Much of the current work within the University of California Cooperative Extension, Division of Agriculture and Natural Resources (DANR) reflects an increasing interest in the food system. There is a growing recognition that a healthy food system is vital to the well-being of families, communities and the nation as a whole. We clearly see the problems we face when this topic is neglected. The childhood obesity rate is skyrocketing (nearly a third of California’s children are obese, according to a recent report), and hunger is a real and daily problem for many California families. Many residents lack access to fresh fruits and vegetables, or do not have an adequate understanding or the knowledge they need to make good decisions as consumers. California’s children, who will have an important role to play in the future of agriculture, currently have little input into the food system.

Within DANR, several workgroups (among them garden-based learning, farm-to-school, science literacy, and urban horticulture) have been focusing upon various aspects of this topic. Our work in youth development, once considered non-formal education, increasingly veers into formal educational experiences and systems. To access the youth that we need to reach, our curriculum must be standards-based and aligned to the public educational system. Some of us have begun to advocate for legislation or official endorsement that will make gardening and nutrition education a part of the curriculum for every California student. As extension educators, we spend much of our energy trying to educate a public that is increasingly removed from its food source. In areas of urban-rural interface, we also educate the public about the importance of agriculture in an attempt to assure its viability in an increasingly contested and urbanized landscape.

Part of our role must be to educate children – who will make future land use decisions – about the importance of agriculture in our daily lives, and its role in shaping the character of the state in which we live. We must teach children about the food system, how to make good choices as consumers, and how to lead a healthy lifestyle. In looking at DANR’s work, it is clear that we have accomplished a great deal in terms of promoting agricultural literacy. We have been innovative, we have been creative, and we have been tenacious in the face of the challenges presented by a declining budget and a smaller staff. We have worked both harder and smarter. We’ve made inroads. But some of us (all of us?) have wondered: how much more could we accomplish if adequate resources were available on a statewide basis? If the state or federal government could deliver a focused message, if certain policies and initiatives related to gardening and agricultural literacy were strongly supported, what would the impact be? With this kind of support, would there be limits to what we could accomplish and achieve?
Sometimes, to move forward, we must look back. Our past can inform our present. The period around World War I is one of the most relevant to understanding and informing our current work. It is where we find the origins of our Extension organization and precursors to 4-H youth development work. During this time, the federal government sponsored a national program called the United States School Garden Army (USSGA), which encouraged urban and suburban youth to garden for Uncle Sam. This program, organized and delivered by the federal Bureau of Education (BOE) with funding from the War Department, represented one of the first attempts to nationalize a curriculum in the United States. It is significant and relevant to our current work that this was a school-based effort with strong linkages to home and family, and that the program provided a curriculum that emphasized gardening and agricultural literacy in ways that integrated these topics across the school curriculum. The federal government— and state and local government— supported the national goal of food production by altering labor laws and educational codes to facilitate youth gardening efforts. Youth were not an afterthought: they were viewed as vital to achieving the nation’s goals and security during wartime.

Proponents of youth agricultural education at the University of California (UC) played an important role in this series of events. Former UC agricultural professor Cyril A. Stebbins literally wrote the book for the USSGA in the western United States.¹ While working at UC prior to World War I, Stebbins was active in the University’s Junior Gardener Program (which eventually spun off to management at Chico Normal School). That program provided a model for organizing the national USSGA effort during World War I.²

This paper charts the history of the USSGA and describes some elements of this youth gardening movement that are relevant to the field today. Though the social conditions that facilitated this program were unique to that period, the impacts were multifold and could inform our current work.

INTRODUCTION

The United States School Garden Army

“Every boy and every girl...should be a producer... Production is the first principle in education. The growing of plants and animals should therefore become an integral part of the school garden program. Such is the aim of the U.S. School Garden Army.”³

Social Conditions that Precipitated and Shaped the USSGA Program

Transitions in Society: Rural vs Urban

At the outset of World War I, America was engaged in a process of profound and rapid transformation. Rural influence in American life had diminished, and with that came the attendant loss of a fundamental form of American identity. For the first time in American history, a majority of the nation’s citizens lived in urban settings. America’s shift from a producer to a consumer society
exacerbated tensions between urban and rural values and interests, as inequities in access to consumer goods and technology highlighted the relative lack of wealth and opportunity in rural America.

Through the lens of the USSGA one can see how Americans sought to negotiate their way through a period that was both transitional and transformational. America’s entry into World War I caught the nation during a period of transition between different and competing experiences of American life: rural versus urban; producer versus consumer; folkways versus professional expertise. The USSGA’s work reflected all of these impulses, and in many ways, sought to synthesize the best attributes of apparent opposites. Examples such as this demonstrate that an ongoing Progressive interest in the relationship between urban and rural values clearly guided the USSGA’s work.

Wartime

The exigencies of wartime enable certain groups to forward their agendas. World War I was no different. In fact, the unprecedented wartime mobilization created a sort of institutional frenzy in the United States that intensified this impulse. Building on a small but persistently supported federal policy thrust in agricultural education, school gardening proponents saw an opportunity to nationalize the teaching of agriculture in the nation’s public schools, provide a standardized curriculum for its teaching, and promote a philosophy that articulated a particular view of rural-urban synthesis.

Wartime provided an opportunity for the BOE. Stressing the state of national and international emergency, and the impending worldwide food crisis, USSGA Director J.H. Francis wrote to federal Education Commissioner P.P. Claxton that the nationalization of the youth gardening program was immediately needed, saying, “I feel it to be almost imperative that it be put into operation at once in all parts of the country.” A budget request of $35,800 was included. Claxton forwarded the communication to Secretary of the Interior Franklin Lane (the Department of the Interior housed the BOE). Lane, in turn, shared the information with President Woodrow Wilson. Wilson’s concerns about the security of America’s food system led him to allocate funds from the National Security and Defense Fund. Wilson’s initial appropriation of $50,000 exceeded the USSGA’s request by about 25 percent. In fact, in a period of less than eighteen months, total federal funding for the USSGA effort reached a whopping $250,000.

