

Liberty Hyde Bailey: Agricultural Educator and Philosopher



**James J. Connors'
University of Idaho
Moscow, ID**

Abstract

Liberty Hyde Bailey was a pioneer in American agriculture. Bailey studied agriculture at Michigan Agricultural College. He returned to MAC as chair of the new department of horticulture. He moved to Cornell University where he advanced to become Dean of the College of Agriculture. Bailey was instrumental in the development of horticultural science in America, and is considered the “Father of American Horticulture.” He was a prolific writer of books related to horticulture, agriculture, nature and environmental philosophy. Bailey pioneered the use of nature study in schools to encourage youth to investigate nature and their environment. As rural life was facing severe challenges at the turn of the 20th century, President Roosevelt called on Bailey to chair his Country Life Commission. The commission made numerous recommendations on ways to improve rural life, agricultural production and standards of living in the early 1900s America. Liberty Hyde Bailey was a monumental figure in the development of modern horticulture, agricultural education, nature study and rural life in America. His writings should be required reading for anyone interested in improving their knowledge of horticulture, sustainable agriculture and environmental philosophy.

Introduction

The profession of agricultural education has many pioneers. Ask anyone involved with agricultural education who Justin Morrill was and they will reply that he wrote the Land-Grant College Act. Most will know that Seaman Knapp developed the demonstration farm and championed extension education. Anyone who has ever been involved with 4-H will know that A.B. Graham is considered the Father of 4-H clubs. FFA members will be able to tell you that Hoke Smith and Dudley Hughes wrote the Smith-Hughes Vocational Education Act. They will be able to tell you that Henry Groseclose was one of the founders of the



Future Farmers of Virginia and eventually the Future Farmers of America.

But ask most people who Liberty Hyde Bailey is and you will probably receive a blank stare. While Liberty Hyde Bailey is well known by anyone who studies horticulture in America, he is relatively unknown by agricultural education professionals. This is an unfortunate oversight for Liberty Hyde Bailey played an important role in establishing nature-study and agricultural subjects in both elementary and secondary schools in the late 1800s and early 1900s. He was the chair of President Theodore Roosevelt’s Commission on Country Life in 1908. He wrote numerous books on production agriculture, horticulture, nature-study, the teaching of agricultural subjects and the country life movement in the United States.

Bailey was truly an unsung pioneer for agricultural education at the elementary, secondary and post-secondary levels of education in America. His nature-study ideas, his thoughts on agricultural education, his environmental, ethical and moral theories and his

¹Associate Professor and Department Head

love of the country life and the open country should be studied and valued by every agricultural education professional. Bailey's writings from 1885 until his death in 1954 are as important and valuable today as they were over 125 years ago.

Review of Literature

Many individuals played an important role in the history of agricultural education in the United States. In their study on the great individuals and events in the history of agricultural education in America, Camp and Crunkilton (1985) identified 10 individuals who most influenced the history of agricultural education. Included in their list was Henry Groseclose, who along with Harry Sanders, Walter Newman, and Edwin McGill founded the Future Farmers of Virginia in 1925. This eventually led to the establishment of the Future Farmers of America in 1928.

Moore (1988) called Rufus W. Stimson "the forgotten leader in agricultural education" (p. 50). Moore wrote that, "*In the formative years of vocational agriculture, many people were opposed to this 'new' type of education. A number of people did not view agriculture as being worthy of study*" (p. 55). Moore added that, "*Having a person of Stimson's background and training arguing for a balanced education, one which included vocational education, did much to advance vocational education*" (p. 55).

Camp (1987) discussed the roles that Hoke Smith, Dudley Hughes, Charles Prosser and Carrol Page played in getting federal legislation to support vocational education passed through the U.S. Congress. Camp wrote that, "*There were many education, industrial, political, and other leaders advocating federal vocational legislation during the first 17 years of the 20th century...Four of the champions of such legislation were Hoke Smith, Charles Prosser, Dudley Hughes, and Carroll Page*" (p. 7).

