

E.L. Angeli

Professor. Patricia Sullivan

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### Toward a Recovery of Nineteenth Century Farming Handbooks

While researching texts written about nineteenth century farming, I found a few authors who published books about the literature of nineteenth century farming, particularly agricultural journals, newspapers, pamphlets, and brochures. These authors often placed the farming literature they were studying into an historical context by discussing the important events in agriculture of the year in which the literature was published (see Demaree, for example). However, while these authors discuss journals, newspapers, pamphlets, and brochures, I could not find much discussion about another important source of farming knowledge: farming handbooks. My goal in this paper is to bring this source into the agricultural literature discussion by connecting three agricultural handbooks from the nineteenth century with nineteenth century agricultural history.

To achieve this goal, I have organized my paper into four main sections, two of which have sub-sections. In the first section, I provide an account of three important events in nineteenth century agricultural history: population and technological changes, the distribution of scientific new knowledge, and farming's influence on education. In the second section, I discuss three nineteenth century farming handbooks in connection with the important events described in the first section. Special attention is paid to the role that these handbooks played in the

dissemination of agricultural knowledge (and the creation of genuinely new knowledge). I end with a third section that offers research questions that could be answered in future versions of this paper and conclude with a fourth section that discusses the importance of expanding this particular project. I also include an appendix after the Works Cited that contains images of the three handbooks I examined. Before I can begin the examination of the three handbooks, however, I need to provide an historical context in which the books were written, and it is to this that I now turn.

## **1. Historical Context**

The nineteenth century saw many changes to daily American life with an increase in population, improved methods of transportation, developments in technology, and the rise in the importance of science. These events impacted all aspects of nineteenth century American life (most significantly, those involved in slavery and the Civil War). However, one part of American life was affected that is quite often taken for granted: the life of the American farmer.

### **1.1. Population and Technological Changes**

One of the biggest changes, as seen in nineteenth century America's census reports, is the dramatic increase in population. The 1820 census reported that over 10 million people were living in America; of those 10 million, over 2 million were engaged in agriculture. Ten years prior to that, the 1810 census reported over 7 million people were living in the states; there was no category for people engaged in agriculture. In this ten-year time span, then, agriculture

experienced significant improvements and changes that enhanced its importance in American life.

One of these improvements was the development of canals and steamboats, which allowed farmers to “sell what has previously been unsalable [sic]” and resulted in a “substantial increase in [a farmer’s] ability to earn income” (Danhof, 5). This improvement allowed the relations between the rural and urban populations to strengthen, resulting in an increase in trade. The urban population (defined as having over 2,500 inhabitants) in the northern states increased rapidly after 1820.<sup>1</sup> This increase accompanied the decrease in rural populations, as farmers who “preferred trade, transportation, or ‘tinkering’” to the tasks of tending to crops and animals found great opportunities in the city (Danhof, 7). Trade and transportation thus began to influence farming life significantly. Before 1820, the rural community accounted for eighty percent of consumption of farmers’ goods (Hurt, 127). With the improvements in transportation, twenty-five percent of farmers’ products were sold for commercial gain, and by 1825, farming “became a business rather than a way of life” (Hurt, 128). This business required farmers to specialize their production and caused most farmers to give “less attention to the production of surplus commodities like wheat, tobacco, pork, or beef” (Hurt, 128). The increase in specialization encouraged some farmers to turn to technology to increase their production and capitalize on commercial markets (Hurt, 172).

The technology farmers used around 1820 was developed from three main sources: Europe, coastal Native American tribes in America, and domestic modifications made from the first two sources’ technologies. Through time, technology improved, and while some farmers

clung to their time-tested technologies, others were eager to find alternatives to these technologies. These farmers often turned to current developments in Great Britain and received word of their technological improvements through firsthand knowledge by talking with immigrants and travelers. Farmers also began planning and conducting experiments, and although they lacked a truly scientific approach, these farmers engaged in experiments to obtain results and learn from the results.<sup>2</sup> Agricultural organizations were then formed to “encourage ... experimentation, hear reports, observe results, and exchange critical comments” (Danhof, 53). Thus, new knowledge was transmitted orally from farmer to farmer, immigrant to farmer, and traveler to farmer, which could result in the miscommunication of this new scientific knowledge. Therefore, developments were made for knowledge to be transmitted and recorded in a more permanent, credible way: by print.

## **1.2. The Distribution of New Knowledge**

Before 1820 and prior to the new knowledge farmers were creating, farmers who wanted print information about agriculture had their choice of agricultural almanacs and even local newspapers to receive information (Danhof, 54). After 1820, however, agricultural writing took more forms than almanacs and newspapers. From 1820 to 1870, agricultural periodicals were responsible for spreading new knowledge among farmers. In his published dissertation *The American Agricultural Press 1819-1860*, Albert Lowther Demaree presents a “description of the general content of [agricultural journals]” (Demaree, xi). These journals began in 1819 and were written for farmers, with topics devoted to “farming, stock raising, [and] horticulture” (Demaree,

12). The suggested “birthdate” of American agricultural journalism is April 2, 1819 when John S. Skinner published his periodical *American Farmer* in Baltimore. Demaree writes that Skinner’s periodical was the “first continuous, successful agricultural periodical in the United States” and “served as a model for hundreds of journals that succeeded it” (Demaree, 19). In the midst of the development of the journal, farmers began writing handbooks. Not much has been written on the handbooks’ history, aside from the fact that C.M. Saxton & Co. in New York was the major handbook publisher. Despite the lack of information about handbooks, and as can be seen in my discussion below, these handbooks played a significant role in distributing knowledge among farmers and in educating young farmers, as I now discuss.

