Food is an essential human need. All cultures involved in settled agriculture have produced food, and food production is basic to all culture. The seed used in agricultural cultivation is the product of thousands of years of cultural development. Most of this development of food crops over the millennia has occurred in regions that are now in the periphery of the capitalist world economy. In recent years, however, agribusiness corporations located in the rich nations of the core have attempted to patent various forms of food crops, such as basic grains, and then to monopolize these patented grain varieties, creating dependence on seeds of the agribusiness corporations. When such practices involve, as in recent years, a crop such as rice on which much of the world’s population depends for subsistence, the implications are enormous and potentially disastrous for the world’s poor.

RiceTec Seeks Protection
In the 1990s the United States Patent and Trademark Office registered trademarks for a variety of hybridized rice strains developed by RiceTec, Inc. of Alvin, Texas. The patent office granted patent protection for a few of these rice lines in September 1997.

Objections arose challenging the legality of patenting these rice strains, questioning in particular how far such patents could extend in relation to traditional strains. In June 2000 the Agricultural and Processed Food Export Development Authority of the Indian Government’s Ministry of Commerce requested that the patent office reexamine the validity of the “Basmati Rice Lines and Grains” patent (Mashelkar 2002).

The patent office responded by modifying its initial patent protection, and this gave rise to contradictory interpretations of what they had done. The headlines of some major media outlets called the immediate outcome a “win” or “partial win” for RiceTec. The Houston Chronicle reported, “The Patent Office threw out several broader claims for patent protection, while RiceTec itself withdrew other assertions.” RiceTec said that this was a “good outcome”
because the patent office “upheld three key elements protecting three hybrid lines of ‘basmati’ rice developed by RiceTec” (Houston Chronicle 2001). This allowed RiceTec to market its rice product, Kasmati, with patent protection.

Yet, days before the Houston Chronicle report, the Research Foundation for Science, Technology and Ecology (RFSTE)—which had urged the Indian government to fight the patent—issued a press release titled, “RiceTec Loses in the Basmati Battle.” The press release explained that the patent office’s decision to cancel certain patent claims and to specify the individual rice lines developed by RiceTec in its patent application was a victory for RFSTE, not for RiceTec. RFSTE clarified this by stating that the victory was for Indian farmers. Because the patent office’s decision forced RiceTec to change the title of its patent application from the general “Basmati Rice Lines and Grains” to the specific “Rice Lines Bas867, RT 1117, RT1121,” it “prevents the potential use of the Basmati patent against growing traditional Basmati” rice and ensures the economic status quo of traditional basmati rice farming, with no change in the export conditions of basmati from India (RFSTE 2001).

The Houston Chronicle quoted India’s State Minister for Commerce and Industry as he declared, “The decision...signals a victory.” The Financial Times acknowledged, “RiceTec last week won approval to go ahead with a patent on three varieties but its success could be limited” (Financial Times 2001). A day later the New York Times explained that “[RFSTE] saw the narrowing of the patent as a significant accomplishment,” but noted that “scientists, including Dr. S. A. Siddiq of the Indian Council of Agricultural Research, remain skeptical about India’s ability to thwart piracy of traditional basmati strains” (New York Times 2001).

The Houston Chronicle also quoted Bruce Hicks, a spokesperson for RiceTec: “It took us 10 years [to develop the rice strains under application]. It wasn’t something we cooked up over a weekend” (Houston Chronicle 2001). What Hicks, and the industry, fail to appreciate is that developing rice strains in ten years is analogous to a weekend’s work when compared to the hundreds or even thousands of years Indian rice farmers have spent developing their strains of basmati!

Not content to patent strains of basmati rice, RiceTec has also won approval from the patent office for its “Jasmati” brand of rice, and U.S. scientists are working on developing new jasmine strains. It has developed its new strains based on Thai rice seeds obtained from the International Rice Research Institute, leading to challenges from a diverse group of Thai, Indian, and U.S. scientists and environmentalists. The Bangkok Post stated that “RiceTec won a trademark for its brand of ‘Jasmati’ rice. The brand name was seen as an
attempt to mislead consumers and to undercut the intellectual property rights of basmati and jasmine rice” (Bangkok Post 2001).

The U.S. Rice Industry
To place the RiceTec controversy in context, it is necessary to look at some recent history of the rice industry in the United States. In 1994, the U.S. rice industry consolidated its lobbying and marketing resources to form the USA RICE Federation, mainly in response to economic imperatives. The federation, based in Houston and Washington, D.C., boasts a “membership structure encompassing 80 percent of U.S. rice acreage and production as well as 98 percent of U.S. rice milling capacity.” In the 1980s and 1990s, U.S. rice production was hard hit by increased international competition. “The [U.S. rice] industry has been struggling for years with foreign competition, low prices and the loss of markets such as Iraq and Iran,” reported the Houston Chronicle (Houston Chronicle 1994).