The State of the Food Economy: Food for Keeping the Peace

A driving force behind the USSGA’s creation was the tenuous condition of America’s food system on the eve of the nation’s entry into World War I. Even before America’s entry into World War I in 1917, the country faced real problems that justified the need to increase agricultural production on the homefront. By 1917, nearly every able-bodied European man had mobilized to soldiering. Europe faced a third consecutive year of very limited agricultural production, caused by acute labor shortages, and the total devastation wrought by war on vast swaths of agricultural land. The staggering casualty rate of draft animals also contributed to the shortage of cultivated land. Even before World War I, Europeans had grown increasingly reliant upon American imports, but wartime made that growing dependency on America more dangerous. Ships carrying much-needed American food supplies to Europe fell prey to German U-boat attacks, further aggravating the situation. The combination of plunging European production and reduced American imports produced severe food shortages in Europe. Millions of Europeans faced starvation.

America’s food system was archaic. The nation lacked the systems and processes required to adequately manage its food supply. Successful industrial models that might have improved the food system had not yet been fully applied to the agricultural sector. Overproduction and underproduction plagued the agricultural economy. In general, the yield per acre tended to fall on the low side. Without the full benefit of the tools of contemporary agriculture — tractors were just in their infancy and crop treatment options were limited — American farmers, in general, cultivated large acreages somewhat inefficiently. For the most part, this method had served the nation’s interests, because there was a large (seemingly endless) supply of arable land. In fact, during World War I, the United States was still enjoying its “Golden Age of Agriculture.” It was a prosperous time for many American farmers, but agricultural production was not ordered

Building on a small but persistently supported federal policy thrust in agricultural education, school gardening proponents saw an opportunity to nationalize the teaching of agriculture in the nation’s public schools, provide a standardized curriculum for its teaching, and promote a philosophy that articulated a particular view of rural-urban synthesis.
in the same way that industrial life was. The government felt a pressing need to improve the situation, because food shortages and price increases in urban areas invariably led to civic unrest and violence. Cheap and plentiful food supplies were vital to keeping the peace in America’s cities and maintaining civic order.

By 1917, Americans were consuming an estimated 90% of the nation’s agricultural products.9 Tensions ran high between an urban-based government that felt that farmers weren’t doing enough to contribute to the success of an integrated industrial-agricultural economic model, and farmers facing labor shortages due to the rural exodus to industrial centers.10 The government may have exalted the farmer in theory, but it wanted to keep him in thrall to the city and force him to provide vast and inexpensive amounts of food for fast growing urban populations. Farmers who took advantage of America’s “Golden Age of Agriculture” by charging what the market would bear were accused of being unpatriotic. Some rural residents felt short-changed by their limited access to consumer goods, cash, popular entertainments, and technology.

Exhorted by the government to increase production, farmers felt that they could do little more. Complicating all this were the poor United States grain harvests of 1916-1917, and the need to provision the nearly one million American troops being immediately mobilized to Europe.11 Many government leaders, including Herbert Hoover, recently returned from famine relief efforts in France and Belgium, felt that the situation had reached crisis proportions, and could only be solved by cooperation and voluntarism.12 Dual needs informed government policy makers: the need to increase agricultural output, and the need to reduce consumption. These needs generated a variety of wartime initiatives and programs, including the USSGA and Liberty Gardens.

As history has shown, food security is vital to a nation’s stability. As America stood on the brink of World War I, the United States government grew increasingly concerned about the nation’s food security. The French and Bolshevik revolutions, and the homefront experience of the American Civil War, clearly demonstrated the link between food shortages, high prices, and civil unrest. The French and Bolshevik revolutions, in particular, conjured up images of radical and angry farmers, farm implements in hand, poised for violence. America’s experience with a populist “threat” and rural radicalism was recent enough to recall. The tension between rural and urban was palpable. A steady and inexpensive food source was vital to keeping the peace in America, and securing the peace abroad. In the government’s view, the USSGA could play an important role in accomplishing the nation’s food production and conservation goals.

Philosophies and Goals Shaping USSGA Program Curriculum

Progressive Philosophy: Recasting Rural Values to “Heal Urban Ills”

The state of rural-urban relations shaped the USSGAs work. Urbanites had always held ambivalent feelings and views about rural Americans, but the Progressive Era was characterized by an unusual degree of national thought and government activity centering on rural-urban relationships. In the United States at the turn of the century, the ambivalence toward rural residents may have simply reflected the angst and ambivalence of an American society that was fully stepping into an industrial and modern era. Industrial and modern values that prized structure, ordered systems, and expert opinion were ascendant. Some wondered whether this was good. In the nation’s rush to embrace modernity, some felt that the very identity of America was at stake.

Because of its association with the land, Progressive reformers saw the USSGA as a desirable, even necessary, antidote to the disastrous social consequences of excessive urbanization. The spread of consumer culture, mass communication, and popular recreation was threatening to many. American cities teemed with immigrants living in appalling conditions. Disease, death, and hunger stalked city streets. Noise and filth characterized the physical landscape. Vices such as drink, prostitution, and child labor, in reformers eyes, diminished the promise of the nation. Progressive reformers, holding an idealized view of rural life, saw its potential for healing urban ills. Some aspects of the USSGA — including the focus on producing — seemed designed to salvage, not recast, traditional values. The USSGA enabled reform-minded individuals to incorporate the beauty and uplifting influence of nature into urban settings, and to create new urban landscapes more strongly influenced by things pastoral. In fact,
USSGA materials list as a benefit of the children's work the ability to beautify schools and homes.

At the same time, however, that Progressive reformers sought to reshape rural life through efforts such as the Country Life Movement, they sought to reinvigorate traditional producer values among the nation's urban children. The USSGA provided an opportunity to instill a traditional American "producer" ethic in an urban population that was increasingly influenced by mass culture and consumerism, and increasingly removed from its food system. Many progressives viewed city life as encouraging youth to indulge in vices such as popular amusements, and excessive indulgence in consumer goods. In those reformers eyes, urban youth were at high risk of falling prey to the evils of urban life.

