

LAWRENCE BUSCH

VIRGIL, VIGILANCE, AND VOICE: AGRIFOOD ETHICS IN AN  
AGE OF GLOBALIZATION

(Accepted in revised form October 15, 2002)

**ABSTRACT.** Some 2000 years ago, Virgil wrote *The Georgics*, a political tract on Roman agriculture in the form of a poem. Today, as a result of rising global trade in food and agricultural products, growing economic concentration, the merging of food and pharmacy, chronic obesity in the midst of hunger, and new disease and pest vectors, we are in need of a new *Georgics* that addresses the two key issues of our time: vigilance and voice. On the one hand, vigilance must be central to a new *Georgics*. Enforceable standards for food safety, food quality, environmental protection, worker health and safety, sanitary and phytosanitary requirements, animal welfare, and appellations must be addressed. On the other hand, a new *Georgics* must increase the range of persons who have voice in the democratic governance of a new global agrifood system. New organizations and institutions will be needed to accomplish this task.

**KEY WORDS:** agricultural policy, democracy, governance, standards, Virgil

Agriculture and food today are being transformed as never before. Although we might well argue that the globalization of food and agriculture began in the time of Columbus, today far more mundane things than spices are traded globally. When I enter my local supermarket, I find strawberries from Mexico, bananas from Ecuador, sardines from Norway, clementines from South Africa, mangoes from Brazil, cheeses from France, pasta from Italy, caviar from Russia, and dried apricots from Turkey, to name just a few of the many imported products. Moreover, many of the products from my country are found on the supermarket shelves in other nations.

When I was a young child growing up in New York City, my mother would often take me grocery shopping with her. The local grocer, Tony, would always give me a green bean to chew on while my mother made her purchases. The local mom-and-pop stores that I remember from my childhood have largely disappeared, as they have worldwide. Supermarkets and hypermarkets have replaced them. Over time, these supermarkets have become subsidiaries of even larger transnational corporations that operate in several countries under a wide variety of names. Firms such as Wal-Mart and Royal Ahold now operate thousands of stores in dozens of nations. This is true in most industrialized nations and is fast becoming



true in most developing nations. Middle income nations such as Brazil and Mexico have both home-grown and multinational chains. Poorer nations such as China are following closely behind, as vast sums are spent to build supermarkets in these nations. Even Zambia now boasts a supermarket chain with 18 stores (Giovannucci et al., 2001). As one now-forgotten commentator put it, Marx's cry of "Workers of the world unite; you have nothing to lose but your chains," has been replaced by "Consumers of the world unite; please come shop in our chains."

At the same time, the agricultural input supply industry has become more concentrated. A handful of firms produce most of the tractors and other agricultural machinery in the world. Another handful dominate the global seed industry. The seed industry itself has been nearly fully absorbed into the agrochemical industry. And the agrochemical industry is now linked with pharmaceuticals and nutritional supplements.

Similarly, post-harvest processing and distribution has become more and more concentrated. Large firms such as Nestlé sell their products in nearly every nation of the world. Raw materials for these megacorporations are purchased anywhere they might be grown, putting producers 10,000 kilometers away from each other into direct competition.

In this paper, I first argue that we are in need of a new *Georgics*. Much like Virgil, we need to take stock of the profound changes in food and agriculture that mark our age. One very important aspect of the emerging agrifood complex is far greater vigilance. Concerns about food safety, food quality, environmental implications, animal welfare, appellations, and worker health, safety, and equity now permeate both discussion and actions related to agrifood. But what is missing in much of the change we are seeing is voice. Few ordinary persons are offered an opportunity to say much beyond the impoverished language of the marketplace. Let me begin by examining the current situation.

#### TOWARD A NEW GEORGICS

Some two thousand years ago when Publius Virgilius Maro wrote *The Georgics*, he did not write to provide detailed advice to farmers. His epic poem was not meant to improve agricultural production or to propose some vast restructuring. Indeed, Virgil wrote about independent farmers at a time when most agriculture in Italy consisted of large estates worked by slaves. Instead, Virgil was concerned with moral principles, political attitudes, and philosophical views about issues confronting agriculture and, by implication, all of society (Wilkinson, 1982). Virgil was writing in a time of political upheaval, of war, a time in which

The fields, bereft of tillers, are all unkempt,  
 And in the forge the curving pruning-hook  
 Is made a straight hard sword (Virgil, 1982, I, 508–510).<sup>1</sup>

Today, we live in a world of uneasy peace, a world that is changing in ways that often keep violence hidden. While space does not permit a discussion of all the important changes underway today, let us consider some of the sea changes affecting the agrifood complex.

