

## *Chapter 8*

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# Legislative Dilemmas in the New Millennium

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*“If the law supposes that,” said Mr. Bumble..., “the law is a ass, a idiot.”*

Charles Dickens, *Oliver Twist*

### **“Here Lay the Dilemma”**

*Martin Luis Guzmán, The Eagle and the Serpent*

A dilemma is defined as any situation in which a choice must be made between unpleasant and disagreeable alternatives. Legislators always face unpleasant and disagreeable alternatives as they attempt to promulgate sensible laws that regulate food and its commerce from field and sea to customers. One cannot find a sound argument against the *need* for legislation to regulate the various facets of food production and processing, its trade and food products themselves. There may, however, be sound arguments about its administration, application, and sometimes seemingly unnecessary complexity.

The dilemma arises directly from the tasks that the legislators must confront and resolve. Among these tasks are

1. Legislators must establish policies that provide an abundant, safe and wholesome food supply at a reasonable cost that customers will accept and with which they will be satisfied.
2. They must protect both customers and consumers from unscrupulous activities associated with the commerce of food.

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3. They must support directly and indirectly the primary producers and harvesters of food to assure an abundant and continuing supply of food.
  4. They must protect their manufacturing industries. In many countries the food segment of the economy is a major component employing a significantly large work force.
  5. Legislators must protect the independence of the national food economy from foreign domination yet maintain international trade relations with other countries for safety of the food supply and to earn foreign monies.

These tasks, some of which appear to be contradictions, introduce unpleasant alternatives.

For example, to accomplish tasks (1) and (3) above introduces a cost factor. Food costs must rise. Customers who are voters might balk at increases they consider too large. Or food must be subsidized which necessitates taxation. Subsidies might contravene (5) above, trade agreements with other countries. Subsidies and other support programs will increase costs at the processing and retailing levels (4). Rising taxes and rising food prices will irritate the public.

Food, for all the above reasons, will always be a highly regulated item. Free trade in food, especially a global free trade, is very unlikely in the new millennium. The political, social, nutritional, and historical importance of food throughout the new millennium must be factored into any deliberations affecting food legislation and its attendant regulations.

To understand the dilemma and suggest avenues of resolution one must first examine the policy making and legislative processes as these exist commonly in many countries. With this appreciation, one can understand how food legislation can be, and is, manipulated for good or bad purposes. The limitations of the legal process in regulating food and its commerce either internationally or nationally are then clearly revealed. Such an analysis will assist one in understanding the public's and the food industry's often open dissatisfaction with the process and the active antagonism of many consumer advocacy groups toward the effectiveness of the legal process.

## **How the Dilemma for Food Legislators Arose**

The long history for state intervention in food is put succinctly in the opening sentence of Spitz's article (1979):

*"The role of the state in building up and controlling grain reserves is nowhere better illustrated than in ancient Morocco, where the same word – mahkzen – was used for both granary and government."*

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In short, food is government and government is food.

That the state would sell grain at a fixed price, especially in disastrous harvest years, is not a new concept. The production and distribution of grain were controlled about 2000 B.C. in China by the Emperor Shun (Spitz, 1979). Public treasuries maintained a stable price for farmers when grain was abundant and cheap; they bought up surplus grain. Farmers did not suffer. When grain was scarce and expensive, public treasuries released their surplus stored grain, maintained a stable price, and the people did not suffer because of rising food prices.

But there are other reasons for the government's intervention in food besides assuring that farmers are happy or that the urban population is kept fed and happy. Nobody became restive.

Food safety and quality as well as fair trade in food must be regulated. There are several distinct levels of governance that target safety, quality, and wholesomeness of food and food products, that define standards of identity, and that regulate its trade and commerce:

- International level. Agreements between one nation and another or amongst groups of nations will regulate trade. The Codex Alimentarius is an international code of food regulations agreed upon by many nations for use in such alliances. The World Trade Organization acts as a governing body for trade disputes.
- Levels of governance within nations. Most nations have a governing body or department (often several) which is responsible for the safety of food, its labeling and standards of identification, e.g., Food and Drug Directorate (Canada), Food and Drug Agency (U.S.), Ministry of Agriculture, Fisheries and Food (U.K.). Other government departments regulate agriculture, trade and commerce, health and welfare of citizens, and consumer affairs. At lower legislative levels, there can be provincial, state, municipal, county, or parish governments that promulgate regulations governing food, its trade, and agriculture according to the needs of the regions they represent.
- Nongovernmental level. At this level are organizations, some of which may have a quasi-legislative power, that are permitted to regulate the supply and flow of certain commodities or of some trade practices. Marketing boards, professional associations, and trade associations are examples.
- Contractual level. Contractual agreements, for example, between a grower and a processor, may adhere to all the regulations posed by the foregoing but in addition the processor may require that additional criteria be met for which the buyer will pay a premium.

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Policies developed at these different levels ultimately result in various bodies of legislation (codices). These regulations or codes of practice are the means by which legislators hope the food supply and all its associated commercial activities can be safely and sensibly controlled.

