3.2 Social Issues In Modern Agriculture

Introduction:
Social Issues in Modern Agriculture

UNIT OVERVIEW

This unit introduces the most significant social consequences of the development of U.S. agriculture. The lecture outlines offer multiple critical perspectives of the social impacts of the dominant conventional U.S. agricultural model. The unit's overarching goal is to convey to students a sense that discrepancies of power and risk exist between different actors in the food system, that these inequalities shape and constrain these individuals' worldviews and decisions, and that these trends have significant (and sometimes tragic) social consequences that must be considered in discussions of agricultural sustainability.

Lecture 1 begins with a discussion of the commonly held misconceptions of the U.S. food system's structure and organization. The major components of the U.S. food system are then mapped out, and the changes in this system's structure over the past 100 years discussed.

Lecture 2 examines the social consequences of the current food system in greater detail, focusing on the following topics: farm structure, labor, the concentration of ownership within the larger food system, and consumer issues. The lectures conclude with a discussion of the major contradictions that exist within the U.S. agricultural system. Throughout, students will be encouraged to consider the multiple (and sometimes contradictory) meanings of the term "sustainability" in order to develop a more sophisticated undertanding of the complex and various social impacts of the U.S. agricultural system.

MODE OF INSTRUCTION

> (2 LECTURES, 50 MINUTES EACH)

The lecture outline covers the social consequences that have resulted from the evolution and current organization of the U.S. food system. References given in the outlines are described in the Resources section.

LEARNING OBJECTIVES

CONCEPTS

- The current food system in the United States is comprised of myriad actors, including: growers, laborers, labor unions, distributors, processors, retailers and restaurants, input suppliers, investors, consumers, policy makers, researchers, non-governmental organizations, etc.
- Between different actors within the food system there are significant discrepancies of resource allocation, economic and health risks, access to information, and therefore power
- The current food and agriculture system produces certain "externalities"—the social and ecological consequences ("hidden costs" of production) that have resulted from recent changes in the food system to which no actors are held legally or financially accountable
- The externalized social costs of production are, among others: increases in the concentration of ownership over the means of agricultural production; the associated declines in small-farm viability and the life quality indicators of rural agricultural communities; declines in the working conditions and life quality of agricultural laborers; continued consumer and farmworker exposure to unsafe levels of pesticides; and the persistence of hunger in the context of the overproduction of food
- The way food and agriculture problems are defined will determine the means to their solution (e.g., defining the problem of contemporary agriculture exclusively as one of production limits the focus of policy and research to yield, and thereby ignores other ecological and social problems associated with the current food system)
- The current structure of the U.S. food system is not inevitable or immutable. Policy, science, capital, and culture (i.e., political participation, consumer choices, etc.) combine to create and change the current system.

Lecture 1 Outline: Agriculture and Food System Structure

for the instructor and student

A. Introduction: What Does Agriculture Really Look Like Today?

1. Popular misconceptions of what agriculture looks like
   a) Describe the myth of the family farm (see Browne 1992)
      i. That agriculture in the United States is a collection of small-scale family farms
      ii. That these family farms are a vital part of our national heritage, and that farming is a way of life that preserves agrarian populist ideals, maintains a strong moral base for the nation, and nurtures healthy rural communities
      iii. Farmers are good citizens and have high morals; as stewards of the land and producers of food, they pursue a way of life that benefits the rest of the country
      iv. These images in part stem from a romanticized perception of early rural America as an exemplary democratic, egalitarian culture based on family farms
      v. Family farms are perceived as subsistence systems and are a mix of farming, labor, and leisure
      vi. That family farms seek to meet a diversity of needs at the farm or community scale
      vii. There is a social transfer of skills and roles (often from parents to children)
   b) This myth is used as justification for U.S. agricultural policy (see Browne 1992)
      i. Current U.S. agricultural policy is heavily laden with rhetoric and legislation for preserving "family farming"
      ii. Farmers' organizations lobby for billions of dollars to be allocated as subsidies for large-scale producers of struggling commodities
      iii. These powerful agricultural interests justify such subsidies on the basis of preserving the way of life maintained by the nation's "family farmers"
      iv. Subsidizing agriculture is argued to be an important component of preserving healthy rural economies and livelihoods and therefore preventing pressure on urban areas caused by outmigration from farming areas
2. Briefly introduce expanded conceptions of what "agriculture" actually looks like
   a) Family and corporate farms contrasted
      i. The American landscape has, over the past century, come to be dominated by corporate agriculture, most notably in California
      ii. Corporate agriculture can be characterized by well-capitalized, large-scale, high-technology, vertically and horizontally integrated production and distribution systems where agricultural production sites are more like factories than farms
      iii. While family farming can be perceived as a lifestyle (a means of protecting family independence and supporting a rural community's economy), corporate farming approaches agriculture as a business enterprise and is primarily concerned with the bottom line
      iv. Family farms historically relied on the labor of family members, while corporate farms hire workers during the short periods in which labor is needed. The success of corporate agriculture therefore depends on the presence of an expendable, cheap, temporary, and migratory labor force.
      v. A focus on the bottom line limits corporate farms' efforts to profit maximizing and excludes other environmental and social considerations.

