

Food Rationing in World War II

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This writer has maintained a healthy diet and regular exercise throughout his adult life, with a strong belief that both lead to longevity. He was attracted to the topic of food rationing from the book, *The Taste of War* by Lizzie Collingham, and further inspired by the biography of Lord Woolton, the innovative head of the British Ministry of Food during much of World War II, in a book entitled *Eggs or Anarchy* written by British food critic William Sitwell.¹

Lizzie Collingham's premise is that food growth, production, and distribution were critical issues involving the World War II conflict and its ultimate outcome. Food was a driving force for both the Axis Powers, especially Germany and Japan, and the Allied Powers. There was substantial food mismanagement and neglect worldwide throughout the war in such diverse areas as the Indian subcontinent, Africa, and China.² William Sitwell chronicles the life of Frederick James Marquis, ennobled Lord Woolton, who was appointed Minister of Food in 1940. He had ultimate responsibility for the feeding of all citizens of the British Empire throughout the war. Food was an important tool to all combatant nations in terms of maintaining maximum military strength and high morale as well as determined support for the war effort on the home front.³ Great Britain was forced into a centralized economy which Collingham terms as "war socialism" during the conflict while the United States, the only combatant country with more than adequate agricultural resources, was able to take a more laissez-faire approach with minimal food controls.

British Rationing

British food rationing was designed to ensure a fair and equitable distribution of available food to all social classes and to prevent hoarding. Collingham believes

¹ Lizzie Collingham, *The Taste of War: World War II and the Battle for Food* (New York: Penguin, 2013); William Sitwell, *Eggs or Anarchy* (New York: Simon and Schuster, 2016).

² Collingham, *Taste of War*.

³ Sitwell, *Eggs or Anarchy*.

that while the British, in general, did a very good job with its limited domestic food resources, it failed miserably in such areas as the Indian state of Bengal where three million residents died of a preventable, man-made famine.⁴ The U.S rationing system was much less vigorous than the British as America had more than sufficient food supplies and was actually able to export food to other Allied nations.

Food's role in the War World II conflict stems back to developments in the last quarter of the nineteenth century when the urban areas of Europe shifted from a primarily grain-based diet to one of meat (which this author believes is the exact opposite of what should comprise a healthy diet). The future Axis powers, Germany, Italy, and Japan, all felt quite disadvantaged by the dominance of the British Empire and the United State in terms of international food trade at the time. All three Axis countries felt that this disadvantaged trade position deterred each from reaching their respective great power potential. Visions of substantial, self-sustaining agrarian empires drove the Axis countries to war in the 1930s and resulted in horrendous German and Japanese atrocities during the conflict.

Britain entered World War II as the country most depend upon wheat imports, yet never had to ration bread during the war. (Ironically, bread rationing was introduced immediately after the conflict had ended). Instead, early in the war, the Ministry of Agriculture, through local County War Agricultural Executive Committees, successfully advanced the concept of substituting potatoes for bread. The ministry introduced new technological innovations for enhanced agricultural production and pricing policies which greatly benefited British farmers who were encouraged to grow certain crops--in particular, potatoes. It was later analyzed after the war that these technological advances may not have been as effective as originally planned. The success of British farmers may have simply been due to increasing agricultural acreage and old-fashioned hard work. This diligent effort allowed for the British internal food supply to increase from 33 to 44 percent during the war and enabled the nation to cut back on some costly imports of non-essential foodstuffs. In 1943, Britain was able to cover half of its bread grain requirements with domestic wheat. Potato production increased by an impressive 87 percent which, in turned, motivated the Ministry of Food to encourage potatoes as a substitute for bread. The paradox was that there was a surplus of potatoes. This surplus was diverted as feed for

⁴ Collingham, *Taste of War*, 147-48.

hogs. The great shame of this overgrown potato crop was that it was not utilized to combat the tragedy of Bengal famine on the Indian subcontinent. The British rationale at the time was concerned with what was considered higher priorities and logistics regarding the overall war effort as well as Winston Churchill's general disdain of the citizens of India.

The British also benefited from the American lend-lease program which started in March 1941. The U.S. supplied Britain with large quantities of frozen and canned meat which, in turn, boosted home front morale. Iceland also benefited during the war by supplying Britain with fish. The Ministry of Food constantly complained about the high cost of fish during the war years from both imported and domestic sources, but its complaints were generally unheard. Iceland was able to build a substantial foreign currency reserve during the war with its fish trade and utilized this currency to increase its fishing industry in the postwar years.

An equally important source of food to Britain during World War II came from the various dominions and colonies in its empire. The Commonwealth countries had to sometimes restructure their domestic agricultural sectors to accommodate the motherland's nutritional needs. The Australians supplied Britain with much of its frozen meat including a failed dehydrated mutton program at both the beginning and end of the war. Starting in 1943, however, Australian meat was almost entirely diverted to the U.S. military in the Pacific theater. Canada became Britain's major source of pork products. New Zealand provided significant amounts of dairy products to the British. A non-Commonwealth country, Argentina, supplied about 40 percent of the British meat requirements during the war. Condensed food was the key to keeping Britain adequately fed. Collingham notes that the British were forced to sacrifice "taste" for "energy" in their food supply.⁵

The Battle of the Atlantic deeply impacted the imported British food supply. During the early years of the war, German U-boats inflicted tremendous losses on British merchant marine shipping. Britain was unable to make up for these losses as the German Luftwaffe bombed British shipyards, docks, food warehouses, and transportation systems. Late 1939 brought a wartime food crisis to the British Isles resulting from insufficient levels of wheat and flour plus an incapacity of the rail system to transport food to the various geographical locations which required this

⁵ Ibid., 13.

food. The autumn and winter of 1940-41 was the apex of the British food supply problem. Prime Minister Churchill set up the Battle of the Atlantic Committee which concentrated on repairing ships and docks with 40,000 men diverted from the armed services. The American lend-lease program, commencing in early 1941, was immensely helpful in allowing the British to repair ships in American shipyards. It should be noted that, throughout the war, there was substantial American distrust of British estimates for food requirements.