## ***How Food Legislation is Developed and Influenced***

Food legislation is not new. It was needed very early to counter mischief by processors and retailers alike. The ancient code of Hammurabi (lived 2123–2081 B.C.) contained legislation regulating food standards and trade. Accum's analytical work (see [Table 1.3](#)) exposed the prevalence of gross adulteration of food offered to the public (Accum's analytical work was published in 1820). Such revelations led ultimately to legislation regulating food in the U.K. It also earned Accum the enmity of many English food manufacturers (Farrer, 1996).

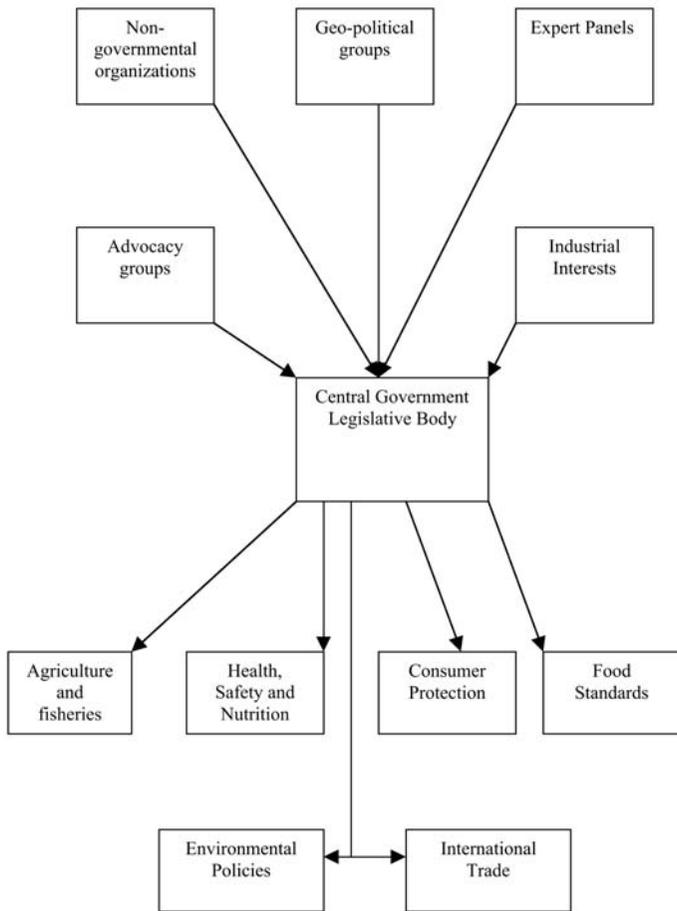
[Figure 8.1](#) presents a generalized overview of a typical legislative policy-making system. Shown in the upper portion of this figure are those groups that influence the policy-making process by either lobbying representatives or by presenting briefs at hearings called by policy makers. Legislation and regulations stemming from the legislation bear the imprint of these lobbyists and groups.

### *Non-Governmental Organizations*

Marketing boards are commodity-based associations that are empowered to regulate the supply of food commodities (eggs, milk, poultry, wheat are usual targets for regulation). Their regulatory powers extend not only to the supply of the commodity, and hence its price to buyers, but they can even regulate the supplier. Through supply licensing arrangements given to processors, boards control who further processes the commodities they control, i.e., they can decide, for example, who obtains a license for market milk or for industrial milk destined for cheese manufacture or for other manufacturing purposes. They influence governments to impose quotas for foreign imports of the commodities or products containing the commodities they control.

The net effect of these boards is then to:

- Permit them to manage the supply of commodities that they control.
- Regulate the prices of these commodities to suit their own needs and those of the suppliers they control.
- Penalize with fines any supplier for produce over and beyond that stipulated by their production quota.



**Figure 8.1 A Typical Policy-Making System with the Elements Influencing It and the Areas Influenced by It**

Marketing boards practice supply management. At worst this practice is price-fixing. In any other business this practice is illegal. Governments impose heavy fines for price fixing in other areas of commerce.

Manufacturers pay an inflated price for raw materials and customers pay an inflated price for finished foodstuffs. For example, the Canadian Wheat Board regulates the price of wheat paid to farmers and regulates the cost of wheat to Canadian food manufacturers. This has a bizarre effect. It is cheaper for Canadian manufacturers of frozen pizzas to buy their pizza shells in the U.S. (often made with Canadian wheat), import them into Canada, and finish the frozen pizzas there. Such finished

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products are, of necessity, more costly in Canada. In similar fashion, egg marketing boards control the price and availability of eggs for further processing (see Chapter 2). The Japanese rice growers have protected their internal markets from foreign imports of rice with a similar effect.

There is a real economic impact resulting from the activity of marketing boards.

- First, food manufacturing jobs in industries where added-value products are made are lost because the cost of raw produce is too high for manufacturing to be profitable. Governments, therefore, lose a potential source of tax revenue.
- Second, the necessarily higher costs of production for these products with their resultant higher purchase price discourage customers from purchasing them. The extra financial burden due to higher food prices on Canadian customers, for example, was estimated as approximately \$2 billion per year (Bryan, 1993).
- Third, the producer must support the hierarchy of the marketing board. Its activities and its employees represent a cost that must be accounted for.
- Finally, production quotas can lead to inefficiencies in production. They support the inefficient agricultural producer. For a producer to become more competitive and productive by applying newer technologies requires that the production quotas of other producers be purchased. Production quotas can be purchased at very high prices.