### *Economic Concentration*

The agrifood complex is rapidly becoming more concentrated. This takes several forms. First, within each industry concentration is growing rapidly. A handful of firms provide the vast majority of farm tractors. Another small group of firms produce most of the world's agrochemicals (Hendrickson et al., 2001). The seed industry, once the province of small entrepreneurs and only marginally profitable, is now largely in the hands of multinational corporations (Kloppenburg, 1988). A few firms such as Kraft and Nestlé control much of the food processing industry. And, a handful of firms are rapidly consolidating the supermarket sector.<sup>2</sup>

Second, vertical coordination and integration are becoming more commonplace. Supermarkets can and do dictate to their suppliers the precise form that fresh produce should take (e.g., Henson and Northen, 1998).<sup>3</sup> They determine how it will be packaged and labeled, how rapidly it must move from field to supermarket shelf, and what sizes the packages should be. These large chains now impose food quality, food safety, environmental and even labor standards on those who supply them with goods (Gereffi et al., 2001). Moreover, supermarkets often require suppliers to stock the shelves, charge "slotting fees" for the use of store space, and otherwise pass costs on to their suppliers. These fees are rising as supermarkets consolidate (Sherwood, 2000).

Third, what was once a first world phenomenon is spreading rapidly in what was the second and what still is the third world. In Eastern Europe, Latin America, Asia, and Africa, supermarkets are fast gaining market share (Reardon and Berdegue, 2002). In many middle income nations, more than half the food sales are made at supermarkets. Even in poorer

<sup>1</sup> Citations to Virgil refer to the book and line numbers in the original Latin edition.

<sup>2</sup> The supermarket sector is arguably the most concentrated portion of the agrifood complex. Although there is still fierce competition to capture parts of the global market, local markets are often the province of one or two firms.

<sup>3</sup> For example, Wal-Mart, now the largest supermarket chain in Mexico, recently dropped Danon products from its stores for several months when Danon refused to concede to Wal-Mart's price demands (Smith, 2002).

nations, supermarkets are growing in size and numbers so as to serve the middle class. And, often, these supermarkets are not independents, but are wholly or partially owned by multinational supermarket chains.

### *New Technologies*

Connected to economic concentration are the technologies that make it possible. These include

- *Biotechnologies.* The new biotechnologies include not only genetic engineering, but tissue culture, diagnostics, and fermentation technologies. These have made possible both more rapid appropriation and more rapid substitution of food products (Goodman et al., 1987). While a handful of genetically modified crops have been stealing all the headlines, of particular importance is that the new biotechnologies can be used to monitor production and processing, to develop foods with wholly new properties, and even to ensure that a given crop has not been biotechnologically altered!
- *Communications technologies.* Communication technologies are making it cheaper and cheaper to communicate from any one part of the planet to another. Not only can orders be rapidly placed by phone, email, or fax, but digital photos can be and are exchanged over the internet. Do you want to see that lot of tomatoes from the other side of the world? No problem. A photo can be provided almost instantaneously.
- *Transportation technologies.* Transportation is also changing rapidly. Rail service is losing to truck and air transport. Inexpensive air cargo shipping, in particular, is making it possible to supply fresh produce from thousands of kilometers away almost as fast as from nearby farms. For example, Kenyan french beans (*haricots verts très fins*) are now available in Europe just 12 hours after they are shipped. As a result, markets for export of fresh *prepared* foods are emerging in developing nations.

### *Convergence of Food, Nutrition, and Pharmacy*

In the past, food, nutritional supplements, and pharmacy were seen as three essentially distinct industries. New technologies and new forms of organization are rapidly changing that situation, creating products now named “nutriceuticals” and “pharmafoods.” For example, projects are underway to deliver vaccines in bananas (Moffat, 1999). In theory, the genetically modified banana would be the means of delivery of a given vaccine. Somewhat differently, we are witnessing an explosion of new food products that

contain added nutrients. While Vitamin D has been added to milk and iodine to salt for some time, the new products go much further, putting all sorts of nutrients in places where we would normally not expect to find them. For example, consider “kidsmilk™”: “As part of our Milk Made Better™ line of value-added milk, kidsmilk™ and chocolate kidsmilk™ give children more of the nutrients they need for growth of strong bones with 38% less fat than whole milk” (Dean Foods, 2002).