The British Ministry of Food found itself in a position of having to convince its allies, the U.S. included, that a maximized food export effort to Britain was required in order to continue its war effort. Lord Woolton, to be discussed later in this paper, miscalculated the U.S. capacity of providing food to Britain including substantial amounts of meat.⁶ The Ministry was constantly fearful that food imports would drop to a point of providing insufficient nourishment to the British population and military. The Ministry's estimates of high food requirements were frequently met with skepticism by United States Minister of Agriculture, Claude Wickard, who was also concerned about American domestic civilian and military food supplies. Wickard referred to the British as "companions in misfortune."⁷ The American War Shipping Administration was certain that British requests for food were based on an overestimate of stocking needs. Ultimately, Harry Hopkins, the U.S. administrator for the lend-lease program, agreed to divert frozen meat to Britain which had been originally allocated for the Soviet Union.⁸ The British public, even at the height of The Battle of the Atlantic, was never confronted directly with the problem of hunger, but did have to substitute various foods for others. The most serious threat to the British food chain occurred in 1942 and 1943 with the American refusal to replace the meat supplies from Australia which had been diverted to U.S. military forces in the Pacific theater. As the Battle of the Atlantic turned in favor of the Allies in 1943, Britain's food supply became more stable although the Ministry of Food was never quite comfortable with the food situation until 1954, nine years after the war had ended, when rationing finally came to end.

⁶ *Ibid.*, 139.

⁷ *Ibid.*, 114.

⁸ *Ibid.*

British Empire Rationing

World War II intensified Britain's exploitation of its empire. The Colonial Development and Welfare Act was created in 1940 to control economic development throughout the British Empire. The goal of this act was to fully utilize the colonies' resources to the advantage of the homeland. Many of the empire colonial governors felt that food rationing was not a feasible option for both political and economic reasons and, instead, entered into "gentleman's agreements" with food suppliers and traders in their respective territories to keep food prices stable. These agreements were constantly ignored. The poor in many of the British colonial territories suffered greatly from inflated food prices. The high prices pushed the poor into less nutritious, cheaper food which, in turn, led to increased health issues. The British actually exported food stocks throughout the war from its colonies, many with food supply problems, in order to support the empire's worldwide military efforts. Food riots took place in Iran, Lebanon, and Syria in 1942 as well as behind the front lines during the Allied North Africa campaign. White farmers in Rhodesia were allowed to utilize unwilling, conscripted African laborers to maximize their agricultural production. The Rhodesian colonial government created the Native Labour Supply Commission, which continued forced farm labor through the 1970s and was greatly responsible for Britain's loss of the colony (which was later renamed the present-day Zimbabwe). Lord Swinton, the Resident Minister for West Africa, coordinated the economic policy for the Gold Coast, Sierra Leone, Gambia, and Nigeria territories. Lord Swinton's goal was to keep food supplies stable at affordable prices for his colonial citizens while, at the same time, exporting cash crops to the British homeland and allies. Britain, in turn, used the net profits from this endeavor to help pay for the American Lend-Lease program.⁹

Australia provided over half of the supplies used by the U.S. military in the Pacific theater. By the middle of the war, Australia and New Zealand were supplying over one million American servicemen with about 95 percent of their food requirements. Australia diverted its meat export from Britain to the U.S. troops. America, in turn, pledged to pick up the Australian meat export slack to the UK. This supply arrangement had its problems. The U.S. failed to meet its meat quota

⁹ Ibid., 139.

obligations to Britain while the Australians were not providing the desired high quality of meat to the U.S. armed forces. The U.S. military sent a division of nutritional experts to Australia, including Major Belford Seabrook from the Seabrook Farms company, to help maximize the country's agricultural production and distribution. This division completely modernized the Australian canning industry. The nation's agricultural acreage doubled, and by 1944, Australia's produce capacity was over a million tons per year. 50 million pounds of canned fruits and vegetables were sent to U.S. servicemen throughout the Pacific.¹⁰ Many Australian civilians resented the food shortages and rationing during the war caused by the U.S. military supply effort and were angered by the superior quality meals which American servicemen were consuming. Some Australian towns in the northern part of the country were particularly hard hit with shortages due to nearby U.S. military base food requirements. It should also be noted that the U.S. military frequently complained about the quality of Australian-supplied food as not being up to the high American set standards.

The governor of India, Viceroy Lord Linlithgow, was ultimately blamed for the full-scale Bengal famine in 1943 and 1944. Three million in the state died, either as a result of starvation or from diseases brought on by malnutrition. This total was higher than the combined casualties suffered by the Indian Army in both the First and Second World Wars. The Indian colonial government was unable to create a viable food policy during World War II for fear of catastrophic political dissent. India's poor were particularly vulnerable to rising food costs and suffered the consequences of a restricted diet. The Quit India Movement, started in August 1942 by Mahatma Gandhi and his Indian National Congress, demanded immediate independence and distracted the British colonial government from the serious food crisis.¹¹ Winston Churchill had an extremely hostile attitude toward the Indians and did not provide the country with necessary support. His rationale was that resources had to go to more critical areas for victory in the overall war effort. After the fall of Burma to the Japanese, the Indian colonial government worried about a possible invasion from that Axis power (which never occurred). The overall morality of British rule in India has been questioned by its handling of the massive Bengal famine.

