From the fields to our plates, much of our nation’s fresh produce is grown and shipped in an agricultural system steeped with injustice. The living and working conditions of America’s farmworkers is one of the most pressing environmental and social justice issues of our time. Along with the struggle to obtain minimum wage, fair and safe working conditions, adequate housing, and health care, farmworkers must also fight for survival against the harmful effects of excessive pesticide use in the fields. America’s agricultural food system relies on pesticides, but the use of so many chemicals only intensifies the many other problems that farmworkers face. In the 1960s and 70s, one union of farmworkers fought to raise awareness of the many injustices in agricultural production. The union’s campaigns highlighted race, class, and cost-profit tensions that continue to affect our food systems today. Farmworkers and supporters from Delano, CA fought injustice through a national grape boycott and ignited hope for permanent social change and progress in America.

*Brrrrng!* The clock’s shrill ring jolts Manuel out of another quick night’s sleep. It’s still dark outside; the moon hangs low in the sky. It’s only four-thirty in the morning, but he knows that the sun will be up soon and won’t waste any time in baking the green California fields. He packs a meager lunch and leaves his trailer to join hundreds of men and women already waiting for a day’s work. With luck, at six-thirty, he is one of the first forty men selected to go with a contractor. He boards the converted school bus and rides to the site eighty miles away, thankful for the job. Hopefully by the time Manuel arrives at the site, the dew will have dried off the strawberries and he can get to work right away. If not, he’ll have to sit around and wait for them to dry – without pay. The men arrive and swarm out into the field. Manuel finds a familiar rhythm: bend, stoop, twist the berry off the stem. Bend, stoop, twist. Bend, stoop, twist. He concentrates on the task at hand and ignores the chemicals stinging his palms and eyes. It’s a stoop-shouldered race against the other workers and the sun to fill twenty barrels if he wants to make minimum wage today.

A typical day for a California fruit picker is characterized by injustice, hardship, and sacrifice. Even at a cursory glance, the plight of America’s underpaid and overworked farmworkers embodies a glaring human rights issue that every consumer of our produce must acknowledge and seek to rectify. However, in addition to the social injustice of their work, farmworkers are also the targets of environmental injustice every day due to the pesticides they constantly ingest. In the 1960s, César Chávez, a Mexican-American and eventually highly influential Latino civil rights activist, co-founded the United Farm Workers’ of America (UFW) to fight the many injustices of migrant labor. A charismatic labor leader and a former migrant worker himself, Chávez rallied the United Farm Workers behind a successful nationwide boycott against California table-grape growers in 1965. The issue of farmworkers’ health and the harmful symptoms of pesticide overdose affected the entire community, and the migrant workers struggled to save their health while dealing with complex issues such as illegal immigration, class, and race. Through examination of the UFW’s motivations, tactics, and ultimate success, the fight for fair food in Delano, CA is a prime example of the ability of grassroots organizations to change even the most systemic of injustices.

The widespread use and effects of harmful pesticides

In her groundbreaking book *Silent Spring*, Rachel Carson made the everyday American aware of the grave dangers of pesticides on human health. Since its publication in 1962, research and funding from the environmentalist movement has focused on the reduction of pesticide use for the well-being of wildlife, the environment, and the general public. The movement, however, failed to address the needs of people who bear a vastly disproportionate amount of the burden of pesticide use: U.S. farmworkers. Much of the harvesting work has become mechanized, but still there exists a huge need for labor-intensive crop harvests for perishable fruits and vegetables (Moses 1993, 160). Work in the fields is indeed hazardous: life-threatening injuries and deaths can come from many different work-related dangers: accidents on farm equipment, heat stress, snake bites, even constant, loud noise; however, the most widespread and long-term hazard has always been pesticide exposure.