Thus, the boundaries between these three seemingly separate fields are rapidly becoming blurred beyond recognition. Some nutritionists believe that this will eventually result in the creation of diets specifically tailored for persons with particular genetic characteristics (Korthals, 2002). Yet, this poses a new and perplexing set of issues, even as it promises to enhance our diets: How many of the decisions regarding diet do we really want to relinquish to professionals? Shall we create a kind of dietary pornography similar to Sade’s sexual pornography in which food is transformed into mere sustenance to be measured, counted, and dished out in precise portions? What would this dietary utopia (dystopia) mean for society? And these questions must be asked on top of more mundane ones such as: How are dosages of nutrients and pharmaceuticals in foods to be measured? How will we ensure that food products designed for the elderly or the ill are not consumed by children? Shall we have prescription foods?

#### *The New Global Trade Regime<sup>4</sup>*

Food has been traded over long distances for thousands of years. But the new global trade regime is, nevertheless, radically different from those that were in place in the past (see for example, Bonanno et al., 1994). Several aspects are of particular note.

Unlike past trade regimes, the current one has a central coordinating agency: The World Trade Organization (WTO). The WTO is unique in that it sets the rules of the game and has enforcement powers. Through the Sanitary and Phytosanitary (SPS) agreement and the agreement on Technical Barriers to Trade (TBT), member nations agree not only to lower and eventually eliminate tariffs and quotas; they also have the ability to bring complaints to the dispute settlement process (DSP).<sup>5</sup> The winner in such

<sup>4</sup> It should be noted that the structure of the new global trade regime is largely based on enhancing economic efficiency per neoclassical economic models. It runs counter to the arguments of classical economists who were fundamentally concerned with issues of market power and economic freedom [e.g., Adam Smith (1982 [1759], 1994 [1776])], as well as the issues of freedom and justice as raised by contemporary economists [e.g., Amartya Sen (1999)].

<sup>5</sup> Developing nations are somewhat at a disadvantage in bringing such suits, as they are costly and require excellent legal counsel. One alternative to the current arrangement

disputes has the right to impose sanctions against the loser – ironically usually in the form of increased tariffs!

In addition, the new trade regime extends Intellectual Property Rights (IPR) beyond national borders through the TRIPs (Trade Related Intellectual Property) agreement. Added to the WTO at the insistence of the industrialized nations, the TRIPs agreement requires harmonization of patent, copyright, trademark, and other forms of intellectual property. At first glance, this seems quite reasonable. After all, why should not an inventor be entitled to returns on an invention irrespective of where it is used? Yet, in point of fact, it is a handful of industrialized nations that hold most useful patents (Commission on Intellectual Property Rights, 2002). The TRIPs agreement permits them to enforce their patents worldwide, ignoring substantial cultural differences in the acceptability of the patent process. Moreover, it is unclear whether IPR actually act as a stimulus to invention at all.

Furthermore, in recent years, IPR have been broadened to include things never included in the past. Until recently, many nations prohibited patents on food and pharmaceutical products. Only recently has it become possible to patent plants and animals.

Finally, at the risk of belaboring the obvious, let me point out that what is called global trade is the global movement of goods and capital around the world.<sup>6</sup> For obvious reasons, land is not subject to movement, although under certain circumstances it is possible to substitute for it. Thus, one can raise chickens in urban areas in multi-storied chicken houses. But labor, too, is largely immobile, not because workers all wish to stay where they currently are. Indeed, the situation is precisely the opposite. Tens of thousands of people – including many farm workers – have risked their lives to cross borders in search of better jobs and living conditions. Some have succeeded and have even changed their citizenship. Far more have found themselves without a country, ever on the run from the authorities, poorly paid, abused, and afraid. The most unfortunate have died in the process, whether in cargo containers, the holds of leaky ships, or at the hands of unscrupulous employers.

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would be to adopt the system commonly used in some US courts: In certain civil actions, attorneys are paid a percentage of the proceeds of the settlement. If they lose, the attorneys are not paid. See Institute for Food and Agricultural Standards (2000) for details.