Many nongovernment associations and advocacy groups are opposed to marketing boards. For example, consumers' associations oppose the higher prices that are forced upon customers. Trade associations representing food processors also oppose the higher costs that their members must pay for their raw produce.

In defense of supply management controls, nations need to protect the independence of their food supply and maintain its independence from both foreign and from corporate domination. The primary producer must be protected by fair prices for commodities, from the dumping of produce below cost by foreign nations, and must be provided with security at a reasonable cost.

Farmers have a strong voice as voters and their elected representatives will be very loath to restrict the actions and powers of the marketing boards which represent the interests of farmers. Consequently, the power of marketing boards can be expected to prevail in many countries for many more decades.

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## *Advocacy Groups*

Advocacy groups by their very nature polarize people, for example,

- Urban associations vs. rural associations, and, hence, the polarization of elected representatives of political parties representing the rural vote vs. representatives of the city vote
- Groups representing residential interests vs. those espousing commercial and industrial interests whereby municipal governments are drawn into controversy over zoning bylaw changes
- Animal rights activists opposed to supporters of factory farming, or against animal experimentation, or against retailers displaying factory-raised meat or even against meat eaters themselves
- Consumer groups against farm marketing boards, against price support programs, and supply management systems

The strongest weapon of consumer advocacy groups is their ability to mobilize segments of the population (women's groups, seniors, parents, handicapped people, church groups, indeed, any marginalized people) to some form of demonstrative action such as sit-ins in government offices, picketing offices or plant sites of those manufacturers who offend them, or letter-writing campaigns to elected government representatives. Radical groups stoop to more violent actions that border on terrorism. They deliberately contaminate food or threaten with their intentions to contaminate food to publicize their cause.

Those groups that have most influence with food and its legislative regulation are

- Environmentalists
- Animal rights activists
- Religious fundamentalists

### **Environmentalists**

Environmental advocacy groups have been influential in many areas of food production. They have opposed the conversion of recreational lands to grasslands or farmlands for food usage. They have blocked particular agricultural and animal husbandry practices carried out close to suburban residential areas and challenged existing farming practices near areas slated for residential development. In addition, they have staunchly opposed whether and where genetically modified crops can be grown.

These activities by environmentalists have been felt by pig farmers and by feedlot operators whose farms are located near residential areas.

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Environmentalists have challenged the siting of fish farms, the clearing of forested areas for agricultural purposes, the applications of herbicides, pesticides, and fertilizers. They rail against the heady aroma of green manure applied to fields near suburban residential subdivisions yet espouse natural, organic farming.

The more militant of these advocacy groups have ripped up genetically modified crops wherever they were be found growing. They have pressured governments for labelling of food products containing, or made with ingredients derived from, genetically modified crops. They are very skilled at making their opinions heard and have mounted smart, provocative advertising campaigns against whatever they are opposed to.

Lobbying efforts of environmentalists resulted in the imposition of recycling practices which set in motion, like a domino effect, a series of events:

- First, a recycling industry was born. This necessitated transportation for the pick-up and sorting of recyclable materials and distribution to recycling sites.
- New industries were spawned for sorting waste, de-inking paper, and creating products from the recycled material.
- Retailers were saddled with container recycling depots within their stores. They were required to set up and institute a refund program.
- Many countries passed legislation requiring that all packaging materials must be manufactured using only materials which can be recycled. This has led to research into new, often more costly, biodegradable materials for food packaging.

There is a growing concern about the wisdom of some recycling practices.

- Are some recycling practices themselves the source of even greater pollution? Certainly de-inking operations do create another pollutant to be safely disposed of.
- Are recycling operations energy efficient? Some have suggested they are not. If all energy consumption from pick-up to final distribution to plants using the recycled material is considered, some energy recycling models suggest an energy imbalance with added pollution.
- Do they present an added layer of hidden costs to foods? They do. Stores must set aside space to store bottles and beverage cans.

These concerns create a dilemma for governments. What is the best form of legislation to accommodate the concerns of all for the environment?

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Furthermore, while many in the public espouse recycling and want recycling plants, they do not want them situated “in their neighbourhood.”

## Animal Rights Activists

Animal rights activists object to any practices that might involve the mistreatment of animals. They are consequently against the intensive factory-farm raising of animals. Many are vegetarian and object to the use of animals as food.

Their activities are largely poorly thought-through acts of vandalism. They have been known to spraypaint packages of meat in meat counters or inject (or threaten to have injected) turkeys with unspecified poisons. Leather clothing worn by people has also been defaced with spray painting.

## Religious Concerns

There are groups who believe that social, ethical, and religious concerns should be important elements in forming legislation. For example, Arabs and Jews alike want to see religious standards as factors in legislative considerations. They want to have the option to condemn food imports on religious grounds, that is, to ban foods which do not conform to certain religious requirements in its preparation or slaughter.

Others would like to have provisions in the law that restrict the movement and importation of food products manufactured by socially, ethically, and environmentally irresponsible companies or countries.