Throughout the twentieth century, pesticide use has continued to increase and become a part of our daily lives. In 1939, the US Department of Agriculture registered 32 pesticide products; by 1989, the number jumped to 729 active-ingredient pesticide chemicals
(Moses 1993, 162). Today, there are over 1,055 active-ingredient pesticides that compose over 16,000 products in the United States, according to the CDC. The herbicides, fungicides, insecticides and nematicides upon which the agriculture industry relies often contain inert ingredients that can be even more toxic than the actual pesticide (Moses 1993, 162).

The health problems from pesticides are not unlike other cases of environmental injustice around the nation that result from toxic exposure and waste. In a Washington State Supreme Court case in 2002, *Rios v Department of Labor and Industries*, the Supreme Court wrote:

"Overexposure to such pesticides can be fatal. The common symptoms of overexposure include headaches, sweating, weakness, diarrhea, vomiting, increased salivation, respiratory distress, repetitive muscle contractions, blurred vision, cognitive difficulties, seizures, and loss of consciousness. Long-term effects may include a…dying back of the nerves in the body as a result of the toxicity of the pesticide."

The ruling declared that the Department of Labor and Industries had illegally refused to monitor the health of farm workers who mix, load, and apply pesticides. Dr. Marion Moses, Chávez' personal physician, union researcher, and founder of the Pesticide Education Center, further lists common short- and long-term symptoms: “…rashes, chemical burns…systemic poisoning, nausea, vomiting…cancer, sterility, spontaneous abortion, stillbirth, birth defects, and a variety of neuropathological and neurobehavioral disorders” (Moses 1993, 166). Agricultural laborers are four times more likely to contract skin disease than workers in other industries, and these conditions can become so severe that workers have become permanently disabled, because even the smallest amounts of pesticide and sunlight have led to convulsions and, in extreme cases, comas. (Moses 1993, 167). Because nearly all commercial crops are generously doused with pesticides, chronic health problems are common amongst exposed workers.

The EPA estimates that farmworkers suffer from as many as 300,000 pesticide-related illnesses and injuries each year, with 20,000 agricultural workers suffering from acute (one-time) pesticide-related illnesses. The short-term effects may disappear overnight, but the long-term effects can be completely debilitating: for example, cancer incidence data from the Cancer Registry of California found that Hispanic farmworkers had 59% more reports of leukemia and 69% more reports of stomach cancers than those of the general Hispanic population in California (López 2007, 132).

The horrifying effects of prolonged pesticide exposure are not limited to the workers. The families of the workers, especially their children, can be exposed to the chemicals in many ways: through parents carrying chemicals on their clothes and skin, joining parents in the fields because childcare is not available, or even working alongside their parents. Children are at greater risk because their smaller bodies are affected much more quickly by the chemicals.

"Agriculture is consistently rated as one of the most dangerous occupations in the United States. Farmworkers suffer from the highest rate of toxic chemical injuries and skin disorders of any workers in the country. The children of migrant farmworkers have higher rates of pesticide exposure, malnutrition, and dental disease than the general population…[and] are also less likely to be immunized against disease" (Senate hearing, 2008).

They have “lower body weight, higher metabolism, and immature immune and neurological systems”, and EPA standards are based only on safe levels for adults (Davis 2007, 15 qtd. in Thompson 2002, 234). Meanwhile, pregnant women continue to work in the fields, with many birth defects and stillbirths as a result of the workers’ lack of awareness and education on the dangers of pesticides and a complete lack of regulation from employers (Goldman 2004, 495). Many laborers live in flimsy housing located near heavily-sprayed fields, allowing pesticides to enter the body in a variety of ways: ingestion, inhalation, and constant absorption through the skin (Thompson 2002, 200). The lack of education on pesticides or safe pesticide training is particularly alarming, and farmworkers rarely receive either training or protective gear. Growers are reluctant to provide information to prevent workers from becoming overcautious or demanding protective equipment. At the same time, workers who do understand the dangers of pesticides are reluctant to complain or ask questions about the fields in order to keep their jobs and avoid being perceived as troublemakers or lazy (Thompson 2002, 202).