The USSGA's curriculum spoke of the farmer and his vital role in American life. "He produces is a patriot — a good citizen," one USSGA publication stated, in a section entitled "Home Gardening Catechism." The program spoke to the city's need for reform, saying "it brings country values to the city." And it might bring city farmers to the country, reversing the tide of rural to urban migration that was threatening the integrity of the nation's food system. For the USSGA's promotional materials also reflected – and tried to assuage — American anxiety about the tide of rural migration to urban centers, promising that the "farmers of to-morrow may be recruited to-day from the towns and cities."

The USSGA sought to synthesize the structure and order of urban life with practical rural skills, and emphasized the value of production, thrift, and hard work. The structure and order are apparent in an organized and somewhat standardized curriculum that reflected contemporary educational theories. The focus on production as a form of patriotism and civic participation are stated as clear goals of the program. The USSGA sought, then, to synthesize the best of rural and urban values. With each USSGA garden that was tilled, its founders sought to demonstrate the interconnectedness of rural and urban experience in American life.

The Garden as a Tool for Authentic Learning and Civic Engagement

Leaders in agricultural education, including prominent professors and authors Ernest B. Babcock and Cyril A. Stebbins, saw agricultural study as a way to revitalize the "old subjects in the curriculum," including geography, hygiene, arithmetic, manual training, and art. It is significant that Stebbins, a UC agricultural professor who later served as director of Rural Extension Education for Chico Normal School (now Chico State University), did not view agricultural education as oriented to manual arts. He was certainly influenced by his work with UC's Junior Gardener Program. The Junior Gardener Program, which began as a collaboration between UC and the Berkeley public schools, targeted urban youth. Eventually, the Junior Gardener Program evolved into a garden city for youth that included elected officers, a bank, and a weekly farmer's market. This program undoubtedly provided a model for organizing the national USSGA effort during World War I. This sort of influence also demonstrates one subtle difference between the focus of the BOE's USSGA program and USDA efforts. Stebbins saw agricultural education, when done properly, as preparing students for real life. This philosophy had applications in both rural and urban life and education. The USDA's work, while infused with modern educational philosophies, was more vocationally oriented.

In the introduction of their book on agricultural education in elementary schools, Babcock and Stebbins offer a scathing criticism of America's educational system. "The mechanics of the school work adapts him [the student] in time to textbook situations, but does not make him easily adjustable to the shifting circumstances of life outside of the school." In agricultural education, they saw the possibility for the teaching of life skills, not vocational arts, but skills of problem solving and reasoning that would be useful in later life. "It is a short step from the class process to the business man's process, to the work of the world," they wrote. Gardening would not only prepare students for the work of the business world, but could serve as a tool of civic education.

Gardening would not only prepare students for the work of the business world, but could serve as a tool of civic education.
Just as the factory model could standardize production of material goods, a national curriculum could, perhaps, standardize the production of citizenship. The content of the USSGA’s curriculum, its organizational structure, and its goals and objectives spoke to scientific knowledge, efficiency, and ordered life. The USSGA sought to uplift the moral character of youth by instilling traditional values of hard work and thrift. Anxiety about urban culture and mass consumerism had left some Progressive reformers concerned that America’s youth would not fully understand or embrace traditional values. Broader USSGA goals, which fell outside of increased food production, attempted to address these concerns. The desire to reform America’s youth was clear: “the aim of the USSGA” is “to strengthen boys and girls mentally, physically, morally, spiritually...education through production.” The USSGA’s founders were also concerned about thrift, honesty, and proper business practices. A section of the USSGA manual, devoted to marketing surplus product, conveyed the idea that while a “neat profit” is desirable, it would “be a fine idea to invest your vegetable profits in War Savings Stamps.” The manual exhorts USSGA members to engage in a practice that “encourages thrift and business system,” “Build up a reputation for yourself for honesty and fair dealing,” the manual urged, while also suggesting modern ways to increase sales. Suggested modes of marketing included older methods such as cooperative models, and modern methods such as parcel post. Battling for Turf: the BOE and the USDA

Significantly, the two federal programs promoting food production among youth were housed in separate departments. Some evidence points to a power struggle between the more socially progressive BOE, and the more traditional USDA. The differences between their respective programs reflected the nation’s growing rural-urban divide. The USSGA made some effort to position its program as “complementary” to the work of rural youth by discussing—and affirming—the nature and value of production farming. While a Progressive impulse informed the underlying philosophies of both BOE and USDA programs, the content, delivery, and promotion—particularly the imagery—of the youth programs reflected differences between urban and rural interests, values, and perceptions. Wartime provided an opportunity for the BOE to flex its muscle and attempt to coerce the adoption of a national agricultural education curriculum in urban and suburban schools. While dangerous “alien” forms of education such as German language were removed from public schools, traditional “American” forms, namely agricultural education, were inserted. The USSGA’s work represents, if not the first, certainly one of the earliest federal efforts at standardizing a curriculum across the nation. As early as 1914, the BOE attempted to develop “a plan of school-directed home gardening in cities, towns, villages, and suburban communities,” although the BOE’s efforts were not branded with the USSGA name until 1918. The BOE’s early efforts, limited by funding constraints, were also hampered by a running turf battle with the USDA, which also sought federal funds to expand its youth work. (The USDA received a permanent and structured source of funding through the passage of the Smith-Lever Act in 1914, which created the US Cooperative Extension Service).