Texas ranks about fifth in total U.S. rice acreage. Its total acres of rice planted dropped from around 600,000 in the early 1980s to a little over 200,000 in 1994. Jobs in rice milling were hit too. By the end of 1998 Uncle Ben’s, a Mars, Inc. subsidiary, had closed its Houston rice mill, in order to consolidate production at its new Mississippi plant (Houston Chronicle 1998). The Houston mill had been in operation for about 50 years, employing about 100 people, but had produced plain white rice while demand for flavored rice grew.

Foreign rice imports have increasingly found their way into U.S. diets, and consumers are choosing these new varieties. Competition from an international rice market forced the U.S. rice industry not only to consolidate its lobbying and marketing resources, but to do so in a more effective manner. In 1995, basketball star Hakeem Olajuwon entered into an advertising agreement with Uncle Ben’s, an advertisement that drew criticism for its perpetuation of racial stereotypes. One day after the Houston Rockets won their second, consecutive NBA championship, and Hakeem Olajuwon was named the NBA Finals MVP for the second straight year, the star player told the Washington Post that, “this relationship [with Uncle Ben’s] marks a major milestone in my career, because having grown up eating Uncle Ben’s rice in Nigeria, I now get the chance to work with this outstanding company.” The Post suggested that Olajuwon’s advertising spot would improve Uncle Ben’s public relations agenda for a couple of reasons: “Olajuwon’s appeal, advertisers said, includes his soft-voiced, articulate manner and his social consciousness” (Washington Post 1995).

Even though the U.S. acreage under rice cultivation has decreased since the 1980s, U.S. rice consumption has increased—from around 10 pounds per
capita in 1985 to around 27 pounds per capita currently. U.S. consumption is increasing, and tastes for the traditional “plain” rice recently began losing out to foreign imports of “flavoured” rice, such as basmati. Companies like RiceTec started investing in this new segment of the rice market. However, if there was a lesson learned from the effect of increased international competition in the rice market, it was that U.S. firms needed greater control of the market so that their production would not suffer in the future.

Patenting rice hybrids was just the mechanism that would give the companies the control they desired. RiceTec’s ability to patent a strain of rice traditionally grown in India would satisfy the U.S. demand for flavorful, foreign rice, while keeping it under the strict control of U.S. agribusiness. U.S. farmers had been growing “foreign” strains of rice in the United States for decades, but as the international market became more competitive, there was an acceleration of importing foreign rice like basmati into the United States. The evolution of international economic governance institutions, like the formation of the World Trade Organization (WTO), would provide the venue in which U.S. rice companies like RiceTec could ensure market share in the face of cheaper foreign imports. These international institutions would accept and promote the U.S. side of copyright and patent protection.

The WTO Enters the Fray
The United Nations’ World Intellectual Property Organization (WIPO) had been the venue for negotiating patent issues at the global level. However, the formation of the WTO in 1995, at the conclusion of the trade negotiations during the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) regime, shifted the intellectual property rights venue to one more suitable to private interests.

The UN organization lost its position as a forum for international negotiations on intellectual property rights for several reasons. First, its enforcement arm, the International Court of Justice, had never heard a single dispute on intellectual property protection. Second, as its membership grew, achieving consensus became difficult, especially among the developed and developing countries. Third, because it is under the direction of the UN, the organization had become more flexible towards the demands of the developing countries, threatening the interests of wealthy capitalist countries. In 1984, the United States withdrew from the United Nations Educational, Scientific and Cultural Organization (UNESCO) in response to the initiatives of developing countries to ensure their intellectual property. Fourth, U.S. corporations and the U.S. government were acting unilaterally to appropriate intellectual property and
then protect their rights to the property. The United States’ Caribbean Basin Recovery Act of 1983 provided duty-free incentives for Caribbean exports to the United States for those Caribbean countries willing to ensure U.S. intellectual property rights.

The WTO Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) made the link between international trade and intellectual property more amenable to U.S. corporate interests. The New York Times reported how protesters inside and outside of the 1999 WTO negotiations in Seattle viewed TRIPS as supporting the economic interests of companies like RiceTec:

At the World Trade Organization conference in Seattle, India protested the agreement on trade-related intellectual property rights [TRIPS], which had led to a spate of patents for western companies, including for basmati rice. Another coalition denounced the basmati rice patent at the Seattle meeting, and called on WTO members to accept that the rights of farmers and communities precede intellectual property rights (New York Times 2001).

TRIPS defined intellectual property protection for the global market place:

It lays down minimum standards of protection and enforcement for all types of intellectual property...it defines what is patentable and sets a minimum patent term of 20 years. The rules will be binding on all WTO members, though developing countries have been given a five-year transition period (11 years for the poorest) to adopt new legislation. Thus India, the most notable absentee from the Paris Convention, will have to provide basic patent protection (Financial Times 1994).

If the U.S. Patent Office had granted patent protection for RiceTec’s rice strain innovations with the original claims and under the originally proposed title “Basmati Rice Lines and Grain,” then under TRIPS, Indian basmati rice farmers would have been in a precarious situation, not knowing if their rice production required royalty payments to RiceTec.