In the mid-1990s, the estimate for the amount of undocumented workers was around 25 percent
nationwide, and the percentage of unauthorized workers continues to grow (Martin 1996, 29). Because so many workers are undocumented, complaints to authorities of employer abuse and hazardous work conditions are rare, and the number of reported incidents of pesticide sickness is much lower than the actual amount. In addition, the laws passed to protect farmworkers have been weak, unenforced, and ineffective. For example, the law obviously forbids spraying workers directly with pesticides, but the regulation fails to necessarily protect workers on an adjacent field subject to pesticides being carried in the wind. Also, illegal or unlicensed pesticides can still be used by state officials in emergency situations, such as an outbreak of a new pest (Newton 2009, 12). Loopholes and exceptions like these imply an acceptance by the agriculture industry to expose farmworkers to health-threatening chemical hazards in order to save crops.

In fact, environmental safety measures taken to protect the general public have even been at the further expense of farmworkers. Mainstream environmentalism is often criticized for its “Not in My Back Yard” mentality – that is, pushing the brunt of the environmental burden on someone else, instead of alleviating the problem for all. In regards to pesticide use, environmentalist groups have pushed agricultural groups for tougher regulations on pesticides since Rachel Carson’s book, Silent Spring, first informed Americans on the dangers of the chemicals used to grow our food. As a result, agricultural companies use pesticides with greater toxicity but shorter persistence. This at once provides greater protection to consumers, due to their lower toxicity, and greater risk to farmworkers who handle the freshly-sprayed produce (Newton 2009, 21). These measures are one example of the environmental movement further complicating the environmental problems of low-income people and racial or ethnic minorities.

Environmental racism against Latino workers

If widespread usage and harmful effects of pesticides have been so well-documented over the past fifty years since Silent Spring, why are pesticides still a problem for seasonal farm workers today? Two important issues that define American politics today, and have since César Chávez’s lifetime, are race and illegal immigration.

In the farmworkers’ context, environmental racism can be defined as “racial discrimination in the official sanctioning of the life-threatening presence of poisons and pollutants in communities of color” (Chavis 1993, 3). Environmentalism racism is a powerful force in America, a nation that on the whole has a history of assigning the most dangerous and difficult jobs to minorities. The most obvious example in history is the maintenance of Southern plantations and Northern agriculture through African slave labor. Another example is the use of Chinese labor to build the transcontinental railroads for very little pay with high casualty rates. The use of Native American lands has also been an atrocious display of power differences in the United States; corporations have bought land from various tribes for coal, oil, and uranium mining, energy-generating plants, and hazardous waste disposal sites (Newton 2009, 48). Though some tribes have gained greater financial security, this has been at the expense of a vastly diminished environment and consequent health risks.

The Bracero program between 1942 and 1964 introduced an influx of eager labor that made exploitation easy and profitable and labor regulation virtually impossible. The program, officially called the Mexican Farm Labor Program, was implemented by Congress to make up for labor shortages on farms during World War II. It was designed to benefit temporary Mexican workers who came to work on the farms. The Mexican government made sure that workers would be paid relatively high wages and given housing, food, and medical care (Martin 1996, 62). As a result, the bracero program brought almost 5 million rural Mexicans to rural America over just two decades (Martin 1996, 62). The program became problematic when its immense popularity encouraged huge spikes in illegal immigration; the influx of and abundant source of labor led to lower wages, decreased benefits, worse housing, and less labor regulation. If workers complained about moldy lunches or the short-handed hoe, another worker was all too eager to take his place. Because farm wages rose at a rate 25% more slowly than that of factory workers, American workers were drawn to factory jobs without braceros. By the end of the program, Mexican workers had become the vast majority of workers in agricultural work that was balanced between Japanese, Filipino, and white workers before the war. Through “racist occupational segregation,” or reserving certain, manual-labor jobs for certain races, racism played a huge role in the development of agriculture (Moses 1993, 162).