The USSGA represented a shift in federal policy by targeting urban and suburban youth on a large scale. A parallel USDA effort targeting rural youth took place, marked by precursors to the 4-H program, including corn, pig, and canning clubs. The USDAs efforts, in conjunction with land grant universities, focused more on the fundamentals of production agriculture (for boys) and demonstrations of more efficient home practices (for girls). Corn, pig, and canning clubs sought to educate rural youth in an urban-led vision of a more scientific, ordered...
farm life. The USDA also sought to model better practices to resistant farmers by providing a constant presence in rural life. By educating rural children, the USDA hoped to also educate their parents. The USSGA copied this lesson by developing its own parent guide to home gardening. In true Wordsworthian fashion, the child would become the father of the man.

Like the BOE, the USDA used wartime as a means to accelerate the pace of development of its Cooperative Extension Service, part of which focused on youth work. During World War I, largely as a result of the national policy thrust in food production/conservation, the number of rural youth involved in agricultural and domestic arts clubs more than doubled, eventually exceeding 100,000 participants. And the USDA did field an “army” of agents to accomplish this work. Between June 1917 and June 1918, the number of extension workers more than doubled, increasing from slightly more than 2,200 agents to nearly 6,000, serving nearly 2,500 counties. Most of the new workers aided the USDA’s food production and conservation campaign during World War I, either through home demonstration work or through a rapidly growing youth education effort that fielded more than 900 agents who led “boys’ and girls’ club work.”

**Creating a National Curriculum**

The USSGA taught urban youth traditional rural skills of cultivation (gardening, agriculture on a small, urban scale), and the importance of the producer ethic in American life. A traditional message of producing took form in a modern mode of advertising more oriented to a consumer society. While it emphasized the value of skills more often found in rural life, the USSGA’s curriculum relied not on folkways or the “moon farming” techniques still used in rural America, but on the newer theories arising from the growing field of scientific agriculture. USSGA programs were taught by trained “experts” (teachers or garden organizers) in a school setting, rather than through the traditional rural educational mode of instruction by the parent in the home. The USSGA’s curriculum gave a nod to the individual by setting production goals for each child, but at the same time, it attempted to universalize the program for all youth in the target population. Parts of the USSGA curriculum were modified to reflect different climates and growing conditions, and appear under separate cover for different regions of the United States. However, it was clearly a national curriculum. Regional differences were balanced by a standard, highly ordered organizational format, and a “branded” insignia that identified the program as national in purpose and scope.

**Strategies of the USSGA**

**Engaging Youths’ Participation**

In a government bulletin published in 1919, USSGA Director J.H. Francis estimated that “this army of boys and girls may easily produce $250,000,000 worth of food, which will reach the consumer in perfect condition without cost for transportation or handling and without loss through deterioration of the markets.” The United States Commissioner of Education, P.P. Claxton, addressed youth directly in the USSGA manual, writing that without food (and presumably their efforts), “… men, women, and children will die.” Children also received letters from President Wilson and Food Administrator Herbert Hoover, which were included in USSGA materials. This must have represented an empowering message for youth. Not only were they providing food for their fellow Americans, and freeing up food supplies for starving Europeans, but they might even help realign food markets, thus bringing the agricultural sector into closer alignment with the more predictable and ordered industrial sector.

---

Between June 1917 and June 1918, the number of extension workers more than doubled, increasing from slightly more than 2,200 agents to nearly 6,000, serving nearly 2,500 counties.
Providing a Bridge for Rural-Urban Values and Transcending Class Divisions

Two statements that frequently framed the USSGA's work were “he who produces is a patriot—a good citizen” and “A Garden for Every Child. Every Child in a Garden.” These two statements demonstrate an attempt to synthesize different American values. Producer values (in both a rural and urban sense) represented a more traditional American past and informs the first statement. The Progressive focus on nature study as a means of reform and enlightenment informs the second. The USSGA incorporated both. In some respects, then, no single impulse or ideal prevailed in the organization’s work. (If there was a prevailing ideology, it was one infused with ideals of service, 100% Americanism, and one that equated production with patriotism). Rather, the USSGA represented a synthesis of values associated with rural and urban life, producer and consumer experience, and folkways and scientific thought, a sort of mediated middle ground that provided a bridge between the social and spatial landscapes of rural and urban America.

The USSGA promoted part of its work as “productive play,” a class-transcending synthesis of sheltered and family economy models of childhood that promised a “more self-sustaining” home where families could work together “on a common project.” By encouraging children to engage in physical labor, the USSGA challenged some standard Progressive Era reform themes, among them concerns about child labor. It is possible that the creators of the USSGA deliberately sought to allay Progressive Era anxieties about the evils of childhood labor by including larger reform goals in their agenda.

These reform goals included character education, improved dietary practices, increased physical activity, expanded educational opportunities, and an effort to exert greater control over family life by linking school and home activities. The benefits of physical labor were emphasized, and the manual tasks of gardening were minimized or were construed in different frameworks. Under the cover of “patriotism,” by using terms such as “productive play” (which bridged sheltered and family economy ideals of childhood), and by introducing the program and its attendant legislative alterations as a wartime (i.e., temporary) measure, the USSGA's leaders sought to minimize resistance and advance their agenda.

Creating “Experts”

The USSGA also sought to educate youth and reform previous practice by replacing traditional gardening practices with the latest techniques from the fields of scientific agriculture and home economics. Like other national institutions of the period (such as the Children’s Bureau), the USSGA replaced folkways with scientific knowledge presented by government “experts.” Extensive directions for teachers sought to develop their expertise as “garden educators.” Extension agents, university personnel, and USSGA organizers traveled to communities and offered demonstrations featuring “best practices.”

Gardening in Formal Curriculum

Interestingly, USSGA Director J.H. Francis wrote that the intent of the USSGA program was to encourage home gardening. He used the term “school-supervised” instead of “school-based” to describe the location of work. “The work of the children is to be done after school hours and on Saturdays and vacation days, so that no time is taken from school,” he wrote in an official USSGA bulletin. Some USSGA publications suggested that the school was the site of instruction only because of the economy of reaching all students at one time. Fearing that agricultural education, with its association with manual arts, would face difficulty being accepted as a part of the formal curriculum in urban and suburban areas, Francis used the pressing wartime need to find a place for the course of study. “School-supervised” may have been a safer term than “school-based,” but the USSGA was clearly designed to be both. In the curriculum’s “Suggestions to Organizations” section, which provides information about organizing USSGA programs, the goal is clear: “The aim of this army is to nationalize and unify the great work in gardening now being carried on and to make it a permanent part of the course of study in all the schools of America.”