The practice of patenting plants in the United States began recently. In 1970, the patent office began to issue comprehensive patents on plants developed by traditional breeding methods. Not until 1985 was the first patent issued for transgenic plants (plants altered by the transfer of genes from a different species or breed) (Nestle 2003, 227). The Uruguay Round of
international trade negotiations began the very next year. The private corporate focus on protecting intellectual property was increasing and materializing into organizational structures in the mid-1980s. For example, in March 1986, 13 U.S. corporations formed the Intellectual Property Committee:

...an ad hoc coalition of 13 major corporations: Bristol-Myers, DuPont, FMC Corporation, General Electric, General Motors, Hewlett-Packard, IBM, Johnson & Johnson, Merck, Monsanto, Pfizer, Rockwell International and Warner Communications. It described itself as "dedicated to the negotiation of a comprehensive agreement on intellectual property in the current GATT round of multilateral trade negotiations" (Drahos and Braithwaite 2002, 118).

Two of the 13, DuPont and Monsanto, have become part of the group of U.S. corporations leading the world in developing and patenting transgenic plants. Monsanto, for example, obtained one patent, among many, on July 23, 2003, entitled "Method for reducing pest damage to corn by treating transgenic corn seeds with pesticide." Monsanto then obtained a patent for Bt Cotton, a pest resistant strain of cotton. Additionally, Monsanto currently provides public relations support for the development of Syngenta's beta-carotene fortified Golden Rice. Syngenta agreed to license the Golden Rice development free of charge for use in the Humanitarian Project:

Drs. Potrykus and Beyer [inventors of Golden Rice] have the rights under this agreement to share Golden Rice with public-sector rice breeding programs to generate new Golden Rice varieties for use by resource-poor farmers in developing countries, defined as farmers generating less than US$10,000/yr. income from Golden Rice. This is known as the Humanitarian Project. Zeneca has retained all commercial rights in all countries and will donate support to the inventors in the Humanitarian Project (Toenniessen 2000).

While Golden Rice, if released to the public, is to be dedicated to a humanitarian endeavour, Syngenta's position in securing property protection for their innovation is no different from that of RiceTec with its Kasmati rice. RiceTec, like Syngenta, is a private firm whose responsibility is to make profits in a competitive, international rice market. In order to remain viable, biotechnology firms must stay ahead of the competition and they do this by making
sure that intellectual property regulations incorporate their innovations. For example, without TRIPS, the U.S. rice industry would probably be in a situation similar to that in the 1980s and 1990s.

U.S. rice developers stay ahead of the competition in the international market because current intellectual property governance provides protection for transnational corporations in such a manner as to eliminate the competition from smaller firms. Real life competition, the ability to survive in the marketplace, relies on the ability to legislate and enforce the marketplace. The traditional perspective on the economy is that the state’s role be minimized. But, as the U.S. developers of rice technologies have learned, when the market was left unsanctioned, foreign competitors were winning the favor of U.S. consumers. The international economic governance institutions retooled intellectual property regulation, under the pretext of preserving the innovative nature of capitalism, with TRIPS. TRIPS compels WTO members to respect the intellectual property claims of multinational corporations. Rural sociologist Philip McMichael explains:

Global corporations are empowered by [TRIPS], for example, to patent genetic materials such as seed germplasm, potentially endangering the rights of farmers to plant their crops on the grounds of patent infringement. This is an extraordinary form of expropriation of genetic resources developed by peasants, forest dwellers and local communities over centuries of cultural experimentation (McMichael 2000, 132).

Civic Agriculture
To understand the effects companies like RiceTec have on the global community, we must draw connections between the WTO’s enforcement of rice patents, the intent of private firms to dominate the rice market, and the harmful social consequences of such domination. In the effort to abolish such domination in the food industry, many different types of groups have begun organizing around specific principles, with a shared objective to democratize food production. Some key terms have become commonplace in their agenda: civic agriculture, local food, sustainable development, permaculture, community supported agriculture, and organic food. Anthropologist Laura DeLind has argued that the term civic agriculture best represents the activities and objectives of participants in these many and wide-ranging democratic organizing efforts. She explains:
What distinguishes ‘civic agriculture’ from other alternative strategies and development paradigms designed to counter the excesses and inequities of a global food supply is its ideological flexibility... Because of its inclusive nature, civic agriculture can encompass the context and culture of citizenship as an organic resource in its own right. The melding of producers and consumers into earth-bound citizens embraces the practice of personal and interpersonal expression, communication and conflict resolution... quite apart from prescribed outcomes and quantifiable goals (DeLind 2002, 223).

There is an increasing breadth of organizations dedicated to developing a civic agriculture (Halweil 2002). Their activities range from growing vegetables in urbanized areas, providing technical gardening assistance, performing community outreach, offering informational courses on starting a community gardening endeavour and analyzing global food production. This is not to delude ourselves into ignoring the obstacles to civic agriculture, but to acknowledge the historical fact of the ability of human agency to understand and analyze world-systems and then organize behaviour in such a way as to transcend the inequities of an agribusiness dominated global food supply.

**BIBLIOGRAPHY**