b) Small vs. large farms
   i. Changes in farm size: The number of farms has declined from 6.3 million (in 1910) to 2 million today. However, the acreage in cultivation has remained relatively constant. (See Census of Agriculture.)
   ii. Most of the farms that have disappeared are mid-size farms. Large-scale, industrialized farms primarily dominate today's agricultural landscape, represented by a decrease in the total number of farms and increase in the total acreage per farm, with overall acreage in production remaining constant.
   iii. There are a large number of small-scale farms, but they tend to be economically insignificant to the economy of the larger food system and frequently not economically viable for farm operators themselves

c) Regional differences in farms
   i. Regional variations exist and are significant. E.g., the industrialized specialty crop agriculture that characterizes California is extremely resource intensive, highly capitalized, large scale, and dependent on immigrant labor. This contrasts, for example, with the corn-soy-hog agriculture of the Midwest, which is similarly large in scale but not nearly as capitalized or as labor intensive.

3. Conclusion: Popular conceptions of "agriculture" do not accurately reflect today's reality. An understanding of the social impacts of the current agricultural system depends not only on a more accurate understanding of the social and ecological relationships that exist on the farm, but also within the larger food system.

B. What Is a Food System?

1. Describe the U.S. food system
   a) Map out the various players and their relationships to each other: Growers, laborers, labor unions, distributors, processors, retailers, input suppliers, land, capital, consumers, restaurants, government policy, non-governmental organizations, wildlife, etc. (see appendix, U.S. Food Systems Model)
   b) Temporal change: Discuss how these divisions of inputs and labor are recent divisions within the U.S. agricultural system, with nearly all of these activities integrated into the farm just 100 years ago
2. Why are these layout descriptions important? We can study the points of tension and discrepancies of power that exist within the system in order to: (a) gain a more sophisticated understanding of the system's internal relationships, and (b) identify potential points of focus for social/political change.

C. Changes in Farm Structure

1. Introduction: Characterize important changes in agricultural production in the U.S. in first half of 20th century (see Steinbeck 1939, chapters 1–12)
2. Brief review of major trends in U.S. agriculture
   a) Scientization/technification of U.S a.griculture (see Cochrane 1979)
      i. The shift from farmers to scientists as primary source of knowledge about agriculture. Attributed to the advent of the land grant complex and to a more general "scientization" trend developing in society.
      ii. The primary problem identified in agriculture was underproduction
      iii. Hence the promotion of mechanization, monocultures, chemical fertilizers, and chemical pesticides in a technological effort to increase efficiency and productivity in agriculture
      iv. Farmer adoption of new agricultural technologies as a way of gaining a competitive advantage through increased efficiency and the economies of scale

b) Capitalization of U.S. agriculture (see MacIntyre 1987)
   i. Corporate capital infiltrated to assume production of these inputs (fertilizers, pesticides, seeds, machinery, etc.). New players entered the scene: input manufacturers, seed companies, etc.
   ii. Continued adoption of technological innovations created technological dependence by farmers and further reinforced these new players' control over the food system

c) Important changes in land tenure during the 20th century (consult Census of Agriculture for data)
   i. Decline in the number of farmers
   ii. Increased average farm size
   iii. An increase in corporate-owned vs. family-owned land
   iv. An increase in farming leased land vs. owned land