<sup>6</sup> Contemporary economics conveniently ignores the fact that Ricardo's observations about "comparative advantage" were based on the assumption that capital does not flow across national borders. The benefits of free trade are no longer so obvious once capital flow is considered (see Ormerod, 1994).

*Obesity and Hunger*

One of the great ironies of the current agrifood complex is the commonplace existence of both obesity and hunger. On the one hand, the rapidly growing fast food industry is built on our biological disposition towards high calorie, high saturated fat, and high sugar foods. When combined with increasingly sedentary lifestyles and the redesign of many cities around the automobile, the result is an epidemic of obesity. On the other hand, one-third of the world's population still goes to bed hungry each night, despite abundant food supplies. Moreover, while productivity must eventually be increased in order to feed a growing population (and even with massive efforts, population increase will not level off for some time to come), increased productivity will not put food in people's mouths. Only increased incomes will ensure that people have enough to eat. And, ironically, those whose incomes do rise often choose (and are encouraged to choose) the same high calorie, high sugar, and high saturated fat foods of their overfed contemporaries. For example, McMichael (2001) notes that the World Bank is encouraging feedlot development in China just as Western consumers are beginning to reduce meat intake.

*New Disease and Pest Vectors*

One of the unforeseen consequences of the new global agricultural complex is the spread of new plant and animal diseases and pests. Of course, diseases and pests are hardly new. Virgil warned against them at length:

If you see a sheep inclined to wander off  
 And seek relieving shade, or listlessly  
 Nibble the top of the grass, or lag behind,  
 Or sink in the act of feeding in midfield,  
 Or when night falls return late and alone,  
 Quell the offence immediately by slaughter  
 Before the terrible contagion spreads  
 Unmarked to all and sundry. Thicker than squalls  
 Swept by a hurricane from off the sea  
 Plagues sweep through livestock; and not one by one  
 Diseases pick them off, but at a stroke  
 A summer's fold, present and future hopes,  
 The whole stock, root and branch . . . (Virgil, 1982, 3, 464–474)

Today, the world is subject to a variety of new disease and pest problems. Mad cow disease remains a threat to all beef production. Foot and mouth disease, recently rampant in Europe, may return again or spread to other parts of the globe as a result of increased tourism. Fresh produce from developing nations may harbor food-borne diseases that were once confined to those nations. For example, several years ago raspberries from

Guatemala were found to harbor *Cyclospora cayetanensis*, the result of poor harvest practices. In addition, increases in shipping of all products – agricultural and non-agricultural – has led to the unwanted introduction of numerous invasive species including tiger mosquitos, zebra mussels, and West Nile virus. Finally, global trade also opens the door for new forms of “bioterrorism.” A few seeds, a few insects or animals, a culture of a plant disease, can easily be smuggled across national boundaries wreaking havoc on agriculture in the recipient nation. Moreover, the victims of such bioterrorism might not ever know that they had been victimized.

Together, these changes in technologies, institutions, and organizations, all inextricably bound together, are ushering in a new agrifood system for the twenty-first century. But, borrowing a page from Hegel, the owl of Minerva now spreads its wings as well. The instantiation of the liberal promise of the market brings with it surprises, contradictions, paradoxes, anomalies, and unexpected consequences.

For example, face to face exchanges between farmers and consumers are now relatively rare. The moral economy that supported those exchanges is frayed as well (Scott, 1976; Thompson, 1971; Thompson, 1996). As a result, we face the paradoxes of obesity amidst hunger, of stores with vast arrays of products with little real choice among them, of fierce global competition to supply farm products combined with subsidies for wealthy farmers, of new technologies that permit instant communication and rapid transportation even as a significant proportion of the world’s population has never used a telephone or ridden in an automobile.

Of particular importance is the eternal vigilance that the free market appears to require (Walzer, 1983). Far from being natural and normal, the consequence of removal of undue state regulation and control, the market demands far more attention to detail, far more discipline, than ever demanded by any state bureaucrat or petty tyrant. Furthermore, it is a discipline that is embraced with enthusiasm by many, and, as Foucault has suggested, appears necessary to the operation of the contemporary world. This is the issue to which I turn next.