### **1.3. Farming’s Influence on Education**

One result of the newly circulating print information was the “need for acquiring scientific information upon which could be based a rational technology” that could “be substituted for the current diverse, empirical practices” (Danhof, 69). In his 1825 book *Nature and Reason Harmonized in the Practice of Husbandry*, John Lorain begins his first chapter by stating that “[v]ery erroneous theories have been propagated” resulting in faulty farming methods (Lorain, 1). His words here create a framework for the rest of his book, as he offers his readers narratives of his own trials and errors and even dismisses foreign, time-tested techniques farmers had held on to: “The knowledge we have of that very ancient and numerous nation the Chinese, as well as the very located habits and costumes of this very singular people, is in itself insufficient to teach us...” (Lorain, 75). His book captures the call and need for scientific experiments to develop new

knowledge meant to be used in/on/with American soil, which reflects some farmers' thinking of the day.

By the 1860s, the need for this knowledge was strong enough to affect education. John Nicholson anticipated this effect in 1820 in the "Experiments" section of his book *The Farmer's Assistant; Being a Digest of All That Relates to Agriculture and the Conducting of Rural Affairs; Alphabetically Arranged and Adapted for the United States*:

Perhaps it would be well, if some institution were devised, and supported at the expense of the State, which would be so organized as would tend most effectually to produce a due degree of emulation among Farmers, by rewards and honorary distinctions conferred by those who, by their successful experimental efforts and improvements, should render themselves duly entitled to them.<sup>3</sup> (Nicholson, 92)

Part of Nicholson's hope was realized in 1837 when Michigan established their state university, specifying that "agriculture was to be an integral part of the curriculum" (Danhof, 71). Not much was accomplished; however, much to the dissatisfaction of farmers, and in 1855, the state authorized a new college to be "devoted to agriculture and to be independent of the university" (Danhof, 71). The government became more involved in the creation of agricultural universities in 1862 when President Lincoln passed the Morrill Land Grant College Act, which begins with this phrase: "AN ACT Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts [sic]." The first agricultural colleges formed under the act suffered from a lack of trained teachers and "an

insufficient base of knowledge,” and critics claimed that the new colleges did not meet the needs of farmers (Hurt, 193).

Congress addressed these problems with the then newly formed United States Department of Agriculture (USDA). The USDA and Morrill Act worked together to form “... State experiment stations and extension services ... [that] added [to] ... localized research and education...” (Baker, 415). The USDA added to the scientific and educational areas of the agricultural field in other ways by including research as one of the organization’s “foundation stone” (Baker, 367) and by including these seven objectives:

(1) [C]ollecting, arranging, and publishing statistical and other useful agricultural information; (2) introducing valuable plants and animals; (3) answering inquiries of farmers regarding agriculture; (4) testing agricultural implements; (5) conducting chemical analyses of soils, grains, fruits, plants, vegetables, and manures; (6) establishing a professorship of botany and entomology; and (7) establishing an agricultural library and museum. (Baker, 14)

These objectives were a response to farmers’ needs at the time, mainly to the need for experiments, printed distribution of new farming knowledge, and education. Isaac Newton, the first Commissioner of Agriculture, ensured these objectives would be realized by stressing research and education with the ultimate goal of helping farmers improve their operations (Hurt, 190).

Before the USDA assisted in the circulation of knowledge, however, farmers wrote about their own farming methods. This brings me to my next section in which I examine three

handbooks written by farmers and connect my observations of the texts with the discussion of agricultural history I have presented above.

## **2. Level One Heading**

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#### **2.1.a. Level Three Heading**

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**Table 1**

Degrees in Modern Foreign Languages and Literature Conferred by Degree-Granting Institutions of Higher Education in the United States

Year	Bachelor's Degrees	Master's Degrees	Doctor's Degrees
1996–97	13,053	2,470	793
1997–98	13,618	2,367	793
1998–99	14,163	2,267	757
1999–2000	14,186	2,228	804
2000–01	14,292	2,244	818
2001–02	14,236	2,284	780
2002–03	14,854	2,256	749
2003–04	15,408	2,307	743
2004–05	16,008	2,517	762
2005–06	16,762	2,637	777

Adapted from National Center for Education Statistics. *Digest of Education Statistics*, 2007, [nces.ed.gov/programs/digest/d07/tables/dt07\\_297.asp](http://nces.ed.gov/programs/digest/d07/tables/dt07_297.asp)

## CONCLUSION

From examining Drown's, Allen's, and Crozier and Henderson's handbooks in light of nineteenth century agricultural history, I can say that science and education seem to have had a strong influence on how and why these handbooks were written. The authors' ethos is created by how they align themselves as farmers with science and education either by supporting or by

criticizing them. Regardless of their stance, the authors needed to create an ethos to gain an audience, and they did this by including tables of information, illustrations of animals and buildings, reasons for educational reform, and pieces of advice to young farmers in their texts. It would be interesting to see if other farming handbooks of the same century also convey a similar ethos concerning science and education in agriculture. Recovering more handbooks in this way could lead to a better, more complete understanding of farming education, science's role in farming and education, and perhaps even an understanding of the rhetoric of farming handbooks in the nineteenth century.

Notes

1. Danhof includes “Delaware, Maryland, all states north of the Potomac and Ohio rivers, Missouri, and states to its north” when referring to the northern states (11).
2. For the purposes of this paper, “science” is defined as it was in nineteenth century agriculture: conducting experiments and engaging in research.
3. Please note that any direct quotes from the nineteenth century texts are written in their original form, which may contain grammar mistakes according to twenty-first century grammar rules.

Works Cited

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