3. The known and potential consequences of these trends

a) Goldschmidt's Thesis: How different types of agriculture (corporate/large-scale vs. family-farm/smaller-scale) have different and significant consequences for the local community structure (see Goldschmidt 1947)
   i. Communities dominated by large farms similarly tend to be associated with deteriorating social structure and decreased economic viability

b) Introduce the concept of chemicals and mechanization as labor saving and labor control strategies (see Friedland 1980)
   i. Mechanization reduces labor costs
   ii. Mechanization acts as a substitute for labor
   iii. Mechanization acts as a control factor when labor strikes; it eliminates the threat of unionization

c) Land tenure matters (see Rosset and Altieri 1997; NRC 1989)
   i. Farm size is important.
   · Small farms are frequently more productive per acre
   · Large farms often exhibit a low energy-use efficiency
   · Accountability: Owning land and depending on it for one's livelihood can engender a sense of responsibility for the consequences of production in order to ensure long-term economic viability. Contrast this with the case of large corporate farms, or leased lands where land is viewed as simply another component of the production process, and which can be leased off if production starts to fail.
   · Accountability is also linked with owner proximity: Local ownership imparts a sense of responsibility for the health and vitality of the local community and resources
   · Corporate profits don't stay in the local community. Small farms have a stronger "multiplier effect"on the local economy.
   ii. Farm policies in the U.S. make small farms less economically viable
   · Market competition makes small farms less economically viable where declining crop prices squeeze some growers out of production and cause the others to expand their acreage in order to make up for lower per-acre profits. This results in fewer small-scale farmers and an increased number of large-scale farms. Furthermore, competition forces growers to focus on the bottom line at the expense of non-production goals (like sustainable land tenure).
   · Large growers also have more political clout and wealth and therefore receive preferential access to credit, irrigation, chemical fertilizers, pesticides, technical assistance, and marketing services
   · Farm subsidies—cash payments that augment the prices received by growers for producing basic commodities such as wheat, corn, and cotton—overwhelmingly favor the largest producers. Subsidies encourage large-scale monocultures, promote the specialization of equipment, and discourage crop rotations by supporting some commodities strongly.

iii. Power. These issues of land tenure are not so much about farm size as they are about power. Highly capitalized interests in agricultural production have a vested interest in encouraging resource-intensive, industrialized agriculture. Their political and economic power helps maintain this current agricultural development trajectory.
   - Don't mistake farm size for power/accountability (see Moore Lappé et al. 1998, p. 96)
   - How are increases in productivity important if people are still going hungry?
   - Welfare programs designed to improve food security in U.S. are being cut
   - Number of people living in poverty is increasing. Number of hungry people in the U.S. increased 50% between 1985 and 1993 (see Allen 1997).

d) Overproduction of food
   i. The U.S. has historically promoted a "cheap food" policy, thereby endorsing high levels of production at the expense of other goals (such as environmental protection or boosting workers' wages, for example)
   ii. Externalities: The "hidden" costs of production, including water and air pollution, soil degradation, harm to non-target organisms, injustice, abuse, or inequalities to which no actor in the food system is held legally or financially accountable are termed externalities. Externalities effectively subsidize the "unsustainable" aspects of the production system that created them.
   iii. Plentiful food lowers prices for consumers but also depresses prices for growers

4. Why have these changes taken place?
   a) Capital has moved in to capture profits at new points in the system (refer back to the U.S. Food Systems Map in the appendix)
   b) Agricultural activities that previously took place on the farm and apart from financial transactions have come to be appropriated by off-farm capital interests (see Goodman, Sorj, and Wilkinson 1987)