Upon reading the materials, it is clear that the USSGA curriculum was designed to be delivered by teachers in schools as a formal part of the course of study, integrating agricultural education across the curriculum, the equivalent of modern-day standards-based efforts. Entire sections of the curricu-
Impacts of the USSGA Program

Youth Participation in Society
The USSGA program was highly impactful. It appealed to America’s youth, and by the end of World War I, the USSGA’s leadership estimated that several million American youth had “enlisted” as “soldiers of the soil.” More than 50,000 teachers received the USSGA curriculum, and thousands of community volunteers participated by leading or assisting with youth gardening projects. Youth participants, these soldiers of the soil, were not just abstractions engaged in a rote activity. They were American children who answered their nation’s call to service. Their fingers dug into living soil, planted seeds, and harvested. Harriet Johns, an elementary student in Long Beach, harvested “exactly 1769 beans from four stalks, raised from as many seeds,” growing them on a vacant lot owned by her neighbor, Mrs. Charles Bate. From Portland, Oregon to Portland, Maine, children gardened. Fourteen thousand students worked 13,000 gardens and field sites in Los Angeles schools. The students at the small Ann Street Elementary School in Ventura raised and sold two tons of potatoes. In the process, and to the chagrin (and perhaps delight?) of their agricultural community, their efforts depressed the local potato market. Knowing that many American children had relatives serving in France, organizers suggested that children might name their garden after a soldier serving there as a demonstration of patriotism and solidarity. Undoubtedly, some children did this. While many oral histories exist of World War II gardening experiences, few consider the efforts of World War I gardeners. Motives and feelings are difficult to quantify, but newspapers from the period are replete with reports of youth gardening activity.

The extensive formal mechanisms developed by federal, state, and local government to encourage and regulate youth war gardening through the USSGA included supporting

Linking Home and School Efforts
The USSGA also extended the government’s reach into America’s urban homes by linking school-supervised gardening work to home-based efforts. The BOE encouraged schoolteachers to conduct home visits in order to evaluate gardening efforts, to make school gardening and canning equipment available to families for home use, and to provide detailed educational literature about gardening to parents. The USSGA sought to link home and school experiences. USSGA Director J.H. Francis advocated a model used by the Children’s Bureau and other Progressive Era institutions, which provided for staff members to engage in home visits. This was not only intended to gauge the success of the instruction, but to enable the program to reach (and teach) adults. Home visits would also presumably enable teachers to learn more about their students’ family life, thus aiding their effectiveness in the program, and considered particularly important when engaging immigrant populations. The USSGA hoped that “official” visits might encourage community participation in gardening activities. It is unclear if this element of the USSGA program was widely adopted, but it certainly reflected the growing influence of the extension education model used by the USDA.
Impacts on School Curriculum

Wartime enabled the proponents of youth gardening and agricultural education to advance their agenda of teaching this topic—which they viewed as vital to America’s security in the world—through the schools. In the first decade of the 1900s, Cornell University, under the leadership of Liberty Hyde Bailey, issued a series of publications (books, articles, and leaflets) promoting nature study as an essential part of the public school curriculum, particularly at the elementary level. Bailey’s work at Cornell was influenced by his work on the Country Life Commission (CLM), created by President Theodore Roosevelt in 1907. Composed of leaders from the newly emerging middle class (nearly all of them urban), the CLM represented different threads of Progressive thought. Some loved the rural, and others criticized the rural experience roundly. But the CLM’s membership also included a third group, urban agrarians such as Liberty Hyde Bailey and Kenyon Butterfield, who felt that while rural life needed to be reformed and aligned with America’s industrial future, it offered much that could help salvage America’s urban life. The CLM looked at all aspects of rural life, but particularly focused on change in the three primary rural institutions: the home, the church, and the school.

As social scientists and reformers studied rural life, and sought ways to reform and recast its social structures using modern methods, a parallel movement, already underway, sought to improve cultivation practices through the application of scientific agriculture. A number of influential books on agricultural education were published in the early teens. These books sought to promote the value of agricultural education for all students in elementary schools. Among the most influential was Elementary School Agriculture: A Teacher’s Manual to Accompany Hilgard and Osterhout’s Agriculture for Schools of the Pacific Slope, written by Cyril A. Stebbins and Ernest B. Babcock. Stebbins, an influential agricultural professor, later authored the USSGA’s manual for the Western United States. Another important book, The Principles of Agriculture, Through the School and Home Garden was authored by Stebbins in 1915, and it clearly linked school and home gardening.

There were other contributing factors. Well before America’s entry into World War I, as a result of various pieces of federal legislation, probably most notably the Hatch Act, various government agencies issued a number of publications discussing agricultural education. The progressive BOE issued information demonstrating how agriculture and domestic arts could be integrated across the curriculum to teach language (probably to immigrants). By 1915, Franklin Lane, head of the Department of Interior (which housed the BOE), was able to report that twenty-one states, including California, required agricultural and domestic arts instruction in rural schools. Franklin also reported that a growing number of states, possibly half, required some agricultural education or nature study in urban schools as well.

While agricultural education may have been mandated in a growing number of American schools, the USSGA provided the first national curriculum for the teaching of agriculture and gardening. The philosophy of experiential education promoted by educators such as John Dewey certainly informed the USSGA (and other agricultural and nature study curricula). “Do something” was the underlying spirit of the curriculum. Later, “learn by doing” (by providing hands-on, experiential learning) became the primary instructional philosophy and model informing programs such as 4-H and Future Farmers of America. While Babcock and Stebbins’ book provides classroom activities, in their note to teachers, they indicate that the hands-on component is the essence of the work, saying “Sacrifice the schoolroom work in this subject for the gardening if the gardens need attention.”