In another article by Moore (1987), he discussed Liberty Hyde Bailey's nature study idea when he wrote, "*The forerunner of agricultural education was nature study and school gardens, primarily in elementary schools*" (p. 9). Moore specifically recognized Bailey when he stated, "*A leader in the nature study movement was Liberty Hyde Bailey of Cornell, who in 1896, prepared a bulletin titled How a Squash Plant Gets Out of the Soil*" (p. 9).

A.B. Graham was another individual who played a major part in promoting agricultural education, country life and youth leadership development. He is credited with being one of the individuals who developed the agricultural club movement for rural boys and girls which eventually lead to the 4-H clubs

in most counties. McCormick and McCormick (1984) wrote that, "*Like many educational leaders of the 1890s and early 1900s Graham attempted to increase the teacher's role in decision making, but he tried to do this while enhancing parent and student participation until schools became community centers*" (p. 171).

Many individuals played important roles in agricultural education around the turn of the 20th century. However, no one brought as broad of experience to the issue as Liberty Hyde Bailey. Bailey was a farm boy, naturalist, educator, agricultural dean and champion of the country life movement. This research study will identify the contributions Bailey made to agriculture, horticulture, agricultural education and the country life for all citizens of the United States.

Purpose and Objectives

The purpose of this historical research study is to investigate the influence Liberty Hyde Bailey had on the field of agricultural education. Objectives which guided the study included:

1. Describe Bailey's history in horticulture and higher education in agriculture.
2. Describe Bailey's emphasis on nature-study for elementary school students.
3. Describe Bailey's leadership as Chairman of the Commission on Country Life.
4. Describe Bailey's work in agricultural and extension education.

Results and Discussion

Early Background

Liberty Hyde Bailey was born into a farm family in South Haven, Michigan on March 15, 1858. Bailey's father had moved to Michigan from Vermont in 1841 looking for a frontier filled with forests, prairies and fertile farm land (Dorf, 1956). When Liberty was only a boy of five years of age, his mother Sarah died of diphtheria. This tragic event played an important part in his formative years.

Dorf (1956) writing a biography of Bailey wrote, "*Since young Liberty was too old to be confined to the house and yard and too young for anything more than a few light chores, the family left him largely to his own devices. He wandered through orchard, darted in and out of the new barn, which the men were sheathing with hemlock boards, and watched the tadpoles in the little swamp. Back of the barn was a field that his father early had cut from the forest for use as a pasture. It contained hummocks, each about three to four feet high, each an observation point from which a young explorer could view the changing landscape*" (p. 6-7).

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Bailey grew up being influenced by the nature around his South Haven farm. He also loved to read anything he could get his hands on. Two of his favorite books were Charles Darwin's *On the Origin of Species* and Asa Gray's *Field, Forest, and Garden Botany* (Liberty Hyde Bailey Museum, n.d.). Bailey's observations of nature and his prolific reading habit led to a love of birds. When he was just 15 years old he wrote his first manuscript titled "Birds" which he presented before the Michigan Pomological Society and published in the Annual Report of the Society in 1873. As a result of his presentation, he was elected to serve as the ornithologist and entomologist for the South Haven Pomological Society.

In 1877 Bailey enrolled in Michigan State Agricultural College (MAC). At MAC, he became the protégé of Dr. William Beal, professor of botany and horticulture. Bailey graduated with a Bachelor's of Science degree in August 1882. After a stint as a reporter for an Illinois newspaper, he accepted a position as an assistant to Asa Gray at Harvard University. After working at Harvard, he was asked to chair the new department of horticulture and landscape gardening at his alma mater, Michigan State Agricultural College. Bailey began teaching at MAC in 1885. He would only stay at the college for three years for in 1888 he was enticed to become the Chair of practical and experimental horticulture at Cornell University in New York. Bailey established himself as a dedicated teacher, researcher and author at Cornell. In 1903, as a result of his quality teaching and leadership, he was named Dean of the College of Agriculture, a position in which he would remain until 1913.