Lecture 2 Outline:
Social Consequences of the Food System

for the instructor and student

A. Concentration within the Larger Food System

1. Concentration in distribution and retail: Grower-shippers and retail chains as powerful players in the food system
   a) Consumer food prices go up and commodity prices paid to growers are going down. Thus these retail/shipping "middlemen" are retaining increasing profits and power.
   b) Consolidation in the retail sector also acts as a market barrier for small growers, who cannot compete for market share with larger suppliers
2. Concentration of input suppliers
   a) Seed companies: Top 10 seed firms control 30% of the US$24.4 billion commercial seed market (see PANUPS 9/10/01)
   b) Agrochemicals: Top 10 agrochemical corporations control 84% of the US$30 billion agrochemical market (see PANUPS 9/10/01)
   c) Biotechnology: Pharmacia/Monsanto's gene technology accounted for 94% of the total area sown to genetically engineered (GE) crops in 2000 (see PANUPS 9/10/01)
3. Concentration in food processing
   a) Discuss the consolidation trends described in Lyson and Raymer (2000). The ten largest U.S. based multinational corporations account for over half of the food and beverage sales in the U.S.
   b) Implication: Production consolidation means consolidation of power and decision making. Such corporations seek large quantities of standardized and uniform products; they therefore "have considerable power in dictating how and where agricultural production takes place" (see Lyson and Raymer 2000, p. 200) as well as what is available in the marketplace.
   c) Members of the boards of directors of these multinational corporations frequently overlap, thus exacerbating the problem of power concentration. Thus, much of the power in the food industry rests in the hands of relatively few individuals. These individuals tend to share common worldviews regarding the environment, labor, and food safety issues.
   d) Example: The consequences of consolidation within the meat packing industry (see Pollan 2002)
   e) Consequences of consolidation for growers: Smaller-scale growers are being paid less for farm products and paying more for farms and farm inputs, resulting in narrow to non-existent profit margins. This leads to business closure and further consolidation.

B. Farm Labor

1. Contrasting descriptions of farm labor today: California and the rest of the U.S. (see Census of Agriculture; Allen 1994)
   a) Size of labor force
   b) Ethnic composition
   c) Wages
   d) Gender composition
2. Migrant farmworker lifestyle issues
   a) Seasonality of work/migration patterns

b) Health issues
   i. Poor diet
   ii. Physical stress and long hours of work
   iii. Chemical exposure
   iv. Lack of health insurance
   v. Lack of affordable housing
   vi. Family member separation
c) Typical work day description
d) Worker abuse
e) Farm labor contractors' roles—accountability, responsibility
   i. Growers frequently and increasingly hire farm labor contractors to hire and manage field workers
   ii. This effectively absolves growers of responsibility for abuses of workers that take place in their fields
   iii. Relations with farm labor contractors frequently constitute a "black market" of laborers in which pay arrangements disappear from public scrutiny

3. Agricultural labor as "exceptional" in regards to policy
   a) Agricultural workers excluded from the Fair Labor Standards Act (FLSA) and from the National Labor Relations Act (NLRA)
      i. These laws provide minimal standards of employment and collective bargaining rights for all other U.S. workers
      ii. Agricultural workers are excluded from FLSA's overtime pay requirement
      iii. Minimum age for agricultural workers is 12, whereas it is 14 for all other types of employment
      iv. Unlike all other industries, farms with less than 11 employees are exempt from the protections of the Occupational Safety and Health Administration (OSHA), unless the grower operates a farm labor camp or if an on-the-job fatality occurs
   b) Immigration policy has historically made exceptions for agricultural workers more than any other industry
      i. For example, the Bracero program set up a pattern of migration that provided states in the Southwest U.S. with a migrant labor force in the first half of the 20th century
      ii. Process was encouraged by U.S. and Mexican governments
      iii. The extraction of labor has moved progressively south
4. Significance of U.S. labor policies
   a) Introduce Carey McWilliams' thesis on the ethnic succession of agricultural labor: That the U.S. government has designed immigration policies that introduce new (ethnic-based) group of workers who are willing to work for low wages and live in sub-standard conditions
      i. Organizing efforts of immigrants are undermined through the repeated introduction of new groups of workers (of a different ethnicity) to replace "recalcitrant" workers who protest working conditions (see McWilliams 1935, Introduction)
   b) Examples of this cycle: Chinese, Japanese, Dust-Bowl Okies, Arkies, Filipino, and Mexican immigrant labor throughout the 20th century
   c) The newest ethnic group in California is the Mixtecs of southern Mexico, who are particularly vulnerable and powerless because of their lack of familiarity with English and Spanish, poorly developed support networks, and lack of familiarity with U.S. society/culture (see video El Norte in Resources section)
5. Why ethnic-based subgroups of laborers are so important
   a) Discourages collective organizing and bargaining