### THE PRICE OF ETERNAL VIGILANCE

It was not too long ago that most of us obtained food only from within a short distance of home. With few exceptions – mostly spices, alcoholic beverages, and a few dried products – little food moved over long distances. Standards for food products were largely unnecessary as most people obtained food either directly by producing it themselves or from neighbors whom they knew. But in the eighteenth century, grains began



to be traded overseas in significant quantities. Like spices and alcohol, grain remained stable, allowing it to be shipped with little spoilage. Moreover, physical inspection was usually sufficient to determine the relevant qualities of the product.

However, global trade in food products poses a new set of problems. Those who produce and those who consume may not know each other, leading to a lack of trust or obligation. Strangers are always fair game in ways that those we know are not. In addition, the very length of the supply chains pose problems, both for deliberate malfeasance as well as accidental spoilage or contamination of food. Furthermore, the sheer volumes traded make visual inspection difficult or impossible. Finally, we are now far more aware of what economists call “credence attributes,” that is, aspects of food that are not immediately visible to the buyer or known to the buyer from previous experience (Caswell et al., 1998). For example, animal welfare, chemical contamination, worker safety, and environmental protection cannot be discerned from visual examination; their presence or absence must be certified by others but given credence by consumers. Together, all of these issues demand increased vigilance with respect to the entire agrifood complex. Entire systems of standards have been developed along with enforcement procedures in an attempt to ensure that consumers receive what they believe they are buying and that each actor in the supply chain is properly compensated. Let us examine some of these standards.

### *Food Safety*

For centuries there have been safety standards for foods and food products. However, they have usually been local in character. Standards for food prior to the twentieth century focused mainly on “adulteration.”<sup>7</sup> As Virgil asked,

... What if wool  
Is white, and not tainted with Assyrian poison,  
And honest olive oil not spoilt with cassia? (Virgil, 1982, 2, 464–466)

But today standards focus largely on food safety. The change is not merely semantic. Consider the Oxford English Dictionary definitions of the two terms:

- Adulteration: The action of adulterating; corruption or debasement by spurious admixture.
- Safety: The state of being safe; exemption from hurt or injury; freedom from danger.

<sup>7</sup> For a more detailed account, see Busch (1997).

The former term refers largely to human intervention – putting sawdust in cheese, diluting milk or wine, or otherwise knowingly modifying in a harmful way the character of the food. In contrast, safety involves the prohibition of harmful substances, whatever their origin. Thus, bacterial contamination of food makes it unsafe, but not adulterated. Non-humans as well as humans may engage in unsafe practices. Moreover, the first term involves the avoidance of certain behavior, while the second term requires action to ensure prevention. While the former term requires vigilance merely in terms of preventing unwanted behavior of humans, the latter involves proactive vigilance so as to prevent any form of unwanted behavior, whether by humans, bacteria, fungi, viruses, animals, or chemical compounds (Busch, 1997). The scope of vigilance is broadened.

Furthermore, the vigilance required today is hardly limited to food safety. It is both wider in scope and reaches further geographically. But, today, we are increasingly concerned not only with food safety, but with food quality, environmental effects, the impact on farmer and worker health and safety, appellations, and the welfare of animals. Each of these requires its own system of control, its panopticon, its certification system, its technoscience, its bureaucracy. Let me briefly examine each in turn.

### *Food Quality*

Not too long ago, consumers made all decisions about food quality based on physical inspection of foods. Today, such decisions are made much further up the supply chains, starting with standards for seeds and semen. Crop plants and farm animals are not merely domesticated; they are in large part the result of millennia of farmer selection and of a century of Mendelian breeding. As Virgil (1982, I, 197–199) put it,

And I have seen selected seeds, with care  
Long tested, yet degenerate, unless  
Man's effort picked the largest year by year.<sup>8</sup>

Indeed, one may think of contemporary food quality in much the same terms as durable goods such as automobiles. First, both food and automobiles were extremely diverse, each the result of artisanal labor. Then, just as Henry Ford revolutionized automobile manufacture by introducing assembly line technology and Taylorism, so the global agrifood complex was revolutionized by standardization and mass production. In

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<sup>8</sup> The reader will note that Virgil, like most of his contemporaries, misunderstood the notion of yield, thinking that larger seeds meant higher yields. As late as the 1930s, US farmers made the same error, thinking that large cobs signified higher maize yields. Only with the development of statistics did the error become apparent (Kloppenborg, 1988).

the US, lettuce meant Iceberg lettuce. Cheese meant American cheese. Apples meant Red Delicious apples. Potatoes meant Russet Burbanks. Beef meant hamburgers. Somewhat later, the same concepts were introduced to the restaurant industry leading the creation of fast food chains such as McDonald's.