Conclusions

The USSGA exemplifies how Americans mediated competing urban and rural values during a period of rapid change and national transformation. Through the USSGA, positive values attributed to America’s rural
past were recast and articulated in the largely urban milieu of gardening. Gardening itself offered a new synthesis of the urban and rural, as new techniques and methods pioneered by urban-led scientific agriculture blended with traditional rural folkways. The USSGAs curriculum reflected new educational philosophies that schooled urban youth in tasks traditionally associated with rural life.

After Armistice was signed in November of 1918, the National War Garden Commission, Food Administration, and Bureau of Education published “victory” editions of their manuals, revised posters to reflect Allied victory, and encouraged Americans to continue gardening. Gardening was needed to rebuild the world. However, despite these efforts, the USSGA was dismantled soon after Armistice was signed. Its cousins, the Liberty/Victory Garden and Woman's Land Army programs, suffered the same fate, and quietly disappeared. Urban and rural Americans still gardened, of course, but Uncle Sam didn't ask them to.

It is difficult to know for certain why the USSGA was discontinued. It is possible that in the war's aftermath, as Americans turned their back on the horrors of that period and embraced modernity, that they simply lost interest in anything associated with the war. The USSGA program was framed entirely in military terms, and it is likely that in the rush to forget, anything so openly militaristic was unappealing. Disillusionment with the government and the war's human cost may have tainted the appeal of voluntarism for some Americans. Certainly, cultural aspects of the 1920s favored individual pleasure over collective sacrifice. And there may have been other reasons, including funding. After the war, military expenditures dropped. The USSGA was funded with defense spending, and its leaders had not developed alternate sources of funding for the program during its tenure.

While the BOE discontinued the USSGA program, the USDA emerged from World War I a big winner. Individual farmers suffered as the United States entered an agricultural depression (a full ten years before the Great Depression), but the nation's agricultural industry - overall - dominated post-war world markets. The American seed industry emerged from World War I as the world’s leader. The agricultural sector had powerful men in Congress looking after its interests, assuring supporting legislation and the attendant funding required to keep America’s agriculture industry number one.

After experiencing a short downturn in the number of extension agents (who had been hired under emergency wartime measures), a continuous and growing stream of federal funding and supporting legislation enabled the USDA to continue and expand its efforts. While national security was less visible as an issue, the need to industrialize the agricultural sector and feed America’s burgeoning urban population enabled the USDA, in conjunction with land grant universities, to justify and invest in educational programs such as 4-H.

A trend towards vocationalism and continuing interest in rural life supported the development of new programs such as Future Farmers of America (FFA, founded in 1928) and Future Homemakers of America (FHA), which found a permanent location in rural (and some urban) schools. FFA and FHA used 4-H and other Progressive Era youth organizations as models, developing local, state, and national organizations to support their work, and receiving some government funding.

In later years, the USDA’s influence expanded to urban education, and it became the federal agency with authority for Great Society efforts such as Women, Infants, and Children (WIC) and Food Stamp programs. Each of these programs contained an attendant educational piece that targeted largely urban women. Under USDA authority, a number of land grant institutions began to offer volunteer-driven urban horticulture programs to encourage and support home gardening efforts of largely urban and suburban gardeners. The Master Gardener Program, as this effort is now called, is found in every state. The USDA, while primarily regarded as a rural-serving institution, has carved out a strong urban niche for its programs and activities. The success of the USSGA may have proven to the USDA that urban clientele were equally as important as rural constituencies.

America’s entry into World War II brought back a version of each of the World War I gardening initiative programs. Within twelve days of the bombing of Pearl Harbor, a National Defense Gardening Conference was convened by the USDA in Washington, D.C. The conference program reflects the changed conditions of America. Attempts at rural-urban synthesis are not strongly evident. The agricultural sector, and much of rural life, had become much more culturally integrated with urban American, and more closely aligned with the American industrial model. While food production was important, the nation's food system in World War II was largely secure, and some of the presentations at the conference focused on the nutritive value of fruits and vegetables. The topic of “The American School System and War Gardens,” was tackled by John W. Studebaker.
Like one of the USSGA’s strongest advocates in World War I, P.P. Claxton, he also served as the federal Commissioner of Education.48

Studebaker began his presentation by sharing memories of a garden he tended as a young boy in Iowa. “I learned that gardens, having been planted, must be tended; that the price of production is industry and labor,” Studebaker shared. He reminisced about the USSGA and other World War I gardening efforts, but made the differences between the World War national gardening programs clear.

“Then the slogan was “food will win the war”... Now the slogan is, “food will help win the war and write the peace”... then the great drive was primarily to increase the production of foodstuffs... now the gardening phase of the “food for freedom” drive is primarily to improve the quality of home food supplies and... increase the health and vigor of our people and of our allies. Then the major emphasis was upon thrift and conservation of family resources. Now the major emphasis seems to be on improving family nutrition... There seems to be no immediate and pressing economic reason for the wholesale encouragement of vegetable gardening by city folk, especially in large cities.”49

The general objective was “to increase the production and consumption of garden fruits and vegetables for building a stronger and healthier Nation.”50 Studebaker, while minimizing the need for city gardeners, pledged the BOE’s support of national defense gardening goals by promising to contribute the leadership of the BOE’s vocational agriculture and home economics teachers, who numbered nearly 19,000.51 He felt that the BOE’s “live-at-home” program, offered through its Home Economics and Agricultural Education Services unit, could provide a model by continuing to encourage farm families to produce and conserve what their families would consume.52 Studebaker felt that war gardens could have a place in rural communities, and provide wonderful educational opportunities for vocational educational students in agriculture and home economics. (There was some concern shared at this conference that poorly trained urban gardeners might dilute efforts and use valuable supplies of seed. Rural residents were ostensibly a better fit for gardening programs). Studebaker felt that the school system’s greatest role to the nation’s war gardening program was not in contributing to production, but in training school students to be better consumers and improve American dietary standards and habits.