¹⁰ *Ibid.*, 83.

¹¹ *Ibid.*, 144.

However, this issue was not the most important factor with regard to Indian independence after the war in 1947. The overall British rule of the Indian sub-continent for almost a century had simply not provided its native population with an adequate, abundant lifestyle. The end of World War II culminated with the end of much of the British Empire and its exploitation of its various colonies.

Britain introduced food rationing in early 1940 to insure a stable and equitable distribution to all of its citizens and residents during the war. Initially, neither the Ministry of Health nor the Ministry of Food considered the nutritional quality of food to be rationed but, rather, the amount which was readily available. It was known that the British population would have to expend far more energy in the war effort than during peace time. Both ministries took into account the types of foods necessary to meet these increased energy considerations. The government held a Scientific Sub-Committee on Food Policy conference in mid-1940 which formulated plans to maintain nutritionally balanced rations. The Ministry of Food was instructed to follow the sub-committee's recommendations regarding which foodstuffs should be prioritized. Recommendations included so called "protective foods" to maintain good health and also emphasized the importance of animal protein in a regular diet.

Britain had a major problem with its bread supply due to the previously described import problems during the Battle of the Atlantic. White bread consumption was discouraged due to its lack of nutritional value (much to the chagrin of the British public). Gardening was greatly encouraged to increase domestic production of fresh fruits and vegetables. British gardeners had great success with onion and potato cultivation. The Ministry of Food provided cooking instructions for vegetables with the goal of best preserving their vitamin content. The government introduced the cartoon characters of "Dr. Carrot" and "Potato Pete" to encourage a healthy diet based upon readily available foods. The British public was encouraged to grow vegetables and fruit in their private gardens with the "Dig for Victory" campaign. Two typical British housewife radio characters, "Gert" and "Daisy," were featured daily on "The Kitchen Front" morning program on the BBC to reinforce the concept of a nutritious diet with the available food supply. The British public was generally not pleased with the overall quality of food provided during the war. The Ministry of Food made efforts to lift the population's spirits with receipts which called for "mock" food substitutes and "Victory Dishes" only with limited success. It

is interesting to note that the British upper and middle classes diets were leveled downward while the lower working class actually began to consume a more substantial and healthier diet as result of rationing. The food nutrition gap between all social classes in the country was substantially narrowed during the war. The London school system medical officer noted at the end of the war that height and weight differences among children of the various social classes had completely disappeared.

The British military strove to improve both the quality and amount of its food rations in order to increase the morale of its fighting forces. Initially, British military cooks took little pride in their work which resulted in great discontent of the meals served to the servicemen (who were primarily conscripts). The Army Catering Corps was established in March 1941 to rectify this problem. It was headed by Richard Byford, a career catering manager, who staffed the corps with peers from the catering industry. The goal was to improve the standard of cooking throughout the British Military. Byford used Professor Cedric Stanton Hicks of the University of Adelaide, Australia to greatly improve military cooking equipment including stoves. Dr. Hicks also supported a substantially more generous ration of almost 4000 calories daily to the troops. Professor Hicks used the slogan of "Fighting with Food" to promote both cooking skills and relatively healthy diets in the British military.

By the end of the war, Britain and its dominion countries and colonies had generally healthier civilian populations than before the conflict due primarily to improvements in diet. This was the result of co-operation between government officials, nutritional scientists, medical doctors, and quartermasters in the military. Nutritionists became much more prominent in the post-war world in defining both the quality and quantity of food intake to insure healthy lives.

Lord Woolton, British Ministry of Food, Biography

Frederick James Marquis, later known as Lord Woolton, head of the British Ministry of Food, was born into a working-class family in Manchester, England in 1883. He was an excellent student in school and won a "County Council Exhibition" competition which allowed him to attend the highly ranked Manchester Grammar School. He soon surpassed his modest family in terms of education. (Marquis had been admitted to Cambridge University but had to decline its offer due to financial

limitations and his father's ill health). He majored in chemistry and psychology as an undergraduate and ultimately earned a graduate degree in economics at the age of 23. Marquis became quite interested in sociology as a postgraduate and was involved in the “settlement movement” of the early twentieth century in Liverpool. The movement advanced the notion that poverty could be alleviated with the creation of communities of both rich and poor who would share knowledge and skills. Marquis studied the poor in Liverpool and never forgot the consequences of poverty. This experience would greatly affect his work at the Ministry of Food during World War II.

Marquis was involved in teaching, social work, school management, and journalism in his early career. He managed to avoid military service in World War I due to feet problems. He suffered from life-long intestinal issues which would also affect his Ministry of Food work in terms of a perceived healthy diet. Marquis’s great career break came from an employment offer at the Lewis's Department Stores through a chance meeting with Sir Rex Cohen who was chain's Managing Director.¹² Marquis was able to experience all aspects of the retail business through the 1920's and 1930s and was pivotal in growing the company into the largest department store chain in Britain. He became quite prominent throughout the country and was knighted in 1935 in recognition of his service to the British retail industry. Marquis took the title of Lord Woolton. In April 1939, Woolton was asked to advise the British War Office on military uniforms and was given the position of “Technical Advisor on Textiles.” Woolton immensely disliked this job which entailed supplying clothing to the British military. There was an immense lack of communication and a wall of bureaucracy within the war office which made his position an almost impossible task. As an example, he was able to purchase pants for the military but not the buttons required for the trousers (in that pre-zipper era for flies.) The buttons were not deemed as clothing material and had to be ordered by a separate department which did not coordinate with Woolton's division. When Woolton mentioned this problem to the Prime Minister's office, he was told by Sir Horace Wilson that “you are up against the machine of the Civil Service.”¹³ Woolton’s experience paralleled our present-day U.S. President Donald Trump. Both had

¹² Sitwell, *Eggs or Anarchy*, 50.