Father of American Horticulture

Bailey arrived on the American agriculture scene at a unique time in history. Agriculture was expanding rapidly after the Civil War with new innovations, production practices and management techniques. Bailey was the first to view the use of fruits, vegetables and ornamental and nursery plants as important contributions to agriculture. He also viewed horticulture as a science and not just gardening, as many of the botanists of the day did.

Throughout his academic career, Bailey knew the importance of research and writing. He wrote his first book titled *Talks Afield: About Plants and the Science of Plants* in 1885 while teaching at Michigan Agricultural College. This was followed in 1886 by *Field Notes on Apple Culture* and many more in the years to come. A sample of his early works in the horticulture field include: *The Horticulturalist's Rule Book*, *Annals of Horticulture*, *The Nursery Book*,

Principles of Fruit Growing, *Principles of Vegetable Gardening*, *The Pruning Book*, *Garden Making*, *Principles of Agriculture and Lessons with Plants*, a book to show how teachers can teach using plants in their classrooms.

Dorf (1956) reported that "*From 1889 to 1896 more than half the bulletins published by the Cornell University Experiment Station were written by Bailey*" (p. 74). In 1903, Bailey published his first major work, the *Cyclopedia of American Horticulture*, a 4 volume work that he edited.

Bailey's university courses, his lectures and presentations to agricultural groups around the country, his horticultural research and his tireless publishing on agricultural and horticultural topics earned him the title of Father of American Horticulture. In a biography published in 1994, Banks described Bailey's importance to the history of horticulture when he wrote, On November 5, 1990, the American Society for Horticultural Science initiated a Hall of Fame designed to "honor distinguished persons who have made monumental and unique contributions to horticulture." Only two scientists were inducted at the initiation—Gregor Mendel, the Austrian monk who solved the riddle of heredity, and Liberty Hyde Bailey (p. 3)

Prolific Writer

Liberty Hyde Bailey began prolific writing as a youth. He continued to write as a college student at Michigan Agricultural College, as a newspaper reporter in Illinois and finally as a college professor and dean at Cornell University. In the beginning his writing focused on his love of nature, agriculture and horticulture. As was described above, he wrote numerous books on various subjects related to plants, gardening, horticulture, agriculture and education. Bailey's writings were organized into several series of books. These series included:

- Rural Life Series
- Garden Craft Series
- Open Country Series
- Rural Science Series
- Rural Text-Book Series

Table 1 includes examples of the series books that were written by Liberty Hyde Bailey.

Bailey also published what he called the Background Books. These books went beyond Bailey's horticultural topics and introduced the world to his environmental philosophy, society, politics and ethics. The Background Books included:

- The Holy Earth* (1915)
- Wind and Weather* (1916)

- Universal Service (1918)
- What is Democracy (1918)
- The Seven Stars (1923)

Bailey’s environmental philosophy has proven so relevant to today’s society that it was recently republished. Bailey (2008) describes his view of the holy earth when he wrote, “*One does not act rightly toward one’s fellows if one does not know how to act rightly toward the earth*” (p. 2). Bailey goes on to describe his love of the earth by stating, “*Every man in his heart knows that there is goodness and wholeness in the rain, in the wind, the soil, the sea, the glory of sunrise, in the trees, and in the sustenance that we derive from the planet*” (p. 7). Describing the importance of agriculture, Bailey wrote that “*A good part of agriculture is to learn how to adapt one’s work to nature, to fit the crop-scheme to the climate and to the soil and the facilities. To live in right relation with his natural conditions is one of the first lessons that a wise farmer or any other wise man learns*” (p. 9).