Thanks to employer precedents during the Bracero program – hiring the cheapest labor with the lowest demand for benefits – farm owners can continue to exploit, mistreat, and underpay their
nameless and faceless workers. Employers also have a surplus of available workers that help keep employment prices and benefits low. In a 2007 New York Times article, the Department of Labor stated that 53% of the 2.5 million farm workers are working illegally (Preston 2007). And for younger field hands, as many as 70% work illegally as well, according to labor unions (Preston 2007). Undocumented workers have no legal means to address employer abuse or health problems without the possibility of deportation. In fact, the EPA estimates that 10,000-20,000 pesticide poisonings are reported to physicians each year among the approximately 2 million U.S. farm workers, but it also acknowledges that these figures are the best we can guess due to severe underreporting (Moses 1993). Workers face a general stigma about disease, a need for work, hostility from agricultural and agrichemical companies, and the constant fear of deportation. All of these factors make solid statistics on the number of farmworkers affected each year nearly impossible to ascertain.

But even with proper documentation, legal and illegal workers alike are trapped in their environment due to the reality of extreme racial inequalities in the United States (Bullard 1993). Robert Bullard, foremost scholar and Sociology professor of what he coined “environmental justice”, describes the racist contours of environmental injustice in America. “People of color (African Americans, Latinos, Asians, Pacific Islanders, and Native Americans) are disproportionately harmed by industrial toxins on their jobs… Race interacts with class to create special environmental and health vulnerabilities” (Bullard 1993, 15). The farmworker industry is estimated to be over 90% Latino, and racial discrimination and inequality play a major role in making agricultural workers America’s most invisible and unstable work force. Farmworkers continue to be recruited from the most vulnerable members of America’s minorities. In an industry driven towards maximum productivity and minimal costs, non-white, poor, uneducated, and politically powerless migrant laborers lack means or leverage to bargain with employers for fair and healthy conditions.

Case study: the United Farm Workers (UFW) strike

Throughout the first half of the 20th century, attempts at unionization of U.S. farmworkers had been both violent and futile. However, in 1965, under the leadership of passionate labor organizer César Chávez, a union of farmworkers succeeded in pressuring California table-grape growers to decrease their use of pesticides, sign contracts, and concede benefits to workers. With Chávez, farmworkers successfully turned their cause into a symbolic battle for human dignity and human rights that attracted the public. The National Farm Workers Association, now known as the United Farm Workers of America, used mass protest marches, lawsuits and direct-action methods to garner media attention and public support. Their main method of raising awareness for their working environment was through a large-scale nationwide grape boycott to convince the grape growers that profits lost in the boycott would be greater than the cost of small pay raises. The UFW created alliances as well, convincing local longshoremen and warehousemen unions, responsible for the shipments of grapes to and from docks, to join their cause; they refused to load nonunion grapes (Shaw 2008). Chávez also emphasized the importance of having farm workers lead the union, for they understood their own needs and tactics best. Following in the footsteps of Mahatma Gandhi and Dr. Martin Luther King, Jr., the union publicly adopted a principle of non-violence (“UFW” 2006). At its height, up to 14 million Americans were boycotting grapes by the time the Delano growers signed contracts with UFW Organizing Committee. Thanks to UFW’s tireless efforts on workers’ behalf, they won an end to labor contracting exploitation, making it mandatory for employers to assign jobs through a hiring hall that kept seniority and hiring rights in mind. The contract also promised protection for workers from dangerous pesticides (Chávez’s priority), a rise in wages, and fresh bathroom facilities provided in the fields (Tejada-Flores 2004). In addition, the contracts gave each worker a medical plan, and the employers accordingly built medical clinics in Delano.