¹³ *Ibid.*, 59.

substantial business careers and were thrust into bureaucratic, red tape, public service. The “civil service machine” point can be compared to Trump's notion of “the swamp” in Washington. Both men were determined to “drain” their respective swamps.

Woolton was ultimately recognized for his service at the War Office by King George VI in June 1939 by being elevated to the peerage of the House of Lords. Later that year, he was appointed Director General of Equipment and Stores in the newly formed Ministry of Supply with the task of managing clothing for the entire British nation. This position, in turn, led Woolton to the Ministry of Food directorship in April 1940. He was first appointed by Prime Minister Neville Chamberlain and was asked, unexpectedly, to continue in the role after Winston Churchill took the prime minister position later in the year.

Lord Woolton used his substantial past experience as a successful business leader in his position as Director of The Ministry of Food, sometimes to the great annoyance of the ministry's career civil servants. He even ruffled Winston Churchill's feathers at times. Churchill generally disdained the notion of businesspeople in government. Woolton emphasized his humble background to the British public, often noting that he had come from a working-class family. His study of British poverty in the early twentieth century was an extremely important factor in the formulation of his plans for feasible food distribution goals during the war. Woolton called upon the cooks of Britain to act as front-line soldiers and creatively utilize whatever food was available. He appeared regularly on the BBC's morning *Kitchen Front* radio program in order to communicate directly with the British public. He emphasized that the British war effort depended upon the hard job of industrial workers who had to be fed sufficiently in order to maximize their effectiveness. He warned people not to hoard and strongly hinted that hoarders would be punished if Lord Woolton first determined the state of Britain's food supply both in terms of domestic and imported sources.

A National Registration Day was held in late September 1939 to ascertain the number of people, including the royal family, who had to be fed in the country during the approaching war. The registration day was a success, with 41 million out of the total British population of 46.5 million responding. Ration books were to be issued to insure equitable food distribution. Woolton ultimately felt responsible for the food security for all 532 million citizens throughout the entire British Empire. He insisted

upon the highest business standards of all working at Ministry of Food and did not tolerate employee indiscretions. He was quite pleased to replace career civil servants with responsible businesspeople whenever possible.

A study of the diets of working-class families in sections of London indicated that those respondents tended to eat plain and relatively basic foods. This research greatly helped Woolton mold future food distribution plans. He was keenly aware that a sufficient food ration was critical for maintaining high public morale which was essential for winning the war. Woolton was particularly concerned about food imports and the potential problems caused by disruption. A poll in late 1939 found that 60 percent of the British public comprehended the necessity for food rationing.¹⁴ Woolton decided to implement the rationing effort before it actually needed in order to ensure British food security.

The rationing program formally began in January 1940, first for butter, bacon, and sugar, and later in March, for stable meat prices as opposed to meat quantities. Tea rationing followed in July. In 1941, jam, marmalade, syrup, treacle, and eggs were added to the rationing list. Rice, dried fruit, condensed milk, cereal, canned vegetables, soap, candy, biscuits, and oaks were included in 1942 in the midst of the war's food import shipping crisis. Sausage was the last food rationing item to be included in 1943. Allowances for various foods were made throughout the war depending upon each item's availability. The ration books were "buff-coloured" for adults and green for children. The books controlled the amounts of food allocated on a weekly or monthly basis. Purchases were marked in the books by shopkeepers to ensure that those items could not be bought for a second time in the allocated rationing period. The ration book themselves became a precious commodity but were not a substitute for payment. Rationing was completely universal in Britain during the war years and was administered by the Ministry of Food which used information compiled from the National Registration Day. Individuals which special nutritional requirements such as infants and pregnant mothers were provided with extra rations for specific foods. Food stores kept the redeemed coupons and forwarded them to local Food Offices which then allowed the shops to purchase new stock from registered food wholesalers. The Food Offices reported to local Food Control

¹⁴ Ina Zweiniger-Bargielowska, *Austerity in Britain: Rationing, Controls, and Consumption, 1939-1955* (New York: Oxford, 2000), 70.

Committees which, in turn, reported to Divisional Food Offices who were in direct communication with the Ministry of Food. There was a substantial British food hierarchy created, consisting of 1,200 local offices, 1,520 control committees, and 19 divisional offices. All food retailers, hospitals, and caterers were included in this reporting system.

Woolton also viewed rationing as an opportunity to institute a healthier diet as a means to enhance life in Britain. He utilized educators, agricultural experts, nutritionists, and dieticians for advice on achieving this goal. After the war concluded, Woolton firmly believed that he had been successful in contributing to the overall improvement of health for the British population. Because Britain has a rather rigid social class system, it is noteworthy to appreciate Woolton's remarkable rise during his life from a humble, working class background to becoming a major business and government leader as well as an important political figure after the war.