## *Geopolitical Groups*

This group includes most if not all political parties. All have in common closely defined economies based on their geography, for example, in North America:

- The Prairie Provinces in Canada or the midwestern states in the U.S. where cereal crops and livestock production predominate, the rural lifestyle predominates.
- The Maritime regions where the fisheries industry is a key economy.

Groups representing these regions may be beef raisers, fishermen, cereal growers, potato growers, etc. Political parties arise that are unique to their areas. They may be affiliates of nationally based political parties but with specific regional interests that are defended fiercely.

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Representatives are appealed to by their constituents, by local manufacturers, and organizations which have provided financial, material, and volunteer support, who each have their own agendas. Such partisan activities influence food legislation.

Any political group whether it leans to the right or the left in its philosophy, whether it espouses environmental causes or not, will put its stamp on any legislation it enacts. In parliamentary processes each political party will manoeuvre to alter, modify, or introduce legislation to advance its cause or beliefs. Problems are confounded when individual legislators have, in addition, their own hidden agendas concerning the interests of their local economies.

### *Expert Panels*

Expert panels are called in by governments for informed opinions on unique topics of learning. For issues concerned with food and nutrition, these panels consist of prominent food scientists, nutritionists and dietitians, biochemists, agronomists, and consumerists, indeed all those associated with food, its production, its manufacture, and its consumption.

From the premise that all science is logical and objective, governments hope to receive a rational, scientific basis for any legislation that treats technical issues concerning food. Since elected representatives are often not scientifically trained, they are understandably confused by conflicting scientific opinions and by scientists feuding over interpretation of data.

Governments, in these situations of conflicting expert opinion, have two options:

- Hold any legislation in abeyance until a clear opinion is available
- Pass legislation based on the best available information

This latter action can be damaging. First, it can harm any political party that enacted the legislation should their legislation prove wrong. Second, legislation, once in place, whether it be right or wrong, is very difficult to change, c.f., the Delaney clause.

It is the interpretation of what is the “best available information” that brings out the best in the lobbyists and other vested interest groups. Politicians do not always proceed as expert panels advise on food issues. The reason is simply their need to make compromises with the many competing influences for their attention.

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## ***Where Food Legislation Reaches: The Long Arm of the Law***

The bottom half of [Figure 8.1](#) demonstrates in general terms where food legislation reaches and [Table 8.1](#) depicts those areas where the groups in the top half of the figure might have their greatest impact in influencing legislation.

By far, the food microcosm of any nation is the most heavily legislated or very close to being the most heavily legislated segment of industry. All international, national, and even nongovernmental legislative levels have some regulatory influence on agriculture, fishing, and food processing in general as well as a far-reaching impact on commercial activities associated with food and its economic importance.

## **The Quest for A Safe and Wholesome Food Supply**

*“Edible, adj., good to eat, and wholesome to digest, as a worm to a toad, a toad to a snake, a snake to a pig, a pig to a man, and a man to a worm.”*

Ambrose Bierce, *The Devil's Dictionary*

Legislation, if enforced, does provide some modicum of assurance of a safe and wholesome food supply (Table 8.1). It also provides some protection from fraud for the customer and the consumer.

By enforcing food regulations through inspections and analyses and prosecuting where offences are found, food sold within a country should be safe. Or is it? Countries with strict food legislation or with a long history of such legislation or employing strict food regulatory and enforcement agencies do not necessarily have food supplies that are free from problems of public health significance. No amount of food legislation, no matter how strongly it is written nor how vigorously its enforcement is carried out, can guarantee either the quality or the safety of all food consumed within its borders.

For example, in the U.K., in 1997 more Britons suffered food poisoning than had been recorded since records were kept (Coghlan, 1998a). Britain has an excellent library of food legislation. The Agriculture Department of the U.S. in April, 1999 ordered a recall of meat products including hot dogs, luncheon meats, and various sausages made by an Arkansas company. The products were declared unfit for human consumption. The U.S. has probably the largest government organisation in the world dedicated

**Table 8.1 Overview of the Extensive Reach of Legislation Pertaining to Foodstuff**

<i>Area of Impact</i>	<i>Elements of Food Microcosm Regulated</i>
Agriculture and fisheries	<ul style="list-style-type: none"> <li>• Siting of farms and fish corrals</li> <li>• Use of pesticides, herbicides, fertilizers permitted</li> <li>• Antibiotics and pharmaceuticals to be used for animals</li> <li>• Quotas for fishing and commodities</li> <li>• Farm and fisheries assistance programs</li> </ul>
Processing	<ul style="list-style-type: none"> <li>• Site location for plants</li> <li>• Design and construction materials for plants</li> <li>• Adherence to processing codes of good manufacturing practice for safe handling, manufacture, and storage of food</li> <li>• Worker safety standards</li> <li>• Import, export permits</li> </ul>
Product	<ul style="list-style-type: none"> <li>• Commodity grades</li> <li>• Standards of identity and grades for some basic products</li> <li>• Lists of approved additives (or lists of restricted additives) for food use</li> <li>• Establishment of limits for the presence of toxic or proscribed chemicals or agricultural residues in foods</li> <li>• Standards for extraneous matter in foods, limits for microbiological hazards</li> </ul>
Package	<ul style="list-style-type: none"> <li>• Package sizes</li> <li>• Composition of packaging materials in contact with food</li> <li>• Product net weight and contents regulations</li> <li>• Product nomenclature and product information</li> <li>• Label requirements for ingredients and nutrient content</li> </ul>
Marketing	<ul style="list-style-type: none"> <li>• Advertising claims respecting nutritional and health benefits</li> <li>• Promotional and advertising guidelines to prevent misrepresentation of products</li> <li>• Restricted targeting of marketing to children</li> <li>• Restricted display of some forms of advertising</li> </ul>