Table 1. Liberty Hyde Bailey Book Series Examples

Rural Life Series	
The Nature-Study Idea (1903)	
The State and the Farmer (1908)	
The Outlook to Nature (1905)	
The Country-Life Movement(1911)	
Rural Science Series (Bailey, 1909)	
Bacteria in Relation to Country Life	The Care of Animals
Bush-Fruits	The Farmer’s Business Handbook
Farm Poultry	The Farmstead
Feeding of Animals	The Fertility of the Land
Fertilizers	The Forcing Book
Forage Crops	The Horse
Garden Making	The Nursery Book
How to Choose a Farm	The Practical Garden Book
Irrigation and Drainage	The Principles of Fruit Growing
Mile and Its Products	The Principles of Agriculture
Plant Breeding	The Pruning Book
Principles of Vegetable-Gardening	The Soil
Rural Wealth and Welfare	The Spraying of Plants

The Liberty Hyde Bailey Museum (n.d.) recognizes the author when they wrote: Liberty Hyde Bailey was a prodigious 20th century author, whose writing spanned eighty-one years. Bailey’s name appears over 700 titles ranging from botany, horticultural, encyclopedias, poems, conservation, agriculture, democracy, education and spirituality all of which still inform us today. More than any other person Bailey was responsible for a new American literature of horticulture. It is clear from the volume of informational bulletins, books, poems, philosophical and environmental articles that Bailey wrote, that he was one of the most influential agricultural educators of the 19th and 20th centuries.

The Nature Study Movement

Bailey grew up wandering around his father’s Michigan farm spending countless hours observing nature. He learned to love plants, animals, trees and bugs. As a result he became an ornithologist whose first paper was titled Birds (Dorf, 1956). As a result of his upbringing, one of Bailey’s first major undertakings was to promote nature study for elementary students in the United States. Bailey had already established himself as an agricultural and horticultural expert throughout New York. His idea of promoting nature study among elementary teachers and students would make Bailey a household name. Dorf (1956) wrote, “*The leadership which Bailey provided in the development of the nature-study movement was to make his name as well known among elementary school teachers as among professors of agriculture*” (p. 109). Bailey worked with colleagues in the College of Agriculture at Cornell University to develop a series of leaflets for elementary teachers that explained the nature-study movement and provided ideas for teachers to use in nature study activities. The L.H. Bailey museum (Using Bailey in the Classroom: Nature Study, n.d.) describes how Bailey developed the nature-study idea:

Growing-up on a Michigan farm during the end of the 19th century, Liberty Hyde Bailey had a first-hand experience of nature’s ability to teach scientific observation and instill a personal appreciation and an ethic of care for the landscape. Rooted in this background, Bailey along with associates at Cornell University became key figures in the founding of the Nature-Study Movement. Its aim brought children out of the classroom and into the outdoors for mini nature lessons through informal observation. Still in use today, it professes no standardization or science but only for the student to “establish a living sympathy with everything that is.” In the first leaflet Bailey (1897) describes nature-study as: “*a process, is seeing the things that one looks at, and the drawing of proper conclusions from what one sees. Its purpose is to educate the child in terms of his environment, to the end that his life may be fuller and richer.*” (p. 11)

Bailey went on to provide more details about the nature-study idea. He wrote that, “*It is informal...It trains the eye and the mind to see and to comprehend the common things of life...*” (Bailey, 1897, p. 11). He also provided some idea of what could be considered nature-study when he stated, “*The proper objects of nature-study are the things that one oftenest meets. Stones, flowers, twigs, birds, insects, are good and common subjects...Plants are more easily had... although animals and minerals should by no means*

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be excluded" (p. 11). He also shared the reason for proposing the introduction of nature-study into the elementary curriculum. Bailey said that, "*One difficulty with our present school methods is the necessary formality of the courses and the hours...The best way to teach nature-study is, with no hard and fast course laid out, to bring in some object that may be at hand and to set the pupils to looking at it.*" (p. 12)

The interest in Bailey's nature-study idea continued to grow throughout the late 1890s and into the new century. Bailey continued to emphasize that nature-study should be included in all elementary schools. Every school should have a nature-study area and a garden where pupils could engage in nature-study. Writing in his book *The Outlook to Nature* (Bailey, 1915), he stated that, "I should put one acre of land as the lowest limit for a country school" (p. 127). His emphasis on using school gardens is evident in his stating, "*The school-garden will do much to place the school in proper relation to its natural problems and will be an intermediate stage between the schoolhouse and the larger environment of the neighborhood*" (p. 128).

