.O.P. Nicholson, Public Printer, 1854), 95; and U.S. Census, 1860: vol. 2, Agriculture (Government Printing Office, 1864), 236.
 - ⁴² Memorandum Book, 7–9, 22, JCP, NCAH.
- ⁴³ U.S. Census, 1850: WCNC, Agriculture, 165; and U.S. Census, 1860: WCNC, Agriculture, 149.
- The counties surveyed covered the basin of the Roanoke River and the area of Albemarle Sound. They were Currituck, Camden, Pasquotank, Perquimans, Chowan, Washington, Tyrrell, Gates, Hertford, Northampton, Bertie, Halifax, Edgecombe,

- Martin, Pitt, Beaufort and Hyde. U.S. Census, 1850: Alamance-Yancy Co., N.C., Agriculture (microfilm); and U.S. Census, 1860: Alamance-Yancy Co., N.C., Agriculture (microfilm).
- ⁴⁵ "History of Somerset Place," Department of Conservation and Development, Division of State Parks, Raleigh, North Carolina, 2.
- ⁴⁶ For the method of computing corn consumption see Sam B. Hilliard, *Hog Meat and Hoecake: Food Supply in the Old South, 1840–1860* (Carbondale: Southern Illinois University Press, 1972), 157–158.
- ⁴⁷ The output of grains per capita at Benjamin Spruill and William Spruill's plantations was computed at about 165 and 124 bushels respectively. For the method and source see note 4.
- ⁴⁸ "Ship News: Port of Charleston, February 6, 1839," *Charleston Courier*, 6 February 1839.
 - ⁴⁹ Memorandum Book, 19–21, JCP, NCAH (Underlined in the original).
- ⁵⁰ In 1855, Collins earned a net profit of \$2,362.73 for a mixed cargo of "Rice and Corn," so the net profit for corn in 1855 cannot be calculated. Ledger A, 67–183, JCP, NCAH; and Ledger B, 116, 197, JCP, NCAH.
 - ⁵¹ Ledger B, 118–121, 205–219, JCP, NCAH.
- ⁵² George P. Rawick, ed., *The American Slave: A Composite Autobiography*, supplement series 1, vol. 9 (Westport, Conn.: Greenwood Publishing Co., 1977), 1487.
- ⁵³ "Charleston Market," *Charleston Courier*, 1840–1859; and Lindstrom, "Southern Dependence," 107.
- ⁵⁴ The mixed cargoes of "Wheat & Corn" for 1844 and 1851, with net profits of \$1,368.48 and \$1,747.07 respectively, were excluded from the calculation. In 1847 and 1852, there were two types of cargoes, corn only and "Wheat & Corn." The "Wheat & Corn" cargoes for these years were excluded. Ledger A, 32–47, 270–317; and Ledger B, 284–285, JCP, NCAH.
- ⁵⁵ The mixed cargo of "Wheat & Corn" for 1853, with a net profit of \$1,789.44, was excluded. In 1854 and 1858, there were two types of cargoes, corn only and "Wheat & Corn." The "Wheat & Corn" cargoes for these years, with net profits of \$3,235.70 and \$2,775.19, were excluded. Ledger B, 286–329, JCP, NCAH.
- ⁵⁶ Ledger A, 67, 125, 169, JCP, NCAH; and Ledger B, 197, JCP, NCAH. See also Ledger B, 288, 298, JCP, NCAH.
 - ⁵⁷ Ledger A, 133, JCP, NCAH.
- ⁵⁸ For the price of corn per bushel see Douglass C. North, *The Economic Growth of the United States, 1790–1860* (Englewood Cliffs, N.J.: Prentice-Hall, 1961), 263; and "Charleston Prices Current," *Charleston Courier*, 1839–1860.
 - ⁵⁹ Letterbook, 276, 282, JCP, NCAH.
 - 60 Lemmon, ed., Pettigrew Papers, vol. 2, 109-110.
- ⁶¹ Letterbook, 196, JCP, NCAH.
- 62 Letterbook, 196, 282, JCP, NCAH.
- ⁶³ U.S. Census, 1850: WCNC, Agriculture, 165; U.S. Census, 1860: WCNC, Agriculture, 149; U.S. Dept. of Commerce, *Historical Statistics*, 500; and North, *Economic Growth*, 263.
- ⁶⁴ The mixed cargoes of "Wheat & Corn" for 1844 and 1858, with net profits of \$1,368.48 and \$2,775.19 respectively, were excluded. In 1847 and 1851–1854, there were two types of cargoes, wheat only and "Wheat & Corn." The "Wheat & Corn" cargoes for these years, with a profit averaging \$2,269.67, were excluded. Ledger A, 276–314, JCP, NCAH; and Ledger B, 286–328, JCP, NCAH.
 - 65 Farmers' Register 7 no. 12 (1839): 729; Hugh Williamson, The History of North

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Carolina, vol. 2 (Philadelphia: Thomas Dobson, 1812; repr., Spartanburg, S.C.: Reprint Co., 1973), 183–205; Ledger B, 116–118, JCP, NCAH; and Plantation Record, April 12–14, July 28, 30, October 25, 27, 1852, March 8, April 25, 29, May 24, 1853, JCP, NCAH.

- ⁶⁶ Ledger A, 32-40, JCP, NCAH; and U.S. Census, 1850: WCNC, Agriculture, 165.
- 67 "Ship News," Charleston Courier, September 23, 1839, January 3, 1850.
- ⁶⁸ U.S. Census, 1850: WCNC, Agriculture, 165; U.S. Census, 1860: WCNC, Agriculture, 149; Uriah Bennett interview, SFP in FSA Papers, NCAH; and Letterbook, 168, JCP, NCAH.
- 69 For the method and source of computing the value of grains per capita for Somerset see note 4.
 - ⁷⁰ Plantation Record, January 17–19, December 18–20, 1850, JCP, NCAH.