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**Table 8.1 (Continued) Overview of the Extensive Reach of Legislation Pertaining to Foodstuff**

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<i>Area of Impact</i>	<i>Elements of Food Microcosm Regulated</i>
Retailing	<ul style="list-style-type: none"><li>• Zoning regulations for store locations</li><li>• Retailing hours</li></ul>
Environment	<ul style="list-style-type: none"><li>• Recycling of packaging materials</li><li>• Zoning bylaws</li><li>• Odor and noise abatement programs at food plants</li><li>• Waste water recycling at plant sites</li><li>• Water projects for farm lands</li></ul>
International Trade	<ul style="list-style-type: none"><li>• Trade alliances and treaties</li><li>• Tariffs and non-tariff trade barriers</li><li>• Anti-dumping regulations</li></ul>

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to food safety and inspection as well as one of the most comprehensive bodies of regulations and legislation pertaining to food in the world. Japan, at the end of the last millennium and into the summer of 2000, has suffered large outbreaks of food poisoning yet it, too, has stringent food regulations.

An active campaign of inspection of restaurants and the citation of offenders with their names and their offences published in the daily newspapers in Montreal have done nothing to alter either upward or downward the incidence of foodborne disease in the Montreal region (Idziak, 1998).

Food legislation can be developed only to answer to known hazards associated with foods. Knowledge of food hazards is based solely on those processes whose history, so to speak, is recorded respecting their value in food safety. Nevertheless, the process of making salami, a food with a long history, is being questioned regarding whether it is a safe process against new variants of an old microbiological hazard. Regulations cannot safeguard the public:

- Against new hazards which may be associated with novel or innovative foods;
- Against food processes with an unknown history of safety or which lack an established theoretical basis for safety;
- Against microorganisms which have developed more virulent and more resistant characteristics; or
- Against carelessness, mismanagement or errors of judgement.

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This lack of history respecting the long-term safety of genetically modified foods is one argument that those opposed to them have used.

Legislation also extends to the premises in which food is prepared or stored. Building codes, processing regulations, or codes of practice are attempts at ensuring that the environment in which food is prepared is such that food is not contaminated during production or that the preparation or the processing is designed to assure a safe and wholesome product. They assure that the purveyors of foods (or their distributors) in the many different marketplaces receive a safe product. Customers and ultimately consumers should receive safe food products.

## ***Quality***

Food quality cannot be legislated directly. Legislation may provide:

- Grade standards for foods such as meats, fruits, and vegetables with each grade representing different characteristics of composition, texture or color; or
- Standards of identity for composite foods which establish that the food meets the minimum composition for what it is called.

This is not necessarily that elusive characteristic called “quality”.

Quality can be managed within a plant only by combinations of processing characteristics involving raw materials, ingredients, process parameters, and stringent sanitation to maximize the desired quality feature. Quality must always be associated with respect to some characteristic, for example, quality with respect to color, or with respect to nutritive content, etc. Grade standards for products are merely minimal standards of composition, solids content, viscosity, particle size, and integrity, etc. at which producers and manufacturers alike aim. Few manufacturers would exceed the standards because their costs would increase over the costs of their competitors.

Labeling regulations verify to consumers that the food is what it is stated to be and that it meets the standards established for the grade or the named product. Label statements cannot be described as, nor are they intended to be, guarantees of quality. They describe only that the product within the container adheres to certain minimum characteristics specified for that product. In essence then, grade and identity standards are those of commerce, not of quality or functionality (usage).

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## ***Self-Regulation***

If then legislation cannot be used as an efficient tool to assure either the complete safety or the quality of the food supply, is there a need for such a volume of legislation?

There are some who believe that minimal regulation of the food industry would be much preferred and would serve the public better. Their solution is self-regulation. The argument is that

- Competitive pressure would force all food manufacturers to maintain high levels of quality and safety in the products they offer to the public; and
- Adverse publication of any public health concerns for a product would cause such economic fallout that a company could be destroyed.

In short, peer pressure and fear would drive safety and quality. If there were self-regulation, manufacturers would vie with one another to have the safest products with the lowest microbial counts, etc., for fear that if they did not they could face economic ruin.

This is postposterous. It is just as likely that manufacturers would be encouraged to cut corners to maintain a price advantage and that product quality would drop across a broad range of products to minimal standards. Self-regulation cannot be a substitute for government intervention through inspection and analysis:

- Not all food manufacturers can be trusted to maintain the minimum standards that are required by current law and, as the saying goes, the bad apple spoils the barrel for the rest.
- A long history of bad apples has confirmed the previous statement and has caused the proliferation of food legislation now in place worldwide.