In automobile production, Alfred P. Sloan, Jr. introduced product differentiation. One could have multiple colors, interior fabrics, motors, doors, each the product of mass production of a new, differentiated sort. Somewhat later, just-in-time replaced just-in-case production and even as the number of companies producing automobiles declined, the range of products available to consumers increased. More recently, the same has happened in the agrifood complex. Both fresh and processed foods are now available in a wide range of sizes, colors, shapes, tastes, types of packaging, stages of preparation. Even just-in-time production has become commonplace. For example, Ghanaian farmers deliver fresh fruit to a processing plant daily where it is sorted, cleaned, trimmed, and cut for delivery to British supermarkets the next day. All of this requires quality standards for the fruit trees, the fruit, the packaging, the certifying agencies, the air cargo containers, and the refrigerated trucks.

Quality is also maintained through the use of branding. Branding makes certain claims to quality easily apparent to consumers (Eymard-Duvernay, 1995). Thousands of companies advertise their brands in an effort to reinforce consumers' beliefs with respect to the quality of those brands. Quality need not be the best for branding to work, but it must be consistent. McDonald's hardly claims to have the best meals in the world; they can claim a high level of consistency of product regardless of where their products are sold. Here, too, the maintenance of the brand requires standards to ensure consistency of quality as well as to prevent the brand's use beyond the bounds of the company.

### *Environment*

Consumer awareness of environmental problems is rapidly pushing retailers, and hence the entire industry, toward environmental regulation from field to supermarket. While retailers may be concerned about the environment themselves, there is little doubt that fear of an environmental scandal is of at least equal concern. Such environmental regulations may be the result of national laws, but more often they are imposed by retailers. Environmental standards now exist for land and water use, disposal of waste streams, and reuse and recycling of packages and equipment, each with its own procedures, rules, and certifying bodies (e.g., COLEACP, 2002; EUREP, 2002).

*Worker Health and Safety*

One can say the same for worker health and safety. Physical design of farm and processing equipment, posting of warning signs, provision of proper clothing when spraying agrochemicals, limitations on the length of the work day, limitations on lifting of heavy loads, and minimum age requirements for workers all require standards, enforcement mechanisms, certification agencies, and training.

*Animal Welfare*

Consumer concern about animal welfare has led to corporate standards for the treatment of animals. Chickens and pigs are to be allowed adequate space to move around. Slaughtering of animals is to be done in a humane manner. Deliberate abuse of animals is banned. Diseases are to be treated promptly and in a manner that does not cause undue suffering. Each of these standards also requires higher levels of control and monitoring, more attention to record keeping, certification bodies, and sometimes labeling.

*Sanitary and Phytosanitary Standards*

One area that still remains largely the province of the state is sanitary and phytosanitary standards. Of concern here is the potential introduction of invasive species, of plant or animal diseases, of insect and other pests. Most nations now have special offices responsible for checking imported fresh products to ensure that only the product is imported and not some other undesirable organism as well. This, too, requires paperwork, rules and regulations, inspection services, vigilance.

*Appellations*

Finally, more and more products are the subject of appellations – labels that assert specific qualities for the product of interest. Appellations started centuries ago for wines:

But numberless  
Are the varieties and vintage-names,  
And why attempt to count them? Sooner count  
How many grains of sand the west wind whirls  
Across the Sahara, or how many waves,  
When the east wind falls savagely on shipping,  
Come in to break on the Adriatic shore (Virgil, 1982, 2, 103–109).

Today, they are the subject of careful definition, and while we may not count them, they do count for us. Standards of this sort define

products based on region of origin and are zealously guarded by those who claim them. Nor are they limited to wines. Parmesan cheese (Parmigiano-Reggiano), Angus beef, Parma ham, and thousands of other products are equally subject to rules about appellations of origin, each requiring careful monitoring.

Similarly, new forms of appellation have also sprung up. These do not rely on geographic regions and special production processes, but on other claims made for the product. Thus, one finds product labels with certain nutritional, health, or other claims, each the subject of a set of standards more or less strictly enforced: heart-healthy food, dietetic food, low-fat food, organic food. Again, such labels are only of value to the extent that their use is standardized, regulated, and monitored.