Elementary school teachers were eagerly adopting the nature-study idea for introducing the natural world to their students. In 1903, Bailey finally compiled a comprehensive book to explain the nature-study movement and assist interested teachers in incorporating it into their schools. Bailey also introduced the idea of teaching nature-study through agriculture. Bailey wrote, "*Children in the home and school should be interested in horticulture and agriculture as a means of introduction to nature. Farming introduces the human element into nature and thereby makes it more vivid in the child's mind*" (Bailey, 1911a, p. 90). Bailey went on to describe the importance of using agriculture for nature-study when he stated, "*All good agriculture work in the grades [elementary grades] must be nature-study. All agricultural subjects must be taught by the nature-study method, which is: to see accurately; to reason correctly from what is seen; to establish a bond of sympathy with the object or phenomenon that is studied.*" (p. 100).

The nature-study movement was a definite success for Bailey and the College of Agriculture at Cornell University. Dorf (1956) reports that, "*By 1903 nearly three thousand grade-school teachers were receiving nature-study guidance by correspondence; nearly thirty thousand children were raising plants in school gardens*" (p. 112). Bailey described the importance of the nature-study movement (Dorf, 1956) for the College of Agriculture when he wrote, "*It is trying to help the farmer and it begins with the most teachable point -*

the child. The district school cannot teach agriculture any more than it can teach law or engineering or any other profession or trade, but it can interest the child in nature and in rural problems and thereby fasten its sympathies to the country. The child will teach the parent." (p. 113)

The nature-study movement made Bailey a promoter of the environment, nature and agricultural education, not only in colleges and universities, but for younger students as well. It would also introduce Bailey as a leader who was dedicated to the education and quality of life of all country folk.

Country Life Commission

Having worked in agricultural education since 1885, Bailey was well known throughout the country. In 1908, Bailey's work in education and agriculture would come to the attention of President Theodore Roosevelt. Agriculture and rural communities were suffering. Large numbers of workers were leaving farming for factory work in the cities. There was a growing concern that if the decline in rural towns continued it would result in the disaster for farming and agricultural production. To counteract this problem, President Roosevelt created the Commission on Country Life. In a letter to Bailey, Roosevelt (Commission on Country Life, 1911) wrote, "*No nation has ever achieved permanent greatness unless this greatness was based on the well-being of the great farmer class, the men who live on the soil; for it is upon their welfare, material and moral, that the welfare of the rest of the nation ultimately rests. How can life on the farm be kept on the highest level and where it is not already on that level, be so improved, dignified and brightened as to awaken and keep alive the pride and loyalty of the farmer's boys and girls...How can a compelling desire to live on the farm be aroused in the children that are born on the farm?*" (p. 41-44)

Other noted professionals invited to serve on the Commission on Country Life included Henry Wallace of Iowa, President Kenyon Butterfield of the Massachusetts Agricultural College and Gifford Pinchot, head of the U.S. Forest Service. Bailey was asked to chair the commission. Bailey and the other members of the commission proceeded to hold hearings around the country to listen to the problems and concerns of country citizens. They also mailed out questionnaires to rural residents to collect their opinions on a number of issues. One question in particular asked, "*Are the schools in your neighborhood training boys and girls satisfactorily for life on the farm?*" (Commission on Country Life, 1911, p. 51). Reportedly, "*About 550,000 copies of*

the circular questions were sent to names supplied by the United States Department of Agriculture, state experiment stations, farmers' societies, women's clubs, to rural free deliverymen, country physicians and ministers and others. To these inquiries about 115,000 persons have now replied..." (p. 54). In its final report, the Commission (Commission on Country Life, 1911) expressed their feelings that there was a "need for a redirection in rural education. The subject of paramount importance in our correspondence and in the hearings is education...Everywhere there is a demand that education have relation to living, that the schools should express the daily life and that in the rural districts they should educate by means of agriculture and country life subjects. It is recognized that all difficulties resolve themselves in the end into a question of education. The schools are held to be largely responsible for ineffective farming, lack of ideals and the drift to town." (p. 121).