My personal experience, covering nearly 30 years as a consultant serving largely in the areas of quality management, product development, and crisis containment, have developed my strong reservations toward self-regulation. Too many horror stories have been told to me by quality managers who were pressed by production managers to meet production quotas or by sales managers for product.

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## ***The Power of Food Legislation as a Weapon in International Trade***

In the earlier years of the past millennium fertile land and abundant water supplies were resources to be fought over. They meant food and ample food meant protection for the tribe, clan, or nation. During the Middle Ages, the European Guilds were less crude. They set standards and effectively banned from their trading blocs any goods that did not meet their standards, had not been processed according to their work practices, or did not conform to their pricing schedules.

Legislation regulating food from the producer to the consumer can serve effectively as economic weapons for countries by which they can:

- Coerce multinational food processing companies to invest in the local economy. For example, if a multinational company requires a necessary raw commodity, e.g., cocoa beans, a supplier country may require that the company do some processing locally.
- Ban the importation of, or impose high duties on, foreign products that compete with a similar local product.
- Limit the importation of foreign products which do not contain some percentage of local content, i.e., labor, raw product, or ingredients.
- Protect local food processors, fishers, and farmers against imports through subsidies or tax breaks.

There are other weapons. Non-tariff trade barriers are tools through which nations attempt to break, find loopholes in, or circumvent their food trade obligations and protect national interests. As such, non-tariff trade barriers can be useful tools to get around trade treaties. Such protection will take a variety of forms:

- Contravention of a nationally accepted standard of identity. A product identified in one country is not so identified in another country. A national dish, for example, may be defined in one country by a list of permitted ingredients. No product of the same or similar name is permitted unless it is composed of only those ingredients, often in the same proportion, and made in the same manner and style.
- Nomenclature. A named product in one country is not so-named in another. This most frequently occurs when a country's name is associated with a product but that product is not from that named region. Examples are legion: Dutch chocolate, champagne, cheddar cheese as well as the names of several other cheeses which are identified by a particular region in which they are made, etc.

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- Presence of agricultural contaminants. By setting very low tolerances for pesticide residues, or for trace metal contaminants (including radionuclides), or for filth and other extraneous matter, etc., nations have a means by which products can be banned from importation. Included here would be the use of growth hormones in cattle which is the cause of the European ban of North American beef.
  - Presence of restricted processing aids. Additives such as emulsifiers, antioxidants, texturizers, gelling agents, etc. used and approved in one country may not be approved in the importing country and may be used by that country to restrict the importation of products.
  - Establishment of microbiological levels for raw or semi-conserved produce. When raw produce comes from exporting nations that have questionable sanitary procedures in food handling, an importation ban can be very wise.
  - Conformance to some international standard. Many companies require that their trading partner/supplier conform to or be certified in some international standard such as the International Standards Organisation's (ISO) for quality control or that products conform to the Codex Alimentarius's standards for products or processing. They usually are not sufficient to be considered trade barriers but do deter trading between companies.
  - Accusations of dumping practices by the importing country against the exporting country. The exporting country is shipping product into another country at below its cost.
  - On the basis of claims of unethical or unfair business practices, violation of workers and unsafe working conditions, and/or human rights violations in the country of origin of the products. This was a contentious issue at the Seattle Round of the World Trade Organization (WTO).

Any of these could be used as a basis to prevent the entry of goods processed in one country from entering another country. The usual goal of such an action on the part of an importing nation is protection of a specific commodity-based industry or maintenance of prices through a form of supply control management.

Classic examples of open feuds that have occurred are

The banana wars between the U.S. and the European Economic Community which peaked in the early months of 1999. Neither the U.S. nor the EEC grow bananas. The EEC was refusing to allow shipments of bananas into EEC countries from Latin American sources which were largely dominated by U.S. business

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interests. The EEC preferred instead to get their bananas from their old colonial holdings which were under the control of EEC companies. The U.S. threatened retaliation with heavy tariffs on EEC goods. The dispute was eventually settled through the World Trade Organization.

The chocolate truffle wars in late 1998. This was a dispute between cocoa-producing countries and chocolate-manufacturing countries over the definition of chocolate. The cocoa-producers wanted chocolate made only with 100% cocoa butter to be called chocolate but the chocolate manufacturing nations wanted the addition of non-cocoa butter fats permitted.

The controversy brewing over the use of growth hormones in beef cattle in the last years of the old millennium. Europe banned imports of such treated beef on the grounds of safety despite rulings to the contrary by the World Trade Organization. Canada and the U.S., which have approved their use, have threatened retaliatory action by banning European food products.

In the last months of 1999, France and the U.K. were having a food fight. France refused to allow the importation of English beef fearing still the spread of “mad cow disease.” U.K. shopkeepers and restaurateurs refused to sell French wines and cheeses or serve French products.

Such tactics would seem to contradict the concept of a global marketplace and put severe obstacles in the path of companies wishing to centralize operations for the sake of cost savings.

How these contretemps can be overcome is not at all clear. More importantly it is not at all clear that all nations want such issues resolved. They do serve a useful purpose.

At this stage in attempts at globalization of the food trade it would appear that to market globally food processors may be compelled to build locally and sell regionally what the local customers want.