In each of the cases noted above – food safety, food quality, environmental quality, worker health and safety, animal welfare, and appellations – standards are essential. Yet, standards for things are never *merely* for things. Each standard for a thing is also a standard for persons. As Virgil (1982, 2, 61) put it, “The moral is that every tree needs labour, . . .” Thus, to ensure safe food, those involved in the agrifood complex must act in certain ways and not others. Hands must be washed, products must be handled, forms must be completed, tests must be performed, judgements must be made. Similarly, to protect the environment, certain practices must be followed and others avoided. To safeguard workers, to exact quality, to maintain appellations, to protect animals, certain activities must be undertaken and others avoided. In short, the eternal vigilance necessary to enforce standards is as much about human behavior as it is about the behavior of things. Therefore, the proliferation of standards demands that ethical questions be posed about who participates in negotiations over the creation, modification, and enforcement of standards, about which are to take precedence when standards conflict, about what processes shall be used to arbitrate when standards are at issue, about issues of justice and care inherent in all standards – in a word, one must ask questions about voice.

## VOICE

Virgil was hardly concerned about voice. Indeed, while he lamented the widespread death and destruction of his native land, he welcomed the order that Caesar’s victory in the Roman civil war brought. That order substituted for voice. It would be more than another millennium before democratic voices would once again be heard. Today, I believe we need to

be concerned about democratic voice both for its intrinsic importance in the development of responsible adults and as a means for achieving order (Busch, 2000). Let me explain.

In liberal democratic societies public participation in decision making is usually confined to voting in local and national elections and perhaps participating at public hearings. Moreover, since the invention of liberal democracy, only certain decisions have been defined as “political.” Indeed, ever since Hobbes (1991 [1658/1642]) there has been a sharp and clear distinction between the state and civil society. In democratic societies, public participation has been seen as legitimate only in issues clearly defined as “political.” This has included a wide variety of state policies such as agricultural subsidies, tariffs, quotas, etc. In most cases, four types of decisions were excluded from the political:

1. *Private decisions.* Private decisions were excluded from public participation since they were taken to be of little or no consequence beyond individual households. Thus, the color of the interior of a farmer’s barn, the way that she treats her sheep, and the spacing between rows of crops were not the subject of democratic debate.
2. *Corporate decisions.* The modern corporation was also considered largely off limits for most public participation in decision making, even as it was and remains a creature of the state. Decisions such as how many tractors to produce this year, where factories should be located, and how much Chief Executive Officers should be paid have been considered outside the realm of public debate.<sup>9</sup>
3. *Administrative decisions.* Administrative decisions have usually been taken by government agencies – but not by legislative decree – in carrying out the legal obligations of government. Such decisions, which often have the force of law, are not themselves the subject of popular debate, but are the province of bureaucrats, such as those talked about by Max Weber (1947) a century ago. Thus, administrators usually decide such things as how close to the road one may plant, how old one must be to drive a tractor, how tariffs will be collected, and how livestock are to be marketed.
4. *Technoscientific decisions.* Such decisions have been seen as largely the province of scientists and engineers. They include such things as which pesticides may be used on which crops to eliminate a particular pest, the maximum level of a toxic compound that is permitted in

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<sup>9</sup> This is not to suggest that the governance of corporations is the same everywhere. Corporate governance varies considerably among nations.

food, the design of refrigeration equipment to keep food cold, and the maximum level of nitrates permitted in farm waste streams.<sup>10</sup>

Today, however, as the global agrifood complex changes, the boundaries of these categories are becoming more and more hazy. Put differently, the Lockean (1955 [1690]) liberal theory of the state as well as its various instantiations is coming apart at the seams. The distinctions between public and private, state and civil society, have lost much of their edge. On the one hand, the state has become involved in a wide range of decisions that were once considered the sphere of civil society. Thus, states now restrict the use of private property in ways that would have been unthinkable in the past. For example, discharge of toxic chemicals into the air or water, operation of farm equipment without required safety precautions, packaging materials and labeling of agrifood products, are all subject to state regulation. On the other hand, the old justification for farm subsidies no longer rings true, farmers around the world are often in direct competition with each other, supermarkets are free to operate outside national boundaries, capital of all sorts flows easily across national borders in record volume with little state control. From both corporate boardrooms and legislative offices we hear the rallying cry: "Let the market decide."