6. Why the size of the agricultural labor force is so important
   a) Oversized labor pool keeps wages low by making workers compete with each other
   b) Prevents workers from organizing: Constant influx of willing workers depresses wages and disrupts bargaining efforts
      i. UFW membership has declined to ~10,000 (from an all-time high of 67,000 in 1973)
7. Why the seasonal nature of agricultural production is so important
   a) Keeps workers migrating, which prevents them from settling, organizing, and making demands for higher wages or standards of living
   b) Eliminates the responsibility from the growers of having to provide benefits
   c) Social consequences
      i. High unemployment rates in winter
      ii. Less job security; less ability to establish rapport with employer
      iii. Discrimination in society
      iv. Difficulty in establishing oneself in a community

C. Consumption Issues

1. Increased demand for fresh fruits and vegetables
   a) Increased importance of long-distance shipping of fresh produce in order to provide year-round availability of most commodities
      i. Food in the U.S. travels an average of 1,300 miles and changes hands half a dozen times before it is consumed (see Kloppenburg 1996, p. 34)
      ii. Consequences: No consumer connection to site of production or mode of transport. No accountability for the social or ecological consequences of the production of any particular food item.
   b) Increased importance in all areas of the world on producing high-value luxury export crops in lieu of producing subsistence crops
   c) Implications for food security: The shift from subsistence agriculture to export/market production has led to greater market dependence for food. With the possibility of upsets in the market, peasant farmers place themselves at greater risk of hunger.
2. Cosmetic standards (see MacIntyre 1987)
   a) These emerged in response to consumer (quality) demand and as a supply-control strategy (to keep prices reasonably high)
   b) Consequence: Growers increase pesticide use in order to meet strict cosmetic standards for fresh produce and to outcompete their competitors
3. Pesticide residue standards
   a) Consumer awareness of the severe ecological consequences of persistent organochlorine pesticides led to increased demand for lower pesticide residue tolerances in food
   b) Consequence: Pesticide industry developed pesticides that are less persistent in the agricultural environment (but which are frequently more acutely/immediately toxic). This focus on final food product effectively removed attention from the site of production—and away from pesticides' impacts on workers.
4. Increased demand for processed foods
   a) Implications for diet/health: Processed foods contain preservatives and chemicals that may pose human health problems and also contain fewer naturally occurring vitamins and minerals
   b) Implications for power within the system
      i. U.S. food processing corporations continue to retain the power within the system and provide less real "choice" for consumers
      ii. Innovation in processed foods is geared towards high-profit, processor-driven convenience foods (see Lyson and Raymer 2000, p. 206)

D. Contradictions: Redefining "The Problem" in U.S. Agriculture

1. U.S. agricultural research and policy
   a) U.S. agricultural research and policy have historically defined the problem of hunger in terms of underproduction, with yield-improving technological developments advanced as solutions to this problem
   b) Environmental and social issues are seen as separate from, external to, and independent of food production or hunger
2. Hunger in the context of overproduction: A fundamental contradiction within the U.S. food system
   a) Does a food policy that purportedly prioritizes increasing productivity over all other (ecological and/or social) goals make sense?
   b) There is not a direct correlation between agricultural productivity and poverty/hunger reduction. Increased food production per acre has not yet alleviated hunger in the U.S. or globally (see Moore Lappé 1998). 20%of children in the U.S. are hungry or malnourished.
   c) There are racial dimensions to the phenomenon of hunger as well: 76% of hungry in U.S. are people of color (Allen 1994)
   d) Hunger is as much an issue of power as it is an issue of food. Hunger is an issue of food distribution more than it is necessarily about food productivity per acre.
3. Overproduction in the context of environmental degradation
   a) Given that maximum productivity today (through high use rates of pesticides, synthetic fertilizers, etc.) has significant human health risks and ecological costs over the long run, then: How rational is a food policy that prioritizes short-term production goals at the expense of the long-term resource base?