### *Harmonization of Food Laws*

A major task in the new millennium will be the harmonization of food laws worldwide. The foregoing section should be an indication that not all countries want harmonisation. Indeed, they may actively resist such a move as it might weaken their own food industries.

The arguments for harmonization of food laws are as follows:

- Such a codified body of laws would facilitate international trade in foodstuffs with internationally agreed standards.

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- The codes would prevent the international trade of diseased, contaminated food or food otherwise unfit for human consumption and ultimately protect the lives of consumers.
  - Food laws protect the reputation of nations and the livelihood of their farmers by guaranteeing that only quality foods would be put on sale internationally.
  - They would protect food exporters from improper imposition of spurious health or safety standards as tariff barriers by importing nations.

Previous attempts at cooperation, except for the FAO/WHO Codex Alimentarius Commission, have been in the main unsuccessful. The Codex Alimentarius Commission has harmonized food regulations by developing a set, that is, a codex of food standards. It has had some success in international trade.

The history and workings of the Commission and the Codex Alimentarius were described by Adams (1983). The listing of standards that have been accepted and described in this reference is sadly out of date. The Codex itself is simply a set of standards for commodities, for fats and oils, and procedural rules dealing with more general topics such as hygiene, food additives, labeling, and presentation, pesticide residues, sampling, and methodology for analysis, etc. The rules are not imposed on members of the Commission but are meant to serve as guidelines only. They are entirely voluntary in their adoption.

Many nations that favor the use of the Codex Alimentarius have suggested that it be adopted officially in international trade. Nations opposed to this feel that its standards are too low, that is, below levels now in place in their own countries (the ugly head of non-tariff trade barriers?). Some countries want the inclusion of a right to reject food on the basis of religious or ethical grounds in the Codex Alimentarius. Such a move would put a purely scientific basis for these food standards side-by-side with a non-scientific, moral standard.

### *A Scientific Basis for Standardization: Whose Science?*

Science as a basis for food standards such as the Codex Alimentarius raises many concerns (see Chapter 7). The question certainly must be posed: whose science? Everyone would agree that unbiased science would be most desirable. Arguments raised in a previous chapter suggest the difficulty in obtaining unbiased science. Are the scientifically established truths of less scientifically sophisticated nations to be given equal weight to those of more scientifically sophisticated nations?

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Many governments require that chemical companies supply all the safety and efficacy data for additives that these companies wish approved for use in foods. This is not always unbiased science. Even if government scientists review the data there will always be an element of doubt about data supplied by scientists who are beholden to the chemical companies making the submission. Sponsored science may not always be reliable, unbiased science.

The same concern can be expressed at the international level. That is, data submitted by one country are equally suspect as they would be if submitted by an individual company. Hidden agendas may be being pursued by the nation submitting the data, for example:

*While with the British Food Manufacturing Industries Research Association (later to become the Leatherhead Food Research Association), I served on an international committee whose mandate was to establish international standards for dehydrated onions. The experience was very revealing. Representatives from two different countries both of whom were large exporters of dehydrated onions almost came to blows because the two different sets of standards were designed so that the other country would have been excluded from international trade.*

The political machinations behind the adoption of the Codex in international trade have been described more fully by Walston (1992).

The only answer would seem to be the establishment of an international body of scientists or an international consortium of recognized scientific establishments either of which would be approved by all nations to monitor all submissions of food standards. This is basically how the Codex Commission now works. It has been my unfortunate impression while working with Canada's members on various subcommittees to the Commission that many countries employ lawyers to protect their countries' interests in Codex Commission committees, a practice that prolongs decision making.

## ***Consumer Legislation***

This has been discussed. Suffice it to say, there are three broad areas in which legislation is used to protect customers and consumers alike:

1. Weights and measures: Regulations have been drawn up to assure that customers get the food measure that they have paid for. In addition, deceptive packaging guidelines have been developed to prevent over-packaging.

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2. Labeling regulations. Proper nomenclature, truthful product pictures and product descriptions, lists of ingredients in descending order of quantities, nutrition labeling, and the address of the manufacturer are all designed to protect and assist customers in making wise food choices.
  3. Retailing fraud. Many countries or jurisdictions require that food price be prominently displayed on the package and on the store shelf. In addition, a unit price is required to be displayed on the shelf, i.e., \$x per 100 g.

With the introduction of a new arena for selling food, a new hazard has appeared. The use of credit cards, then the introduction of debit cards, and finally the rapid growth of e-commerce have brought about a need for consumer legislation on at least two more fronts: (1) security of the transaction whether it be e-commerce or by plastic card and (2) privacy of the customer making the transaction.

Security on the Internet is a major problem for the sale of all articles, not just food, but e-commerce is still a fledgling industry. Fraud will grow. Web sites can be hacked, broken into, and confidential information stolen. For the food industry this has not yet emerged as an obstacle for food retailers to address.

Security of credit and debit cards has been a problem almost from their first introduction into commerce. Lost or stolen cards, unethical merchants, carelessness of customers respecting the protection of their passwords or the safe storage of their receipts are all contributing factors. As more and more meals are eaten away from home, the use of cards for payment of meals is becoming much more prevalent and much more of a problem.