Toxic-pesticide use had been a major concern for the union and Chávez in particular, a farm worker who understood the dehumanizing effects of the toxins. Consequently, the union’s initial negotiations with Delano, California table-grape growers included tough pesticide protections. The union called for a ban on the use of DDT, Aldrin, Dieldrin, and the more commonly fatal parathion, on union ranches. The first contracts banned the use of DDT, DDE and Dieldrin on crops, but in his famous “Wrath of Grapes Boycott Speech” in 1985, Chávez made it clear that the changes had not been sufficient. He outlined the EPA’s expert warnings against the pesticides that workers were forced to soak their hands and skin in
each day. The chemicals had tainted the water supplies of 23 states, poisoned nearly one thousand people through watermelons, and caused the illnesses of over 300,000 of the nation’s farm workers. (Chávez 1986). The pesticides were destroying homes and childhoods through birth defects, infections, stillbirths and cancer. The grape boycotts were simple ways for millions of Americans to unite against disease, poverty and injustice in the fields of California. After five years of nonviolent resistance, marches, strikes, and strategic boycotting, the UFW successfully gained a collective bargaining agreement with the table-grape growers, improving the lives of over 10,000 farm workers (“United Farmworkers of America”).

The captivating ideas, tactics, and ultimate success of the UFW campaign have influenced many progressive campaigns in America since, especially in today’s debate over illegal immigration (Shaw 2008, 1). The fight has moved “from the lettuce fields of rural California to the hospitals, luxury hotels, and office towers of urban America” (Shaw 2008, 6), where the same issues of unfair pay and harsh, unsanitary working conditions continue to affect non-unionized hospital and hotel workers. The UFW has also improved the voting participation of Latinos, encouraging political empowerment. The grape boycotts are over, but the struggles against systemic injustices, especially unjust food production practices, continue to rage around the world. Pesticides may seem like they should have been a secondary concern for the workers in the UFW who suffered from so many other social injustices, but they considered good health to be their most important and essential asset.

Weighing the Benefits of Pesticides against the Human Cost

Despite the boycott’s success, there were (and are) many powerful players in the fight between efficient, cheap labor and workers’ rights to safe and healthy work environments. The majority of opposition to the farmworkers’ requests comes from agricultural boards and Fruit & Vegetable Grower associations. Because they already own the fields, the opponents are far removed from the working and living conditions that they or their clients provide for their workers and see the issue from a completely different perspective.

Though the effects of pesticide use on farmworkers is tragic, opponents to the cessation or reduction of pesticide use ultimately dismiss the effects as rare, unfortunate but unavoidable costs of agricultural work. The worst, deadliest sprays are continually replaced with safer alternatives, and the US has made great progress toward sustainability in pesticide use (Dernbach 2009, 305). Thanks to better regulation, higher approval requirements, greater transparency and accessibility to pesticide information, and the constant replacement of the most hazardous chemicals, pesticides were becoming safer for everyone: consumers, employers and workers alike (Dernbach 2009, 306). Many other lines of work, such as mining, fishing, logging, and even office work, produce adverse health effects – black lung, chronic muscle pain, carpal tunnel. The farm can be a dangerous place, but every workplace has its risks.

Additionally, growers insist that their use of chemicals is already adequately limited by current EPA regulations. Four decades ago, in 1972, Congress passed the Federal insecticide, Fungicide, and Rodenticide Act that imposed strong regulations on the use of the most popular pesticides and even banned some of the most protective, such as DDT (Newton 2009, 11). Before a pesticide is used on the crops, it must be EPA approved, with hundreds of tests done to guarantee that the chemical “will not present unreasonable risks to people, wildlife, fish, and plants” (EPA, “Pesticides”).

Some pesticides must be used to ensure food security, because they are essential to food production in the United States. For example, a ban on fungicides would “increase consumer food prices by 13 percent, reduce the gross national product by about $28 billion, reduce total personal spending by $22 billion, and eliminate 235,000 jobs, including 125,000 jobs in the farm sector which represents 4 percent of total agricultural employment” (Delaplane 1996). For more than half a century, American farmers have relied on the use of synthetic chemicals, pesticides, to prevent their crops from being destroyed by microorganisms, rodents, insects, and other pests (Newton 2009, 11). Without pesticides keeping food abundant, many Americans would go hungry; hunger is already a growing problem in the United States, especially with the recession, and organic growing will never be able to produce enough crops to maintain our current agricultural system. Growers deal with many crop troubles, such as hurricanes, droughts, and increased competition from Mexico and Canada, but none as threatening as invasive pests. From the growers’ perspective, pesticides prevent crop loss to insects and result in huge profit returns, while the cessation of pesticide use could even “result in a rise of food
prices, loss of jobs, and an increase in world hunger” (Knutson 1999).