E. Conclusion

1. Options, Power
   a) Our current food system is a human creation, not an inevitable natural phenomenon
   b) The shape and impacts of our agricultural system are not immutable, but we do not have any institutional framework for rewarding food systems that promote long-term social sustainability
   c) Developing institutional frameworks that financially reward food systems that promote greater social justice will be necessary for change to take place toward long-term social sustainability
   d) Recognition of human agency (the role and action of humans) infuses these discussions with responsibility and accountability
   e) Such recognitions of agency also require recognition of power and resource inequalities that exist between different groups and individuals in society

Resources

SUGGESTED READINGS FOR STUDENTS (DESCRIBED BELOW)

- Lappé, Francis Moore, Joseph Collins, Peter Rosset, and Luis Esparza. 1998.
- Lyson, Thomas, and Annalisa Raymer. 2000.
- Pollan, Michael. 2002.
- Rothenberg, Daniel. 1998.
- Steinbeck, John. 1939.

PRINT RESOURCES

Allen, Patricia. 1994. The Human Face of Sustainable Agriculture: Adding People to the Environmental Agenda. Sustainability in the Balance Series. Issue Paper No. 4. November 1994. Santa Cruz, CA: Center for Agroecology and Sustainable Food Systems, University of California, Santa Cruz

Allen, Patricia. 1997. Finding Food Security in the 1990s. *The Cultivar.* Vol. 15, No. 2 (Summer 1997). Santa Cruz, CA: Center for Agroecology and Sustainable Food Systems, University of California, Santa Cruz.

This clear, short article discusses the food security implications of welfare reform and offers suggestions for how the sustainable agriculture movement can offer solutions to many of the problems resulting from dismantled social welfare programs. Available from CASFS (www.ucsc.edu/casfs).

Allen, Patricia. 1999. Reweaving the food security safety net: Mediating entitlement and entrepreneurship. *Agriculture and Human Values* 16: 117-129.

Interesting discussion of how agricultural sustainability initiatives frequently overlook the needs of low-income consumers.

Allen, Patricia, ed. 1993. *Food for the Future: Conditions and Contradictions of Sustainability.* New York: John Wiley and Sons.

Collection of articles investigating the various definitions of and attempts to achieve agricultural sustainability, with an explicit consideration of social, political, economic, and ethical issues. Contributors include Patricia Allen, Miguel Altieri, Frederick Buttel, Katherine Clancy, Kenneth Dahlberg, Harriet Friedmann, David Goodman, Kathleen Merrigan, James O'Connor, Michael Redclift, Tom Regan, Carolyn Sachs, Neill Schaller, Lori Ann Thrupp, and Garth Youngberg.

Browne, Willam P., Jerry R. Skees, Louis E. Swanson, Paul Thompson, and Laurian Unnivher. 1992. *Sacred Cows and Hot Potatoes: Agrarian Myths and Agricultural Policy.* Boulder: Westview Press.

Discusses how the myth of the family farm is used as a justification for U.S. agricultural policy but is disconnected from reality.

Census of Agriculture (www.nass.usda.gov/census/)

U.S. government statistics, compiled every seven years. This web site is very user friendly and provides data at various scales; creates useful maps from any given data set.

Cochrane, Willard W. 1979. *The Development of American Agriculture: A Historical Analysis.* Minneapolis: University of Minnesota.

Conover, Ted. 1987. *Coyotes: A Journey through the Secret World of America's Illegal Aliens.* New York: Vintage Books.

Fascinating, first-person account of a U.S. graduate student who lived, worked, and traveled for several years throughout the southern United States with migrant workers from Mexico.

Friedland, William H. 1980. Technology in agriculture: Labor and the rate of accumulation. In *The Rural Sociology of the Advanced Societies, Chapter 7,* Buttel, Fred, and Howard Newby, eds. Montclair, N.J., UK: Allanheld, Osmun.