United States Rationing

The United States economy was pulled out of the Great Depression by World War II. America did not have a meaningful and viable welfare system in place in the 1930s in spite of President Franklin Delano Roosevelt's best efforts and intentions to help the 15 million unemployed in the country. Hunger was rampant throughout the country. In 1941, the Office of Defense Health and Welfare Services estimated that about 45 million Americans who did not have sufficient food to maintain good health. The U.S. Surgeon-General, Thomas Parran, warned during the year that the food situation could be a threat to the country's military strength and industrial production as well as lowering the morale necessary to fight in a major war. General Lewis Hershey, head of the Draft Board, found that 40 percent of the men called up for military duty were unfit to serve as a result of poor nutrition.¹⁵ World War II brought an end to the massive unemployment suffered by the country during the Great Depression. The wartime economy also brought relative affluence to the American civilian population. Average food expenditures increased by 8 percent. The U.S. Government initially was forced to introduce rationing in order to divert high quality and condensed food to both the American military and wartime allies. The U.S. rationed canned meats, fruits, and vegetables domestically to honor lend-

¹⁵ Collingham, *Taste of War*, 417.

lease commitments to its British, Soviet, and Chinese military partners. In 1943, sugar, candy, coffee, various dairy products such as butter and cheese, frozen and dried produce, and red meat were also added to the domestic food rationing list.

The U.S. Office of Production Management was responsible for the redistribution of material necessary for the war effort. The Office conducted a conference with leading businessmen to present a shopping list of what was needed for this worldwide military effort. Each corporation volunteered to supply the requested items on the list and, of course, expected payment for the goods and services provided. Secretary of War, Henry Simpson, believed this business profit-making approach was necessary and vital during the war in order to maximize the country's industrial potential. This strategy was, indeed, extremely successful. By late 1942, the American military economy was greater than that of the combined enemy Axis powers. By the end of the war in 1945, the U.S. had produced over two-thirds of the military equipment used by the Allies during the conflict.

The U.S. Government was very cautious about its interventionist measures on the civilian population for both morale and political reasons. The federal government introduced rationing in order to fairly distribute various food item shortages equally across the country's social and economic groups. The public was told that rationing was necessary in order to protect the ability of individual food choices. The government used the ideology of personal freedom to justify its rationing restrictions. The American public generally had a somewhat hostile attitude toward government intervention. The business sector was even more opposed to government dictates. The relatively hands off approach used by the U.S. government with regard to food consumption during the war was enacted with these attitudes in mind. This strategy did limit the influence of nutritionists in determining standards for the American diet. It also should be noted that the U.S. Government never had a food czar during World War II with comparable powers to Britain's Lord Woolton and the Ministry of Food. This lack of a strong U.S. government food executive was partially the result of the American hands-off policy with regard to private business operation and the relatively lax food rationing to the civilian population. It can be speculated that if the war had gone badly for the U.S. resulting in the need for greater food restrictions, a food czar might have indeed been appointed by either FDR or his successor, Harry Truman.

The U.S. National Research Council created two boards in 1940 to determine the country's food policy during the upcoming conflict. The first commission was the Food and Nutrition Board (NFB) with the purpose of gathering dietary research and nutritional standards. The second commission was the Committee on Food Habits (CFH) with the task of implementing the NFB's findings into specific recommendations for meals. The NFB presented its most influential findings at National Nutrition Conference in May 1941. The NFB data included a table of daily allowances for various foods and vitamins necessary to maintain good health. This table was utilized by the U.S. Federal Government and various private agencies for both civilian and military use. The recommendations tended to be overly generous and included a wide variety of foods. They were partially created to placate the agricultural industry and various food interest groups. The NFB recommendations were widely circulated in the mass media of the day which included newspapers, magazines, and radio. The Department of Agriculture printed a brochure in 1943 entitled the "National Wartime Nutrition Guide." The results of this campaign were mixed. By the end of the war, the American public understood the value of healthy and balanced meals but did not necessarily follow the recommended guidelines. An opinion poll taken in May 1943 found that rationing and shortages had made almost no impact on the civilian American diet. The biggest complaint by the U.S. public was the rationing of red meat which was being diverted to both the American and British military. There was a small black market for red meat during the war, but it never reached the point of being a threat to the U.S. economy. There was also substantial public resentment regarding sugar rationing. Sugar was redirected to the wholesale food sector from retail stores. The U.S. food industry conducted the War Advertising Council which was attended by members of the advertising and media communities as well as government officials. Its purpose was to provide strategies for promoting healthy eating. The Council's results were also mixed. American nutritionists, in general, had little executive power during the war and were primarily limited to only providing advice (which much of the public failed to heed.)

Private employers tended to be responsible for feeding their workers and created eating facilities of their own discretion. The U.S. government generally took a "hands off" approach to regulating industrial catering and food provision. The Office of Price Administration (OPA) paid little attention to workers' complaints of

small meal portion size and accompanying high prices charged at company cafeterias. The OPA's Nutrition Division (ND) was given the task of assessing factory cafeteria lunches. In one example, the ND found that an Illinois plant's cafeteria meal offerings were 71 percent "poor" in terms of quality and quantity but well nourishing according to the NFB guidelines. Workers made high incomes during the war and could well afford to feed themselves. The main advantage of eating in a company cafeteria was the convenience but certainly not the culinary experience. There was never any danger of mass malnutrition or starvation in the U.S. during the war as was the situation in most of the other combatant nations.¹⁶

It is interesting to note the Coca-Cola used the war to maximize both civilian and military consumption. The company was exempt from sugar rationing as it was the primary soda vendor for military bases and war factories. Consumption of its Coca-Cola and Dr. Pepper drinks were encouraged for every meal and work breaks. The popularity of the Coca-Cola brand was spread throughout the world by American servicemen and military canteens during the war. This popularity has had "staying power" to the present day.