Privacy is a much greater concern for the general public. Consumer advocacy groups are protesting to governments about the information that can be obtained in today's commerce and that is sold without the cardholder's permission to third parties for their use in marketing.

## ***Environmental Legislation***

The food industry is a major polluter and must be ranked up with many of the heavy industries that are often cited for pollution. Pollution begins on the farm with the use of chemical fertilizers, pesticides, and weed control agents. Fish farming contaminates the oceans and lakes with antibiotics and growth chemicals. Odors and manure become major pollutants where intensive farming of animals and birds occurs (Mallin, 2000).

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The next pollution step takes place at the processing plant. (Transportation of the animals by road or rail to the processing plant should not be overlooked as a significant source of pollution and energy utilization.) Produce must be peeled, trimmed, and washed; animals need to be deheaded, defeathered, descaled, eviscerated, etc. Byproducts are accumulated and must be transported away or processed into useful products. Water, in large quantities, is required. This must be treated before it can be returned to rivers, streams, or sewage systems. Odors as well as noise are produced and must be controlled.

Food produces waste wherever it is prepared, served, and consumed. There are packaging materials, trimming waste, plate waste, used plastic cups, plates, and utensils, aluminium and glass containers to be disposed of. In short, the whole food chain from start to finish is a polluter.

Consequently, the result is laws:

- To enforce recycling or re-use
- Against littering
- To impose taxes on products whose packaging is not recyclable and extra fees for “too much” garbage
- To establish purity standards for waste water effluent, noise pollution levels, and to require odor and emission controls.

All of which probably makes, along with the other legislation discussed earlier, the food microcosm the most heavily legislated entity on earth.

### ***The Dubious Result***

But to what avail? Is the food supply any safer? Is the environment any cleaner? Even in developed countries the number of food-related illnesses continues to climb. Credit card fraud has been described as a growth industry.

Some experts claim that many anti-pollution restrictions and laws cause more pollution than the problems for which they were created to remedy. Many of the recycling programs as currently practiced only lead to more pollution.

The imposition of legislation requires that it be enforced; this requires a cadre of enforcers or inspectors — and tax money. For example: The city of Montreal like many cities has a problem with a lack of landfill sites. The solution was to require that all paper products (some exceptions), glass, plastic, and metal containers be put out for recycling. The city now has its own garbage inspectors to inspect wet garbage not conforming to regulations in order to identify the culprit by name or by addresses found on envelopes in the illegal garbage. This requires a whole

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infrastructure to be built which must support an inspection system, which must have a means to monitor or measure the abuse, and which must have a means to litigate. It also requires that householders must shred sensitive papers, credit and debit card statements, and receipts which were formerly mixed in with wet garbage (not the best disposal technique but commonly done). This all costs money.

## ***Food Legislation: A Summary***

As shown in [Figure 8.1](#), legislation pertaining to all aspects of food from production, processing, to its consumption cannot help but be influenced by partisan groups from all sides. Each political party and each vested interest group will attempt to alter, modulate, or introduce legislation to advance the particular political opinions or the causes they espouse.

Governments must protect their food industries, besides protecting the health and well-being of their people. The necessity for food safety and trade legislation, therefore, cannot be denied. This can only be done through legislation designed to protect agricultural and manufacturing interests. Such legislation, however, is not a guarantee of safety of the food supply or for fair and easy trade in food products between nations or within nations.

The solutions undertaken by many governments, therefore, have followed one of three paths:

1. Outsourcing duties of analyst and inspector to private enterprise, often to universities with food science departments or to designated qualified private analytical laboratories.
2. Spinning off government departments whose responsibilities it was to inspect and analyze food products thus they become private monopolies. These entities charge fees for providing these services to their clients, i.e., the food industry. That is, they become self-supporting, money-making entities.
3. Putting food companies on “scout’s honor” to maintain and record a high level safety and quality controls in their manufacturing processes. That is, food companies who have shown that they have the resources and organization, are allowed to self-regulate according to a strict code of practice.

Are these entirely safe practices? A case of drinking water contamination in Walkerton, Ontario, in May/June, 2000 illustrates a dilemma that could occur. Walkerton’s water supply came from wells. The water became contaminated with *E. coli* 0157; several people died. The provincial government had cut funding for government analyses. Municipalities,

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therefore, had to send water samples to private laboratories. The discovery of the contamination was duly reported, *so it was claimed*, to the proper department within the Walkerton municipality. The private laboratory felt under no obligation to inform anyone but its client. At the present time, it remains for a public inquiry to determine how the true course of events leading to the tragedy played out.

An interesting ethical question can be raised by the above. Does a private laboratory contracted to do confidential analyses for a client have an obligation to reveal to the proper authorities the results should they indicate a potential public health hazard? Are whistle-blowers to be encouraged? A perusal of the history of the more sensational stories of whistle-blowing incidents suggests that those who speak out are prone to being harassed and blacklisted by those they speak out against.

Whether, how, and at what cost food could be made safer are moot points. Many of the food poisoning episodes that are reported can often be traced to human error or ignorance in the preparation and handling of food or mismanagement of safety protocols. This lapse of safety in the food chain cannot be corrected by legislation.