Friedland discusses the relationship between labor and technological developments in agriculture, and stresses that frequently the strongest reasons for adoption of new agricultural technologies are as a form of social control and to suppress unionization efforts.

Friedland, William H. 1981. *Manufacturing Green Gold.* Cambridge, MA: Cambridge Univ Press.

A classic work describing how agricultural industry structure is related to the social relations of production and technological change.

Goldschmidt, Walter R. 1947. *As You Sow: Three Studies of the Social Consequences of Agribusiness.* New York: Harcourt, Brace.

Groundbreaking study of the different ways in which different types of farms affect the nearby communities.

Goodman, David, Bernard Sorj, and John Wilkinson. 1987. *From Farming To Biotechnology: A Theory of Agro-Industrial Development.* Oxford, New York: Basil Blackwell.

An integrated theory of the nexus of research, policy, technological development, and capitalist penetration in agricultural development. Considered a seminal work in modern political economy of agriculture.

Kloppenburg, Jack, J. Hendrickson, and G.W. Stevenson. 1996. Coming in to the foodshed. *Agriculture and Human Values* 13: 33-42.

Addresses the importance of proximity and accountability, and how the distance involved in the conventional food system disables a consumer's sense of responsibility for the social and ecological consequences associated with their food.

Lappé, Francis Moore, Joseph Collins, Peter Rosset, and L. Esparza. 1998. *World Hunger: Twelve Myths. Second Edition.* New York: Grove Press.

This book by Food First (Institute for Food and Development Policy) deconstructs in clear and accessible language twelve of the most common myths about hunger, food, and agriculture. Food First does an excellent job not only of explaining how the problem of hunger cannot be solved simply by increasing short-term production, but also of making these complicated issues understandable to the general public. Chapters 1, 4, 5, 6, and 7 are particularly recommended.

Lyson, Thomas, and Annalisa Raymer. 2000. Stalking the wily multinational: Power and control in the U.S. food system. *Agriculture and Human Values* 17: 199-208.

Discusses multinational corporation's newfound control over the U.S. food system; the degree of concentration of control within the leadership of these firms; and the implications of this consolidation for growers, workers, and consumers.

McWilliams, Carey. 1935. *Factories in the Fields: The Story of Migratory Farm Labor in California.* Berkeley: University of California Press.

Excellent and critical historical analysis of farm labor in California. Special emphasis is placed on the ways in which ethnicity and the seasonality of labor demand combine with industrial capitalism's infiltration of agriculture to create an unjust labor system.

MacIntyre, A.A. 1987. Why pesticides received extensive use in America: A political economy of agricultural pest management to 1970. *Natural Resources Journal* 27(3): 533-578.

Martin, Philip L. and J. Edward Taylor. 2000. For California farmworkers, future holds little prospect for change. *California Agriculture* 54(1): 19-25.

Briefly discusses the ways in which immigration policy has played a role in California farm labor history, the importance of the size of the agricultural labor force, and the social consequences of the highly seasonal demand for agricultural labor.

Martin, Philip L. 1989. California's Farm Labor Market. California Institute for Rural Studies (CIRS) Working Paper #4. www.cirsinc.org/pub/labor.html

Good review of the basic statistics about California's farm labor market from one of the leading researchers on such issues in the state; perhaps should be read with the more recent CIRS publication on this topic by Villarejo and Runsten (1998), listed below.

Mitchell, Don. 1996. *The Lie of the Land: Migrant Workers and the California Landscape*. Minneapolis: University of Minnesota Press.

Combines the fields of geography and labor history in this excellent look at the human costs associated with agricultural production in California. He uses historical analysis of farm labor in California between 1913 and 1942 in order to contrast the image of the bountiful agricultural landscape with the invisible injustices endured by the labor force that made that abundance possible.

PANUPS. 2001. Handful of Corporations Dominates Commercial Agriculture. Pesticide Action Nework Updates Service. 9/10/01. panna.igc.org/resources/panups/panup_20010910.dv.html

Short report of consolidation within agricultural industry.

Pollan, Michael. 2002. Power Steer. *New York Times Magazine*. 3/31/02.

Enlightening investigative article navigating the U.S. beef industry.