The deep historical racial divide in American society continued through the war years. African Americans were employed in low wage menial positions in both the civilian and military sectors. Segregation was actively enforced. African Americans were excluded from the benefits of wartime wages while were forced to deal with wartime inflation. The Roosevelt Administration did not adequately address the black community's grievances during the war. (The country would not deal with these matters until forced to do so in the post-war period of the 1950s and 1960s). Many of the New Deal relief programs were phased out during the war which particularly hurt the country's southern farming belt. One important program which was retained was the provision for school lunches. These meals were critical to mothers of school children who working in war plants, and as a result, did not have the time to prepare mid-day meals for their offspring. Anthropologist Margaret Mead, head of the Committee on Food Habits, argued for school lunch menus which would not be offensive to the various ethnic groups in the country. This suggestion ultimately led to a rather homogenized American diet. A major glitch in the school lunch program was the problem that the federal government would cover the cost of

¹⁶ Collingham, *Taste of War*, 423.

the food, but the states had the responsibility of building and maintaining lunchrooms and kitchens as well as paying the workers. This resulted in some of the poorest states in the nation having the fewest school lunchroom programs which, in term, led to the least nutritious diets for their numerous needy residents. It can be concluded that the American food rationing system was far less effective as a welfare tool than the rationing system implemented by the British during the war.

The U.S. Government provided generous meals to its military forces during World War II in order to maintain both maximum fighting strength and troop morale. Standard rations at American military bases contained 4,300 calories per day while troops on the front line received over 4,700 calories daily. Few U.S. draftees felt any national obligation to serve in the military and complained about both the food and pay whenever polled. General George Marshall instituted an overall plan which recognized troop welfare as an essential element of waging a successful war. To ensure high morale, the U.S. military maximized field hospitals, bathing facilities, mail delivery, recreation, and good nutrition for the troops. For many recruits from poor states, the food in the military was substantially better, in terms of both quality and quantity, than their past regular diets as civilians. The menus for the U.S. military were based on the same principles as the school lunch program. They were filled with generic "American" food with the notion of not offending ethnic customs. American military bases around the world featured Post Exchange stores with supplemental treats including candy, tobacco products, and drinks. These stores greatly helped Coca-Cola's popularity grow to the point of soft drink dominance. U.S. Troops initially used C rations at the front which were packaged in awkward containers with generally unappetizing food. Later in the war, K rations replaced C rations which included a tastier diet, eating utensils, cigarettes, soap, and even toilet paper. American troops were supplied with meals which were far superior to those of any other combatant nation, Allied and Axis, in the war.

The stress of combat often caused loss of appetite. U.S. military quartermasters paid close attention to this matter and developed efficient field kitchens to provide fresh, hot appetizing food for the soldiers at the front lines to help ease their stress. B rations were introduced and prepared at these newly renovated field kitchens which provided each front-line serviceman with five pounds of fresh and hot food daily. B rations were, indeed, the "gold standard" of military meals

served by any country during World War II. B rations included a wide range of foods, supplemental ingredients, and condiments and was certainly a morale booster for troops in the front lines.

Conclusion

The United States emerged from the war as a superpower with enormous resources to produce a healthy and plentiful food supply for its population. America had only weak emotional support among the civilian population for the world conflict, perhaps because the country was buffered by the Atlantic and Pacific Oceans from the Axis Powers. The U.S. quickly dropped food rationing after the war and was extremely reluctant to reinstate it. The British public, on the hand, had an extraordinary amount of support for the war effort and were determined to not accept a Nazi regime. The German military was just a few miles off the coast of Britain in occupied France and in nearby waters. The British were willing to accept far more sacrifices than their American counterparts.

Hunger was rampant at the end of World War II. A major drought in 1946 effected Europe, the Soviet Union, and portions of South America, the Indian subcontinent, and Asia. The American public had no interest in another round of rationing. Former U.S. President Herbert Hoover was in charge of the "Famine Survey" which included visits to thirty countries in less than two months. Hoover pressured the British to distribute over one million tons of food reserves to the less fortunate on the European continent. The British government was forced to introduce bread rationing and cut meat consumption. The country had to extend food rationing until 1954. The British nutritionist, John Boyd Orr, was elected director-general of the newly established Food and Agriculture Organization in 1945 with the goal of buying surplus food to be distributed to needy nations. He produced a movie in 1946, *World of Plenty*, whose theme was that the dietary and agricultural techniques developed by the Allies during the war should be applied to the entire post-war world. Orr was awarded for his work with the Nobel Peace Prize in 1949. And yet, the British government did not feel that his proposals were realistic and did not support implementing them.

The U.S. preferred to send food aid to struggling European nations through individual grants rather than as part of an international coalition. The Marshall Plan

was enacted in 1947 to help rebuild war-torn Europe and was also used a political and ideological tool against the new communist enemy. The Marshall Plan attempted to highlight capitalism's ability to provide for a comfortable and abundant lifestyle. In the post-war years, Britain lost much of its influence and territory in its empire. One of the most significant impacts after the war was the rise of American ideal of abundant food for all of its citizens. World War II greatly advanced the science of nutrition, agricultural production, and food processing but, unfortunately, did not necessarily enhance healthy diets. Instead, the advances of nutritional science brought increases in refined carbohydrates, sodium, and essentially "empty" calories to many foods. The results, in turn, have led to more widespread obesity along with accompanying health problems.

Postscript

This writer is a member of the Baby Boomer generation and was born a few years after World War II had ended. I had a sister who was about one year younger. Both of my parents were in the U.S. military during the war serving in the European theater. My father was in the infantry and saw action at the Battle of Bulge where he was awarded a Purple Heart medal. My mother was an army nurse. Neither discussed the details of their wartime exploits (as was common of that generation), but my mother proudly told of capturing four German soldiers who surrendered to her with the Allies' "safe passage" leaflets. My parents met immediately after the war and were married within a year. Our family lived a comfortable middle-class life, first in suburban Boston and later in suburban New York.