At this conference, a committee on Home, School, and Community Gardens met. Perhaps unknowingly, the very name of this particular committee demonstrated the soundness of the USSGA’s policy in World War I, which had been to link home, school, and community gardening efforts. In an interesting parallel to the World War I experience, the chair of this committee was Altee Burpee, the president of Burpee Seed Company, and the cousin of Luther Burbank, who had been such a strong proponent of war gardening during World War I. The secretary of the committee was Mrs. Julius Amberg from the Office of Civilian Defense. This committee affirmed the USSGA model by defining school gardens as a key part of national defense, and located them precisely where the USSGA had: as “those [gardens] worked by children or adults under the supervision of the school. They may be at the home, on school grounds, or on nearby land.”53

The World War II “Food for Freedom” gardening campaign was a phenomenal success and has become a part of the collective memory of our nation. Everyone gardened, or knew someone who did. The government’s goal to improve the health of the nation was realized: at no time before or since have Americans consumed as many fruits and vegetables. A full forty percent of all the fruits and vegetables consumed in the United States during World War II were raised in Victory Gardens.

It has never been argued, and there is probably no way to quantify it, but it is possible that the phenomenal success of the Victory Garden campaign during World War II was due to the fact that so many of the adults on the homefront had participated in USSGA programs during World War I. This program would have been impactful on children. It empowered them, it stressed learning by doing, and it made them a stakeholder in the “war to end all wars.” Their nation needed their assistance. Their work and their potential was a valued, even necessary part of the formula for victory. Children in World War I, some would have been too old to serve in the armed forces in World War II. So they served the nation as they had been taught in a previous war: they gardened.

A full forty percent of all the fruits and vegetables consumed in the United States during World War II were raised in Victory Gardens.
Acknowledgments

Numerous colleagues in DANR have supported and encouraged my professional and historical interests. I am especially grateful to Dan Desmond, who first introduced me to garden-based learning, and who has mentored and challenged me throughout my career in DANR. His vision has provided me with a strong professional purpose, and a bright light to follow. I wish him the happiest of retirements (and ample time to garden). Thanks are also due to Dr. Jim Grieshop, Sheri Klittich, members of the Garden-Based Learning Workgroup, my Ventura County CE colleagues, and the Ventura County Master Gardeners, for their constant encouragement. This work would not have been possible without the superb mentoring provided by UCSB professors Lisa Jacobson, Randy Bergstrom, Ann Plane, and Colin Gardner. Dr. Jacobson, in particular, broadened my understanding of the history of garden-based learning, and its important impacts on other aspects of American society during the twentieth century. My heartfelt thanks to Aarti Subramaniam of the 4-H Center for Youth Development, whose thoughtful editing led to a vastly improved piece of work. I have benefitted in enormous ways from her insight and have enjoyed our many conversations. It has been a joy to work with her. I would also like to thank Anne Graumlich, curator of the Ventura County Museum of History and Art, for the wonderful images from their extensive World War I poster collection, donated by the Argabrite family.

It would be remiss of me not to thank the students at Loma Vista Elementary School in Ventura, who have gardened with me nearly each week for the last five years. I have learned more from them about garden-based learning and positive youth development than all the books in the world could have taught me. The garden grows, and so do they.

Rose Hayden-Smith is a 4-H Youth Development and Master Gardener Advisor with the University of California Division of Agriculture and Natural Resources, focusing on youth and community gardening, agricultural literacy, and volunteer development. She serves as co-chair of UC DANR’s Garden-Based Learning Workgroup. Hayden-Smith is also a PhD candidate in U.S. History/Public Historical Studies at UC Santa Barbara, and a practicing historian. Her research focuses on gardening, horticulture, and agriculture during the Progressive Era and WWI; government and educational policies relating to that topic; and the American homefront during wartime.
Commissioned by President Theodore Roosevelt, the Country Life Commission’s report, issued in 1909, called for a complete restructuring of rural life. A particular emphasis was placed on education (targeting both youth and adults) in an effort to increase agricultural productivity. The passage of the Smith-Lever Act in 1914 created the United States Cooperative Extension Service, which contained specific language pertaining to agricultural work directed to rural youth. Smith-Lever provided the basis for the 4-H Program. The Smith-Lever Act of 1914 provided the general contours for rural “improvement,” or synthesis, into the urban industrial order. While the general contours were “sketched” out in the legislation, the programmatic details and policies authorized by Smith-Lever were developed by a largely urban bureaucracy.

As historian Robert Wiebe argues, beneath the rapid transformation “lay a deep-flowing current” that provided a sense of coherency and continuity.

The war years marked the end of America’s “Golden Age of Agriculture,” and tensions between urban and rural spheres ran high. Progressive thinkers were encouraging the adoption of scientific agriculture, and sought a model where the role of the farmer was to provide a plentiful and inexpensive source of food for urban dwellers. Many farmers viewed a European war as a distant event that didn’t involve them, and were accused of a lack of patriotism when they charged high prices for agricultural products. In addition, there were numerous farm communities consisting of families descended from German and other Northern European immigrant groups; these culturally intact communities, where German was still spoken, were viewed with suspicion.

1 World War I transformed the U.S. military mission in fundamental ways: in the size of the standing army, and the scope of its mission, including the concept of sending millions of Americans to fight on foreign soil. Figures for the size of the U.S. military vary, but it is likely that the combined enlistment for the standing military and state militias numbered fewer than 400,000 in March 1917. By the time Armistice was signed in November 1918, about 4.8 million men were serving in the United States armed forces; 3 million of those were draftees.