Rosset, Peter, Joseph Collins, and Francis Moore Lappé. 2000. Lessons from the Green Revolution: Do We Need Technology to End Hunger? *Tikkun Magazine* 15(2) (March/April 2000): 52-56.

Good Food First connection of the issues of hunger, agricultural technology, ecology, income, and power.

Rothenberg, Daniel. 1998. *With These Hands: The Hidden World of Migrant Farm Workers Today.* Berkeley: University of California Press.

A fascinating collection of interviews, studded with the author's thoughts and background research, of migrant farmworkers in the U.S. today. Interviews were conducted with farm laborers, their families, growers, farm labor contractors, border control agents, residents of agricultural communities, and union workers. This wide variety of interviews gives the reader an education on the power relations and structure of employment in U.S. agriculture, as well as a fair treatment of a very wide set of perspectives and first-person testimonies of the difficult racial, class, and citizenship problems associated with migrant labor.

Schlosser, Eric. 2001. *Fast Food Nation: The Dark Side of the All-American Meal.* Boston: Houghton Mifflin.

Vivid, descriptive account of the meat processing and retail industry in the U.S.

Steinbeck, John. 1939. *The Grapes of Wrath*. New York: Viking Penguin Books.

At minimum, the first twelve chapters are recommended for their poignant and compelling discussion of the human and environmental impacts of agricultural modernization. The parallels between the experiences of the characters in this novel and today's migrant laborers should not be overlooked.

Villarejo, Don, and Dave Runsten. 1998. California's Agricultural Dilemma: Higher Production and Lower Wages. California Institute for Rural Studies Publication #011. www.cirsinc.org/pub/dilemma.html

Good treatment of the contradictions surrounding production, wages, and unions in California agriculture.

Wright, Angus. 1990. *The Death of Ramon Gonzalez: The Modern Agricultural Dilemma.* Austin: University of Texas Press.

An excellent, highly recommended discussion of the human and ecological consequences of agricultural pesticide use. This compelling, readable story is interwoven with political economic analysis of agricultural technology and development in both the U.S. and Mexico.

Zabin, Carol, Michael Kearney, Anna Garcia, DaveRunsten, and Carole Nagengast. 1993. Mixtec Migrants in California Agriculture: A New Cycle of Poverty. California Institute for Rural Studies Publication #009. www.cirsinc.org/pub/mixtec.html

Describes Mixtecs from the state of Oaxaca, who comprise the largest indigenous group from Mexico currently working in West Coast agriculture. Documents the living and working conditions of Mixtec farmworkers in West Coast agriculture and analyzes the effect their entry has had on mestizo Mexican (of mixed European and indigenous heritage) farmworkers who have a longer history of work in California agriculture.

WEB RESOURCES

California Agriculture Teachers Association (CATA) Sustainable Agriculture Curriculum and PowerPoint Resources

www.ccagcans.com/cansdefault.html
(see "Course Curriculum")

The CATA Sustainable Agriculture Curriculum and PowerPoint site contains 5 courses (including course descriptions, outlines, and resource listings) and over 40 PowerPoint titles. Developed by leading agricultural professionals, these resources address various aspects of sustainable food systems and organic agricultural production practices.

Exploring Sustainability in Agriculture: An Online Sustainable Agriculture Instructional Resource, Center for Agroecology and Sustainable Food Systems (CASFS)

zzyx.ucsc.edu/casfs/instruction/esa/index.html

This sustainable agriculture education resource from the Center for Agroecology and Sustainable Food Systems includes a catalogue description and outline for a comprehensive course on sustainable agriculture, appropriate for the community college, state college, or university level. The outline and annotated resources address topics in social and environmental sciences; plant, soil, crop, and animal sciences; pest management; natural resource management; the adoption of sustainable agriculture; and the growth and development of sustainable agriculture and the organic food industry.

VIDEO

El Norte. 2000. By Gregory Nava and Anna Thomas. Artisan Entertainment. (2 hours, 19 minutes)

El Norte provides a case study in the phenomenon of ethnic succession of the agricultural labor force, migrating from Guatemala to the United States. It was nominated for an Oscar following its original 1984 release.

Appendix: U.S. Food System Model