In relation to the growing trend of teaching agriculture in schools the Commission wrote, "*The feeling that agriculture must color the work of rural public schools is beginning to express itself in the interest in nature-study, in the introduction of classes in agriculture in high schools and elsewhere and in the establishment of separate or special schools to teach farm and home subjects.*" (p. 123)

The report also delved into the need for federal government support of new educational initiatives when it stated, "*It will be increasingly necessary for the national and state governments to cooperate to bring about the results that are needed in agricultural and other industrial education*" (p. 125). The commission also noted the growing interest in extension education across the country. It was written in the report that, "*This extension work includes such efforts as... demonstration on farms, nature-study and other work in schools, boys' and girls' clubs of many kinds...*" (p. 126). As a result of their surveys and hearings, the commission officially recommended that "*To accomplish these ends, we suggest the establishment of a nation-wide extension work*" (p. 127). In the concluding statement of the Commission's report, Bailey wrote, "*The great need everywhere is new and young leadership, and the Commission desires to make an appeal to all young men and women who love the open country to consider this field when determining their careers. We need young people of quality, energy, capacity, aspiration and conviction, who will live in the open country as permanent residents on farms, or as teachers, or in other useful fields and who... will still have unselfish interest in the welfare of their communities.*" (149-150)

Agricultural and Extension Education

Throughout his academic career and service on the Commission on Country Life, Liberty Hyde Bailey always promoted the idea of nature-study and agricultural education to improve country life. Writing in his own book titled "The Country-Life Movement in the United States," Bailey (1911b) wrote, "*Agriculture is now a school subject. It is recognized to be such by state syllabi, in the minds of the people and in the minds of most school men. It is finding its way into high schools and other schools here and there...It is now our part to define the subject, organize it and actually to place it in the schools. We must understand that the introduction of agriculture into the schools is not a concession to farming or to farmers. It is a school subject by right.*" (p. 62-63).

Bailey believed that no one needed to apologize for including agricultural education into the American school system. He thought it was a good idea to extend the agricultural education that was being taught in colleges of agriculture to all citizens of rural America. Bailey (1911b) wrote, "*We are now attempting to extend this democratic education by means of agriculture to all ages of our people, and there is promise that we shall go farther in this process than any people has yet gone...and with a voice in the affairs of government, should give to the people of the United States the best country life that has yet been produced.*" (p. 65)

Writing in 1911, six years before the passage of the Smith-Hughes Vocational Education Act, Bailey stated, "*Agriculture work is proceeding in nearly all the states under the auspices of the United States Department of Agriculture...and there is agitation for the passage of a national bill to further secondary and special agriculture-education in the states*" (p. 70). Bailey even expressed his concerns about the preparation of future agriculture teachers. Writing in his book *The State and the Farmer*, Bailey (1908) wrote, "...*regular administrative departments of public instruction should handle the work of all fundamental elementary and secondary education. They will need to call on the agricultural colleges for help, especially in the training of teachers...*" (p. 107). Bailey was always concerned with the public's perceptions of farm life. As a Dean of the College of Agriculture at Cornell University he surveyed students about their perceptions of farm life. In his book *The Training of Farmers* (Bailey, 1910) described the problem by writing, "...*farm life is not made attractive for the boys. Many of them have very little education, and their life is to them merely hard drudgery from early morning to late at night, with only a bare living as a return...With the increase of agricultural education and betterment of conditions*

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in the country, I believe this will change. The young men will come to see the brighter side of farm life, and the attractions and advantages in staying on the farm.” (p. 98)