During the ensuing two decades after the war, my parents provided us with three substantial and nutritious meals each day with menus that might have been inspired by their U.S. military service. Breakfast would include fruit juice, eggs, pancakes, waffles, and breakfast meat as well as toast. Lunch would consist of sandwiches made with cold cuts, tuna, or peanut butter and jelly accompanied by a desert of cookies and, sometimes, candy or a piece of fruit. Dinners included meat as the most prominent portion, usually steak, which was served three to five times per week along with a small salad, "instant mashed" potatoes, and canned vegetables, and were completed with a packaged desert of cookies, cake, and ice cream. Occasionally, the dinner meat menu would be altered with roast beef, lamb, pork chops, poultry,

and seafood. My mother's specialty, meatloaf, was served a couple of times per month and was considered a "gourmet" treat. My sister and I would constantly complain about the repetitious steak dinners. My parents would simply grin and tell us about their experiences during the Great Depression and the hunger which they witnessed in Europe during the war. The frequent family steak dinners may have been the psychological result of the U.S. domestic red meat rationing which our relatives on the home front had endured during World War II. Our parents provided us with a large glass of milk at every meal. We children were given daily vitamins in the form of a liquid which my mother put in our milk with an eyedropper. She would camouflage the taste of the vitamins with chocolate or strawberry syrup. Our family consumed mainly canned fruits and vegetables although we certainly could have afforded fresh. Both of my parents would have a daily cocktail before dinner and sometimes gave us "Shirley Temple" non-alcohol beverages. When reflecting on this menu, it seems apparent that my parents were serving the same, rather bland, generic American food which was served in the military and in school lunch programs during the war. My mother was intensely hygienic, probably as a result of her career as a registered nurse, and taught us at an early age to wash our hands both before and after meals as well the proper techniques for cleaning plates, bowls, utensils, and food surfaces.

Our family barely utilized the school lunch program which was first introduced by the FDR Administration's New Deal during the Great Depression in the 1930's. Our elementary school near Boston did not have a student lunchroom but did serve milk and cookies each school day to students in their classrooms. This was a supplement to lunches brought from home. Our newly constructed junior high and recently renovated high schools in suburban New York City did have student cafeterias which provided both hot and cold meals. The food quality in both schools was only fair. My parents continued to pack school lunches for us. The quality of the food did seem to improve slightly during our high school years. Metal school lunch boxes became quite popular in 1950s and 1960s. They contained sufficient space for a single serve meal along with an insulated bottle and cup for a beverage. The lunch boxes were adorned with popular childhood characters from television, movies, and cartoons. The lunch box concept was an innovation from the ration containers used by American front-line troops during World War II.

As our family became increasingly affluent, we would regularly eat Sunday dinner at restaurants serving the same traditional American cuisine which we consumed at home. My parents frequently went out with their friends on Saturday nights and would always make sure that before they left, we children and our babysitter, were sufficiently fed with either frozen TV dinners or store-bought roasted chicken and sides and, of course, deserts, almost in the style of a military field kitchen. When the 1960s arrived, a third night of eating out was added, usually in the middle of the work week, at a casual restaurant or cafeteria. My mother did not seem to especially enjoy cooking and baking although her food was, indeed, very good. Our family had little experience with "foreign" food in the post-war years. We children thought that pasta came from a can. Frozen "international cuisine" purchased at a supermarket was generally terrible. It was only as a young adult that I experienced "authentic" Italian, Chinese, and Mexican cuisine (which, of course, has been "Americanized" for U.S. taste buds). I also found that I greatly enjoyed hot, spicy condiments which had been unknown in my youth. Our family certainly enjoyed the abundant and relatively inexpensive food of post-war America which has endured to this day in the 21st Century.

Addendum

In 1940, the British government issued the Yellow Move Edict, which required the nation's most important ministries to relocate from London to other parts of the country in order to avoid German bombing and sabotage. The Ministry of Food moved 5,000 employees and office equipment to the small seaside town of Colwyn Bay in North Wales. A token staff remained at the Ministry's Portman Square offices in London to mask the relocation. The Ministry occupied office space in most of Colwyn Bay's schools, private homes, retailers, hotels, and on the local Penrhos College campus. The relocation effort was a complete success which the Germans never discovered. Had the Germans known about Colwyn Bay, they have easily destroyed the Ministry of Food offices with comprehensive bombing and, as a result, caused mass starvation throughout Britain.

Lord Woolton was an excellent business negotiator and was able to obtain extremely favorable arrangements for the Ministry of Food especially from career civil servants. A good example is with Woolton's dealings with James Gardiner, the

Canadian Minister for Agriculture and Defense, in the autumn of 1940. Woolton pushed Gardiner for a very low price for Canadian wheat. Gardiner balked, claiming that Canadian farmers required a sufficiently higher price for their crop. Woolton responded that Britain would no longer purchase Canadian pork if the wheat price was not met. This was a bluff by Woolton, as the British desperately needed the pork. Gardiner did accept Woolton's offer. Woolton admitted later that he was actually ashamed of his low-price wheat offer to the Canadians. He was representing the British public rather than Canadian farmers. Perhaps, Gardiner accepted this pricing because he was either a poor government negotiator or he knew his British cousins were really in major trouble.

One of Lord Woolton's proudest accomplishments was creating the Queen's Messengers truck convoy which fed Londoners during the Blitz. The convoy consisted of 144 vehicles and was staffed by the Women's Voluntary Service. The vehicles served both hot and cold food and would go bombed areas immediately after the "all clear" signal was heard. Woolton managed to obtain most of the Queen's Messengers funding from the British War Relief Society of America and supplemental money from the Queen. This endeavor allowed Woolton to fulfill his psychological goal of helping the needy by using his tremendous negotiating skills. He developed a closer relationship with both the royal family and the entire British nation.