Farming with fewer pesticides and less harmful chemicals would most likely not reduce food production to the degree predicted for disaster, famine, skyrocketing food prices or loss of farming that agricultural interests predict (Moses 1993). But ultimately, the choice to reduce pesticide use and farmworker exposure to toxins is not about money. In a 1989 address, César Chávez described how farm workers suffer in every aspect of their lives: malnutrition, disease, low life expectancy, terrible living conditions, miserable wages, sexual harassment, child labor, lack of education, the inability to organize, and the PKK. As Chávez addressed a group of UFW workers, he asked:

‘With all of these grave problems, why focus on pesticides?’ Because our people are so poor. Because the color of our skin is dark. Because the discrimination, the racism and the social dilemmas we confront transcend mere economic need. What good does it do to achieve the blessings of collective bargaining and make economic progress for people when their health is destroyed in the process? (1992)

To be sure, the annual salary for seasonal farmworkers – a mere $5000 a year – is hardly enough to support a family or compensate for the intensive labor and risks that farm work requires (Marshall 1996, xv). However, instead of settling for higher wages, the United Farm Workers kept the focus on the health of the workers by pushing the issue of pesticide exposure to the forefront of the fight. After all, what is money without health, and what are higher wages without human dignity? The UFW’s focus on physical health helped the American public see workers not as machines, nor commodities, but as neighbors with the same needs we all have.

Conclusion – Solutions for Today’s Food Systems

Though workers’ rights activists in the 1960s, like César Chávez, expected the conditions of farmworkers to be drastically improved by now, the issue of workers’ rights for farmworkers in the 21st century continues to be a struggle. Debates over illegal immigration are only intensifying the debate and further polarizing both sides. Because many workers work illegally, some growers and grower supporters believe that they do not have the right to demand fair wages or extra benefits besides what field owners and employers feel they can spare; they reason that if growers didn’t treat their workers fairly, they wouldn’t return. However, this kind of justification ignores what Newton calls “job blackmail”; poor migrant worker communities do not have other options open for employment besides ones that present serious health and environmental hazards (Newton 2009, 47). America is overflowing with more than enough food for its inhabitants, but the workers harvesting the food by hand are starving in the country’s richest fields. It is clear that the current conditions of farmworkers cannot continue; however, the best alternative solutions to improve their wellbeing and make the job safer and fairer are yet to be determined.

The issue is certainly complex. The hazards of pesticide exposure are unacceptable, but we must also acknowledge the need for pest control on our crops. The solution to the debate may require a radical revamping of our agricultural system as we know it. The agricultural system has relied on temporary and transient workers for over a century (Martin 1996, xii), and the need for huge amounts of crops to be grown and harvested in the shortest amount of time is standard in agricultural practices. Human labor is an invaluable commodity to food production, and the objective to simply amass more wealth inevitably dehumanizes workers and makes the gross human rights violations all the more plausible.

The solution to the debate may require a radical revamping of our agricultural system and technology but will ultimately improve the quality of life and well-being of one of the nations’ most marginalized peoples. The increasing awareness of pesticides’ effects on farmworkers are encouraging scientists and lawmakers to find pest control plans that are both environmentally sound and profitable (Delaplane 1996). Pests must be managed and farmers must survive financially, but farmworkers are struggling to simply survive. So the debate over the best solutions must continue. In what ways can the attitudes toward pesticide use be altered to keep farmworkers’ health in mind? How do race, class, and historical context play a role in the debate? How is the plight of farmworkers around the country an environmental issue? Can compromises be reached
between farmworkers, employers, and the average consumer? Given time and technology, ¡Sí, se puede!

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