Bailey also shared that he thought that agriculture should be incorporated into all education not just taught as a stand-alone vocational subject. Bailey indicated that, *“When these...activities are agricultural (as they are in a rural community), then agriculture becomes a means of education, but it is not agriculture in the sense of a specialty leading directly to the occupation of farming. That is to say, in such cases agriculture (which is the sum of the community life) becomes the real backbone and motive of the school. Other subjects grow out of it...”* (p. 151)

Conclusion

Liberty Hyde Bailey was truly a pioneer of agricultural education in America. From 1885 when he enrolled in Michigan Agricultural College to his retirement as Dean of the College of Agriculture at Cornell University, he spent his entire life working in horticulture, agricultural production, agricultural and extension education, nature-study and the country life movement (Peters, 2006). His development and promotion of nature-study leaflets and books for elementary teachers and students was the forerunner of agricultural education in elementary and secondary schools. It introduced thousands of students to the importance of nature and led many to study nature, the environment and agricultural education in secondary schools.

In the past decade society has witnessed a growth of a renewed movement back to nature. There has been increased emphasis on getting both children and adults away from technology and indoor entertainment and rediscover the health effects of nature. The concept of nature deficit disorder was introduced by Louv (2006) in his book *Last Child in the Woods*. Louv defined nature deficit disorder as *“the human costs of alienation from nature, among them; diminished use of the senses, attention difficulties and higher rates of physical and emotional illnesses. The disorder can be detected in individuals, families and communities”* (p. 34). Louv went beyond Bailey’s emphasis on using nature for educational purposes, to using nature to improve human health. He states, *“...a growing body of evidence indicates that direct exposure to nature is essential for physical and emotional health. For example, new studies suggest that exposure to nature may reduce the symptoms of Attention Deficit Hyperactivity Disorder (ADHD)”* (p. 34). In his follow-up book *The Nature Principle*, Louv (2011) writes,

“School gardening can improve students’ learning and behavior; students participating in gardening had improved school attitude and teamwork and expanded learning opportunities.” (p. 30).

Society has also witnessed the introduction of other concepts such as horticultural therapy, community supported agriculture (CSA), community gardens to increase individuals exposure to nature. These efforts come over 100 years after Liberty Hyde Bailey introduced his concept of nature study to expose elementary students to the importance of nature and gardening for their cognitive knowledge, psychomotor skills and affective human development.

Based on his work with horticulture, nature study and rural life, President Roosevelt asked Bailey to chair the Commission on Country Life in 1908. His pioneering work with this important commission is still being discussed and debated over 100 years after its inception (Peters and Morgan, 2004). A biography of Bailey on the Liberty Hyde Bailey Museum website (n.d.) provides the following description of this exceptional individual: *“Liberty Hyde Bailey was an American polymath. His work during the 20th century impacted so many areas of study that it is difficult to assign Bailey a singular historical role. A naturalist at heart, Bailey’s childhood passion for learning the living world around him brought acclaim for his visionary work in Botany, Education, Environmentalism and Horticulture.”*

Recommendation

Based on the results and conclusions of this study, the researcher recommends that the writings of Liberty Hyde Bailey be infused into elementary, secondary and postsecondary instruction in education, horticulture, agriculture and agricultural education. Bailey’s philosophy on environmental stewardship should be studied by every student in colleges of agriculture at land-grant colleges. While Bailey’s writings have long been recognized in the horticultural field, they are not as well known in other areas of agriculture. Bailey’s book *The Holy Earth* (Bailey, 2008) has recently been republished; other books by the scholar should be added to the reading libraries of secondary agricultural education programs and agricultural courses in land-grant universities. Bailey’s idea of nature-study for elementary students should also be revisited. In this era of reduced budgets and lack of quality educational facilities, Bailey’s theory of using nature to stimulate children’s imagination should be revised.

Liberty Hyde Bailey was one of the most important writers, educators and scholars in the history of agriculture in the United States. While he is

remembered as the father of modern horticulture, his life consisted of much more than just plants. He loved all parts of nature and the country life he so embraced. He should be remembered along with other noted individuals, as one of the pioneers of agricultural education in the United States.

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