Lord Woolton was very slow to act upon the black market which began after British food rationing commenced in early 1940. He basically ignored the "grey market" in which individual households paid food retailers "under the table" for additional rationed items. He was also unconcerned with alcohol beverage price-gouging as he felt that liquor was a luxury rather than a necessity. However, as the black market expanded and flourished during the first year of rationing, Woolton steadily came to the realization that it had to be quelled. He issued the Standstill Order in early 1941 to halt large-scale black market activities. The Ministry of Food printed pamphlets which defined illegal black market activity as that of obtaining profits out of proportion for services rendered through "abnormal or unauthorized" methods. Banks were ordered to check their accounts for possible money-laundering deposits and withdrawals. Convicted black marketeers could be harshly sentenced to a maximum of 14 years in prison. The Ministry of Food created a Director of

Enforcement position for detecting and prosecuting black market activity. Interestingly, while there was widespread British participation in the grey market during the rationing period, a Gallup poll of the British public conducted in 1943 found that a substantial majority of respondents believed that Woolton was exaggerating the amount of actual black market activity. It should be noted that Winston Churchill was generally apathetic or sometimes annoyed with Woolton's actions regarding the black market.

Britain's problems with the American Lend-Lease food program stemmed from larger issues pertaining to the overall Allied conduct of the war and the question of the postwar British Empire. The American FDR administration was insistent that the British allow their various colonial territories to become independent after the war which the British vehemently opposed. The British government, however, realized that its country was extremely dependent upon American aid and support. The friction between the two countries continued throughout the war and into the postwar years.

E.B. Sledge brings to light U.S. military policy regarding food for combat troops in his book, *With the Old Breed*.¹⁷ He notes that on the morning of Peleliu Island invasion, U.S. Marines were served a traditional hearty steak and egg breakfast (which was also a tradition of the Australian military.) This big meal caused substantial digestive and intestinal problems among the troops during the initial Peleliu assault. The movie, *Saving Private Ryan*, by Steven Spielberg, illustrated similar health issues during the Normandy D-Day invasion. Sledge mentioned that one of his best meals on Peleliu was during the first night of combat. His "dinner" consisted of K ration bouillon broth made with the island's polluted water. The hot soup relieved some of his anxiety from that first day of fighting. (He indicated that his company was able to obtain fresh water on the following day.) Sledge endured extreme stress and exhaustion during his frontline combat duty which was further complicated by the island's intense heat weather. He mentioned in his memoir that he had almost no appetite. During the ensuing weeks of battle on Peleliu, terrible sanitation conditions developed on the island which, in turn, brought massive infestations of huge bluebottle flies. These flies made eating during the daylight almost impossible. (The U.S. did attempt to eradicate the island's flies with newly

¹⁷ EB Sledge, *With the Old Breed* (New York: Oxford University Press, 1981).

developed DDT spray, which proved to be ineffective). Sledge's company was forced to eat cold C rations at night when the flies were not present. The food was unheated as any cooking fire could have drawn enemy fire. It is interesting to note that the U.S. Marine supply chain, during the course of the unexpectedly long combat activity on Peleliu, appeared to have found it necessary to revert to the older C rations. Field kitchens would have been very difficult to operate in this theater due to the island's rough terrain and constant Japanese sniper fire.

Two life-long friends have supplied interesting stories about their parents which relate to the theme of this paper. Roland Misarti's father, Gabriel, a sergeant in the U.S. Air Corps, was stationed at an airfield just outside London during World War II. His primary job was maintaining the planes' radio equipment. He had a second task of distributing off-duty leave passes to U.S. servicemen on the base. Gabriel met his future wife (and Roland's mother), Anne, in London. They were married there in 1944. Wedding cakes were generally not available due to British rationing. Gabriel was apparently very proficient with the off duty leave pass system much to the delight of his fellow comrades. They were able to scavenge for the ingredients necessary for a delicious wedding cake for the Misarti couple at their London reception. Gabriel brought his bride, Anne, home to the U.S. after the war. The couple was invited to a friend's home for dinner. Anne brought her British rationing book to the meal and offered it to her hosts as gratitude for the delicious food. The hosts laughed and told her that food rationing books were not needed in America. Anne was amazed and quite surprised by their response. She had no idea that her British rationing book could not be used the U.S.¹⁸

Peter Zeidler's father, Louis, was a second lieutenant in the supply chain for the Manhattan Project which produced the first atomic bombs (subsequently dropped on Japan ending World War II). Louis was based in NYC and worked for this operation during much of the war. He did have not any details regarding who was being supplied with food and equipment in New Mexico. He only became aware of the results of his activities at the end of the war. Unfortunately, Louis passed away many years ago. This writer knew him quite well. His wartime experience would have an excellent addition to this article.¹⁹

¹⁸ Roland Misarti, personal communication, April 21, 2020.

¹⁹ Peter Zeidler, personal communication, April 20, 2020.

This article is being published at the height of the covid-19 pandemic in the U.S. The American food supply chain is currently stressed. Meat processing plants have been shut down which may result in shortages. Fresh produce availability has been altered. Food retailers have placed limits on certain products which is, in itself, a form of self-imposed rationing. This period in covid-19 era might be studied in the future as a sociological comparison to U.S. food rationing during World War II. A major difference is that, during World War II, food rationing was dictated by the U.S. Government while in the current time frame, food restrictions are the result of private industry.