3 Stebbins, School-Supervised Gardening for the Western States, 39-40.

4 Ibid.

5 Ibid.


614 Ibid., viii.

615 Ibid., ix.

616 Living Civics. The New York Times, 10 August, 1920, p. 11. “The idea and the impulse behind the idea are an inheritance from the war. In that time – which, as one looks back upon it, seems so much happier than the peace we were fighting for— there were the School Garden Army…and other
outlets for the patriotism of service…The material returns ran into the hundreds of millions of dollars; and there was a by-product, possibly more valuable, of character formation.”  

20 Francis, Bulletin 26.  
21 Ibid., 6.  
22 Stebbins, School-Supervised Gardening for the Western States, 40.  
25 Ibid.  
26 Stebbins, School-Supervised Gardening for the Western States, 83-89.  
28 While it dates from the interwar years, one of the finest visual examples of this model is a Norman Rockwell painting, which shows a county extension agent working with a pigtailed country girl on her 4-H animal project, while her father and farmhands hang over the fence and watch.  
29 Ventura Star June 7, 1918 p. 5.  
30 Ibid.  
31 Ibid., 1.  
32 United States School Garden Army Fall Manual 5.  
33 Ibid., 3. Letters from dignitaries (and sometimes several) appeared in each USSGA publication. Hoover’s letter appears on page 3 of the USSGA’s Spring Manual, replacing Woodrow Wilson’s greeting, which appeared in the Fall Manual.  
34 Moon farming refers to the traditional practice of allocating farm tasks according to the phase of the moon. For example, some tasks, such as preparing the soil and planting crops that grow above the ground, were often done when the moon provided light. Other tasks, such as cultivating, planting root crops, and digging postholes, were relegated to the moon’s dark phases.  
35 Stebbins, School-Supervised Gardening for the Western States, 40. This tag line also appears in numerous other USSGA publications.  
37 Stebbins, School-Supervised Gardening for the Western States, 39-40.  
38 All USSGA manuals use the term “garden educators” in addition to “teachers.”  
40 Stebbins, School-Supervised Gardening for the Western States, 40.  
42 Crop Prolific on Small Lot: Jack’s Wonderful Beanstalk Has Little, if Anything, on Harriet’s. The Los Angeles Times, 2 September 1917, pg. II1.  
44 The USSGA funded field organizers in a regionally-organized system to further its goals.  
45 For a fine discussion of the CLM and rural reform efforts, read David Danbom’s The Resisted Revolution: Urban America and the Industrialization of Agriculture, 1900-1930.  
46 For an excellent discussion of garden work in California schools during the pre-war period, please see Ernest B. Babcock, Circular 46: Suggestions for Garden Work in California Schools, Berkeley: The University Press, College of Agriculture, October, 1909.  
47 Babcock and Stebbins, Elementary School Agriculture, p. xx. No emphasis added.  
49 Ibid.  
50 Ibid., Section IV.  
51 Ibid.  
52 Ibid.  
53 Ibid.
SECONDARY SOURCE BIBLIOGRAPHY
United States School Garden Army
Cultural History


**World War I Homefront**


**The Progressive Era**


Primary Literature


Children Line Up to Defeat the Huns. “Los Angeles Times.” P. II 2 (May 27th, 1918), Los Angeles, CA.


Destroys War Garden, and Is Ordered Interned. “Los Angeles Times.” P. I, 7 (May 20th, 1918), Los Angeles, CA.


Garden Army is Directed by Francis. Former Head of Los Angeles City Schools is Mobilizing Boys and Girls to Increase Food Supply. “Los Angeles Times.” P. II 11 (May 26th, 1918), Los Angeles, CA.


Garden Teacher Going to Hollister. “Los Angeles Times.” P. I, 6 (May 17th, 1918), Los Angeles, CA.


Hugh Findlay. “School Garden Army 6,000,000 Strong.” *The Independent* (1848) v. 94 (May 4th, 1918): p. 211.


Office of the President: Ernest O Holland (Washington State University Libraries, Manuscripts, Archive and Special Collections), Records, 1890-1950.


Prolific on Small Lot. Jack’s Wonderful Beanstalk has Little, if Anything, on Harriet’s. “Los Angeles Times.” *P. II, 1* (September 2nd, 1917), Los Angeles, CA.

Teach Agriculture. “Los Angeles Times.” *P. II, 10* (May 4th, 1919), Los Angeles, CA.

Tell How to Plant War Gardens. “Los Angeles Times.” *P. II, 15* (March 17th, 1918), Los Angeles, CA.

Thousand Children Working War Gardens Here. “Los Angeles Times.” *P. II 1* (March 24th, 1918), Los Angeles, CA.


Win the War, Mass Nation’s Forces To Grow More Food. School Children are to Play a Huge Part in the Campaign for Greater Production. “Los Angeles Times.” *P. II 11* (May 31st, 1918), Los Angeles, CA.

Work for Local Woman. To Organize School Children in Western Cities. “Los Angeles Times.” *P. II, 6* (September 19th, 1918), Los Angeles, CA.

Previous Monograph Topics

- Clarifying the World of Work for Our Youth: Vocations, Careers, and Jobs
- Garden-Based Learning in Basic Education: A Historical Review
- Youth Civic Engagement: Membership and Mattering in Local Communities
- The Developmental Benefits of Nonformal Education and Youth Development
- Applying Resilience Theory to the Prevention of Adolescent Substance Abuse
- Connections Between 4-H and John Dewey’s Philosophy of Education
- Organizing Head, Heart, Hands & Health for Larger Service
- Disordered Eating Patterns Among Adolescents
- Community Collaborations
- Education Beyond the Walls
- Experiential Education for Youth Development
- The Greying of Rural America
- Resiliency and Assets: Understanding the Ecology of Youth Development
- Recruiting and Retaining Volunteers
- Fifth Dimension and 4-H
- The Education Community and the Economy
- Curriculum Development for Nonformal Education
- The Biology of Adolescence
- Understanding Adolescents’ Ethical Behavior
- The Value of Failure in Middle Childhood
- Youth Violence
- Elements of Effective Community-based Youth Programs
- Influences of Culture on Child Development
- Children’s Cognition and Learning
- Social Competence