The profound changes in the agrifood complex described above also challenge the sharp distinction between state and civil society. Indeed, as the heated debates over genetically modified crops illustrate, the demands for greater voice extend far beyond the traditional realm of the state into the design of new technologies, the safety of food, environmental protection, worker safety, labeling, ethical obligations of individuals, corporations, and states, the nature of trade, and religious beliefs.

In short, rather than resulting in the withering away of the state, the advent of the global market society demands an expansion of the democratic state, and new forms of participation. The binary participation of the market is simply inadequate. Proponents of the unfettered market argue that "to buy or not to buy; that is *the* question." But much as Gödel argued that the rules of arithmetic cannot be derived from arithmetic itself, so the rules of the marketplace cannot be derived from the market, where in any case participation is limited by ability to pay. The rules of the market must be the subject of free, fair, and open debate if the market itself is to be considered free, fair, open, and legitimate by all parties. Thus the

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<sup>10</sup> I have noted elsewhere how this position is essentially untenable. Technoscientists may be able to tell us what the risks are with a certain degree of precision, but they have no particular expertise in decisions as to whether risks are worth taking; in those cases, public participation is necessary so as to preserve the legitimacy of science. See Busch (2001).

challenge for the next century is to extend democracy to the design of the marketplace. Consider some of the questions that must be addressed democratically:

- Who shall participate in the development of agrifood standards?
- How shall we protect against a race to the bottom in wages, working conditions, and environmental standards?
- How much economic concentration should there be within the agri-food complex?
- What criteria should be used in determining which technologies are acceptable for use in food and agriculture?
- To what degree should food, pharmacy, and nutrition be integrated?
- How should the new global trade regime be related to global environmental, workplace, and food safety issues? How can a place for cultural differences be maintained?
- How can public participation in governance of global trade be enhanced?
- Who should participate in the making and modifying of standards?
- How can we best mediate contradictions among types of standards?
- How can we ensure that global trade leads to reduced hunger and malnutrition?
- What should be the limits of intellectual property rights?
- How can we reconcile differing views of our obligations to animals?
- What information about a product should consumers have a right to know?

Answering these questions will demand both philosophical reflection and political action. Philosophers and critics such as Paul Thompson (1995), Gary Comstock (1987, 2000), and Wendell Berry (1977) have helped to clarify the questions and to pose new approaches. But answering these and related questions will also require the development of new forms of and fora for democratic participation and debate about food and agriculture. For example, the Danish consensus conferences have proved valuable in stimulating public debate and decision making with respect to new technology (Danish Board of Technology, 2002). The Dutch science shops have served as a model for putting technology to use in serving the public good (Rouse, 1996; Science, 1998). The *Comité européen de normalisation* (CEN) has extended its standard setting bodies to include consumer and labor representatives. Other proposals, such as Dahl's (1989) minipopulus have yet to be tried.<sup>11</sup>

<sup>11</sup> See also, Barber (1984), Carnoy and Shearer (1980), Lynn and Kartez (1994), Sclove (1995), and Shapiro (1996).



In sum, the transformation of the agrifood complex demands a New Georgics. This New Georgics need not take the form of a poem, but it must be one in which old relationships among people – as individuals, in organizations, and as members of diverse cultures – and with nature are rethought. It demands the creation of new mechanisms that permit increased vigilance without becoming oppressive. It demands the invention of new organizations and institutions that permit greater voice for all. As Alfred E. Smith (1933, 16) said in 1933, “All the ills of democracy can be cured by more democracy.” Alas, we still have a long row to hoe.

#### ACKNOWLEDGEMENTS

This paper was originally presented at the annual meetings of the European Society for Agriculture and Food Ethics, Florence, Italy, October, 2001. It is based upon work supported by the National Science Foundation under Grant No. SBR 9810149. The author would like to thank the anonymous reviewers for their helpful comments on an earlier draft. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the National Science Foundation.

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*Institute for Food and Agricultural Standards*  
*Michigan State University*  
*East Lansing, Michigan 48824*  
*USA*  
*Phone: 517-355-3396*  
*Fax: 517-432-2856*  
*E-mail: Lawrence.Busch@ssc.msu.edu*

